CSR, Sustainability, Ethics & Governance
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Lars Moratis · Frans Melissen
Samuel O. Idowu *Editors*

Sustainable Business Models

Principles, Promise, and Practice

Springer

CSR, Sustainability, Ethics & Governance

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To our families:
Thank you.

Foreword

The debate and study about business for a better world should not be about the name. CSR, sustainability, sustainable business models, CSR 2.0 to CSR 5.0 and shared value—the packaging does not matter too much. What matters is how business can grow and strive by contributing to a sustainable and inclusive society.

The issue at stake is how companies define their social purpose, how they align their business models and management processes and how all this is implemented. Only by responding to these questions can we have an open discussion and analysis on the quality and value of a company.

The heart of the matter is as follows: what is the value of a company over the mid- and long term, which value(s) does it create and how can the optimal approach to this value creation be designed and implemented? Exactly this "how" question is at stake in this book, and it is the merit of the different authors to explore the different dimensions of a possible response.

From a—but not only—European perspective, the need for adequate responses to these questions has become more urgent. We have seen and experienced the limits of globalization and of an economic model that favours the short term. Recent elections and the relative stagnation of the socio-economic position of Western middle classes have led—also at an economic and political level—to a sense of urgency.

Therefore, it is encouraging that a recent White Paper made by CSR Europe, with Frost & Sullivan and GlobeScan,[1] showed the high level of strategic interest in the UN Sustainable Development Goals framework. Leading companies increasingly start embracing a clear social purpose as the starting point and backbone for their strategy and business development. However, the same paper also showed the lack of middle management engagement. That gap clarifies the need for an in-depth discussion on the business model transformation itself.

[1] https://www.csreurope.org/sustainable-development-goals-sdgs-value-europe-whitepaper-frost-sullivan-and-globescan-behalf-csr#.We-ra2i0OM9

Keywords throughout this publication are “transformation”, “systematic change”, “innovation” and “collaboration”. CSR Europe’s experience shows that supporting companies in these changes is easier said than done.

I would like to conclude by pointing out a major issue and concern: the challenge of leadership. The currently so-called sustainability leaders (as featured in different rankings such as the Dow Jones Sustainability Index and Forbes World’s Most Sustainable Companies list) obtain this position mainly through their individual company approach to sustainability and the level they manage to integrate sustainability concerns inside their business.

However, true sustainability leadership not only looks at his or her individual company but also moves the sector—it takes the sector and value chain along in a different approach. It is a breed of leadership that concentrates on the ecosystem, because it believes a changed ecosystem will create new business opportunities for increased company success. It is not the “look how great I am and follow me” type of leadership but rather a “come along” leadership. This type of collaboration will construct social capital and unravel new market opportunities.

Unfortunately, we lack this leadership, also at the top. I hope this book will help to set the direction to embrace such an approach.

CSR Europe, Brussels, Belgium Stefan Crets
October 2017

Preface

When it comes to exploring and developing the relations between business and society, it is essential to simultaneously take a critical stance, look for opportunities and be receptive for signals of emerging "best and next practices". Only by constantly reflecting on the theories and concepts that have spawned from investigating this relationship and the assumptions underlying them on the one hand and having a keen eye for the evolution of and the phenomena in the realm of practice on the other, an ambition of "building business for a better world" can become a reality.

However, from an academic point of view, there is one ingredient to realizing this ambition that is easily overlooked, either because it is taken for granted or because it may be somewhat at unease with positive science: a spirit of engaged scholarship. This spirit, among other things, allows for the integration of personal values, beliefs, worldviews, emotions and the pursuit of an agenda of political change—and it translates into new approaches to methods of scientific research that blend theory and practice while upholding the principles of rigour and relevance. The idea for and the development of this book is a reflection and recognition of this spirit of engaged scholarship.

Besides aiming to be an inspiring document that brings together a variety of perspectives on the nascent terrain of sustainable business models, this book is also an invitation to continue critical reflection, investigative efforts and experimentation that transcend the boundaries of theory and practice. We would like to state clearly that this book is not at all the endpoint of a discussion or development, a complete overview on contemporary discourse, nor is it "the definitive guide to" or an encyclopedic account of an emerging phenomenon. At the same time, we hope that the reader of this book recognizes that this book does incorporate these elements and may pave the way for this.

While this book surely is the result of a productive cooperation between the three of us, it obviously has not been a project that has taken place in an editorial vacuum, disconnected from our professional practice and personal lives. Hence, we would like to thank everyone who directly and indirectly, knowingly and unknowingly, contributed to the realization of this book. The knowledgeable authors who, in a true

spirit of engaged scholarship and each in their own way, report on their views, reflections, findings and forecasts through their chapters. Our colleagues who have helped shape our thinking in the course of the years. The students who challenge us with their worldviews and novel ideas. The businesses that inspire us through their approaches, actions and aspirations.

Also, we would like to thank the team at Springer that helped us in realizing this book and being a trustworthy and encouraging publishing partner.

Last but not least, we would like to thank our families that continue to inspire and support us in what we are doing. Although we would definitely reject the idea of labelling our respective families as "business models", we do think that the way we co-create the values that we hold high together, the resourcefulness and perseverance that underlie this process and the imagination and love that accompanies it may serve as an example for any business—or society, for that matter.

Marval, France — Lars Moratis
Bosschenhoofd, The Netherlands — Frans Melissen
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Autumn 2017

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models (Schaltegger et al. 2016). Her current research focuses on hybrid business models that integrate for-profit and for-purpose considerations into the core of the organization. She is investigating a new form of hybrid organization, B Corps, and how they manage the tensions inherent in for-profit, for-purpose business models. Her other key research area is corporate reporting—how companies communicate and disclose their sustainability performance—with a particular interest in the emergence of integrated reporting which reflects integrated thinking and integrated decision-making. She has published over 50 journal articles, book chapters and conference papers on sustainable business models, practices and reporting. Prior to her academic career, Dr Stubbs was a senior executive in the telecommunications and IT industries. She has a Ph.D. in corporate sustainability from Monash University (Australia) and an M.B.A. from the Wharton Business School (USA).

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Chapter 1
Introduction: From Corporate Social Responsibility to Sustainable Business Models

Lars Moratis, Frans Melissen, and Samuel O. Idowu

1.1 The Controversiality of Corporate Social Responsibility

The concept of corporate social responsibility (CSR), defined here as coordinated business actions aimed at a more sustainable world, has always been fairly controversial, both from the perspective of academic discourse and from the perspective of corporate practice. In its most basic terms, questions have been asked about whether corporations can and should actually have social responsibilities and, if so, to what extent? (cf. Davis 1973; Moon et al. 2005). Reflecting on the social responsibilities of business, a scholarly debate has developed that has given rise to a multitude of conceptions on the roles and responsibilities of business in society. These conceptions roughly vary from Friedman's position that the social responsibility of business is to increase its profits (Friedman 1970) to positions about CSR that reflect the principle of sustainable development as formulated in the well-known "Brundtland report" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987: 204) and that now extend to and is operationalized through the Sustainable Development Goals. While different positions on the responsibilities of business in society remain to be held, partly motivated by political beliefs and worldviews, the question "what

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is a business for?" is nowadays answered in a way that aligns with a broader conception including taking into account the interests of and being accountable to a broader set of stakeholders than merely those with a financial or otherwise economic concern as well as society as a whole, nature and future generations. A survey among consumers from 10 of the world's largest countries showed that some 81% thought that firms have responsibilities going (far) beyond creating shareholder value, with 31% thinking that firms should change the way they operate to align with greater social and environmental needs (Cone Communications/Echo 2013).

The concept of CSR has also given rise to widespread semantic controversy, leading to a plethora of definitions that emphasize different aspects related to stakeholder, social, environmental, economic and voluntariness dimensions (Dahlsrud 2008). CSR has been labelled an "eternally contested concept" (e.g. Matten and Moon 2008; Okoye 2009), implying that different meanings are attributed to the concept based on, for instance, dominant political beliefs, ethical convictions, personal values and the *Zeitgeist*. Okoye (2009) has argued from this perspective that there is no need to arrive at a "final" definition of CSR at all—in fact, a continuous sense-making process may be a good way to approach the concept (cf. Nijhof and Jeurissen 2006). However, this may also lead to CSR becoming an object of political preferences that are motivated strategically and opportunistically.

A third reason for claiming the concept of CSR as controversial can be found in the corporate scandals that have emerged over the past two decades and the apparent proliferation of greenwashing. This has led to plummeting levels of trust in business as an institution and the people leading companies. For instance, research by Edelman shows that business, as an institution, is actually on the brink of distrust (Edelman 2017). Research by GlobeScan (2012) illustrates a severe credibility gap for firms when it comes to CSR, with only around one in three Western Europeans thinking that firms communicate honestly about CSR. Especially in the context of CSR, the relative opacity of actual CSR-related activities and the consequent existence of information asymmetries between companies and their stakeholders, including consumers and authorities, aggravate this problem, compromising CSR even further (Moratis 2015; cf. Terlaak 2007). Fleming and Jones (2012) have even argued that CSR initiatives by firms are strategically motivated in a perverted way as they are used to create benevolent images of essentially malevolent corporate activity.

Looking from a performance perspective to CSR does not give rise to a lot of optimism for the concept either. While research on the relationship between CSR and corporate financial performance (CFP) has been abundant (see Wang et al. 2016 for a recent overview with respect to contextual factors), it has been hard for scholars to find a relationship between the two that suggests that CSR indeed leads to superior CFP. In fact, the opposite may even be the case, indicating an earnings management strategy that may be meant to obfuscate certain less pleasant characteristics of companies rather than proving the case that CSR equals good business (cf. Lys et al. 2015). From a societal perspective, the story of the performance of CSR is not much better. Country-level data from the Footprint Network recurrently show that it has proven very hard not only to combine high levels of socio-economic

development with a relatively modest ecological footprint, but that this is also the case when developing a country's level of socio-economic development (WWF 2016). When one takes into account the proliferation of CSR initiatives by companies (and not even only those by companies) and the CSR infrastructure (including government policies, corporate standards and sectoral codes, for instance) that has taken place over the past decades, it is hard to deny that there is a problematic connection between CSR and a better world.

Extending—and partly explaining—the idea that CSR is uneconomic, Visser (2011) has argued that the problem with CSR is that it is peripheral and incremental. CSR has particularly been the purview of marketing and communications departments and has tended to be uncoupled from the actual core business of companies, exemplifying the popular claims of CSR as a "bolt-on" or "plug-in". The argument that CSR is incremental is based on the general observation that the practice of CSR is viewed from a quality management-like continuous improvement perspective rather than from the viewpoint of radical innovation on the interface of business and society. This has led to only piecemeal progress, usually by adjusting internal business processes instead of product innovation, experimenting with organizational architectures or rethinking value creation and strategic renewal.

However, in addition to CSR being peripheral, uneconomic and incremental, it may be argued that the fact that CSR is dominantly viewed as instrumental (i.e. implementing sustainability as a means to another corporate end) is part of the problematic nature of CSR. Literature tells us that such instrumental views on or business case approaches to CSR have dominated its discourse at the expense of, for instance, ethical or political views on CSR (Garriga and Melé 2004; Cochran 2007; Carroll and Shabana 2010; Porter and Kramer 2011). Although popular from a business perspective as well, it should be noted that profit-motivated CSR initiatives have inherent limitations as they may lead to cherry-picking the CSR agenda, an erosion of the intrinsic engagement of morally motivated employees, lower levels of corporate credibility and leaving current conceptions of value creation processes and institutional barriers towards sustainability intact (Nijhof and Jeurissen 2010; Moratis 2014).

In our view, these controversies surrounding CSR have led to surging criticism on the concept, requiring a reconceptualization that recouples business and society by integrating sustainability into architectures of economic organization in ways that actually benefit society and business through aligning their interests on a fundamental level. To be clear, we do not declare CSR "old-fashioned", "outdated" or "dead" as other authors, both practitioners and academics, have done, since it remains perfectly legitimate to discuss the roles and responsibilities of business in society and since it signals that firms do have responsibilities towards society, nature and future generations. However, we do see and want to emphasize the need for framing the roles and responsibilities of business within organization, corporate strategy and even the level of a company's purpose. It is this frame that leads to critically reinvestigating the creation, capture and delivery of value, both financial and non-financial, by firms (and, again, not only firms, but organizations in general), bringing us to the concept of sustainable business models.

1.2 Business Models: The Sustainable Way

Especially over the course of the past decade, the attention for sustainable business models has witnessed a notable increase. While on the one hand this increased attention has to do with the controversies surrounding the CSR concept we have noted here, it can also be explained by an increased attention for sustainability (and critical appraisals of institutional economic arrangements in contemporary society against this background) in general and the popularity of generic "business model thinking" within both corporate practice and academic literature. Before exploring the idea of sustainable business models, we will briefly introduce the general concept of business models in order to delineate some key characteristics.

1.2.1 Defining a Business Model

Although in common language the idea of a business model often seems to refer to organizational design, strategy, revenue models, operational processes or even the entire make-up and value chain of a company, the concept is more precise than that.[1] In its more simple definition, a business model "specifies how a firm is able to earn money from providing products and services" (Boons and Lüdeke-Freund 2013: 9). According to Osterwalder and Pigneur (2010), a business model describes the rationale of how an organization creates value, delivers value and captures value. Creating and capturing value is also the focus of Casadesus-Masanell and Zhu's concept of a business model, which they define as the "search for new logics of the firm, new ways to create and capture value for its stakeholders, and focusing, primarily, on finding new ways to generate revenues and to define value propositions for customers, suppliers, and partners" (Casadesus-Masanell and Zhu 2013: 464).

In their widely cited foundational contribution, Amit and Zott (2010a) define a business model as the bundle of specific activities that are conducted to satisfy the perceived needs of the market, including the specification of the parties that conduct these activities. According to them, this definition captures the essence of four aspects that are at the core of the concept (Amit and Zott 2010b: 2–3):

- A focus on the *how* of doing business, as opposed to the what, when or where
- A *holistic* perspective on how business is conducted, rather than a focus on any particular function such as product market strategy marketing or operations
- An emphasis on *value creation* for all business model participants, as opposed to an exclusive focus on value capture
- A recognition that *partners* can help the focal firm conduct essential activities within its business model

[1] See the comprehensive literature review of Zott et al. (2011) for on overview of definitions.

Teece (2010) notes that a business model not only articulates the logic of and provides data and other evidence that demonstrates how firms create and deliver value to customers but also outlines the architecture of revenues, costs and profits associated with the firms delivering that value (cf. Chesbrough and Rosenbloom 2002). A definition that is more conceptually abstract is provided by Al-Debei and Avison (2010: 362–363), defining a business model as "an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization presently and in the future, as well all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its goals and objectives."

Within the concept of a business model, a proverbial infinite number of principled starting points, organizational architectures and strategic frameworks can hence accommodate the value creation, capture and delivery—including sustainability-oriented ones.

1.2.2 Defining a Sustainable Business Model

Defining the concept of a sustainable business model (SBM) logically builds on the generic business model concept. While our interpretation of what is a business model in principle includes all aspects and building blocks mentioned previously, the main focus, in our view, is on the way value is created, delivered and captured. In fact, when it comes to sustainability, the process of value creation may even be seen at the heart of what comprises a business model, since value delivery and value capture result from value creation and can only possess or integrate aspects of sustainability when the process of value creation (a) is in itself sustainable and (b) creates sustainable outcomes.

It is important to note that we thus argue that in order to characterize a business model as an SBM, it should meet conditions (a) and (b). A business model that is built on a process of value creation that in itself is sustainable without creating sustainable outcomes does not qualify as an SBM, nor does a business model that creates sustainable outcomes when it is not based on a process of value creation that in itself is sustainable. Reflecting on the latter case, it can be argued that any business model may—to a more or lesser extent, obviously—generate sustainable outcomes, for instance as a by-effect or even as an unintended consequence. In order to also meet condition (a) and hence qualify as an SBM, a business model should also have the intent or foundation to create sustainable outcomes and should be directed towards achieving those outcomes. In other words, an SBM can only qualify as such when the purpose of a company is build around contributing to a more sustainable world.

Relating to the condition of intent, Stubbs and Cocklin (2008) view SBMs as being underpinned by an ecological modernity perspective as an alternative world-view to the neoclassical perspective, which they, in line with Mol (2006: 33), define

as the "[c]entripetal movement of ecological interests, ideas and considerations within the social practices and institutional developments of modern societies. This results in ecology-inspired and environment-induced processes of transformation and reform of those same core practices and central institutions, a process that began in earnest from the 1980s onwards" (Stubbs and Cocklin 2008: 105). Based on two case studies, the authors conclude that profits are a "means" to another end, namely sustainable outcomes. Firms that operate SBMs still must make a profit to exist but differ from other firms as they do not just exist to make a profit: "They pursue sustainability because it is 'the right thing to do' as well as the 'smart thing to do'" (ibid., p. 121). Also, the authors conclude from their research that SBMs treat nature as a stakeholder and promote environmental stewardship and that SBMs encompass both a systems perspective and a firm-level perspective.

While essential, we think that intent alone does not suffice for meeting condition (a): at the same time, the way in which an SBM functions in practice (e.g. the operational logic of the business model, business practices, decision-making processes) should also herald sustainability principles. This idea aligns with a central principle of sustainable business in general, stating that business processes should be conducted in a sustainable way. Although this starting point, too, can take many shapes and forms in corporate practice, it has dominantly prompted companies to operate by the maxim of "do no harm" (cf. Wettstein 2010; Melissen 2016). Especially against the background of the need to tackle global sustainability challenges, oftentimes wicked and tangled in nature, such approaches will not suffice but are at the same time integral to SBMs.

Related to the sustainable outcomes that SBMs should create, Rauter et al. (2017) write that "[b]usiness models for sustainability must also add a positive social value and/or minimize negative environmental impacts." In addition to economic profit, prosperity or progress, Wells (2013) notes that resource efficiency, social relevance, localization and engagement, longevity, ethical sourcing and work enrichment are principles underpinning SBMs. This implies that value should be redefined within the context of SBMs. In fact, SBMs do not only include both non-financial (e.g. ecological and social value) and financial value, nor do they even view non-financial value as at least equal to financial value, but accept non-financial and financial value as an integrated construct. Functioning in an integrated way, a principle that goes beyond connected or related is in our opinion the proverbial name of the game when it comes to SBMs.

Similar to the integrated nature of financial and non-financial value SBMs create, Lüdeke-Freund (2009: 66–67) provides an encompassing working definition for a sustainable business model: "A business model for sustainability is the activity system of a firm which allocates resources and coordinates activities in a value creation process which overcomes the public/private benefit discrepancy." According to him, this can be achieved by "extending value propositions to integrate public and private benefits (product/value proposition pillar), making customers involved and responsible partners in value creation processes (customer interface pillar), taking advantage of partnerships which enhance resources and activities (infrastructure pillar), evaluating combined measures like Environmental

Shareholder Value and Environmental/Social Business Model Value (financial aspects pillar), and dedicating resources and activities to secure free, legitimate and legal behaviour and to explore currently neglected opportunities in non-market spheres (non-market pillar)".

This definition of SBMs aligns with Melissen's concept of fourth-generation SBMs (Melissen 2016). Fourth-generation SBMs, in his view, aim to spur sustainability transitions and contribute to a more sustainable course of our society by incorporating mechanisms that challenge existing governance regimes and can change "the rules of the game". A first central mechanism is tapping into human behaviour, exploiting ingrained psychological tendencies in a way that elicits behaviour that automatically leads to sustainable consumption. A second mechanism that these SBMs incorporate is linked to "a focus on and the means to set up collaborations with other businesses, policy makers and public authorities, civil movements and all other people that are involved in producing and consuming the products and services that these models deliver, and defining and redefining the needs that they satisfy" (Melissen 2016: 20; cf. Doane 2005). The picture of fourth-generation SBMs thus is one of networked, community-oriented business models. One should note that, while this may suggest that fourth-generation SBMs represent the current state of development of SBMs, all generations of SBMs are actually operational when one looks at corporate practice. Still, Melissen argues that earlier generation SBMs will become obsolete and that the fourth generation should be seen as the ideal type, incorporating all aspects into the business model that will lead to actual sustainability.

To sum it up briefly, the general conditions under which a business model qualifies as an SBM can be viewed as dimensions of purpose, process and performance, dissolving distinctions between the public sphere and private sphere, and integrating partners in value creation processes. In our view, this is the basis of many, if not all, types of SBM that can be discovered in practice, including social enterprises, B corps, circular economy business models and business models that are anchored in the sharing economy (cf. SustainAbility 2014).

1.3 Chapters in This Book

The chapters in this book, each in their own way and from their distinctive point of view, address the previously mentioned dimensions of SBMs. From these contributions, it becomes clear that the authors do not only recognize the importance of developing SBMs and want to share their knowledge and enthusiasm about the concept but also have the ambition to further explore the concept of SBMs in order to arrive at a better understanding of the various ways SBMs are manifested in practice. Some of them take an explicit conceptual and reflective perspective to address the principles and academic underpinnings of the concept and seek to advance theoretical knowledge about SBMs; others empirically investigate (aspects of) SBMs to

draw conclusions from and for a more practice-oriented viewpoint and offer toolkits for business (and educational) practice.

Taking a bird eye's view, we can conclude that this book brings together a variety of perspectives, subjects, strands of literature and methodological approaches that provide a kaleidoscopic picture of an emerging topic that has relevance for theory and practice. What makes this picture even more interesting, in our view, is that the contributions span different geographies and different sectors and include a large number of practical cases and examples.

So, is this book complete in terms of perspectives and approaches towards SBMs? Is this the definitive guide to SBMs? It is not—and it has never been the intention of this book either. This book should better be seen as a collection of contemporary works by engaged, respected and leading scholars in the field of SBM that both brings together existing work and explores the principles, promise and practice of SBMs. It provides founded and thought-through indications of how the discourse on SBMs is developing and in which directions research on SBMs is and should be going. As the interested reader will find many suggestions and inducements for further investigation in the chapters, the book is also an invitation for other scholars to further expand the knowledge on SBMs.

In order to categorize the chapters in a logical way, this book has been divided into four distinctive parts.

Part I explores different forms and types of SBMs. Focusing on what makes a transformative business model, Chap. 2 discusses the role of business models in system-wide sustainability transitions. Its authors, Antonia Proka, Pieter Jelle Beers and Derk Loorbach, offer a framework to advance our understanding of how the business model concept can contribute to sustainability transitions as well as how transition thinking supports the prospects of sustainable business models to unlock their transformative potential. The authors argue that the reflexive dynamics that play out between the innovative businesses and the regimes in which they emerge play a critical role in determining whether the emerging transformations will over time lead to fundamental systemic change and offer a framework that enables a systematic analysis of these dynamics. Analysing the case of a Dutch energy cooperative, the authors conclude that transformative business models have a broad value orientation, a broad stakeholder network and a reflexive orientation.

In Chap. 3, Maria Aluchna and Boleslaw Rok provide an analysis of SBMs based on the logic of the collaborative economy. The authors propose that this type of SBMs follows principles of building stakeholder capital through inclusiveness, fostering innovation to address social or environmental challenges and focusing on at least one of the Sustainable Development Goals. In addition, companies that embrace this SBM type adopt an ethical infrastructure to assure high integrity while improving social, environmental and financial performance. Several companies operating in four different sectors addressing these five dimensions are analysed.

Chapter 4, by Wendy Stubbs, explores B Corps as a specific manifestation of SBMs. B Corps are viewed as a hybrid form of organization, blending traditionally for-profit practices with traditionally non-profit practices to address sustainability

challenges. Drawing on interviews with 15 B Corps from Australia, this chapter provides insights into how this type of SBMs integrate market and social logics. The author finds that social and market logics are strongly integrated in several organizational functions, but that balancing these two logics creates tensions and conflict in others. In her analysis, Stubbs emphasizes the importance of creating a common organizational identity that strikes a balance between the logics to moderate conflict and one logic dominating over another.

The final chapter of Part I, Chap. 5, focuses on SBMs from a circular economy perspective. However, instead of merely addressing SBMs that are based on principles of circularity, author Mateusz Lewandowski addresses roles of public sector organizations and aims to further the understanding about these roles in shifting towards circular business models. Contributing to the debate on SBMs in several ways, the chapter outlines the facilitating role of the public sector through six types of interventions and attempts to provide a conceptualization of a public sector circular business model.

Part II of this book includes various theoretical and conceptual approaches towards SBMs. Chapter 6, by Katariina Koistinen, Minttu Laukkanen, Mirja Mikkilä, Janne Huiskonen and Lassi Linnanen, aims to deepen the understanding of the ways how companies create and capture sustainable value through business models in a larger operation system. Using transition theory and the concept of strong sustainability, they focus on companies' dualistic role in pursuing sustainability targets, assisting the broader systemic change through new sustainable business models. Their chapter also addresses the external factors that either enable or hinder companies to transform their existing business models towards sustainability. Based on a literature review, the authors develop a tentative framework combining the approaches of transition management, sustainable value creation and corporate sustainability levels.

Setting out a vision about what sustainable value creation entails, Wayne Visser, the author of Chap. 7, develops a conceptual framework of "integrated value". Taking a systems science perspective, he argues that societal value is destroyed by economic activity when it causes fragmentation or disintegration. Identifying five forces of fragmentation (disruption, disconnection, disparity, destruction and disease), this chapter contends that innovations occurring in five emerging economic spheres (the resilience, exponential, access, circular and well-being economies) can reverse this destruction of societal value through breakthrough business models, practices, products and services. He calls these the five pathways to innovation that lead to a desired future in which society is more secure, smart, shared, sustainable and satisfying. Integrated value is considered to be the ideal strategic value-creation option to achieve this. The chapter includes several illustrative cases and delineates seven steps of a methodology to implement integrated value.

Chapter 8, by Marek Ćwilicki and Linda O'Riordan, takes the perspective of reverse innovation. Their chapter systematically examines a selection of key concepts related to what they call new business models (NBMs) and reverse innovation (RI) via a qualitative, theoretical approach. The authors critically investigate the potential effects of RI as a mechanism for enabling pathways and solutions to

achieve sustainable value creation. By defining the relevant key terms, by conceptualizing the RI process derived from a base of the pyramid context and by presenting case study examples of RI in action, the authors investigate the characteristics and critical success factors of successful NBMs. This highlights the prospects of NBMs and RI for optimally leveraging organizations as catalysts for positive change in society. They tentatively conclude that this theoretical study of the SVC potential of RI strategies furnishes initial evidence to indicate that RI can play a valuable role within an NBM context.

Sharing some links with the concept of reverse innovation, Chap. 9 presents emerging work on mapping collaborative activities specifically related to circular business model (CBM) implementation, seen as a subcategory of SBMs. Phil Brown, Nancy Bocken and Ruud Balkenende argue that collaboration is essential to simultaneously ensure economic, environmental and social performance throughout a product's life cycle(s). They address the following question: "What types of collaboration are presented by companies pursuing CBMs"? The required system change is beyond individual companies and requires transition towards inter-organizational collaborative networks. Although vital, collaboration is also described as opaque, an amorphous meta-concept and a black box. To investigate this topic, the chapter deploys a literature study combining research fields of CBMs and collaboration within sustainable supply chain management and delineates specific types of collaboration crucial to CBMs. These are applied through a framework to describe eight Dutch companies pursuing CBMs. Their collaborative processes are analysed through pattern matching and cross-case analysis. Based on this, initial characteristics of the collaborative activities that are linked to CBMs are proposed. The authors find that particular types of collaboration are important when pursuing CBMs and highlight future research areas to explore potential impacts of collaboration upon CBMs.

Chapter 10, by Vincent Blok, presents the most theoretical contribution to this book. In this chapter, the author argues that the concept of SBMs contains a fundamental paradox, because sustainability involves the reduction of information asymmetries, whereas entrepreneurship involves enhanced and secured levels of information asymmetries. Blok therefore proposes a new and integrated theory of sustainable entrepreneurship that overcomes this paradox. The basic argument is that environmental problems have to be conceptualized as wicked problems or sustainability-related ecosystem failures. Since all actors involved in the entrepreneurial process are characterized by their epistemic insufficiency regarding the solving of these problems, the role of information in the sustainable entrepreneurial process changes. On the one hand, the author contends that the reduction of information asymmetries primarily aims to enable actors to become critical of sustainable entrepreneurs' actual business models. On the other hand, the epistemic insufficiency of sustainable entrepreneurs guarantees that information asymmetries remain as a source of new sustainable business opportunities. Three further characteristics of sustainable entrepreneurs are then identified: sustainability and entrepreneurship-related risk-taking, sustainability and entrepreneurship-related self-efficacy

and the development of satisficing and open-ended solutions, together with multiple stakeholders.

Chapter 11, as the final chapter of Part II, addresses the topic of leadership in the context of SBMs. Starting from the observation that the way in which SBMs are triggered by managers or entrepreneurs who act as leader of an organization has not yet been deeply investigated, Mara Del Baldo investigates the role of entrepreneurial and managerial leadership style. Having a particular focus on servant leadership, her chapter includes literature on influencing strategies, organizational culture and stakeholder engagement of companies, orienting them towards SBMs. Having traced the theoretical background, the empirical research helps to shed light on corporate sustainability management and sustainable innovation in daily business and to inquire the extent to which servant leadership enables SBMs' implementation. Two cases of Italian firms are presented, led by managers and entrepreneurs with common traits in their servant leadership styles and characterized by the implementation of distinctive SBMs. The findings emphasize the role of the values and ethical-based conducts of the managers/entrepreneurs in forging the sustainable and servant leadership model and affecting the SBMs adopted by the companies.

The contributions in Part III address SBMs from sectoral and country perspectives. Chapter 12, by Jorna Leenheer and Marco Kuijten, investigates Internet-based sharing platforms in the travel industry to see whether these platforms can be considered sustainable (business models) and how they impact hotels that have always offered stable supply to travellers. They employ a survey methodology based on 2591 consumers to examine the use, perceived value and market position of both sharing platforms and hotels. Among other conclusions, it appears from their research that social value and not so much economic value is the main driver for travellers to choose for a sharing alternative and perceived sustainable considerations play a minor role. Also, as the price attractiveness of sharing platforms may increase travel consumption, sharing platforms may well be unsustainable from an ecological point of view. The authors suggest that hotels should innovate their business models rather than compete on price, for instance through partnerships with local business, local communities and even Airbnb landlords.

Chapter 13 investigates the tea sector by looking at the global supply chain. Author Andrew Mzembe is critical about the effectiveness of traditional business models in achieving sustainable value creation in this sector. Recent scandals suggest that the dominant form of maintaining their supply chain's integrity which largely places some form of liability on upstream suppliers for social and environmental risks may not be as effective as many scholars and practitioners may have initially contended. He argues that firms may need to re-evaluate their business models and experiment with new generations of SBMs: models that call for the direct involvement of networks of stakeholders—including suppliers—in the co-creation of sustainable value. This chapter focuses on a case study showing a company attempting to do this by developing and implementing a code of conduct based on the combined liability and shared responsibility approach with a network of its direct suppliers. The chapter concludes by drawing implications for SBMs within a developing country context.

Risa Bhinekawati and Asgha Banguning in Chap. 14 clarify the linkages between value proposition, value creation and delivery and value capture through the integration of a social capital concept into an SBM. Using an exploratory qualitative case study approach including two of Indonesia's largest public listed companies, the authors investigate why and how a firm translates its sustainability strategy (value proposition) into corporate foundations that generate social capital (value creation and delivery) and sustainability performance (value capture). The study emphasizes the importance for companies to incorporate "hybrid" roles as profit and non-profit institutions in building an SBM. The corporate foundations, which are the non-profit arm of the corporations, deal with social issues that intersect with business needs. Stakeholder relations and resource allocation through the foundations have developed social capital, which enables a company and its stakeholders to co-create value to achieve sustainability performance for both.

Chapter 15, by Ayça Hızarcı Payne and Berna Kirkulak, taps into the recent inception of the BIST (Istanbul stock exchange) Sustainability Index, the first such index in Turkey. The index aims to encourage Turkish companies and investors to give careful consideration to the environmental, social and governance (ESG) issues for sustainable wealth creation. The authors investigate business models of the leading sustainability-driven companies in the BIST Sustainability Index through analysis of sustainability report contents. Investigating this can help to develop understanding about how companies with different backgrounds adopt SBMs in a way that enables them to capture economic value through delivering social and environmental benefits.

Chapter 16, by Justyna Szumniak-Samolej, is the final chapter of Part III. It has the objective to identify, describe and compare the basic assumptions and most important elements of the companies' business models that categorize them as SBMs. Based on interviews with young Polish entrepreneurs who built their business models on a social and/or environmental mission, the author analyses methods of engaging stakeholders, the role of social media in their development, the motivations of their leaders and experiences related to setting up projects based on a social or environmental mission. From this empirical research, a conceptual framework is developed.

In Part IV, containing the two final chapters of this book, the focus is on frameworks and toolkits for developing SBMs. In Chap. 17, Alex Hope observes that while there is much research presenting case studies of companies who utilize SBM designs, only recently has attention turned to the development and application of tools and techniques which can assist business leaders in developing models to apply to their own organizations. His chapter first discusses SBM design before reviewing a range of toolkits designed to integrate sustainability principles into business strategic planning and assessing their applicability to sustainable and responsible business model design. The aim of this chapter is to identify and review some of the key tools available for firms to utilize when developing new SBM pathways.

Authors Henning Breuer and Florian Lüdeke-Freund argue in Chap. 18 that the reconsideration of values—such as ecological sustainability or social justice—may

provide the required sense of direction and offer a widely untapped source of innovation. They present a framework for values-based innovation management that offers a refoundation of management in general and innovation in particular in that it emphasizes the importance of values for normative, strategic and operational innovation and its management. The authors develop a methodology and toolkit (called the Business Innovation Kit and Sustainability Innovation Pack) to realize values-based and sustainability-oriented business model innovation in practice. This toolkit builds on a didactic approach that supports self-guided ideation and innovation processes in mixed teams through the definition of values providing a "common ground", exemplification through cases and business model patterns, ideation for single business model components and modelling relations across components and models. This final chapter of the book also offers a reflection of practical experience that has been gained with this toolkit.

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Part I
Sustainable Business Model Forms and Types

Chapter 2
Transformative Business Models for Sustainability Transitions

Antonia Proka, P. J. Beers, and Derk Loorbach

Abstract This chapter discusses the role of business models in sustainability transitions. Sustainability-oriented entrepreneurs develop business models that can transform the societal systems they operate in, functioning in this way as a catalyst for system-wide transitions. But what does it take for a business model to be transformative? This chapter introduces Transformative Business Models as a new framework to advance our understanding of how the business model concept can contribute to sustainability transitions as well as how transition thinking supports the prospects of sustainable business models to unlock their transformative potential. Our argument is that the reflexive dynamics that play out between the innovative businesses and the regimes in which they emerge play a critical role in determining whether the emerging transformations will over time lead to fundamental systemic change. Building on insights from a business model perspective and sustainability transitions, the introduced framework enables a systematic analysis of these dynamics. To illustrate its merits, this chapter presents the case of Deltawind, an energy

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cooperative in the Netherlands. The chapter concludes by proposing three main characteristics of business models exhibiting transformative potential: a broad value orientation, a broad stakeholder network, and a reflexive orientation.

2.1 Introduction

The role of business in sustainable development is often related to corporate social responsibility and efforts to decrease environmental impacts of the operation. We however argue that these approaches that seek to optimise a firms performance, fail to contribute to sustainability transitions in which environmental and social externalities are internalized. Instances like the Volkswagen emissions scandal in 2015 illustrate the need to move beyond traditional CSR and environmental reporting towards more transformative approaches, critical for the transition towards a flourishing society, sustainable forms of economic development and a prosperous natural environment.

Entrepreneurs and businesses are seen as important factors in transitions of societal systems. In such transitions entrepreneurs can act as catalysts by changing the rules of the game, and/or creating new markets (Loorbach and Wijsman 2013). Typical examples of disruptive or transformative businesses like Tesla, Uber, AirBnB are seen to shift basic conditions under which markets operate and create new realities. Yet, despite their disruptive character the nature of such new realities and their relation to sustainability is not straightforward. This appears clearer in the case of InterfaceFlor and its environmentally-responsible modular carpet, which has served as a key example of companies aspiring to shape and radically change the value chains and markets within which they operate along with their companies' internal organizations in line with sustainable development (Stubbs and Cocklin 2008). Taking a sustainability transition perspective we are interested in the question how such types of disruptive entrepreneurship could help to accelerate and guide fundamental changes towards sustainability. In other words: what does it take for a business model to be *transformative towards sustainability*?

In this chapter we introduce a framework to advance our understanding of how the business model concept can contribute to sustainability transitions as well as how transition thinking may support the prospects of sustainable business models to unlock their transformative potential. Our framework draws on a synthesis of insights from the business model perspective with the theory of sustainability transitions (Proka et al. 2018) and has three distinct features. First, we embrace a broad value orientation. Whereas traditional business models only include value insofar as it can be monetised, transformative business models towards sustainability additionally include value that may or may not be monetised in the future (negative or positive externalities). Second, transformative business models involve a broad stakeholder network. Beyond the traditional focus on the customers, transformative business models additionally take into account the views and preferences of all societal stakeholders. In fact, the very sustainable offering of a transformative

business is carried out by a broader stakeholder network that engages in sustainable processes. Finally, our approach explicitly takes into account a changing societal context and allows for a reflexive orientation (cf. Beers and Van Mierlo 2014; Van Mierlo et al. 2010). Beyond the interest in the organisations' survival and success, transformative business models combine a reflexive orientation with an ambition to shape their context. And in fact, through business model innovation, entrepreneurs may influence or even shape markets and society, more than policy makers and regulations (Geels and Schot 2007).

This contribution wishes to spur reflection on the interaction between sustainable business models and the transition they aim to accelerate. Our argument is that the reflexive dynamics that play out between the innovative businesses and the regime context in which they operate play a critical role in determining whether the emerging transformations will over time lead to fundamental systemic change. To illustrate the merits of our framework we present the case of the energy cooperative Deltawind, and discuss and analyse in what ways this business model begins to become transformative in the context of sustainability transitions.

2.2 Theoretical Framework and Methodology

Our conceptual framework brings together two concepts: the concept of business model, which originally emerged in the for-profit frame, and the concept of niche, central element of transitions theory. We study the dynamics between niche and business from a reflexivity perspective. After a brief discussion of the concepts and their origins, we present the methods we followed to conduct our empirical investigation and analysis.

2.2.1 Business Model

There are several ways of looking at the concept of business model. Zott et al. (2011) found that business models have been referred to as a statement, a description, a representation, an architecture, a conceptual tool or model, a structural template, a method, a framework, a pattern and a set. The literature thus offers a number of different understandings of what a business model *is* and what it *does*. Concerning the former, the best known example in the literature is the business model ontology of Osterwalder (2004). According to Osterwalder and Pigneur (2010) business models can be described as the logic of how organisations create, deliver and capture value. Recently, Wirtz et al. (2016) suggested that a business model can be understood as a representation of the activities that a company undertakes in order to generate marketable information, products and/or services through its value-added component.

The power of business models in respect of what they can *do* has also been widely acknowledged in the literature (e.g., Shafer et al. 2005; Doganova and Eyquem-Renault 2009; Loorbach and Wijsman 2013). Business models are relevant to all (for-profit) organizations as their survival and prosperity is directly linked to their value creation, delivery and capture mechanisms employed (Shafer et al. 2005; Teece 2010). Especially within the for-profit frame, business models are associated with securing and expanding a company's *competitive advantage,* something that implies a dynamic perspective: business models need to be readjusted (Johnson et al. 2008).

Business models and their innovation can support the strategic aims of an organisation. In fact, this is what brought the concept into the attention of sustainability management research (Schaltegger et al. 2016). There is increasing interest in new business models (Jonker 2014), business models for sustainability (Lüdeke-Freund 2013; Schaltegger et al. 2016), sufficiency-driven business models (Bocken and Short 2016), etcetera. Within this strand of literature, basic normative requirements have been put forward for each of the constituting elements of business models (Boons and Lüdeke-Freund 2013). A common characteristic that cuts across all these sustainability-oriented business models is that the focus has been deliberately extended towards the inclusion of considerations around creating social and ecological value (Schaltegger et al. 2016).

Business models for sustainability enable (networks of) entrepreneurs to create and further develop markets for innovation with a social/societal purpose, shifting and transforming the markets they operate in, acting as catalysts for sustainable development (Loorbach and Wijsman 2013; Boons and Lüdeke-Freund 2013).

Our understanding of a business model entails *both the narrative and the numeric level of how an organization works and sustains itself capturing part of the value it creates* (Magretta 2002; Osterwalder and Pigneur 2010). In other words, we look at how an initiative organises its activity by looking both at its narrative, designed and enacted by the organisation, and the "numbers", namely the cost and revenue balance that allows it to pursue its operation. Of interest for our research is to examine both the "espoused theory" and the "theory-in-use" of an organisation (Argyris and Schön 1974). The former refers to the theory that people believe their behaviour is based on and may be found in their narrative, and the latter refers to the implicit theory that governs their actual behaviour, and may be observed in their practice. Such a perspective enables us to assess and help enhance the reflexivity of initiatives by indicating to them tensions between their espoused- and theory-in-use; in this way their potential to transform the system within which they operate may also improve. To operationalise the concept we group the business model components into four main building blocks:

– First, the *Value proposition* that clarifies what value or benefit is embedded in the offerings of the organisation towards all the stakeholders involved (e.g., Doganova and Eyquem-Renault 2009; Schaltegger et al. 2016);

- Second, the *Product or Service*, which fulfils the value proposition and generates the promised benefit, which is directly offered to the organisation's customers and indirectly to other stakeholders (e.g., Stähler 2002);
- Third, the *Architecture of value* that lists the partners and channels through which value creation and delivery is accomplished (e.g., Doganova and Eyquem-Renault 2009), and
- Finally, the *Valuation method*, which encompasses the cost and revenue flows that define the value captured by the organisation and its viability (e.g., Upward and Jones 2016; Schaltegger et al. 2016).

2.2.2 Sustainability Transitions and the Concept of Niche

In order to investigate the transformative potential of a sustainable business model, i.e. the potential it has to radically change the system, we turn to the theory of sustainability transitions.

Transitions entail large, slow and wide societal changes in the way a system functions. They are long-term processes that involve fundamental changes in multiple systems and scales (Geels and Kemp 2000; Geels and Kemp 2007; Grin et al. 2010). Transitions do not relate to a further linear improvement of an existing system but a change to a new system. Not: *doing things better,* but *doing better things*. Transitions are especially complex, as they involve changes both at the level of technology and infrastructures, as well as at the level of the social sphere, encompassing changes in culture, practices and institutions, i.e. the formal and informal rules of the game that shape the behaviour of actors (Hisschemöller and Bode 2011). These major, non-linear changes arise from the coevolution between economy, society and ecology, and, over time, under specific conditions fundamentally alter dominant practices, paradigms and structures (Grin et al. 2010). Their progress and direction is shaped by a co-evolution between actors, material infrastructures and institutions.

It can be said that most businesses have evolved within a *regime* context and thereby operate within incumbent rules and conditions by which they also reinforce them. The dominant business strategy within such a context is one of optimization and efficiency improvements. Related 'sustainability' strategies, including CSR, therefore often only serve to sustain existing operations by improving performance and decreasing negative externalities and associated risks. Thereby *by definition* not promoting systemic changes that might disrupt the existing business model. Drawing upon transition theory, we understand existing unsustainable markets as (parts of) incumbent regimes that by definition will seek to sustain existence by optimizing along path-dependent trajectories (Kemp et al. 1998; De Haan 2010). Such regimes however are challenged by so-called *niches*: contexts within which transformative alternatives emerge that might over time help to fundamentally change such regimes (ibid).

For our conceptual framework we specifically draw on the concept of niche, which refers to a "protected space" or context within which radical innovation emerges (Kemp et al. 1998). Niches emerge at the margins of the mainstream regime where multiple regimes might border and act as incubation rooms for non-conformism with the dominant structures, culture and practices within the societal system (Smith 2007; Avelino and Rotmans 2009). We consider niches as "*embryonic regimes*", which potentially constitute "*nuclei for future (radically different) regime structures*", but have not (yet) attained a strong degree of institutionalisation (Fuenfschilling and Truffer 2014: 773). Niches can be understood as *embryonic* regimes, which offer the conditions for radical innovations to grow and eventually replace the regime. In fact, radical innovations can be said to form their identities in an *antagonistic* relational way, as this identity is pursued by differentiation from other identities (Laclau and Mouffe's (1985) *Hegemony and Socialist Strategy* cited in Norval 2000: 328). As such, practically the same dimensions can be used to describe both regimes and niches (Proka et al. 2018). Considering niches as embryonic regimes (cf. Fuenfschilling and Truffer 2014), and further building on the selection pressures that regimes exercise on niches as discussed by Smith and Raven (2012), below we present the niche dimensions that constitute central part of our conceptual framework as they help us move our analysis at the system level.

(1) Technologies and Infrastructures: the material dimension required for the societal function including all the technologies and physical infrastructures;
(2) User Practices: the application domain of the concept or technology, and the associated new routines and norms of the actors;
(3) Cultural symbolic meanings: the symbolic representation of the functioning including the associated values and guiding principles;
(4) Knowledge base: involving scientific as well as tacit, practical knowledge associated with the societal function;
(5) Organisational logic and structure: the specific logic of how an organisation generates value, including organisational decision-making processes, routines and activities directed towards the achievement of organisational aims, as well as issues regarding ownership and the relationships between investors, producers and users;
(6) Sector structure: the organisational networks, the particular sector capabilities, as well as the specific interaction platforms for coordination and negotiation within the sector, and
(7) Policies and Political Power: the regulations and political power exercised to influence or maintain them.

2.2.3 *Reflexivity: Dynamic Relations Between Business Model and Niche*

Transformative social innovations can be said to operate at a niche level, and thus by definition conflict with a regime context, which is geared to the value propositions of business-as-usual. In order for business models to become transformative and thus help to change regime conditions, practitioners need to consider the context in which they operate. And for this reason, we argue that the dynamics that play out between niche and regime are crucial. As these conditions also change, specific actions and manoeuvring might be needed. The concept of reflexivity helps to understand the co-evolutionary patterns between emerging business models of sustainability-oriented initiatives and their broader context.

Reflexivity can be regarded as an emergent property of a system innovation initiative that concerns its relations with its systemic context. As a concept, it relates to both the (members of) the initiative and the context. Pertaining to the context, reflexivity concerns co-occurring changes in (Beck et al. 2003; Smith and Raven 2012; Voss et al. 2006) economy (markets, dominant user/consumer practices), politics (rules and regulations, policy networks, power), technology (infrastructure, technical standards), culture (value orientations, symbols), and science (knowledge in perspective, questioning the value of science). With regard to the initiative, reflexivity concerns the awareness of these outside changes and how the initiative is able to identify obstacles and opportunities as they present themselves, instead of being caught off-guard (cf. Beers and Van Mierlo 2017; Beers et al. 2014.)

Examining the business models of an initiative through the business model dimensions and the systemic niche dimensions, we can address questions concerning their past, present and future development. We interpret the resulting dynamics in terms of reflexivity. In what follows we discuss the process we have followed as regards our empirical investigation and analysis.

2.3 Methods

In order to explore the merits of our framework we have selected to use one of the most successful energy cooperatives in the Netherlands. This cooperative, called Deltawind, develops a business model with the wish to contribute to the transformation of the energy system. We collected interviews and written materials, which were analysed using both the niche concept and the business model concept. This chapter, thus, reports on part of our research work focusing on renewable energy initiatives. Our case study can be seen as an extreme, as it demonstrates unusual manifestation of the phenomenon under study, yet representative for the issue that we want to explore, namely the conditions under which an energy cooperative may influence the system within which it operates (Yin 1994; Patton 1990).

2.3.1 Case Description

Deltawind is the energy cooperative of Goeree-Overflakkee, in the South-West of the Netherlands. The cooperative was founded in 1989, with the vision to contribute to "*sustainable energy production and responsible energy consumption*". The cooperative focuses on wind "*as this is financially the most efficient way to produce sustainable energy*" but has also developed one solar park. Today the cooperative numbers about 1080 members and among other, it shares one of the biggest cooperatively owned wind park in the country.

2.3.2 Data Sources and Collection

Our empirical investigation began with collecting case-related documents, including official publications and material published online. Next, semi-structured interviews were performed with people involved in the organisations under study. In the case of our focus the principal investigator had good access to the director of Deltawind (case holder) and after a first in-depth interview remained in contact with her through (on-line and off-line) communication. In this way the investigator was able to learn the latest developments around the cooperative. During the interview the case holder was asked to describe the business model of the organisation, how the organisation and the alternative "niche" in which it belongs differs from the dominant energy regime, what challenges they face and what actions they take to circumvent them. The case holder was asked and provided publically-available archival records in order to substantiate the arguments made. The interview was audio-recorded and extensive notes were taken; specific parts of the conversation with high discursive relevance, like for instance concerning the value proposition, were transcribed verbatim. The interview data collected was documented in a summary which was cross-checked with the case owner. The report was complemented with information from secondary sources, like internal documents, scientific and other professional publications. For instance, information on financial status and detailed project capacity was drawn from the national community energy monitor (Lokale Energie Monitor[1]) to which access has been provided after communication with the case holder. Next, based on the analytical framework and the collected data a case report was prepared, documenting all the information collected. Having been discussed between the authors, the report was sent to the case holder for clarifications and verification of the accuracy of the data; in general only minor adaptations have been made.

[1] https://www.hieropgewekt.nl/lokale-energie-monitor

2.3.3 Data Analysis

Data analysis has been guided by our conceptual framework, that is, the four elements of the business model concept and the seven dimensions in the niche concept. Collected data was first grouped and positioned according to the constituent concrete categories of the conceptual framework, e.g., "value proposition" or "value architecture." In several cases, complete quotes of the interviews, or other data from other online or offline sources were also included. Taking a critical approach, the additional material from different sources was used to assess possible distinction between the claims of the case holder and the enacted organisational practice (Argyris and Schön 1974). Moreover, the broader socio-political "context" guided us in the extraction of the meaning behind the wording selected by the case holder and the accompanied material. Additionally, in keeping with the exploratory nature of the study, we interpreted the frequently recurring concepts and categories across the data, since dominant patterns and themes emerged in terms of overall organisational processes, challenges, points of friction with the existing system and strategies to surpass them. Resulting additional categories are reported in the next Section.

2.3.4 Limitations

Typically, case study research design is criticised for lack of generalisability, reliability and validity, and this might be especially relevant for a single case study (Yin 2009). Generalisation from a case study, nevertheless, should not be expected to lead to statistical but rather to analytic generalisation (Yin 2012). Such an approach is specifically interesting for the analysis of contemporary phenomena within a real-life context, as it allows for the incorporation of context and complexity (Flyvbjerg 2006; Yin 2009). In fact, a strategic selection of cases has been found to increase generalisability as it activates more actors and more basic mechanisms in the situation studied (Flyvbjerg 2006). And this is why this contribution focuses on the case of Deltawind. The reliability of the data has been supported with the inclusion of multiple sources and the examination of the report by the case holder, as well as the discussion between the principal investigator and the other co-authors. Finally, we are aware that the validity of our conclusions, given the singe case study, might be limited. Nonetheless, the use of the case study here is principally aimed to illustrate our research framework for the analysis of the transformative potential of sustainability-oriented business models.

In what follows we present the results of our research concerning the business model level and the niche level as regards the renewable energy cooperative Deltawind.

2.4 Transformative Business Models in the Context of the Energy Transition: The Case of Deltawind

2.4.1 Business Model Level

2.4.1.1 Value Proposition

Central in the value proposition of the initiative is the broad benefit of "*sustainability"*, which is offered to its members, customers and the broader society; Deltawind operates with "*respect for people and nature*", as noted on its website. Its members naturally benefit from the value of "*ownership*" which also brings extra benefits like "*financial gain*." The director argues that the people who live in visual vicinity of the windmills need to also benefit from them. This financial benefit proposed by the cooperative aims to mobilise people that would not join for its sustainability value alone. "*Transparency*", according to the director, is also considered crucial and cuts across the initiatives business model: from value proposition to the entire value architecture.

2.4.1.2 Product or Service

Deltawind produces renewable electricity from wind and solar energy: "*you see these windmills? They produce your electricity*" is the message the initiative communicates to its members. This also allows the cooperative (to be precise the specific parks of the cooperative) to sell in the market the *Guarantees of origin,* an electronic document which proves that the electricity originates from a specific energy source and enables the traceability of green energy from the producer to the final consumer. The Guarantees of Origin can be traded in the European Union. In addition to that, in the past years, Deltawind has organised a collective purchasing project of roof solar PVs for house owners in the region of Goeree-Overflakkee.

2.4.1.3 Value Architecture

Members

As one of the oldest cooperatives in the Netherlands, Deltawind today has about 2080 members. To be eligible for membership, one needs to have links to the island, for instance by living at or originating from Goeree-Overflakkee, owning a house there, or, for legal entities, to be officially registered in the area. Deltawind membership begins with investing in the form of giving a loan to the cooperative as much as 50 € to up to 5000 €. Under-age island residents can enrol with a contribution up to 1000 € but have no voting rights.

Governance

The general assembly, convened periodically by the board, holds the most formal power in the initiative. The most important issues discussed in the assembly are (a) the budget of the upcoming year and (b) the year review. Depending on the context, decisions are mainly taken on absolute majority yet on a rather informal base "*We never count exactly how many people are in favour/against.*" The board currently consists of five seats. Each member has one portfolio among (a) Legal, PR, communications and membership (b) Innovation and Sustainability, and (c) Finances; thus there might be two people working on the same theme. Currently, the cooperative employs eight people (all part time five, five fulltime equivalent). The positions are the following: (1) Director, (2) Policy officer, (3) Project manager, (4) Secretary, (5) Administrative assistant, (6) Communication and (7) two millers, people from the region periodically preventively inspecting the windmills.

Value Chain

Deltawind develops its parks as separate companies, like for instance, private company solar park Ouddorp aan zee (In Dutch: besloten vennootschap). According to the interviewee, the motivation behind this decision was the interest to protect the cooperative from the risk of possible failure of any of the projects.

Until recently, the cooperative could not directly provide its members nor other (non-member) clients with the electricity produced by its parks. To reach the end consumer Deltawind had to collaborate with other energy suppliers, which may vary between projects. It's noted that reaching (and keeping) the customer is a "*totally different business*" than the one that Deltawind is "*good at*", hence a certain dependency on the energy providers exists.

For the first wind parks Deltawind partnered with E.ON (wind), an established energy utility. This happened because of a good price arrangement, as well as, due to the fact that one of the parks, namely "Piet de Wit", is partly owned by a private company. In the previous model Deltawind sold renewable electricity along with the respective Guarantee of origin to this utility, who in turn sold it the consumers. The energy of the solar park, built in 2012, is sold to Eneco, and the Guarantee of Origin is sold to the owner of the ground: a recreation park that wants to become sustainable.

Deltawind is not interested in repeating such a collaboration with big energy utilities, as other solutions have emerged. On the one hand, for one of the last wind parks developed, the cooperative collaborated with Vandebron, an innovative platform connecting producers and consumers of sustainable energy. This platform along with the good energy prices, allows Deltawind to reach the consumers with more "*transparency*" and "*visibility*" for their brand; Vandebron functions as Deltawind's shop. It is pointed that Deltawind is interested in building partnerships

with organisations with similar to its own culture ("*cooperation*", "*intrinsic feeling of sustainability*", "*innovation*"); yet a good business proposition is also crucial.[2]

Recently the initiative in cooperation with Zeeuwind, another energy cooperative in the region, has also reached an agreement with four multinationals, which will directly receive the energy generated by one of the wind parks. More specifically, as reported in their press release, the agreement entails that Deltawind will source a total of 350,000,000 kWh a year from a new facility, Windpark Krammer (under construction), once it becomes operational in 2019. The agreement is seen as crucial for both the funding of the wind park and for the sustainable ambitions of the four companies. In this way, the initiative has managed to "cut out the middle man". More specifically this happened with the assistance of Wind4ind, an expert centre on Power Purchase Agreements (PPAs), which negotiated the PPA and set up the back-office processes that made this direct PPA possible, as the special permit (in Dutch: programmaverantwoordelijkheid—programme responsibility) was taken care of by Wind4ind.

For the latest park, the cooperative also collaborated with Enercon, a leading wind turbine manufacturer from Germany. For their project development, apart from the support from the state through subsidies, Deltawind also received funding from Triodos bank's green funds. Stedin is the network operator at the region.

Another important partnership for Deltawind is the one with the "*Windgroep Goeree-Overflakkee*", which was initiated by Deltawind in cooperation with the energy company Eneco. When the province allowed the development of additional 225 MW of wind energy in the province, the group was formed with the purpose of ensuring that the new developments on the island are organized in terms of collaboration between the local initiatives (and not in competition among them) and that the local community will take benefit from them. In this way, there is going to be "*one plan and not 18 plans*" as regards the position of the wind turbines and the community may benefit by the created fund for the support of the surroundings: for each wind turbine built a contribution of 50 ct/MWh goes to the fund. Interview data suggest that this annually results in about 5000 € per windmill or about 200,000 € for all the wind turbines on the island. The collected sources are directed to projects, like for example, the installation of solar PVs on schools or other social buildings of the island. Apart from Deltawind and Eneco, participants in the Windgroep are another 12 local initiatives, Nuon, the National Forest Foundation and a dozen of local farmers.

[2]It is worth mentioning that the reason why the cooperative did not collaborate with the energy provider DE UNIE, a cooperative of cooperatives in the Netherlands, is because of the fact that despite taking on the administration tasks, DE UNIE asks the initiatives to find their customers, something that is not Deltawind's core business and given its scale of operation it is also a difficult and expensive task (the director suggests that for the last wind park, there would be a need for 11,000 contracts to make use of the total electricity produced).

2.4.1.4 Valuation Method

Deltawind has a broad base of supporters as members and donators. Members can support the initiative by contributing with the minimum of 50 € membership fee, which is what 15% of its members have chosen. Most of Deltawind's members have contributed with a loan to the cooperative between 2250 € and 5000 €. In 2013 it has been decided to set a maximum of 5000 € per member for safety reasons as *"losing 5000 € is a pity but doesn't leave you destitute"*. The interest rate for the contribution of the first 50 € rises to 10%; beyond this amount the interest fluctuates between 5% and 7%, depending on the average annual wind and solar radiation. Recently the initiative inaugurated a mechanism of financial obligations for people who do not wish to become member of the cooperative, yet want to contribute to its development. This financial tool is furthermore directed to cooperative members that wish to contribute beyond the cooperative's limit to contributions.

The costs of Deltawind relate to the salaries of the employees, the payments of the promised interest rate to the members, some promotion and communication expenses and most significantly the investment in the development of new projects. As regards the costs of the wind parks, apart from the cost per turbine, which is estimated to about 3 million euros per turbine, important costs are (a) the costs for the land (which is either bought or borrowed), and which may significantly vary per location, (b) the costs for extending the network, which can be extremely high like in the case of Krammer where the extension of the network rose to 15 km and (c) maintenance costs. It is being noted that "*storage has our attention, but it is not yet cost-effective*".

2.4.2 System Level

2.4.2.1 Technology and Infrastructures

Deltawind focuses on developing and operating wind farms, as wind energy is seen as the most efficient and profitable renewable energy source. Yet, based on a project initiative of one of its members the cooperative has also developed one solar park. The technology and the respective infrastructure under focus is renewables which differs from the old traditional energy industry that is mainly based on fossil fuels, yet is relatively well aligned with the more recent developments of large energy companies shifting to renewable energy. "*Development, technology and infrastructure is the same; in that way we operate like ENECO*", it is mentioned. Compared to other local energy initiatives, Deltawind's operation is focused on large-scale renewable energy projects. This in turn has implications on supporting infrastructure as regards the network connection for example.

2.4.2.2 User Practices

Despite the fact that Deltawind is a producers' cooperative, it is interested in examining the impact of the involvement of its members on their overall behaviour. Not turning them into prosumers, that is citizens that are active producers of their *own* renewable energy (e.g., REN21 2017), as the members may only consume the energy they produce through Deltawind's partners, the organisation cannot directly influence its members beyond the level of their participation in the General Assemblies and other actions connected to renewable energy production. The initiative hopes to inspire a more sustainable behaviour, yet research on the issue found no strong link between being member of Deltawind and behaving more sustainably (Feiit 2011). An external researcher has been contracted to examine the image of Deltawind among residents and the impact of people's involvement on their behaviour. The study found that members do not act more sustainably than non-members, yet they are more conscious about the urgency of doing so (Feiit 2011).

2.4.2.3 Cultural Symbolic Meanings

As regards the cultural representation of Deltawind, interview data suggest that the cooperative is positioned closer to the consumer than the established energy utilities. Developed on the island in close proximity with its members the initiative seeks for direct communication with them. *"I see members at the super market*". Apart from publishing news briefs on their website or local newspapers, in addition to distributing information material, or organising Open days for visits at the wind farms, the initiative is interested in the opinion of residents, keeping the communication pathways open. Moreover, through transparent operation and the participation in the Windgroep it wishes to inspire people, inviting them to participate in sustainable energy production and consumption.

2.4.2.4 Knowledge Base

The cooperative is aware of the urgency and the technological means to accommodate a transition to a more sustainable energy system. One main assumption is that the development of renewable energy on local scale close to the energy consumption is going to result in awareness and more conscious energy consumption. Another assumption is that renewable energy offers the opportunity to locals to benefit from the energy transition through the development and ownership of renewable energy projects. Over time, the cooperative has built professional expertise for both the technological side of its operation but also the more social, community-related one. Moreover, for reasons of legitimacy and impartiality, when needed the cooperative also turns to third institutions for external expertise.

It worth mentioning that on Deltawind's website we also find a reference to the cost of *externalities*. It is noted that: "*According to a European study counting social costs of resource use in the Netherlands, coal results in 3 to 4 cents per kWh and gas 1 to 2 cents per kWh (source: ExternE, EU). Wind energy produces only about 0.1 cents per kWh as external social costs."* This suggests that the initiative wants to move the debate towards the real cost of energy sources, a political position with certain implications for both the novel sustainable energy initiatives and the fossil fuel based utilities.

2.4.2.5 Organisational Logic and Structure

Deltawind exhibits a small organisational structure as compared to the incumbent utilities, yet larger as compared to the small energy cooperatives "*whose members fit arounda table*", as pointed out. "*For some small co-ops we are too big. They compare us with Eneco*." Yet, Deltawind is operating with cooperative principles of decision-making, ownership and inclusiveness, close to the local community. It is interesting to note that the cooperative has entrusted the task of inspecting its wind turbines to two farmers of the area. The scale of its operation, nevertheless, and the (financial) risks involved have resulted in certain task division and a gradual broadening of the distance between Deltawind and its members. "*The higher the risk, the bigger the agreements are and the harder to translate to something that an average member understands*", as argued. It is worth mentioning that its large scale can explain the decision on, on the one hand, outsourcing the responsibility of finding clients and the respective administration to Vandebron, and on the other, on making the agreement with the multinationals. Furthermore, scale could also be responsible for the decision to introduce the financial tool of Obligations, which allows non-members, who do not necessarily share the same ideas and vision with Deltawind, to invest in the cooperative.

2.4.2.6 Sector Structure

Deltawind participates in several associations for sustainable energy in the country, both the ones more targeted at supporting bottom-up renewable energy initiatives, as well as, the ones shared with the broader energy industry. The initiative sits at the board of the Dutch wind association and learns and influences the developments in the field. Energy incumbents are slowly repositioning themselves moving closer to the consumer, decreasing in this way the distance between cooperatives and traditional energy companies and blurring this distinction. Deltawind innovates by altering the rules of the game as concerns the overall sector structure. On the one hand, it involves local farmers in the inspection of its wind turbines; new actors join the sector working on an energy related project. On the other hand, in contrast to the dominant practice in the field of arranging PPAs with energy utilities, the cooperative through the collaboration with the multinationals on the wind park Krammer

leaves out the middle man and establishes a new way to provide energy to a third party without the need to involve an energy utility for the respective permit. As already mentioned, the cooperative managed to achieve this direct PPA in collaboration with the expert organisation Wind4ind.

2.4.2.7 Policies and Political Power

Deltawind is member of ODE Decentraal the lobby organisation of energy cooperatives, it participates in the Dutch Association for Sustainable Energy, the industry association for companies involved in sustainable energy, and furthermore sits at the board of the Dutch Wind Energy Association. Moreover, it is active in the platform for bottom-up energy initiatives HIER opgewekt contributing to the attempt to professionalise the sector. It is through these organisations that the cooperative tries to on the one hand strengthen the community energy sector and on the other it wishes to influence the framework within which it operates. Its direct (one to one) involvement in lobby processes at a national level has not been so significant though. As already mentioned in the past the cooperative has tried to (unsuccessfully) arrange its business model in a way that it could demonstrate that it could work without making use of the national energy production subsidy at all. Yet, due to the quite significant decrease of the energy prices these plans were dropped.

2.5 Discussion

Deltawind's operation may contribute to the change of the existing regime and shift the energy system towards a more sustainable direction by altering user preferences, technology and infrastructures, as well as, gradually introducing a new organisational logic and cultural symbolic meanings, et cetera. The selected case exhibits a certain degree of institutionalisation in several niche dimensions and the framework presented here allows us to systematically scrutinise the instances where transformation starts to take place by identifying points of friction with the broader dominant context.

Through its *value proposition*, in fact by engaging in a narrative that stresses the importance of sustainable energy production and consumption, the role of openness and transparency in sustainable development, as well as, the opportunities that renewable energy offers to local communities, the initiative influences the associations of the system as regards culture (*Cultural symbolic meanings)*, as well as knowledge (*Knowledge base)*. As discussed, through its participation in the Windgroep Goeree-Overflakkee the initiative offers tangible benefits to the wider community, for instance through the fund for the development of the region. In line with the literature, we note that the cooperative's value proposition embraces social and environmental considerations (Boons and Lüdeke-Freund 2013; Schaltegger et al. 2016).

With its *product*, the renewable electricity it generates, the cooperative begins to alter fundamental features of the systems functioning. Although the scale is not enormous, it is significant enough for a cooperative. In fact, Deltawind's specific scale allows it to take a specific place in the network of the energy sector. It is sufficiently interesting for both the old (Eneco) and the new (Vandebron) parties. This way the cooperative changes the *technology and infrastructures* involved, as the physical network required. Furthermore, in this way the cooperative begins to alter the quality characteristics of the sector, as regards the type of energy provided and the particular sector capabilities involved, in other words the *sector structure*.

Through its *architecture of value* the cooperative challenges the dominant regime in multiple dimensions. By involving the local community in renewable energy production their *User Practices* start to change: they are not just energy consumers but they also become energy producers, sharing the ownership of wind turbines in their local area. Moreover, through its participation in the Windgroep Goeree-Overflakkee, the cooperative shares the value it generates with the broader society. In this way, combined with a transparent operation, the cooperative tries to increase the "*societal acceptance"* of renewable energy technologies and broaden peoples' "*energy consciousness*" and "*responsible energy consumption*". In addition to this, as already mentioned, via the direct PPA with the multinationals as regards the energy produced by the wind park Krammer, Deltawind establishes a new way of providing energy to a third party leaving out incumbent energy utilities, changing in this way, the *sector structure*. This is also the case with the collaboration with VandeBron, an initiative that can be said to originate in another niche, synergetic to the one of Deltawind. Our findings, therefore, are in line with literature on niches and their formation and emergence of disrupting innovation at the margins of (multiple) regimes (e.g., Smith 2007). Last but certainly not least, as part of its overall operation, it participates in lobby organisations like ODE Decentraal and the Dutch Wind Energy Association, in this way it attempts to influence the policy and regulations in the field.

As last, its *valuation method*, i.e. the way it sustains its organisation mobilising resources as people and money. The organisation has managed to mobilise significant amount of financial resources starting from contributions from its members, yet going beyond this. The cooperative inaugurated the mechanism of financial obligations that will enable it to gather resources from people who although they don't want to become members, want to contribute to the development of the cooperative. Moreover, despite this, the initiative challenges the dominant way of thinking about the very issue of value. Communicating the full cost of its operation in comparison to the dominant fossil fuel-based mode of operation, Deltawind exhibits a broad orientation on value and in this way it challenges the basic assumptions of the dominant *knowledge base*. Although the latter only exhibits very primitive signs of institutionalisation, it constitutes part of the cooperative's transformation agenda.

In conclusion, we have identified many ways in which Deltawind develops and influences its context. When a growing scale of production allows it, the initiators are able to strike deals with new partners that are closer to its own views than its initial partners. It is also interesting to note that the initiative is able to use institutions such

as EU-tradable Guarantees of Origin to its advantage. Indeed, with its governance structure and its investment scheme, the initiative is an institutional innovation itself. Finally, it has managed to arrive at new point of development, where it still represents a niche of renewable, decentralised energy production, but at such a scale that it has begun getting noticed and acknowledged by the fossil-fuel incumbents.

All in all, the case of Deltawind manifests the power of business models and their ability to support the strategic goals of an organisation (Shafer et al. 2005; Doganova and Eyquem-Renault 2009; Loorbach and Wijsman 2013). This illustrative case shows that through business model innovation, entrepreneurs can shape markets and society. In this way, they catalyse the sustainable transformation of societal systems and their functions.

We should nevertheless note that while Deltawind already contributes to the wide transformation of the energy system and society as a whole, its business model cannot *yet* be described as transformative. It is the institutionalisation of the niche dimensions through its business model that may qualify the initiative and thus its business model as transformative. In other words, ex-ante we may discuss the *transformative potential* of an organisation and its business model, yet to qualify a business model as transformative more evidence for the transformation the initiatives are interested in is needed.

2.6 Conclusion

The presented framework is introduced as a tool to enable researchers and practitioners to analyse and support the potential of organisations to contribute to sustainability transitions. Building on transition theory, seven dimensions have been introduced to enable the examination of the initiatives in their dialectic relationship with the context in which they operate. In other words, our framework allows the assessment of how different initiatives attempt through their business model to shape their environment, while being at the same time shaped by it. It is by allowing to scrutinise frictions and reflexive changes that result from these, that our framework becomes a tool to assess and improve an initiative's transformative potential.

Transformative business models are considered the ones that manage to shape their context, by building alternative to the dominant institutions. As exhibited with the example of Deltawind, a business model allows entrepreneurs to influence the system reconfiguring its elements like, Technologies and Infrastructures or User Practices. A business model becomes transformative, once the institutionalisation of the alternative system configuration suggested and partly embodied by the initiative has progressed and the transformation starts to take shape. Our findings from the analysis of the illustrative case of Deltawind allow us to suggest some characteristics that transformative business models entail.

First of all, transformative business models, entail a broad value orientation that encompasses different dimensions for positive value (or disvalue). This means that transformative business models extend their value proposition beyond members or

customers towards multiple stakeholders. One cannot, as many economists are used to do, equate success with economic growth; the system as a whole, should be taken into account. This relates to the fact that transformative business models openly take into consideration negative or positive externalities, as these refer to value that may or may not be monetised in the future. In that, this statement resonates with previous research in the field of business models (e.g., Boons and Lüdeke-Freund 2013; Schaltegger et al. 2016).

In addition, in line with the normative requirements introduced by Boons and Lüdeke-Freund (2013) for sustainable business models, we argue that transformative business models involve broad stakeholder networks. Transformative business models accommodate the views and preferences of multiple societal stakeholders, some of which often participate in their value architecture. In other words, the sustainable offering (product or service) reaches its targeted public through this very broad network.

Last, an important characteristic of transformative business models is that they allow for a reflexive orientation (cf. Beers and Van Mierlo 2014; Van Mierlo et al. 2010). In fact, transformative business models explicitly take into account a changing societal context, that not only for their own survival but also for wider system transformation. A reflexive orientation means that organisations are able to identify and address obstacles and opportunities that are presented to that end.

All in all, in line with Schaltegger et al. (2016), the concept of transformative business models is introduced with the ambition to help organisations to contribute to sustainability transitions by designing, employing and adjusting their value proposition, product or service, along with their value architecture and valuation method in order to capture some value while helping maintain or regenerate social, environmental and economic capital beyond its organisational boundaries.

The added value of our work resides in bridging the literature of sustainable business models with that of sustainability transitions in an attempt to, on the one hand, advance our understanding of how sustainable business models can contribute to sustainability transitions and, on the other, how transition thinking may unlock the transformative potential of sustainable business models.

At this point we need to point to the preliminary nature of the discussed findings and the proposed characteristics of transformative business models. The introduced framework aspires to map the conditions that may allow sustainability-oriented initiatives transform the system within which they operate. The illustrative case is derived from research focusing on the energy transition in the Netherlands. Further empirical research and in-depth analysis of more cases is needed in order to consolidate the suggested characteristics of transformative business models, possibly enriching them with additional elements. Future research could also apply the introduced framework in other sectors in order to test the propositions made in this contribution. We are confident that our framework is a valuable tool for the analysis of the interaction between sustainable business models and the transition they aim to accelerate and thereby we aspire to support sustainability-oriented entrepreneurs to better strategize in order to contribute to fundamental systemic change.

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Chapter 3
Sustainable Business Models: The Case of the Collaborative Economy

Maria Aluchna and Boleslaw Rok

Abstract The growing power of stakeholders and the awareness of social and environmental issues in economic activity change the way business is done. Facing social and regulatory pressure companies incorporate stakeholder expectations in their strategic thinking and business operation. The need to combine financial, social and environmental performance leads to the transition of traditional business towards sustainable, resource-efficient and low-carbon economy. Such changes are also the impulse for organizational and business innovation and in line with the new developments in the institutional environment result in the emergence of new business models. We would like to add to this literature delivering an analysis of the business models of companies which adopt the logic of sustainability and collaborative economy. We propose that the sustainable business model follows the framework of: building stakeholder capital through inclusiveness, fostering innovation to address social or environmental challenges and focusing on at least 1 of 17 UN sustainable development goals (SDGs). Additionally, the sustainable company adopts ethical infrastructure to assure high integrity while improving social, environmental and financial performance. In this chapter we analyze selected companies operating in four different sectors addressing these five dimensions identifying key components of sustainable business models. We also address the issues of balancing these requirements and indicate the potential conflicts between social, environmental and financial goals.

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3.1 Introduction

Nowadays the purpose of business, its role and model of operation is shaped not only by the assumptions for financial profitability and operational effectiveness but also by social and environmental challenges. The growing power of stakeholders and the awareness of depletion of natural resources and social inequalities of living standards change the way business is done (Høgevold et al. 2015). Facing social and regulatory pressure companies incorporate expectations of stakeholders in their strategic thinking and business operation (Freeman 1999). The need to integrate financial, social and environmental performance leads to the transition of traditional business towards sustainable, resource-efficient and low-carbon economy (Geels 2011). Such changes are also the impulse for organizational and business innovation and in line with the new pressures in the institutional environment result in the emergence of new business models. The development of the sustainable business concept influences the regulatory framework, provides a wider room for operation for stakeholder initiatives and impacts firm development. On the organizational and strategic level sustainable business translates into the emergence of new business models which address social and environmental challenges.

We would like to add to this literature delivering an analysis of the business models of companies which adopt the logic of sustainability and collaborative economy (Bocken et al. 2014). We believe there is a gap in the existing literature with the reference to identification of potential mutual benefits between collaborative economy and sustainable business. We would like to fill this gap integrating these two concepts with the illustration of case studies. For this purpose we propose that the sustainable business model follows the framework of: building stakeholder capital through inclusiveness, fostering innovation to address social or environmental challenges and focusing on at least 1 of 17 UN sustainable development goals (SDGs). Additionally, the sustainable company adopts ethical infrastructure to assure high integrity while improving social, environmental and financial performance. In this chapter we analyze selected companies operating in four different sectors addressing these five dimensions identifying strengths and weaknesses of sustainable business models. We also address the issues of balancing these requirements and indicate the potential conflicts between social, environmental and financial goals.

The chapter is organized as follows. First, we outline the concept of sustainable business indicating its main goals and characteristics and present the logic of sustainable business models. Second, using the framework of sustainability, business model and collaborative economy we analyze selected cases from Poland. Third, we discuss the functioning of the cases referring to purpose, type of created value and the entities for whom is created, governance structure and the degree of integrity. Final remarks are presented in conclusion section.

3.2 The Concept of Sustainable Business Models

The concept of sustainable development is heavily rooted in the on-going discussion on the role of the company in the economic and social systems that lasts for over the last 40 years. The discussion undertaken by academics, regulators and practitioners mirrors the changes in the perception of company's and business role in the society, its responsibilities, obligations and goals (Aluchna 2015). It is a broad and still developing concept elaborated with the adaption of various theoretical approaches and paradigms (Benn and Dunphy 2007; Pesqueux 2009; Svensson and Wagner 2011). Generally, sustainable development is a concept which aims at providing balanced strategies for economic and social growth assuring for the global (international and interregional) and inter-generational equilibrium and fairness with respect to the use of natural resources and income distribution. Thus, sustainable development places the aspects of social and environmental performance in the center of the discussion (Malone et al. 2009). Social and environmental challenges gave rise to emergence of the concept of sustainable development and its implementation in companies adoption known as sustainable business development (Jamali 2006) which is viewed as a strategic framework for integrating the principles of CSR and responsible business by creating innovative solutions (Bocken et al. 2013). The concept of sustainable development provides a holistic picture of a company (Bonn and Fisher 2011) and assumes the balance between three dimensions of its activity with respect it its performance and impact on the society and environment (Elkington 1997). Thus, it addresses three areas: economic, environmental and social (Høgevold et al. 2015).

The economic dimension is rooted the prime goal of every business entity as sound financial performance remains the essential incentive for executives and entrepreneurs. Corporate profitability is the requirement for the company survival in the competitive market. Moreover, it cannot be stated that the economic growth by definition has negative impact on the environment as the direction of the influence may be different (Strandberg and Brandt 2001). As noted by Pierce sustainable economic development "involves maximizing the net benefits of economic development, subject to maintaining the services and quality of natural resources over time" [Pearce et al. (1987) as quoted in Redclift (1992: 397)]. The economic goals include the action towards growth, equity and efficiency. The concept of sustainable business assumes that a company operating within the social and environmental requirements assures for sound economic performance since the social and environmental aspects are heavily considered in customers' choices. Green production, sound conditions for animal breading, limitation of packaging or adoption of efficient technologies are expected to belong to the customers' purchasing decision criteria. The sustainable companies will not only be able to gain market share and keep loyal customers but also would be able to demand a higher premium for their products or services (Lever and Evans 2017). Additionally, the usage of natural resources should assure for rationality and accountability since the controlled and irresponsible consumption ultimately leads to severe constrains on business activity

in the longer run (depletion of resources, environmental damage, pollution, climate change etc.). The efficient natural resources use, lower energy and materials consumption, effective waste management as well as assuring for rebuilding of natural resources should create global wealth (Fifka and Teodoreanu 2014).

The environmental dimension of sustainable development is viewed as the most crucial issue due to the environmental damage, degree of pollution and depletion of resources (Singer 2002). At the same time however, environmental dimensions seem to be the most neglected aspect since fauna and flora as well as clean water and clean air do not have their lobbysts in international organizations or representatives on corporate boards. In result, though many regulations or recommendations are formulated, the enforcement of these limitations and constrains is marginal. The goals of the biological system include activities assuring for genetic diversity, resilience and productivity (Elliott 2009).

The social dimension of sustainability refers to the social responsibility of companies covering such topics as human rights, working conditions, social justice, individual ethics and lifestyles and ethical consumerism. The aims of social system goals include the initiatives of empowerment, social cohesion and cultural diversity (Elliott 2009). It is understood as "the organization's capacity to meet demand and expectations of constituencies beyond those linked directly to its products and markets" (Marcus 1996: 89). This mostly addresses the assumption of mitigating the inequality worldwide calling for inclusiveness and fair distribution of wealth amongst developed and less developed economies. Fulfilling the social dimension is aimed to improve the social performance of the company with respect to criteria accompanied with stakeholder dialogue, community consultation, cooperation with NGOs and customer communication (Spirig 2006).

3.3 Principles Under Sustainable Business Models

The emergence of the sustainable business concept is a driving force for transition of corporate goals and strategies, development directions and key success factors. Sustainable business changes the way we think about companies and the way how companies need to organize their resources and operation to meet the requirements of the balanced economic, social and environmental performance. These changes result in the transition of the economy and the emergence of new organizational and structural solutions which offer a synthesis of fulfillment of stakeholder expectations while assuring for profitability. While the structure and logic of sustainable business models are new emerging topic in management literature and remain significantly unexplored, it is also viewed as a crucial innovation towards operationalization and implementation of sustainability principles (Bocken et al. 2013).

On the operational level the business model offers a conceptual framework which is the complete and comprehensive representation of how the firm does its business. More precisely, it provides a structural template or a view of the components of activities in the firm which illustrate the process of creating vale and generating

revenue. Kavadias et al. (2016) argue that "The features of the model define the customer value proposition and the pricing mechanism, indicate how the company will organize itself and whom it will partner with to produce value, and specify how it will structure its supply chain". According to the seminal definition by Osterwalder and Pigneur (2010) business model is viewed as a unique configuration of strategy, processes, technology and corporate governance in the organization and presented in the form of canvas. Weill and Vitale (2001) suggest that the scheme of a business model should include three essential elements:

- business entities which taking part in the business relationships (company, clients, suppliers etc.)
- flow of the products and information
- all the advantages be achieved by each of entities in the business model (revenues, quality)

While the business model is a scaffolding of how a firm is organized, how it creates and captures value as well as how it generates cash flow, it depicts structural components and process in the organization (Teece 2010; Høgevold et al. 2014). This concept proves to be very useful for the analysis of the business logic adopting the principles of sustainable development—we can understand whether a firm follows the sustainability framework and how it meets expectations of various stakeholders. In the sense it indicates how companies implement and manage sustainable business (Svensson and Wagner 2015).

Adopting the framework numerous studies describe and analyze the notion of sustainable business models (Upward and Jones 2016). The shift towards sustainability means a fundamental change in the purpose, logic and organization which can be provided by the adoption of structural solutions (Bocken et al. 2014). Sustainable business models are expected to be able to create competitive advantage, customer value following the sustainability principles at the same time to preserve the environment and improve human life (Garetti and Taisch 2012; Bocken et al. 2013) and meet various stakeholder expectations (Stubb and Cocklin 2008; Beattie and Smith 2013) in accordance with triple bottom line (Bocken et al. 2014). A deeper conceptualization of sustainable business model proposed by Bocken et al. (2014) encompass the following principles:

- maximization material productivity and energy efficiency
- creation of value from waste
- substitution with renewable and natural process
- delivery of functionality rather and ownership
- adopting a stewardship role
- encouraging sufficiency
- re-purposing the business for society/environment
- developing scale-up solutions

3.4 Sustainable Business Models and Collaborative Economy

The notion of business model faces continuous redevelopments due to the limitations of the concept (Al-Debei and Avison 2010; Zott et al. 2011) and the ongoing technological advancements which impact its logic and synergies of selected components (Boons et al. 2013; Tongur and Engwall 2014). Such influence is also provided by the notion of collaborative economy with is viewed as one of the essential elements of sustainable business (Bocken et al. 2014).

The use of information technology and the stakeholder cooperation are fundamental principles of new forms of economic cooperation the so called collaborate economy (Hamari et al. 2014). The term of collaborative economy may be interpreted under the labels of 'sharing economy', collaborative consumption, collaborative economy, on-demand economy, peer-to-peer economy, zero-marginal cost economy, and crowd-based capitalism (Kostakis and Bauwens 2014). The concept is based on the principle "people coordinating the acquisition and distribution of a resource for a fee or other compensation. By including other compensation, the definition also encompasses bartering, trading, and swapping, which involve giving and receiving non-monetary compensation" (Belk 2014: 1597). Collaborative economy is "an economy built on distributed networks of connected individuals and communities versus centralised institutions, transforming how we can produce, consume, finance, and learn. It has four key components: production, consumption, finance and education" (Selloni 2017: 16).

Pais and Provasi (2015) propose six classes of different sharing economy practices which determine the adopted business model including:

- the rental economy of rental schemes run by companies specializing in under-used goods (e.g., ZipCar)
- peer-to-peer economy of under-used goods which are offered directly by their owners (e.g., AirBnB)
- on-demand economy which use the uses platforms that broker personal services provided by professionals and non-professionals (Uber, Blablacar or TaskRabbit)
- time banking and local exchange trading system which offer platforms with barter forms of payments based on the use of alternative currencies or time (e.g., TimeRepublik)
- free/libre open source software produced by communities of advanced developers and users (e.g., Linux)
- social lending and crowdfunding including direct loans between people and platforms that enable raising capital (e.g., Kickstarter)

According to the World Economic Forum collaborative/sharing economy is viewed as an important contributor to GDP (WEF 2016), while Forbes estimates the growth of collaborative economy business at approximately 25% per year (Morgan 2014).

A business model of a company adopting the logic of collaborative economy is the central issue from the perspective of sustainability. The main question is how does it capture economic value while maintaining social and environmental value at the same time. The underlying assumption is that in collaborative economy the value is created and delivered by and for different stakeholders which is also perceived as a driving force for increasing inclusiveness and stimulating cooperation between various entities (Deloitte 2014; Pais and Provasi 2015; PWC 2015; Möhlmann 2015). As noted by researchers and practitioners the concept of collaborative economy has significant impact on the business functioning (Kostakis and Bauwens 2014; Morgan 2014) changing the main components of the business model related to the value proposition, value creation and delivery and value capture (Bocken et al. 2014; Deloitte 2014). It also gives opportunities for lower environment impact and efficient resources use. Addressing these issues we propose that the sustainable business model based on collaborative economy follows the framework of:

- building stakeholder capital through inclusiveness
- fostering innovation to address social or environmental challenges
- focusing on at least 1 of 17 UN sustainable development goals (SDGs)

Our model integrates the conceptualizations discussed earlier in this chapter stressing the stakeholder perspective (Stubb and Cocklin 2008; Beattie and Smith 2013) and social and environmental components (Garetti and Taisch 2012; Bocken et al. 2014). In addition our model assures for flexibility through the third component of the focus on at least 1 of 17 UN SDGs. By addressing the SDGs we offer a wider framework for sustainable business model which addresses the latest formulation of business developments. This is particularly important for the analysis of case studies in collaborative economy which reveals significant development resulting from new technological advancements.

The first element of the sustainable business model is type of value created and delivered. Is it primarily economic value or sustainable? The second element of our framework is an answer for the question: for whom mostly the value is created? In more traditional models value is created—if not only for owners and shareholders—for customers by company' employees using different assets. In the collaborative economy, we are dealing with the crowd of prosumers, those who are producers and consumers as well, and both groups are beyond company organizational boundaries. The third element is the purpose—collaborative entities are not set up for profits only, they are engines of a societal progress, fostering innovation, solving big issues, presented for example in The UN Global Goals (SDGs) declaration.

In our proposed model we also add the organizational principle (Boons et al. 2013) assuming that a sustainable company needs to adopt ethical infrastructure to assure high integrity while improving social, environmental and financial performance (Doganova and Eyquem-Renault 2009; Geissdoerfer et al. 2016). Thus, the next element of sustainable business model framework for collaborative economy is the governance structure or the type of stakeholder engagement. Conventionally, it is rather an orientation towards shareholders, but in collaborative economy where inclusiveness is an important topic one should deal not even with user-centric

organizational design but also with stakeholder-centric, issue-centric or crowd-centric. The last one refers to integrity in the relationships with stakeholders and the level of maturity in ethical organizational culture. The integrity management system could be compliance-based, guided mostly by legal regulations or rather norm-based set up by the crowd.

3.5 Analysis

3.5.1 Case Selection

The transition towards collaborative and sharing economy has become widespread in different sectors. Case studies were chosen according to four criteria. First, we decided on the main sectors in collaborative economy. "Collaborative Economy Honeycomb" (Owyang 2016) started from 6 sectors and in the last 3.0. version he provided the analysis of 16 sectors. To simplify, we selected seven main—in the global scale—sectors: mobility (Uber as the best-known example), hospitality (i.e. Airbnb), crowdfunding (Kickstarter or EcoCrowd), foodsharing (EatWith), knowledge-sharing (Coursera), microtasking (Etsy, TaskRabbit), and entertainment (Spotify). Second, in line with our research goals cases should be established in Poland and active in the main sectors of collaborative economy. The focus on Polish companies was perceived as a possibility to observe the firm development from its beginning in the local environment as oppose to the analysis of international or global platform and initiatives transferred from abroad. The local character of analyzed cases was to illustrate the cooperation between local stakeholders and the inclusiveness principle. After the initial desktop research, we decided to exclude three sectors from the previous list: hospitality—main platforms used in Poland are global ones—entertainment and knowledge sharing, for the same reasons. So, we selected case companies from mobility, crowdfunding, foodsharing and crowd-based microtasking. Third, business activities delivered by case companies should integrate profitability with issues related to the natural environment, societal development, or other social concerns. There are a lot of initiatives in the collaborative economy which are rather small and are concentrated on one particular goal, there are not for profit entities as well, those are not fulfilling our research goals. Fourth, selected cases should be the most well known in their sectors among users, with some potential for further development. In fact, all selected companies are well-known on the Polish market, their founders are taking part in public debates as experts on collaborative economy. The sample is intentionally selected according to those four criteria and needs of the study. Our purposive sampling strategy was aimed to represent a wide range of perspectives and business models. At this stage, direct interviews were not conducted in the research process. To make a good selection of cases we reviewed literature and consulted experts. Following the Yin's approach (2009) the case study analysis was based on secondary data of publicly available documents from company webpages as well as supplementary

documents on the company history, functioning and present activity. The analysis of collected materials was conducted to provide answers (Quinlan et al. 2015; Cooper and Schindler 2014) to the following research questions:

- How does the company work?
- What kind of value does it produce (social, environmental, sustainable)?
- To whom is the value produced (stakeholder group)?
- What purpose with respect to SDG does the firm meet?
- What kind of governance structure dies the firm adopt (e.g. User-centric, task-oriented, local interaction, co-creation)?
- What is the level of integrity?

3.5.2 Shared Mobility

3.5.2.1 InOneCar: Carpooling in the City

InOneCar.com is a portal to support and promote the idea of carpooling, connecting the drivers with passengers, which can reduce travel costs, protect the environment and socialize. InOneCar was created as otodojazd.pl by a couple Szymon and Katarzyna Banas and starting its real services in 2014. At first, they were part of the Academic Incubator, an organization backed with public funds. After several changes concerning investors and partners, the mobile application InOneCar became one of the most often downloaded application in the travelling category in Poland.

InOneCar.com started to use the route searching engine which is entirely based on the geolocation on the whole route. This makes possible to look for offered rides along the route, not only through the destination points. The in-build mechanism of assessment creates conditions in which people can trust each other, and in which the rules of fair exchange can be executed. Business model of carpooling platform assumes taking small fairs from all service users. Both the web service and mobile application is not free of charge for the clients and requires subscription fee payment. The system automatically charges finished rides, transferring money between driver and passenger. The reservations need to be confirmed before a ride.

The offer directed at institutional clients, including universities, has tailored solutions easy to implement as a part of employee engagement projects, and tracking an environmental impact. In the case of corporate clients, they deliver ready-to-use software to companies for employee carpooling, including the possibility of obtaining statistics regarding not only how much money has been saved or kilometers travelled, but also the amount of reduced CO_2. It can minimize time of commuting, the cost of parking places rented by the firm, reduces the amount of company cars, as well as fuel costs. It contributes to the better communication among employees from different parts of the company. Service for firms help to defuse the commute related traffic in the city centers, therefore can rise the quality of public spaces. On the

contrary to major sharing mobility initiatives of its' kind, it works mostly in urban areas, where problem of air pollution is particularly severe.

3.5.2.2 Jadezabiore.pl: Transporting Parcels as On-Demand Ride Service

Jadezabiore.pl is an open web-based portal created by Wojciech Szulc which supports the process of connecting people with the aim to help them send and transport parcels. The portal has tailored tools available for communication to connect people who travel by a variety of means of transportation and who want to decrease their travelling costs by collecting parcels, with people who are looking for a fast and inexpensive way of sending parcels.

The most important part of the portal is a verification system which can assure guarantee for both sides: the person sending a parcel and the driver. Registration in the portal is voluntary and free of charge but the portal provides both non-payable and payable services. High security standards are aimed at providing solid ground for trusting other people using that platform. The place where the parcel is collected from and delivered to must not leave any doubts regarding the intentions of either of the sides. The degree of verification is visible in a personal profile and can increase individual credibility. Having completed each route one should comment on it and fairly evaluate its course. Comments are essential elements in the process of judging user's credibility as they result from direct contact and they reflect mutual relationships.

In the marketing campaign, the company uses mostly the financial argument, saying: through taking a few parcels or letters per month to a place you were going anyway, you will regain travel costs or more. But like every sharing mobile service Jadezabiore.pl creates environmental value as well. If a user wants to transport a parcel in her vehicle, she must create a special form with all data on a type of vehicle (it could be bicycle or even truck), what she can transport, the route, date and time, etc. If a user wants to send a parcel, she must do the same, providing all necessary data. The final step is making choice of an offer from the portal.

3.5.3 Foodsharing

3.5.3.1 Eataway: Shared Meals Globally

Eataway is an online community where hosts can invite guests from all over the world to eat at home. It is an entrepreneurial start-up established in Krakow, south of Poland, by a young couple Mark and Marta Bradshaw in 2015. The idea was to gather local amateur chefs around the city on one internet-based platform, announce the time and place—usually private flats—along with what's on the menu, and ask guests to sign up and pay. The website is not only a database of cooks and meals, but

also has a sense of community. Few months later, it became a world community with offers from different cities around the globe. It is now translated into 16 languages. Today, over 500 cooks in 73 cities around the world have opened their doors for guests. Cooks' ratings are visible on the platform, and food from various parts of the world is mostly prepared by people who are natives. Everyone can sign up online, select a city and then choose a dinner.

Eataway has created and operates the platform for the listing and exchange of information about meals and hosts, enabling meetings with people to share meals. Everyone can be a host or a guest. For some cooks, it is a professional, income-oriented activity, but there are a lot of amateurs as well. They would like to share some spare food, especially after weekends or family holidays. In exchange for the booking services, Eataway receives commission equal to 15% of the price of the meal indicated by the host on the website. The commission is deducted by Eataway from the price for a meal paid to Eataway by a guest through the website.

3.5.3.2 MyYummie: Socializing the Meals

MyYummie.pl is a shared meals platform, like Eataway. Established in the mid 2016 by Paulina Zielinska, Ph.D. student from the Warsaw School of Economics, MyYummie operates in several cities in Poland. Everyone can invite guests for a meal but also can offer some additional home-made products for neighbours. Every host can share on the platform more information concerning its place, personal activities, other guests already invited. Everything can be shared: single meals, recipes, baked goods, or multi-course feasts. The person who arranges the meal gets a notification of who has applied for the meal and may accept or reject such application. The host may not agree to have a guest signed up for the meal.

Inclusive and ecological cooking with MyYummie could be an important tool for socializing the neighbourhood: nothing will be wasted, and the guests will pay for their portions. The concept of neighbourhood cooking promotes healthy, ecological and affordable food, social relationships, sensitivity to the problem of marginalization of the elderly, and the problem of food waste. It allows ordinary people to earn an additional part of their salaries, scholarships, pensions, or just have access to a tasty, healthy and cheap meal in the neighbourhood.

3.5.3.3 RanoZebrano: Local Food Delivery Platform

RanoZebrano is an internet-based marketplace for food products but according to the declarations of its founder Przemek Sendzielski, a political scientist and social activist, it is an attempt to change the food distribution system in Poland. It is not only about shopping—the idea is to build a conscious society and local cooperation between suppliers and customers. Buying products this way means that everyone can influence local community in a significant way. Main idea of RanoZebrano is to guarantee access to healthy, fresh and ethically produced products for customers.

The organization was created in April 2014 in Warsaw. It cooperates with verified and reliable suppliers—50 farmers from the surrounding region, delivering only the best products, straight from the producer to customer doorstep. The platform offers over 800 products from different categories: fruits and vegetables, eggs and dairy products, bread, sweets and baking, dry goods, oils, drinks and preserves, honeys, meat and fish, herbs and spices and semi-prepared foods. Products offered are seasonal—one cannot find certain fruits and vegetables out of their harvesting season. The organization focuses on cooperation with robust and ecological farmers and food producers—small and medium size enterprises.

The business model is based on the sales commission and delivery fees. Agreements with farmers are made based on sales commission. By buying at RanoZebrano, everyone can support local farmers. The customers know exactly where, who and in which conditions produces the product they order. There is a possibility to get in touch with every supplier. Products for RanoZebrano do not need to have certificates, and it makes them cheaper than those with the "eco" label.

The products are picked up directly from the suppliers, no further than 100 km from Warsaw, early in the morning according to individual customer orders and delivered to customers only twice a week, so the eco-footprint is cut down to a minimum. The supplier knows exactly how much is ordered and only this amount is pulled out from the field. The packages of products can be returned. Apart from deliveries to homes and workplaces, there is also a possibility to pick up an order from one of five coolomats (special refrigerators) located in easy accessible public places in Warsaw.

3.5.3.4 LokalnyRolnik: Local Support for the Healthy Lifestyle Promotion

LokalnyRolnik, owned by Farmer Direct Ltd. is another platform for food producers. The business model is based on local groups, informal cooperatives run by selected participants. LokalnyRolnik is a community of over 70,000 families in 200 cooperatives in several cities in Poland. It offers more than 1000 local products. It was founded in September 2013 by Sylwia Slawinska and Andrej Modic. The idea of the service came from the family daily life problems—their daughter suffers from food allergies and reacts very badly to any preservatives or enhancers. They discovered that only day-to-day access to natural food, without any preservatives, can help them survive. They started to look for funds, and accidentally in 2015 the most well-known Polish football player Robert Lewandowski with his wife (Protos Venture Capital) became the main investor in LokalnyRolnik. Currently LokalnyRolnik is an organization actively promoting natural food, cooperation at the local level and sustainable lifestyle. It is also a profitable company, with growing sales and growing number of paid local coordinators. Group purchase is a cheaper and more comfortable option for having a constant access to the local, natural, organic food—not only fruits, vegetables, meat, eggs, milk products but also specially prepared ready meals.

The group is placing an order and the products are delivered to a selected place, like local cafeteria. A minimum order value is set at 100 euros for the group. There is a special role for a local coordinator or leader who can form a group of at least 20 participants and find a place for deliveries once a week. But the main role is to be an adviser for healthy lifestyle for the group of people, encouraging new members. Coordinator could have a support from LokalnyRolnik staff in the form of knowledge, tools for self-organizing activity and promotional materials. It is a paid work with the working time of several hours per week.

3.5.4 Crowdfunding

3.5.4.1 Beesfund: An Effective Tool for Crowdinvestment

Beesfund.com was founded in 2012 in Warsaw by Arkadiusz Regiec, a lawyer, as the first Polish equity crowdfunding portal. Beesfund enables to describe entrepreneurial projects, to promote it and to legally raise funds for further development. The main source of income are fees and commissions that are paid for conducting projects on Beesfund.com. Beesfund Inc. also provides additional services for project authors, the company offers legal and marketing services and business support. The Beesfund portal itself was developed with the help of funds from internet users in exchange for stocks.

The platform is an easy-to-use tool that helps to collect funds from individual investors. These investors are interested in a successful development of their investment and may therefore work as marketing agents through word-of-mouth and by sharing information online. It can be a good start for attracting other investors and to get publicly traded at the stock exchange. To minimize information costs, Beesfund and other equity crowdfunding platforms may offer a promising substitute for traditional investment possibilities since the individual investors do not have to be searched but they simply enter the online equity crowdfunding platform depending on their own interest. On the other hand, it is also a chance for company employees to become shareholders of an enterprise in which they are employed, and for other small investors—normally they have not enough capital to invest individually in start-ups and dynamically developing companies.

Beesfund creates a real alternative on the Polish market for access to capital by small and medium-sized companies seeking financial support. This is a form of crowdfunding based on private equity, allowing, according to the Polish law, to collect up to 100,000 euros for the development of the company in a short period. Platform can fill the capital gap, which causes many important business ideas to not be able to start. The development of equity crowdfunding platforms, which are open for investments from individual, non-accredited users is heavily dependent on the national legislation and readiness of the market for new solutions and projects.

3.5.4.2 mintu.me: Crowdfunding Platform for Sustainability

mintu.me is an initiative created by The Sustainers to integrate the market of environmental products and s and to promote conscious consumer choices, healthy lifestyle and ethical and responsible business. mintu.me merges sales with development of environmental and social products and services through tools enabling to collect information and funds from its users. It is open for authors of crowdsourcing projects based on the inclusion and inspiration from the crowd, but also for projects looking for financial support, concentrated on socially minded and environmentally engaged products or services.

The mintu.me community is still rather small but it can be a powerful tool to promote social and environmental project and to engage citizens and local communities in educational campaigns. The effectiveness of a crowdfunding campaign depends on people from the crowd at the platform and on how much they believe in the idea that is being crowdfunded. Crowdsourced projects are based on the open innovation process, so it allows people to submit ideas how to make a project more sustainable or to respond to a specific list of expectations prepared by initiators.

3.5.5 Microtasking

3.5.5.1 TakeTask: Online Collaborative Labor Marketplace

TakeTask is the first Polish service which uses advantages of crowdsourcing for performing microtasks in market research and other projects. It is active on the market from the end of 2015 and is running by Sebastian Starzynski. TakeTask has established a strategic cooperation with ABR Sesta—research institute set up in 1996 as a company specialized in conducting retail audits and shopper behavior studies. Since 2016 it has been an exclusive Polish partner of Information Resources Inc., one of the biggest research and Big Data agencies in the world.

Thanks to the community of thousands of registered users TakeTask enables quick implementation of every project working with several most popular consumer brands. Projects implemented with TakeTask agents are less expensive compared with traditional ones and they can reach hundreds of cities in Poland in 1 day using photographic documentation, GPS location data or a double-check system controlling effects of users' work. Reducing the cost of projects TakeTask also helps to create affordability in the market research by including entities for whom traditional methods were too expensive.

For users TakeTask is a source of an additional income—apart from different attractive forms of gamification—which can be earned during someone's free time and which is not time-consuming. Users have access to simple definitions, distribution of tasks, instructions on the smartphone. They are also TakeTask community members with an offer for several additional challenges and competitions, involvement in social activities. While performing tasks users can become promoted in the

hierarchy, receiving not only payment but also experience points. Thanks to that they have access to additional benefits.

The main expectation from a typical corporate customer is to have a fast and inexpensive implementation of micro tasks or simple audits in geographically dispersed areas. The biggest advantage for business is the flexibility of TakeTask: companies have access to an on-demand workforce that could be easily scaled up and down according to their needs. For the business customers, it is possible to monitor the implementation of each project through the online system, analyze reports and pictures online and export them in real time. Customers are receiving selected and analyzed data, transparent and detailed feedback concerning the project. TakeTask can also be a mobile tool for commissioning and reporting performance of tasks within the organization. In this case customers can outsource tasks to a closed group of users who are their employees.

3.6 Discussion

The analyzed case studies illustrate the combination of the concept of sustainable business and the organizational flexibility offered by the business model of collaborative economy. They constitute a integration of sustainability, economic, environmental and social value and represent the value delivery to different constituencies such as uses, local community, owners, general crows. The overview of the analyzed cases in presented in Table 3.1.

As shown in Table 3.1 adopting a various governance structure and revealing different degree of integrity, these cases fulfill selected sustainable goals according to the UN framework. The discussion of the cases with respect to is UN Sustainable Development Goals provided below.

3.6.1 Shared Mobility

Shared mobility already has a transformative impact on many global cities and societies by enhancing transportation accessibility, while simultaneously reducing negative environmental impact and personal vehicle ownership. The clear purpose for that industry is Sustainable Development Goal 11 on building sustainable cities and communities. It can take different forms, with classic carsharing—especially in the case of electric cars in big cities, ridesharing (carpooling) and on-demand ride services (microtransit), ridesourcing or app-enabled taxi services, but also or bikesharing.

Many benefits have been reported from the use of shared mobility modes (Deloitte 2014; PWC 2015). Cost savings and convenience are frequently cited as the most popular reasons for shifting to a shared mode (Belk 2014). People driving together to work are less exposed to stress, easily get to know each other and are

Table 3.1 Business models of analyzed cases

		Type of value	Value for whom	Purpose	Governance structure	Integrity
Shared mobility	InOneCar	Sustainable	Local community	SDG11	User-centric organization	Medium level
	Jadezabiore.pl	Economic + environmental	Users	SDG11	Task-oriented structure	High level
Foodsharing	Eataway	Economic + Social	Users	SDG11	Local interaction	High Level
	MyYummy	Sustainable	Neighbourhood	SDG12	User driven cooperation	Medium level
	RanoZebrano	Sustainable	Users	SDG12	Stakeholder cooperation	Medium level
	LokalnyRolnik.pl	Sustainable	Local communities	SDG12	Local interaction	Medium level
Crowdfunding	Beesfund	Economic + Social	Diverse stakeholders	SDG9	Co-creation	High level
	mintu.me	Sustainable	Crowd	SDG9	Co-creation	Medium level
Microtasking	TakeTask	Economic + Social	Owners + users	SDG8	Issue-centric organization	Low level

more motivated to work. Shared mobility has an important potential to build social capital. When two or more people decide to travel together in a single car, it is also a practical way to share transport costs and reduce road congestion. These platforms create new social ties and communities and contribute to the quality of life, especially in the case of commuters, who can significantly shorten time of the travel from home to work and back.

Shared mobility potentially helps to bridge gaps in existing transportation networks and encouraging multimodality by addressing the first-and-last-mile issue related to public transit access. Environmental or sustainable values and motivations are secondary principles, re-discovered in the process of business development, and used instrumentally, mainly in the external communication.

InOneCar uses the measures for environmental impact as an incentive tool in their software for firms. It is a CO_2 reduction calculator, showing how much CO_2 was reduced thanks to the carpooling. Based on the results prizes are given to the most active car poolers. They also analyze the data from the website, regarding the number of kilometers travelled by users, and convert that to the reduction of CO_2. Their recent campaign "Don't carry air, clean it" was an appealing response to protests from residents in Cracow, the city heavily exposed to smog.

3.6.2 Foodsharing

Foodsharing is a proposition which can promote alternative ways of responsible and sustainable consumption (SDG 12), with the goal of reducing food waste at home. It provides also a clear social value; there is a chance to make friends with the host and fellow participants that a formal meal in a restaurant simply can't offer. It is a valuable social experience when people from different backgrounds meet and food itself is in the background. It can build local communities, especially for people travelling between big cities, where no-one seems to have as much time for each other as they used to.

Introducing collaborative economy principles to food delivering and consumption may represent an effective way to provide some benefits from sustainability perspective. Foodsharing can contribute to sustainability both environmentally, socially and economically. An increasing number of foodsharing enterprises have been spreading across different countries. Sharing food cooperating with other peers on a web-based platform may leads to benefits for the environment, local government and household savings.

It is a significant element of a new pathway towards sustainability lifestyle. Peer-to-peer platforms can be more environmentally friendly by increasing usage efficiency, reducing waste, declining CO_2 emission, incentivizing better products, and by absorbing the excess of production and consumption. It allows to decentralize production and consumption systems and provides an outlet for surplus or underutilized food. It can bring additional social benefits through engagement, building

trust and enhancing community values and social cohesion. For a growing number of people, sharing food solutions can provide an additional source of income.

3.6.3 Crowdfunding

The concept of crowdfunding is based on the idea of crowdsourcing where a large group of individuals (the crowd) is used to generate input in different forms. It could be a feedback, suggestions or financial resources for new projects. The small contributions provided by many individuals are collecting via an online crowdfunding platform instead of using traditional financial institutions as intermediaries. Projects presented on these platforms can produce the so called "presumers", customers who want a product before it is produced—they may generate preorders through financial contribution to be the first users. The urgent need for sustainable solutions among users may become bigger driver for willingness to participate in those projects that deliver resilient infrastructure for living, promoting sustainable industrialization and foster responsible innovation (SDG 9) than in pure commercial cases. It allows citizens to engage directly in driving sustainable change by supporting, for example, projects with a strong, sustainable value. Some community projects could be driven via the entrepreneurial ideas of members of this community.

By using crowdfunding platform, companies increase awareness for their project and its visibility and thereby enlarge the pool of potential investors who can fund their projects. Crowdfunding can occur in different types: donation-based, reward-based, credit-based or an investor-model which encompasses an equity-based or debt-based model and a form of profit-sharing. Additionally, by using platforms to generate funds, geographic boundaries can be eliminated or reduced since funds will not only be given by individuals or institutions located closely to the fundraisers but can be received from any person.

Many start-ups and existing SMEs in Poland experience difficulties when trying to raise funds in traditional ways for sustainability projects. By exposing an appealing idea to the public through a crowdfunding campaign, the idea will also receive feedback from the public. This can help to validate an idea as well as adapt it to the target group's preferences based on suggestions from the crowd. By engaging with the crowd, entrepreneurs also establish social connections with individual, small investors, which may contribute to a successful idea realization. Crowdfunding can open new possibilities for entrepreneurs, but also can raise specific demands from the crowd. These demands may influence the business model, sustainability value, design of the product or service.

3.6.4 Microtasking

Service that links skilled people with customers' needs is a special form of crowdsourcing. Microtasking is a practice that breaks a larger, complex job into small, well defined tasks and uses a crowd of workers to complete them individually. This kind of crowdsourced platform is a promising practice for different projects such as: data validation, research and organization of contact information, writing descriptions, making photos of selected products, etc. Tasks must be small and repetitive, easy and quick to fulfill, but not too simple that they can be automated. Speed is also a plus for microtask development: as platforms easily connect and spread the tasks, they will have thousands of tasks completed in few minutes, with high quality and cost effective results.

Microtasking is sometimes criticized due to the workers' treatment, insufficient monitoring of labor rights and the lack of assuring the minimal wage. Since workers are only paid for their small tasks, they have rather no idea about how their work is used for. Majority of the services pay little for each task and one can earn depending on the speed of the completeness of work. It is necessary to underline that this type of engagement should not serve as the prime employment, it is rather a way to obtain additional financial resources, especially for those having free time after school or permanent work. It can also enhance the quality of life in the most marginalized areas and help people have better access to work opportunities.

The future development of microtasking is to provide platforms for local communities to share some small tasks for each other. TakeTask is already involved locally in several initiatives. Task takers are mostly young educated people, completing their tasks in response to needs of older people in the community listed on the platform. They can browse the tasks and decide on a voluntary base which tasks they want to do. For companies like TakeTask the main purpose is to promote inclusive and sustainable economic growth, employment and decent work for all (SDG 8). The value created and delivered is rather in the economic and social areas. But the business model itself is promising especially as an answer to all threats presented as a part of future of work discussion.

3.7 Conclusion

The concept of a business model offers an opportunity to operationalize the idea of sustainable business in the organizational setting. With the analysis of the business structure and the identification of process and components which reveal how the value for different constituencies is created and captured and how the revenues are generated, the detailed description of a business model allows to understand the most challenging aspects of implementation the principles into business practice.

Our analysis is conceptually embedded in the assumptions that sustainable business models must follow the framework of building stakeholder capital through

inclusiveness, fostering innovation to address social or environmental challenges and focusing on at least 1 of 17 UN sustainable development goals (SDGs). In addition, to identify a company as a once adopting a sustainable model it needs to construct an ethical infrastructure and assure for high integrity while improving social, environmental and financial performance. As shown in our case study analysis companies operating in different sectors address these five dimensions creating shared value, addressing expectations of various constituencies while adopting different models of governance and revealing different levels of integrity. We believe this case study analysis being heavily embedded in the practice of sample companies shows a direct translation of sustainable business principles into operationalization and implementation at the firm level.

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Chapter 4
Examining the Interplay of Social and Market Logics in Hybrid Business Models: A Case Study of Australian B Corps

Wendy Stubbs

Abstract Traditional approaches to sustainability, such as philanthropy, corporate social responsibility, and product innovation are insufficient to radically transform business and society toward genuine, substantive sustainable development. New hybrid business models are emerging that employ market tactics to address sustainable development issues. B Corps are a hybrid organization exemplar, blending traditionally for-profit practices with traditionally non-profit practices to address social and/or environmental issues. This chapter provides insights into how B Corps integrate for-profit (market logic) and for-purpose (social logic) considerations into their business models, drawing on interviews with 15 Australian B Corps. The research study found that social and market logics are strongly integrated in some areas (e.g., mission, recruitment and marketing) but trying to balance these two logics has created tensions and conflict in other areas (e.g., ownership structure, performance measurement, sales and distribution, product design and development). The findings emphasize the importance of creating a common organizational identity that strikes a balance between the logics to moderate conflict and one logic dominating over another. The B Corps are attempting to do this by instantiating the market and social logics in their missions, recruitment and socialization practices (remuneration, communication and training practices).

4.1 Introduction

Business activities are blamed for being the root cause of many environmental and social problems (Schaltegger et al. 2016b) and for destroying life on earth (Hawken 1993). As such, business as the major economic engine, must not only be part of the solution, but be instrumental in leading the way to a more sustainable society (Hart 1997; Robinson 2004). This requires a fundamental shift in the purpose of business and the business model (Bocken et al. 2014; Roome and Louche 2016; Stubbs and

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Cocklin 2008) such that the core of business, and the underlying business model, is sustainability-oriented (Schaltegger et al. 2016a).

Traditional approaches to sustainability, such as philanthropy, corporate social responsibility, and product innovation are insufficient to radically transform business and society toward "genuine, substantive sustainable development" (Schaltegger et al. 2016a: 3). Tweaking the business model to address the demands of sustainable development is inadequate as this approach does not fundamentally change the way business is conducted (Rauter et al. 2017; Stubbs and Cocklin 2008). Until recently, attempts to define a business model that prioritizes sustainability did not involve a radical change to the prevailing economic-focused business model (Birkin et al. 2009).

Common-good mission-centred (Boyd et al. 2009) models of organizations that capture economic value while maintaining or regenerating natural, social, and economic capital are emerging to address this issue. These "hybrid" organizations "employ market tactics to address social and environmental issues" (Hoffman et al. 2012: 133). Hybrids incorporate elements from different institutional logics—the market and social logics—to create and deliver economic, social and environmental value to their stakeholders. Under a social logic, an organization pursues social goals to create public goods that benefit society, whereas a market logic emphasizes profit maximization, efficiency, and operational effectiveness (Lee and Battilana 2013; Smith et al. 2013). Each logic encompasses distinct institutional structures: a social logic is philanthropic and utilizes a non-profit legal form while a market logic is dependent on revenues and profits and utilizes a for-profit legal form (ibid.).

One form of hybrid model that is challenging business-as-usual is the 'B Corp' model. B Corps have a dual social and economic purpose, as opposed to the single profit maximisation purpose of business-as-usual. B Corps combine market and social logics to achieve their vision of "people using business as a force for good" in order that all companies "compete not just to be the best in the world, but to be the best for the world" (B Lab 2014). While little research has been conducted on B Corps, they provide interesting sites for studying how organizations integrate for-profit (market logic) and for-purpose (social logic) considerations into their business models (Stubbs 2017b).

In responding to calls for more research on business models for sustainability that contribute to a sustainable society (Boons and Lüdeke-Freund 2013; Schaltegger et al. 2016a), this chapter draws on interviews with Australian B Corps to analyse the challenges and tensions that arise in implementing a for-profit, for-purpose business model.

The main contribution of this chapter is to provide insights into how B Corps attempt to break down traditional boundaries prescribed by the market and social logics (Battilana and Lee 2014). B Corps shed light on how hybrid organizations combine multiple logics in innovative ways (ibid.: 424) to incorporate sustainability into the core of the business. Identifying how B Corps address the challenges of integrating for-profit and for-purpose missions increases understanding of how companies can better align the generation of profit and social impact (Santos et al. 2015).

The next section of this chapter provides background information on B Corps and the institutional logics literature, which informs the analysis of the B Corp model. This is followed by a discussion of the research methods and the findings from the research study. Finally, the chapter concludes with reflections on how B Corps contribute to understanding how hybrid organizations combine for-profit and for-purpose considerations into their business model.

4.2 Literature Review

B Corps are a hybrid organization exemplar, existing at the interface between non-profit and for-profit business models (Holt and Littlewood 2015), blurring the boundaries between these sectors (Battilana and Lee 2014; Haigh and Hoffman 2012). Santos et al. (2015) argue that the central challenge for hybrids is to reconcile competing expectations of value capture for owners/shareholders and value creation for beneficiaries. Hybrids that prioritize social performance over financial performance may not survive while hybrids that prioritize financial performance over social performance could drift from their core social mission. This could have substantial consequences for the beneficiaries they are aiming to serve. Organizations that are able to manage these trade-offs, and prosper, offer important lessons (Santos et al. 2015).

4.2.1 B Corps

B Corps are members of a voluntary association, or movement (Stubbs 2017b), and are subject to an independent assessment and ratings standard. They are certified by B Lab, a non-profit organization founded in 2006 in the USA. B Lab aims to build a community of certified B Corps, advance public policies and regulation to accelerate growth of this sector and help drive institutional investment in these types of organizations (Marquis et al. 2011). B Corp certification requires a business to complete an Impact Assessment, which assesses the social, environmental and economic impacts of the company on its stakeholders. A business submits documentation to support its claims, completes a disclosure questionnaire, revises articles of incorporation or governing documents as necessary, signs the B Corp Declaration of Interdependence and Term Sheet, and pays an annual fee based on annual sales of the company (Stubbs 2017a). Formalising the change in the corporate charter provides some guarantee that the company's values will remain intact even if there is a change in owners or investors (Hickman et al. 2014).

A business must earn a minimum 80 points out of a possible 200 points in the assessment to become certified. B Corps recertify every 2 years and 10% of certified B Corps are randomly audited each year. B Lab claims that "B Corp certification is to sustainable business what LEED certification is to green building or Fair Trade

certification is to coffee" (B Lab 2014). In agreeing to the provisions in the Term Sheet, a B Corp enters into a private contractual agreement to act as required to consider broader stakeholder interests (Stubbs 2017b).

There are over 2100 B Corps across 50 countries and 130 industries. The B Corp model has emerged, in part, in response to recent global financial crises and low levels of trust in corporations (Hiller 2013; Koehn 2016), as well as from the willingness of social entrepreneurs to be less dependent on donations and subsidies (Battiliana et al. 2012). Hiller's (2013) high level review of 78 certified B Corps in 2012 found that they are almost all privately held companies, covering a very broad range of products and industries. She concluded that the B Corp model could be utilised by organizations in any industry. To date, the B Corp model has primarily been adopted by small privately owned companies rather than large complex corporate entities (Chen and Kelly 2015). Practitioners and academics propose that hybrids such as B Corps are altering long-held business norms and conceptions of the role of business in society (Alberti and Varon Garrido 2017): "a new corporate model for a new century" (Sargsian 2012).

B Corp certification commenced in 2012 in Australia, where this research was conducted. By 2017, the number of B Corps in Australia had grown to over 190. They cover a wide range of industry sectors, including: financial services, consulting services, investment advice, business products and services, building design and development, human resources recruitment, film and music production, consumer products and services, media/print publications, social clubs, marketing and communication services, renewable energy services, and, IT software and services. They are all small organizations, with fewer than 100 employees and mostly privately owned.

4.2.2 Institutional Logics

Institutional logics has been used in prior studies to investigate hybrid organizations, such as social enterprises (Battilana and Lee 2014; Besharov and Smith 2014), social entrepreneurs (Mars and Lounsbury 2009; Tracey et al. 2010) and microfinance organizations (Battilana and Dorado 2010), and only recently B Corps (Stubbs 2017b). This study uses an institutional logics lens to examine how B Corps integrate sustainability into their core business strategy and practices, and the tensions they face in doing this.

The concept of institutional logics traces back to Friedland and Alford (1991) who argued that society is composed of multiple institutional logics—sets of material practices and symbolic constructions—which constitute organizing principles that are available to individuals and organizations as bases for action. Institutional logics comprise assumptions, values, beliefs, and rules that shape cognition and behaviour (Besharov and Smith 2014) and provide "formal and informal rules of action, interaction, and interpretation that guide and constrain decision makers in accomplishing the organization's tasks" (Thornton and Ocasio 1999: 804, 806).

Logics encompass distinct institutional structures. A social logic is philanthropic and utilises a non-profit legal form while a market logic is dependent on sales revenues and utilises a for-profit legal form (Smith et al. 2013). For example, not-for-profit (NFP) organizations prioritise the social logic over economic goals. However, NFPs are increasingly establishing for-profit enterprises to provide a self-sustaining stream of profits to fund their philanthropic activities (Chad 2013). This decoupling, or segregating, of logics (Pache and Santos 2010), allows NFPs to uphold meaning and policies that conform to the social logic but also implement practices based on the market logic. In contrast, hybrids try to combine (ibid.), or blend (Thornton et al. 2012), sometimes competing logics. Hybrid organizations combine activities from market and social logics to secure endorsement from a multitude of stakeholders and to create a common organizational identity that strikes a balance between the logics (Battilana and Dorado 2010).

Combining multiple logics can lead to more innovative and enduring organizations, but it can also lead to "stuckness" or oscillation between logics (Jay 2013) which places multiple and often divergent pressures on hybrids (Battilana and Lee 2014). The literature suggests hybrids experience "prevalent and persistent" tensions between their social mission and commercial activities (Smith et al. 2013: 414) which could threaten performance and survival. This is described as "institutional complexity", where organizations experience multiple pressures and tensions from "incompatible prescriptions from multiple logics" (Greenwood et al. 2011: 318).

Tensions can lead to goal displacement, mission drift and then drifts toward mainstream forms, which could threaten organizations' hybrid natures (Battilana and Lee 2014). Battilana and Lee (p. 413) propose that the level of integration between social and commercial activities affects the degree to which hybrid organizations experience tensions between their multiple logics as "integrated activities circumvent potential paradoxes in the allocation of human, financial, and attentional resources".

Even if hybrids are able to avoid internal conflicts, they are constrained by the need for legitimacy to secure support and resources from their stakeholders who may represent competing logics (Pache and Santos 2013b). McMullen and Warnick (2016: 14) suggest that hybrids may seek certification, such as B Corp certification, to gain legitimacy with their stakeholders and assure them "that their actions support their rhetoric".

Combining logics in hybrids can result in organizational instability from power struggles among internal and external stakeholders adhering to different institutional logics (Jay 2013). Managers can moderate conflict and one logic dominating over another through creating a common organizational identity that strikes a balance between the logics. This prevents sub-groups from forming that exacerbate tensions between the logics (Battilana and Dorado 2010). Creating a hybrid organization identity depends on the extent to which the market and social logics are instantiated in core mission and business practices, rather than a single logic dominating with the other logic more peripheral (Besharov and Smith 2014). Important elements in building a common identity in hybrids are hiring and socialization practices, organization design which enables managers to translate strategy into action, incentives

and control systems, and governance systems (Battilana and Dorado 2010; Battilana and Lee 2014; Besharov and Smith 2014; Jay 2013).

4.3 Research Methods

Since little is known about B Corps and how they align the generation of profit and social impact, a qualitative exploratory study was appropriate (Belz and Binder in press; Blaikie 2000), using in-depth, semi-structured interviews with Australian certified B Corps.

There were two phases of the research. The first phase consisted of interviews with one person from 14 Australian B Corps. Due to potential issues of confirmation bias from only interviewing the B Corp 'champion', the second phase was a case study of one of the largest B Corps in Australia to incorporate multiple perspectives from different functional areas. All interviews were of the duration of 60–75 minutes and were recorded (with consent) and transcribed to aid the analysis process. The interview data were supplemented with secondary data from company reports, documents and websites.

4.3.1 Data Selection and Collection

4.3.1.1 Phase 1

At the time of the first phase of the research (2014), 19 B Corps were operating in Australia. 14 of the 19 B Corps were available for an interview, including one company listed on the Australian Securities Exchange (ASX). In-depth semi-structured interviews were held with the founder/director or the person responsible for driving the B Corp agenda in each of the participating companies. The aim was to talk to the person who was leading the B Corp initiatives.

Thirteen were face-to-face held at participants' offices and one was via phone. The semi-structured interview protocol covered: participant's background; how they describe their business model; the purpose of their business; the sustainability issues the business addresses; the motivation for certifying as a B Corp; the significance of the B Corp model to the business success; the degree to which the company has changed its strategy, approach and business practices; how it measures success; how it balances economic, social and environmental outcomes; the benefits and challenges; and, whether the B Corp seeks wider change. To retain confidentiality of participants, the organizations are grouped into three broad industry sectors (financial services, other services, products) and the names of the organizations and individuals are not identified. Codes are used to identify the participants (see Table 4.1).

Table 4.1 Summary of participants

Code	Sector	Participant role
FSCASE1	Financial services	Chair
FSCASE2	Financial services	Head of marketing and communications
FSCASE3	Financial services	Head of people and culture
FSCASE4	Financial services	Head of customer service and engagement
FSCASE5	Financial services	Business development and product delivery
FSCASE6	Financial services	Marketing
FSCASE7	Financial services	Customer service and sales
FS1	Financial services	Founder
FS2	Financial services	Executive
FS3	Financial services	Executive
FS4	Financial services	Executive
P1	Products	Executive
P2	Products	Founder
P3	Products	Founder
P4	Products	Founder
S1	Other services	Founder
S2	Other services	Executive
S3	Other services	Director
S4	Other services	Founder
S5	Other services	Founder
S6	Other services	Founder

4.3.1.2 Phase 2

B Corps that had been operating for at least 3 years and had over 30 employees were approached to participate in the study to enable a meaningful analysis of B Corp business practices, drawing on employees from different functional areas. Ten B Corps met these criteria at the time of the study (2016) and were invited to participate. Three expressed an interest to be part of the study and one agreed to interviews during 2016.

The B Corp, referred to as 'FSCASE' in this paper, operates in the financial services sector and primarily provides products and services to NFP organizations. FSCASE's vision is to strengthen NFPs and assist them to deliver social change and community wellbeing. FSCASE was established in 2002 and has over 100 employees. It is 50% owned by a consortium of NFPs and 50% owned by a for-profit ASX-listed company.

Members of FSCASE's senior management team (six people) and the B Corp committee (six people) were approached for an interview. Six people agreed to participate. They represent different functional areas of the organization. The Chair of the board of directors and the CEO were also invited to participate with the Chair accepting. This resulted in a small sample of seven participants. To retain confidentiality of participants, codes are used to identify the participants (see Table 4.1).

The FSCASE CEO left the company at the end of 2015. The new CEO commenced in March 2016. One interview was held before the new CEO commenced and six after he commenced. All interviews were face-to-face. The semi-structured interview protocol explored: participant's background; purpose of the company; motivation for becoming a B Corp; business strategy; business practices; tensions arising from for-profit and for-purpose goals; and, measuring and monitoring success.

4.3.2 Data Analysis

The transcribed interviews were coded and refined into categories to draw out key themes. The process involved three types of coding commonly used in qualitative research studies—open coding, axial coding and selective coding (Strauss and Corbin 1998). Open coding is "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (ibid.: 101). Open coding included chunks of text at the phrase, sentence and paragraph level. Codes were derived from the interview data based on the actual words or terms used by the interviewees or by summarising the concepts discussed by the interviewees.

In axial coding, "categories are related to their subcategories to form more precise and complete explanations about phenomena. … axial coding is the act of relating categories to subcategories along the lines of their properties and dimensions" (ibid.: 124). Selective coding is "the process of integrating and refining the theory" (ibid.: 143) by identifying themes that encompass the categories. The Nvivo software package was used to facilitate data coding.

The Nvivo database maintained a chain of evidence and tracked how understanding of the data was gained (Yin 1994). The interview transcripts were emailed to each participant for correction. This increases the reliability and validity of the research study (Minichiello et al. 1995; Yin 1994).

4.4 Research Findings

As discussed earlier in this chapter, it is important for hybrids to build a common organizational identity, which depends on the extent to which the market and social logics are instantiated in core mission, organization structure, and business practices (Battilana and Dorado 2010; Battilana and Lee 2014; Besharov and Smith 2014; Jay 2013). These are discussed in the following sections.

4.4.1 Mission and Purpose

Business-as-usual is epitomised by Milton Friedman's (1970) market-logic view that the only purpose of business is to maximize profits and shareholder value. In contrast, the B Corps discuss their mission and purpose primarily through a social logic frame. Their businesses are underpinned by a sustainability *mindset*, *philosophy* or *set of values*. Nevertheless, B Corps are incorporated as for-profit companies and utilise a traditional commercial business model to sell their products and services and generate profits.

> *And there's a tension in that; in order to be able to do that [social purpose] we've got to operate an enterprise that makes money and so we're sort of a cross between for profit and for purpose, for good. [FSCASE1]*

Unlike business-as-usual, B Corps do not regard profit as an end goal in itself, but rather a means to pursue social purpose ends. Profits are seen as a *by-product of getting [environmental and social] wins across the whole supply chain* [FS1]. One B Corp referred to this approach as profit with a purpose. It aims to:

> *always make the product the best we can and if we can make enough margin to sustain the business and reinvest in new products, then we're happy. [P4]*

Pursuing profits and positive societal impacts are not mutually exclusive, as B Corps believe that *there's not a polarisation between making a contribution to the community and making a profit* [S3]. Aligned with Hart (1997), two B Corps believe that business has a significant role to play in a shift towards a more sustainable society, driven by entrepreneurs such as B Corps who are willing to take the risks. Four B Corps stressed that business is the most powerful tool for social change.

Eleven B Corps' business models reflect Battilana et al.'s (2012) 'hybrid ideal'—where commercial and social activities are fully integrated—as every time a product or service is sold, the B Corp also accomplishes its social purpose. For example, B Corps that provide capital for companies creating positive social or environmental impacts, servicing marginalised communities, and, providing financial products to NFPs to enable them to achieve their social missions. Half of the B Corps talked about reducing their product margins or reducing their fees to enable them to service their customers' needs at an affordable cost. Their focus is on generating enough profits to support their social purpose:

> *absorbing as much cost as we possibly can so that we can still survive as a business without damaging the quality of the product, because we just want [people] to have access to these products. [P2]*

The B Corp model combines "aspects of established institutional logics and their associated practices and organizational forms to create a new type of organization underpinned by a new, hybrid logic" (Tracey et al. 2010: 69). This hybrid logic is epitomised by one B Corp:

> *And I think that there are a lot of businesses out there that genuinely want to do those things but I think that often that comes once success comes and then it's about, okay well now we're*

making a profit, let's give a percentage of that back to a community or let's start to do something with that, which I think is amazing. But I love the idea that from the conception of the business, you can actually be operating as a commercial business model, entity, but at the same time ensure that these principles and values are held across all the decision-making from the very early days which I think sets a really strong foundation for success, and defining new ways of success really. [P2]

Hybrid organizations need to create a common organizational identity that strikes a balance between the market and social logics (Thornton et al. 2012). The B Corp model provides a common collective identity and validates and explains B Corps' purpose and approach to stakeholders:

So for us we say the B Corporation certification is our stamp to the community, to the business world, that we are doing things in a different way; that we believe in different approaches to business and to conducting a business; that we value engagement with stakeholders; that we value best-in-class governance practices; that we value social procurement and environmental policies; that we believe that each of those measures does have an impact on the world. [FS3]

The B Corp identity provides a means to validate B Corps' vision, purpose, values and social impact. The certification process provides external, objective, recognition of the positive social impact. One B Corp suggested that it officially shows its customers, staff and shareholders what they stand for and instills a sense of pride in *who we are and what we're trying to do* [FSCASE1]. The B Corp certification is an important signaling element to stakeholders about the organization's goals and motivations and provides legitimacy (Pache and Santos 2013b) for B Corps' for-profit, for-purpose approach. This is illustrated by feedback on FSCASE's customer satisfaction surveys where customers stated that they chose FSCASE because:

they are doing good, and because they are making a difference, and because their values are aligned with ours. [FSCASE4]

The mix of values alignment around commerciality (market logic) and social impact (social logic) also appealed to FSCASE's staff. They felt that the B Corp values and FSCASE's values were aligned with their own personal values, which was the reason why they worked at FSCASE—working with people with *like-minded* values.

Thornton et al. (2012) liken identity creation to social movements. B Corp certification enables B Corps to be part of a *club* or *tribe* that has credibility. Being part of the B Corp club also gives B Corps access to a wider community of like-minded businesses. Four participants referred to B Corps as a new *ecosystem* that provides increased opportunities for collaboration and support infrastructure. According to one B Corp:

it opened me up to a whole network of, not only like-minded people, but also people who had achieved so much and that could inspire me to do the same . . . I think I wouldn't have been able to have the kind of impact or the impact that we'll have in the future unless we were collected and nestled under one brand. [S6]

4.4.2 Structure

Thirteen of the 15 B Corps were owned and operated by the founder(s) whose personal values were aligned with the B Corp values. For the publicly listed B Corp, the social purpose was already written into its constitution so shareholders were aware of this when investing in the company. Due to the strong alignment of these B Corps' values with the B Corp model, implementing the B Corp model required few structural changes. The most significant changes were related to formalising business policies and processes during the certification process. The impact assessment process was useful for revising policies, as it incorporates best industry practice. The impact assessment prompted one B Corp to think more about its governance structure and, as a result, appointed an independent advisory council. Three others pointed to an enhanced sense of accountability:

So I feel like it is holding us to . . . do the right thing because we're a B Corp [S2].

FSCASE's structure provides more insights into the challenges and tensions within hybrid organizations that are not owner-operated. FSCASE is owned by a consortium of NFPs (Shareholder 1) and an ASX-listed company (Shareholder 2) each owning 50%, with equal representation of directors on the Board. Shareholder 2 provides the industry expertise in the products and services offered by FSCASE, while Shareholder 1 provides a deep understanding of the customers (the NFP sector). While Shareholder 2 is a publicly listed company, it has a strong community focus through a revenue-sharing model with community-owned companies. While the market logic dominates with this shareholder's focus on profitability and shareholder returns, its community engagement model suggests it also draws from a social logic.

Governance systems, particularly boards, are an essential function in managing joint accountability for both social and financial objectives and resisting pressures to ""drift" toward either social or economic objectives at the expense of the other" (Battilana and Lee 2014: 419). The ownership structure and board of directors reinforces the for-profit and for-purpose values of FSCASE, which drives the vision and mission. The participants believe that this ownership model would not work if Shareholder 2 did not have the strong focus on community values and was only focused on profits. It is committed to strengthening the NFP sector, as well as maximizing its financial returns.

Feedback from customers also reinforces that the ownership structure is a good balance of for-profit and for-purpose values which is a main factor in their decision-making:

a lot of our customers recognise that because of the unique nature of the business it's not the same as a [company] trying to just get business out of the sector, there is a thing about values and purpose which is different, and there's a juggle between being a sustainable, financially viable business and at the same time making investments in things which are for the common good. [FSCASE1]

The participants suggest that customers would be suspicious of FSCASE if it was owned 100% by a public listed company, or was a pure for-profit company.

Nevertheless, the 'juggle' between for-profit and for-purpose within this ownership structure creates friction and conflict. One person felt that Shareholder 2 had more influence, and power, over FSCASE because it also supplied the products and services that FSCASE sells and is a major distribution channel for FSCASE. While the board of directors understands the pressures within the NFP sector and what is required to support FSCASE's social impact, FSCASE staff work with people in Shareholder 2 that do not understand the NFP sector or don't value the social impact focus. This requires FSCASE to explain and justify its requests and to:

> *constantly reassure people that what we do is solid and that what we do can be financially rewarding for the organization and for shareholders, as much as it can by just doing normal business… And you do have to pitch it to them to get them across the line… that can be challenging. [FSCASE2]*

These tensions between FSCASE's and Shareholder 2's staff result from them adhering to different logics—FSCASE staff align more strongly to the social logic and Shareholder 2 staff to the market logic—which can lead to power struggles (Jay 2013).

As mentioned earlier, the B Corp model provides a structure that helps B Corps to articulate their vision, mission and values. As hybrids are "highly constrained by the need for legitimacy" and are challenged in securing support from internal and external stakeholders (Pache and Santos 2013b: 995), the B Corp model confers a level of legitimacy, as well as a common organizational identity. It provides a stamp of external validation and guiding principles to staff. To reinforce the B Corp identity, FSCASE recently formed a B Corp committee to build awareness within the organization. The committee has representatives from all business functions and meets monthly. It has developed a charter which outlines its goals including improving the areas that FSCASE is weak in, creating awareness among staff, and running information sessions to ensure that staff can articulate the B Corp model and why it's important. The committee's awareness building activities are an example of socialization practices that are important to building a common organizational identity that strikes a balance between the social and market logics (Battilana and Dorado 2010).

4.4.3 Business Practices

The data analysis identified a number of areas where the market and social logics are integrated in the B Corps' business practices: marketing and sales; performance measurement; distribution of profits (dividends); employee management; procurement; product development; and, institutional work.

4.4.3.1 Marketing and Sales

FSCASE provides examples of how it is incorporating for-profit and for-purpose messages into its marketing and communications practices. Its marketing focuses on reinforcing FSCASE's key message of strengthening the NFP sector by enabling positive social impacts. FSCASE utilises 'story telling' in its marketing practices to demonstrate the impacts and tangible results it is achieving in key NFP sectors and with specific customers:

> *So the key messages are there that we understand their needs and we understand the difficulties that not-for-profits face and we've designed this [product] to suit them... and that we're there to support them and we've developed these products to help them focus on what they need to do and we'll look after the other stuff. [FSCASE6]*

These marketing practices are important in communicating FSCASE's 'point of difference' to the NFP sector and to demonstrate the value that FSCASE provides to NFPs and their beneficiaries. The emphasis on social impact suggests that the social logic strongly influences the marketing practices. However, the participants did raise the challenge of communicating this primary message to FSCASE's distribution channels and the marketing team found that they needed to communicate in different ways to different stakeholders. While the distribution channels have a strong focus on sales revenue, the direct sales are more strongly aligned to the social logic. A customer services person argued that staff will not sell a product to a customer *just because it may look good on our books* [FSCASE7]. The customer service person argued that if they were working at a competitor, there would be pressure to sell the most profitable product, whereas they will recommend the product that is most beneficial to the customer. They noted that two people who had recently joined FSCASE from competitors were finding it difficult to reconcile the focus on impact as well as sales revenue, as they are used to selling customers the most profitable product. Pache and Santos (2013a) proposed that the extent of the influence of a logic on individuals' behaviours depends upon the availability, accessibility and activation of the logic. If an individual has knowledge and information about a logic, the information readily comes to mind and is used in interactions with others (referred to as 'identified' with that logic). If an individual has very little knowledge or information about the logic, then Pache and Santos consider them 'novice'. If an individual has knowledge and information about a logic but they have not built strong ties to it (does not come to mind first), they are considered 'familiar'. Identified people are emotionally and ideologically committed to a logic and take it for granted while familiar people understand the rules, assumptions and values of the logic but are not emotionally or ideologically committed to it. The FSCASE data suggest that the direct sales force strongly identify with the social logic but the distribution channels are familiar with the logic but not necessarily committed to it. While FSCASE's distribution channels and the new employees from competitors are made aware of FSCASE's focus on social impact, they haven't built strong ties to the social logic and the activation of the logic is not automatic (Pache and Santos 2013a). Knowledge and information about the social logic are available to them but

may not automatically come to mind and be used in their social interactions. Besharov and Smith (2014) argue that employees' use of logics is partly shaped by their extra-organizational relationships. If they have strong ties with people associated with a particular logic, such as their past employers, it can reinforce the influence this logic has over behaviour. The data suggests that the distribution channels and new employees from competitors have stronger ties to field actors associated with the market logic which reinforces the influence of this logic (Besharov and Smith 2014). This points to the need for stronger socialization practices to prevent sub-groups from forming (Battilana and Dorado 2010).

4.4.3.2 Performance Measurement and Management

Performance measurement and management systems are critical areas for reinforcing for-profit and for-purpose values, as they determine what behaviours are rewarded (Battilana and Lee 2014). While all the B Corps agreed that profits are a key measure of performance, it is not the primary focus. The priority is on the societal impact.

> *The question of how much profit is enough is subjective . . . we maintain a commitment to what we do from a social perspective, somewhat irrelevant of where we're sitting at any one time in that regard. [S3]*

The profits enable the B Corps to reinvest in their products and services to grow their businesses and, in turn, to increase their positive impacts. By avoiding the logic of single-objective maximisation (Parrish 2010), the B Corps were able to make trade-off decisions between economic, environmental and social domains, because one target was not elevated above another. Ten B Corps talked about these trade-off decisions in pricing their products and services. Pricing decisions are typically made on a case-by-case basis:

> *to produce this [organic product] is four times the price of producing a conventional [product] yet we only retail it for 20% more. So we made a decision to absorb as much margin as we possibly can so that we can still survive as a business. . . without damaging the quality of the product . . . because we just want [people] to have access to these products. [P2]*

Two B Corps adjust their prices depending on the ability of their clients to pay but:

> *making sure that our generosity doesn't get the better of us can be a challenge . . . [it's] still a balancing act. [S6]*

Eight B Corps had quantitative and/or qualitative indicators to measure their social impact performance, including feedback on keeping their employees happy, the response they get from customers, changes to public policy, the amount of avoided chemical pesticides and fertilisers, and the number of people they are educating.

> *Where it's not hard metrics that we can measure, it's more about the sense of the impact that we're making just through customer feedback, through retailer feedback and things like that. [P4]*

Integrating for-profit and for-purpose considerations into performance measurement and management practices is the most challenging area for FSCASE. The organizational performance criteria currently reflect the market logic with a focus on financial metrics to gauge the growth of the business. This includes revenue, profit and the number of customers. There is no formal process or system for measuring the social impact. At the Board level, social impact is discussed through case studies rather than metrics:

> *we make a practice of using a couple of case studies about what we've been doing with customers and what impact that's had on them, what that's done to help them generate more impact. But as for any more formal social impact measurement, no. [FSCASE1]*

The leadership team acknowledged that the financial performance measures are not adequate and *at some stage* will implement a more systematic process for measuring social impact.

4.4.3.3 Distribution of Profits

Hybrid organizations face a fundamental dilemma about whether they should distribute profit to their owners/shareholders or reinvest it in their social mission (Pache and Santos 2013b). One B Corp described the profit distribution process as:

> *retaining enough profit for growth of the business followed by staff bonuses and then dividends to the owners [S4].*

The B Corp noted that it was rare for the owners to receive a dividend as they preferred to retain profits in the business. The publicly listed B Corp determines the minimum level of return on investment that will satisfy its shareholders and reinvests the profits to help grow the business and increase the social impact. Shareholders are well aware of the focus on social performance as for-profit and for-purpose is written into the constitution.

Integrating for-purpose and for-profit considerations into FSCASE's dividend policy has created tensions. The past CEO's focus on impact over profits resulted in an inconsistent dividend stream to shareholders, with no dividends paid for a number of years. The Board at the time supported the focus on impact over dividends but this is changing with the appointment of the new CEO, a change in Board members and pressure from new shareholders for a consistent dividend stream to fund their own NFP activities. Some of the shareholders and Board are more strongly aligned to the social logic and more interested in supporting the social impact focus of FSCASE than receiving a dividend. Others are driven more by a market logic to get a return on their investment:

> *Some organizations [shareholders] being happy to make a contribution, a sort of solidarity contribution, if you like, and others actually wanting to see the financial return. So the focus is on generating some profits so that we can deliver that to them. [FSCASE1]*

4.4.3.4 Employee Management Practices

Battilana and Dorado (2010) found that hiring and socialization strategies were crucial in the process of identity formation in hybrid organizations and socialising new employees into a desired set of behaviours and values. The participants strongly identify with the B Corp model's blend of social and market logics, which "defines for that individual not only what to do but also who she is, as well as how she relates with the rest of the world" (Pache and Santos 2013a: 10). Three participants found that their B Corp status helps attract like-minded staff who are already aligned with the B Corp blended logics. For one,

> *I've had quite a few people approach us for work because we're a B Corp. I think employees are looking for those socially and environmentally conscious companies to work for and they're almost prepared to take a drop in salary to work for those rather than I guess larger organizations where they don't sort of feel like they're making as much of a difference. [S1]*

However, tensions were apparent in the two largest B Corps (S4 and FSCASE). For S4, tensions arose with remuneration:

> *I don't think people connect the fact that we're looking to be a different type of business back to reward and remuneration, for example. I think staff in their work compare themselves 100% to what their peers might be doing in other firms and not really taking into account the purpose part of the element. That maybe more about us communicating it better and more often and making them more aware of how we're different. But the whole issue around self-interest is still there I think, even within a firm that's focused on purpose and profit and around sustainability. [S4]*

As individual responses are, in large part, driven by concerns related to social acceptance and status, S4's experience suggests that staff compartmentalise the social and market logics, purposefully segmenting their compliance with the competing logics (Pache and Santos 2013a).

While hiring and socialization practices influence the logics carried by employees, they "exercise some degree of agency as they selectively draw on, interpret and enact logics" (Besharov and Smith 2014: 368). As employees ultimately enact institutional logics (Battilana and Dorado 2010), employees with strong ties to people associated with the market logic can reinforce this logic. FSCASE is in the process of updating the induction program so that new staff understand the commitment to B Corp values. However, FSCASE has only started to think about providing training for existing employees to raise awareness of why FSCASE became a B Corp and what this means for employees. While this has been communicated through company meetings, by distributing frequently asked question sheets and through the B Corp committee members to their own departments, the participants recognise the need for more formal awareness raising activities and training for all staff. The participants have encountered some resistance from people who think it is 'nice to have' but don't understand how it relates to their role. The B Corp committee is engaging with other B Corps to learn what obstacles they faced and how they may have overcome resistance as they believe it is important that all staff are able to articulate what a B Corp is and why it is important to FSCASE.

The social logic is strongly reflected in the recruitment and socialization practices in FSCASE. The interview process reinforces FSCASE's values and candidates are asked how their values align with these values. Candidates are asked about their involvement in the community and NFPs that they support. The B Corp values are now incorporated into the position descriptions for new employees. One person stated that if a candidate has all the technical skills but isn't interested in the social impact aspects of FSCASE, they are not hired. However, if they don't have any of the technical skills but are strong on social impact, they are not hired either. Another noted that FSCASE remuneration is about 10% below the median for the industry, whereas the four largest competitors are up to 30% above the median. There is a balance between paying enough to attract and retain employees and attracting people who are aligned with FSCASE's values. While Battilana and Lee (2014) suggest that it is rarely possible to hire hybrid employees, FSCASE's recruitment criteria focuses on identifying hybrid employees. However, as the situation with hiring two new staff from competitors highlighted, communication and training are important socialization practices to reinforce the B Corp values to avoid sub-groups from forming that exacerbate tensions between the logics (Battilana and Dorado 2010). FSCASE is addressing this through incorporating B Corp training in the induction program and its policy of a 6-month probation period for all new staff:

> *We have a six months' probation, which I'm really pleased about. People can behave themselves for three months, not necessarily for six. And that's where you'll start to find the chinks in people's attitudes more so than anything else. [FSCASE3]*

4.4.3.5 Procurement

Two-thirds of the B Corps have policies for working with suppliers that are aligned to the B Corp values. B Corps work closely with their stakeholders to reduce their impacts, for example:

> *So when we look at supply chain, who are the partners that we align with that don't compromise these values that we believe in; are they treated well; are they working in environments that are safe, ethical; and are we supporting them and growing together? [P2]*

The procurement policy at FSCASE strongly reflects the market logic, focusing on *getting good value for shareholders*. However, the actual process aligns more with the social logic. For example, when selecting marketing agencies, staff look for agencies that are NFPs or B Corps or whose values align with FSCASE's social impact values. Agencies that are not B Corps are asked why they are not B Corps and what their plans are. However, as one person stated, integrating for-purpose considerations into procurement decisions currently relies on 'champions' and so a structured policy is required. The B Corp committee is in the process of revising the procurement policy to formally integrate for-purpose considerations into procurement practices, reflecting the commitment to B Corps. The key areas FSCASE is focusing upon are marketing organizations, recruitment organizations, catering

suppliers and office product suppliers, but all departments have been asked to review their procurement practices.

4.4.3.6 Product Development

FSCASE is focused on integrating the social and market logics in its product design and development. The Chair summarised the philosophy:

> *It's about developing [products and services] that support, sustain and build the capacity of those parts of the not for profit sector we're working in to enable them to make best use of their resources and to have maximum impact in terms of what they're trying to do for the Australian community and in particular for people in communities that are disadvantaged in one way or another. [FSCASE1]*

In reality, the FSCASE participants suggest that it is difficult to strike the right balance between profit and social impact. The participants highlighted three products that have significant social impact but return very low profits. They argued that these products would not be approved in their major competitors because they don't make enough money. Two of these products contribute up to 50% of their profit margin to social welfare projects, either through a grants scheme or the customer deciding which social welfare project to support (referred to as 'impact dollars'). While one person stated that the impact dollars product was a good example of how FSCASE balances *profitability for the organization and returning social impact*, others claimed it was not meeting financial targets, losing money and under threat of being discontinued by the new CEO with his increased focus on profitability and increasing dividends to shareholders. The product was developed under the previous CEO and driven more by the social logic. While the shareholders originally supported the product losing money in the short term, the new CEO is focused on making it profitable.

The product that generates the grant funds is unique in the market place and has been very popular with customers because it provides generous financial outcomes as well as enables customers to contribute to positive social impacts to address homelessness and affordable housing and support disability organizations. However, one participant was concerned that the distribution channels were selling the product based on the financial outcomes while the direct sales force was selling it based on the financial and social impact features, which is exacerbating the tensions between these two groups.

4.4.3.7 Institutional Work

Creating a new business model requires institutional work at the micro (individual), meso (organizational) and macro (societal) levels (Tracey et al. 2010). At the organizational level, B Lab designed the B Corp model to demonstrate how to use "the power of business to solve social and environmental problems" (B Lab 2014).

At the micro level, B Corps are integrating the social and market logics in their business practices and structures. B Corps are attempting to legitimise the new model by engaging with highly legitimate actors in the macro environment, such as industry bodies and government officials, through lobbying, advocacy and grass roots campaigns to educate and recruit other businesses to the B Corp movement.

This entails education of and communication to the business community, to investors and the media. Ten B Corps hold information sessions to influence the *unconverted* and encourage them to certify as B Corps, and discuss the model with clients, business owners and business coaches. Building a club or tribe of like-minded businesses suggests that the B Corps are attempting to build a B Corp market that promotes collaboration and business opportunities between B Corps.

Ten B Corps engage in institutional work through advocacy activities to promote the B Corp values and model and educating people about a better way to do business. This entails engaging with governments directly and through industry bodies by making submissions, engaging with companies to help them improve, engaging directly with individuals, clients and schools, and through campaigns and public seminars targeted at raising awareness and changing industry practices. Five B Corps lobby government for initiatives to support B Corps, such as tax incentives for investment into social enterprises and B Corps, working individually and with others to drive policy changes.

4.5 Conclusion

The main aim of this chapter was to provide insights into the B Corp model, as a new form of hybrid organization, and discuss the challenges and tensions that arise in implementing a for-profit (market logic), for-purpose (social logic) business model. The chapter addressed this through identifying how a small sample of Australian B Corps integrate for-profit and for-purpose approaches into their missions, business practices and structures. The chapter contributes to increasing understanding of how companies can better align the generation of profit and social impact (Santos et al. 2015), in response to calls for more research on business models that contribute to a sustainable economy and society (Schaltegger et al. 2016a).

In many respects B Corps reflect the 'hybrid ideal' (Battiliana et al. 2012) where everything the hybrid does produces both social value and commercial value and employees do not work on separate for-profit or for-purpose activities. However, while the social and market logics are strongly integrated in some areas (e.g., mission, recruitment and marketing), trying to balance these two logics has created tensions and conflict in other areas (e.g., ownership structure, performance measurement, sales and distribution, product design and development).

The findings emphasize the importance of creating a common organizational identity that strikes a balance between the logics to moderate conflict and one logic dominating over another. The B Corps are attempting to do this by instantiating

the market and social logics in their missions, recruitment and socialization practices (remuneration, communication and training practices).

The research study was limited by the small sample, single-country focus and exclusion of external stakeholder views. Future research should focus on comparing and contrasting how B Corps in other countries are implementing the model through engagement with internal and external stakeholders (such as customers, suppliers and actors in the macro environment).

In Australia and globally, only a "handful" (Dittman 2016) of B Corps are publicly listed, but, arguably, it is these organizations that will drive mainstream adoption of hybrid models. Research on how these companies are managing shareholder demands and delivering social impacts will provide deeper insights into how B Corps can address the tensions that arise from combining market and social logics.

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Chapter 5
Public Sector and Circular Business Models: From Public Support Towards Implementation Through Design

Mateusz Lewandowski

Abstract In the last decade researchers interest in Sustainable Business Models has raised significantly, due to economic, social and environmental problems of the contemporary world. The philosophy and movement of Circular Economy plays an influential role therein, mainly because it provides opportunities for economic growth through environmental friendly solutions. This chapter employs literature review to further the understanding of the role public sector plays in shifting towards Circular Business Models. This work contributes to the debate on sustainable business models in several ways. It outlines the facilitating role of the public sector which aims to support private sector business models through six types of interventions. It also attempts to provide an early conceptualization of public sector circular business model. Building on that, it argues for the significant role of design in pursuing opportunities to change such business models into a more circular ones.

5.1 Introduction

Circular economy is currently one of the most important ways to enhance sustainable development and sustainable business models (Scott 2015). This is a response to the need of establishing much more balanced world in terms of interrelations between economic growth, social cohesion and development, and natural environment preservation. There is a growing literature on sustainable business models (Bautista-Lazo and Short 2013; Gauthier and Gilomen 2016; Jabłoński 2016; Roome and Louche 2015; Stubbs and Cocklin 2008; Upward and Jones 2015), and on circular business models (Barquet et al. 2013; Dewulf 2010; Lacy et al. 2014; Lewandowski 2016; Lüdeke-Freund 2010; Mentink 2014; Nilsson and Söderberg 2015). Moreover, recently the need for sustainable business models in the public sector has been advocated for too (Osborne et al. 2014, 2015). Hitherto the public sector relation

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to the concept of circular economy remains underexplored, and weakly conceptualized.

Successful implementation of Circular economy depends heavily on two major issues, the adjustment of a global economic system to circular principles, and on a micro-level on the implementation of the circular business models. In this regard public managers and policymakers play an important role (Ellen MacArthur Foundation 2015a; Lewandowski 2017a). This chapter, on the basis of literature review, outlines how public bodies support circular economy and sustainable models therein, provides a classification of such instruments, and discusses how Public Service Design (Design Commission 2013; Thoelen et al. 2015) may be applied to public sector business models (Lewandowski and Kożuch 2017b) to make public organizations operate in more sustainable way.

This work contributes to the debate on sustainable business models by providing a more systematized view on how public sector may and should approach circular business models. The chapter is divided into three major sections. In the first one, circular economy and circular business models are defined as the main background and key concepts. Then, public sector support for such models is presented, including policymakers' reasons to do so, and the main types of interventions facilitating enterprises in shifting to circular economy principles. The last part, in turn, focuses on making public organizations operate in a more sustainable way. In particular, Public Sector Circular Business Model framework is derived from the literature and verified for potential relations with actions oriented on Circular Economy implementation.

5.2 Circular Business Models

5.2.1 Circular Economy

Circular economy is a philosophy, a movement, and a policy influenced by many schools of thought, such as Regenerative Design, Performance Economy, Cradle to Cradle, Industrial Ecology, Biomimicry, Blue Economy, Permaculture, Natural Capitalism, Industrial Metabolism and Industrial Symbiosis (Ayres and Simonis 1994; Ellen MacArthur Foundation 2013a, b, 2015b; Lovins et al. 1999; Renner 1947). Those schools provided foundation for the main principles of Circular Economy as a new approach to economy: design out waste/design for reuse, build resilience through diversity, rely on energy from renewable sources, think in systems, and waste is food/think in cascades/share values (symbiosis) (Ellen MacArthur Foundation 2013a, b; Joustra et al. 2013; van Renswoude et al. 2015). Implementation of those principles allows to create circular value through (Ellen MacArthur Foundation 2013b; van Renswoude et al. 2015):

1. Inner circles—because tighter circles bring larger savings, due to embedded costs of material, labour, energy, capital and of the associated externalities.

2. Circling longer—as keeping products, components, and materials in a longer use, also through dematerialization, has potential to create value within the circular economy.
3. Cascaded use and inbound material/product substitution—due to cost differences between using virgin material and reusing the cascading one.
4. Pure, non-toxic, or at least easier-to-separate inputs and designs—because a certain purity of material and quality of products and components is needed to created more value.

The principles and opportunities to create value have been further translated into six types of business actions, enhancing easier implementation of the circular economy, known as the ReSOLVE framework (Ellen MacArthur Foundation 2015b). Regenerate actions tend to reclaim, retain, and regenerate the health of ecosystems through using renewable energy and materials, and returning recovered biological resources to the biosphere. Share actions, in turn, aim to maximize utilization through sharing products among users, in particular by peer-to-peer sharing of private products, and public sharing of a pool of products. Additionally such actions may embrace prolonging products life through maintenance, repairing, designing for durability, and reusing products as long as they are technically acceptable to use (e.g., second-hand). Optimizing actions tend to increase the product performance, remove waste from the production process and the supply chain. Optimization may also comprise leveraging big data, automation, remote sensing, and steering. Those actions do not require changing the product nor the technology. Loop actions simply try to keep components and materials in the closed material loops, preferably in the inner loops, if possible. Virtualize actions deliver particular utility virtually instead of materially, and exchange actions pertain to replacing old materials with more advanced ones, applying new technologies (e.g., 3D printing), and choosing new products and services (Ellen MacArthur Foundation 2015b).

Successful implementation of Circular Economy depends heavily not only on the adjustment of the global economic system to circular principles, but also on a micro-level on the implementation and dissemination of the circular business models (Lewandowski 2016).

5.2.2 Business Models Within Circular Economy

A business model (BM) describes how the business of a firm works (Frankenberger et al. 2013), how the pieces of a business fit together (Magretta 2002). It depicts the rationale of how an organization creates, delivers, and captures value (economic, social, or other) in relationship with a network of exchange partners (Massa and Tucci 2013), so it constitutes an organization's core logic for creating value (Linder and Cantrell 2000). Circular business model, in turn, is as "a business model in which the conceptual logic for value creation is based on utilizing the economic value retained in products after use in the production of new offerings" (Linder and Williander 2017: 2). It is also defined as "the rationale of how an organization

creates, delivers and captures value with and within closed material loops" (Mentink 2014: 35).

In fact, quite many conceptualizations of business models have been provided so far (Afuah and Tucci 2000; Al-debei et al. 2008; Chesbrough and Rosenbloom 2002; Frankenberger et al. 2013; Linder and Cantrell 2000; Mahadevan 2000; Papakiriakopoulos et al. 2001). Two notions of business model framework are stemming from that literature—one tries to reflect its complexity (Osterwalder and Pigneur 2010; Osterwalder et al. 2014; Wirtz 2011), while the other attempts to outline a picture as simple as possible (Frankenberger et al. 2013; Johnson et al. 2008). For example, the study by Johnson et al. (2008) outlines four elements of successful business model: customer value proposition, profit formula, key resources, and key processes. Customer value proposition is an identification of the target customers, their problems and needs related to particular jobs they do, and offering addressed to satisfy the problem or fulfil the needs. Profit formula encompasses a revenue model, cost structure, margin model and resource velocity. Key resources are those, which are necessary to deliver customer value proposition profitably, and may include, among others, people, technology, partnerships, brand. Those resources are transformed in key processes, consisting of the processes, metrics, and norms (Johnson et al. 2008). Frankenberger et al. (2013) proposed to turn similar four major dimensions of business model architecture into questions: Who is the customer? What is offered to the target customer (what the customer values)? How to build and distribute the value proposition? Why the business model is financially viable? Wirtz (2011), in turn, proposed an integrated business model consisting of nine partial models divided into three main components—strategic, customer and market, value creation. A more recognized and applied complex business model framework also distinguishes nine building blocks (Osterwalder et al. 2005), but is conceptualized more communicatively as the canvas showing how the components fit together (Osterwalder and Pigneur 2010). The main conceptual frameworks of business models apply to the Circular Economy, because every business model is both linear and circular to some extent (Mentink 2014; van Renswoude et al. 2015).

The specificity of fundamental constructs and constituent elements of circular business models must be derived from business model framework (e.g., Barquet et al. 2013), and the main principles of the Circular Economy (e.g., van Renswoude et al. 2015). Such synthesis of these two approaches had been provided in the literature (Laubscher and Marinelli 2014; Lewandowski 2016; Mentink 2014). Laubscher and Marinelli (2014) noticed that sales model must turn from product oriented towards product-as-service oriented, and products must be retrieved from customers after the first life. Also product design and material composition must enable high quality reuse of product, its components and materials. Resource optimization should be facilitated by IT and data management enabling to keep the track of products, components and materials. Supply loops should turn towards the maximization of the recovery of own assets where profitable, and the use of recycled materials/used components in order to gain additional value from product, component and material flows. Such strategic sourcing requires building trusted partnerships and long-term relationships with suppliers and customers, and the changes

require supportive organizational culture, training programs and incentives. Mentink (2014: 34) points that value propositions should encompass either fully reused or recycled products, what requires functional reverse logistics systems, or product-based services charged according to their use customers or customer interfaces. This may require special capabilities, maintaining relationships with other companies and customers, and changes of customers' habits or even changes of customers.

In order to conceptualize and develop circular and sustainable business models the BM Canvas had been used (Barquet et al. 2013; Dewulf 2010; Lewandowski 2016; Lüdeke-Freund 2010; Mentink 2014). Dewulf (2010) developed an extended business model canvas with societal costs and societal benefits as two additional components pertaining to the sustainable development. Barquet et al. (2013) classified the Product Service Systems' characteristics according to the structure of BMC. Lüdeke-Freund (2010) applied it to the context of eco-innovation, and Mentink (2014) implemented the concept of business cycle to the business model framework and conceptualized the business cycle canvas focused on the circulation of materials in the closed loops. Lewandowski (2016) proposed the Circular Business Model Canvas (CBMC), consisting of eleven building blocks, such as:

1. Value Propositions—offered by circular products enabling product-life extension, Product-Service System, virtualised services, and/or collaborative consumption. Moreover, this component comprises the incentives and benefits offered to the customers for bringing back used products.
2. Customer Segments—directly linked with value proposition component. Value Proposition Design depicts the fit between value proposition and customer segments.
3. Channels—possibly virtualized through selling virtualized value proposition and delivering it also virtually, selling non-virtualized value propositions via virtual channels, and communicating with customers virtually.
4. Customer Relationships—underlying production on order and/or what customers decide, and social-marketing strategies and relationships with community partners when recycling 2.0 is implemented.
5. Revenue Streams—relying on the value propositions and comprising payments for a circular product or service, or payments for delivered availability, usage, or performance related to product-based-service offered. Revenues may also pertain to the value of resources retrieved from material loops.
6. Key Resources—choosing suppliers offering better-performing materials, virtualization of materials, resources allowing to regenerate and restore natural capital, and/or the resources obtained from customers or third parties meant to circulate in material loops (preferably closed).
7. Key Activities—focused on increasing performance through good housekeeping, better process control, equipment modification and technology changes, sharing and virtualization, and on improving the design of the product, to make it ready for material loops and more eco-friendly. Key activities might also comprise lobbying.
8. Key Partnerships—based on choosing and cooperating with partners, along the value chain and supply chain, which support the Circular Economy.

9. Cost Structure—reflecting financial changes made in other components of CBM, including the value of incentives for customers. Special evaluation criteria and accounting principles must be applied to this component.
10. Take-Back System—the design of the take-back management system including channels and customer relations related to this system.
11. Adoption factors—transition towards circular business model must be supported by various organizational capabilities and external factors.

Many types of circular business models have been identified in the literature (e.g. Lacy et al. 2013; Mentink 2014; Tukker 2004; WRAP 2015). Referring to the circular economy principles, translated into ReSOLVE framework (Ellen MacArthur Foundation 2015b), most of the studies pertain to regeneration (e.g., Damen 2012; Lacy et al. 2013; Moser and Jakl 2014), sharing (De Jong et al. 2015; Tukker 2004; Van Ostaeyen et al. 2013), optimization (e.g., Bautista-Lazo 2013; El-Haggar 2007; van Renswoude et al. 2015), and material loops (e.g., Damen 2012; Lacy et al. 2014). Table 5.1 presents the main types of CBM.

Table 5.1 Types of circular business models (source: adapted from Lewandowski (2016))

ReSOLVE component	Types of circular business models
Regenerate	Energy recovery
	Efficient buildings
	Sustainable product locations
	Chemical leasing
Share	Maintenance and repair
	Collaborative consumption, sharing platforms, PSS: Product renting, sharing or pooling
	PSS: Product lease, availability based, performance-based
	Incentivised return and re-use or next life sales
	Upgrading
	Product attachment and trust
	Bring your own device
	Hybrid model
	Gap-exploiter model
Optimise	Asset management
	Produce on demand
	Waste reduction, good housekeeping, lean thinking, fit thinking
	PSS: Activity management/outsourcing
Loop	Remanufacture, product transformation
	Recycling, Recycling 2.0, resource recovery
	Upcycling
	Circular supplies
Virtualise	Dematerialised services
Exchange	New technology

5.3 Public Sector and Circular Economy

5.3.1 Policymakers' Reasons to Support Circular Economy

Circular economy contributes to several important areas and aims of public policy, mainly through stimulating economic growth, jobs creation, reduction of carbon emissions and virgin resource consumption (Ellen MacArthur Foundation 2015a). Such benefits have been estimated in several sources (e.g., Bastein et al. 2013; Wijkman and Skånberg 2015; WRAP and Green Alliance 2015). For example, Wijkman and Skånberg (2015) presented calculations for Finland, Sweden, Netherlands, France and Spain, for different scenarios, such as the renewable scenario, the energy efficiency scenario, and the material efficiency scenario. For all scenarios combined expected GDP growth ranges from 0.4% (Sweden) to more than 2.5% (Netherlands and France), expected new jobs created range from 75,000 (Finland) to even 500,000 (France), and expected reduction of CO_2 emissions would be around 66–70% for all five countries considered (Wijkman and Skånberg 2015).

5.3.2 Public Support for Circular Business Models

In general, public support for circular business models boils down to two wide strategies and several types of policy interventions, and methodology and tools for public managers and policymakers. The first strategy is oriented on fixing market and regulatory failures, and is basically implemented by introducing appropriate changes to the legislation. The second strategy focuses on the active stimulation of market activity, and comprises using political and managerial instruments, adjusting public procurement policy, creating collaboration platforms and providing financial or technical support to businesses (Ellen MacArthur Foundation 2015a; Sporrong and Bröchner 2009). Policy interventions complement the strategies. European Commission provided their short classification and distinguished: regulatory instruments, public investments (in R&D, skills and training and infrastructure, industrial symbiosis and clusters, and green public procurement), and other instruments (like voluntary agreements, fiscal incentives including taxes, charges and levies, information and advisory services and awareness raising campaigns) (European Commission 2014). Ellen MacArthur Foundation, in turn, proposed more diversified typology comprising: education, information and awareness, collaboration platforms, business support schemes, public procurement and infrastructure, regulatory frameworks, and fiscal frameworks (Ellen MacArthur Foundation 2015a). Moreover, the impediments to the transition process towards circular economy outline, from a different angle, necessary actions which public bodies must undertake. Hence, they contribute to the understanding of the directions of public support for circular business models. The key barriers encompass (Ellen MacArthur Foundation 2015a; European Environmental Agency, 2011; Wu et al. 2014):

1. Insufficient motivation—existing fiscal system does not support enough the business entities in their transition towards circular economy.
2. Inappropriate evaluation criteria—the measurement of economic performance is mostly GDP, and it should be extended to measures of a country's stock of assets. Moreover, there is no common understanding of resource efficiency.
3. Coordination difficulties—the value chains of many products extend across state borders, therefore national policies must be complemented with EU-level policy interventions. Moreover, policies should support cross-sector initiatives and scenarios.
4. Hindering legislation—existing regulations hinder executing circular actions, for example definitions of waste hinder trade and transport of products for remanufacturing.
5. Missing skills and capabilities—companies and policymakers do not have experience and knowledge to detect and capture the opportunities of circular economy.
6. Weak vision and leadership—transition to the circular economy is not supported by clear and specific directions of policymakers.
7. Insufficient information flows—about potential partners (especially for reverse logistic systems), materials and components, possibilities to gain support from public sector.

Ellen MacArthur Foundation provided a detailed step-by-step methodology, assisting policymakers and public managers in the shift of public policy to circular economy, through exploring and prioritizing circular economy opportunities and quantifying their impact, identifying the barriers limiting these opportunities, and mapping and prioritizing the policy interventions to overcome these barriers (Ellen MacArthur Foundation 2015a; Lewandowski 2017a).

Regardless the variety of approaches to policy intervention types, there are, in general, seven activities which public bodies may undertake to enhance enterprises transition towards circular economy:

1. Use managerial instruments, such as toolkit methodology, strong leadership and vision, appropriate performance measures, and governance instruments supporting coordination;
2. Introduce appropriate regulations and changes to the legislation;
3. Provide education, information and awareness raising campaigns;
4. Build various collaboration platforms supporting industrial symbiosis, like clusters, voluntary agreements etc.;
5. Help business through information and advisory services, and financial or technical support;
6. Refocus public investments, including public procurement in general and green public; procurement in particular, investments in infrastructure, R&D, skills and trainings;
7. Use fiscal incentives, such as taxes, charges, levies etc.

Table 5.2 Potential relevance of public policy interventions for Circular Business Models

CBMF component	Legislation and regulations	Social awareness	Collaboration	Business support	Procurement and investments	Fiscal incentives
Value proposition		X			X	
Customer segments		X			X	
Channels		X				
Customer relationships		X				
Key resources	X	X		X		
Key activities		X		X		
Key partnerships			X			
Revenue streams					X	X
Cost structure	X				X	X
Take-back system	X	X	X			

The potential relevance of six interventions for particular components of circular business model has been outlined in Table 5.2.

Management instruments used by public bodies do not seem to have any potential direct influence on enhancing circularity of business models of enterprises. They might impact circularity of public sector business models though.

5.4 New Approach to Public Sector Involvement in Circular Economy

5.4.1 A Public Sector Circular Business Model: Conceptualizing a Framework

Assuming that (1) every business model is circular to some extent (Mentink 2014; van Renswoude et al. 2015), (2) business models describe how public sector operates (Alford 2002; Lewandowski and Kożuch 2017b; Osborne et al. 2014), (3) there is a need to develop sustainable and circular business models in the public sector (Lewandowski 2017c; Osborne et al. 2014, 2015), a theoretical framework of Public Sector Circular Business Models should be outlined to further the understanding of how public bodies may actively involve in implementation of the principles of circular economy.

In general, two major characteristics constitute the specificity of public sector business model—profit formula and customer value proposition (Lewandowski 2017b). Profit formula is not always highly related to the customer value, and its'

dominant logic is often duty oriented, not profit oriented. It also includes a hidden profit formula, meaning that the exchange logic incorporates conversion of capitals (economic, symbolic, power, social etc.), which sometimes may be perceived as corruption or breaching ethical code. Customer value proposition, in turn, is usually tailored to general citizens (customers) needs, and sometimes regulated. It tries to match many value propositions for many target groups, and its offering is obligatory and sometimes even imposed on citizen (Alford 2002; Lamb 1987; Lewandowski 2017b).

There is no one best framework of Public Sector Business Model (PSBM), and many types are being applied, including Business Model Canvas and its modifications, an extensive 36-component framework, or a 4-component business model (Coblence et al. 2014; Frączkiewicz-Wronka et al. 2017; Kożuch and Jabłoński 2017). Those static frameworks were supplemented by another one. It considers that business model is a dynamic process (Abdelkafi and Täuscher 2016; Jabłoński 2015), various forms of cooperation are essential to the realization of effective public services (Osborne et al. 2014), and the process encompasses exchange of various values (Alford 2002). Thus, PSBM is a multiple-value creation system, with various stakeholders' interests to be secured and balanced, it is also a dynamic process of exchange of multiple-value based on various forms of cooperation (Lewandowski and Kożuch 2017a). This framework builds on the general definition assuming that "the rationale of how an organization creates, delivers, and captures value (economic, social, or other) in relationship with a network of exchange partners" (Massa and Tucci 2013). As a consequence, it proposes different set of components, such as (Lewandowski and Kożuch 2017a):

- networks of exchange partners, depicting the parties involved in the creation of benefits;
- co-creation of multiple value, outlining how exchange partners contribute to the creation of benefits;
- co-delivery of multiple value, showing how the benefits are distributed to all exchange partners;
- co-capturing of multiple value, indicating how exchange partners benefit;
- multiple value exchange processes, showing the relations between benefits of exchange partners;
- relationship shaping processes, describing how relationships between exchange partners are created and maintained.

Those components have been juxtaposed with the ReSOLVE framework to indicate most probable cross-connections (Table 5.3).

The main components of PSBM, such as co-creation, co-delivery and co-capturing of a multiple-value, in fact refer to the co-production framework describing the logic of public services system, which has been recently far better recognized in the public management literature (Osborne et al. 2016). If co-production provides the main theoretical lens to look at the circular business model in the public sector, than it unveils design as the main method of implementation.

Table 5.3 Potential relations between ReSOLVE actions and Public Sector Business Model components

	Resolve framework and example considered					
	Regeneration	Share	Optimise	Loop	Virtualize	Exchange
PSBM component	Green energy	PSS	Waste reduction	Recycling	Dematerialized services	New technology
Networks of exchange partners	X	X		X	X	
Co-creation of multiple value	X	X	X	X	X	X
Co-delivery of multiple value		X			X	X
Co-capturing of multiple value	X	X				
Multiple value exchange	X	X		X	X	
Relationship shaping					X	

5.4.2 *Applying Design to Support Circularity of Public Sector Business Model*

In general, service design is an interdisciplinary method for inventing and improving services, helping with (re) designing them from the perspective of the user, based on 'design thinking', true co-creation and collaboration with the user (Thoelen et al. 2015). According to Public Administration Select Committee (2008: 9) user-centered public services "actively involve the people using them in service design and delivery" and "entail drawing upon the expertise, views and perspectives of service users to complement the skills and input of service professionals." The main notion of circular economy and design recognizes its role as related to the co-production of public services. Active participation of citizens in the process of creation and delivery of public services contributes to design more environmental friendly solutions, and thus supports Circular Economy (Thorpe and Gamman 2013). The key principles of Circular Economy consider product and service design as a way to reduce waste and enhance better reuse of resources, materials and components (Ellen MacArthur Foundation 2013a, b; Joustra et al. 2013; van Renswoude et al. 2015). The main argument of this discussion is to apply design also to the multiple value and its co-creation-delivery-capturing process. The following micro-case illustrates the idea (Fagan 2017).

An Israeli start-up ElectRoad is collaborating with government to install a public bus route in Tel Aviv which wirelessly charges the vehicles. The company is developing an under-the-pavement wireless technology that eliminates the need for plug-in recharging stations. It won a US$120,000 grant from Israel's Ministry

of Transport and Road Safety and approval to outfit a portion of a Tel Aviv bus route with this technology (around half a mile long, expected to open in 2018). In general, this solution is aimed to serve entire cities. The technology can be installed in an existing road, in a way minimizing disruption. Wireless charging allows the electric buses to carry a light, inexpensive battery. Such a battery is used about 6% of the time the vehicle is running, and thus can be used for 25 years in contrast to conventional batteries in electric buses, which can last around 6 years. The bus can drive few miles without charging, so not every single road must be equipped with the technology. If this solution can be scaled up cheaply enough, it might be adopted on roadways worldwide. In turn, selling technology globally could contribute to the government priorities, such as GDP growth, new job creation, tax incomes (Fagan 2017).

This example describes an advanced technology under design process (testing phase), which is expected to replace previous solutions (exchange within the ReSOLVE framework). It also applies the principle of designing-out waste, for example trough adapting already existing roads, one-time installation or long lasting-batteries. In given example design applies also to the dynamic process of exchanging various values. In other words, referring to value proposition design concept (Osterwalder et al. 2014), this example unveils slightly how values are related in a creation-delivering-capturing cycle. To outline it briefly, the government, the city, and the company invest (various resources perceived as values too) in the project. All those parties will benefit if the solution is successfully implemented, however in different ways. The company will benefit mostly financially, and the government politically. The city would probably benefit in terms of citizens satisfaction, development, cheaper technology, and also politically. Also other partners in the network, mainly in the value chain, will benefit too, like cooper suppliers for instance. The citizens would benefit for example from cleaner air and less noise (due to more quiet engines), and that is in line with government and city policies, and company's social responsibility policy. Although the examples like the one provided suggest that designing synergy of benefits within multiple value proposition is possible and desired, it remains a challenge. Some recent studies showed for example mixed evidence of the effectiveness of government incentives in encouraging electric vehicle uptake, and that the direction of causality regarding public charging infrastructure is unclear (Coffman et al. 2017).

5.5 Conclusion

Circular economy is currently one of the key paths to foster sustainable business models. Although its founding schools of thought are not new, and the general idea of reducing waste has been known probably since the beginning of humankind, its application to the industry and economic system on a global scale is rather a new and important challenge. It is being faced by decision makers representing all sorts of organisations, including private, public, non-governmental, and their hybrids.

Circular economy requires a joint effort on different levels of operation and policy. Therein, the role of public bodies increases, and turns to be twofold.

Public bodies undertake several types of policy interventions. Those interventions have significant power to influence and shape the way enterprises define their business models. Many circular business models have already been recognized, but their vulnerability to particular public interventions requires further investigations. Moreover, public bodies may not only support business in shifting towards circularity, but are capable to undertake circularity-pursuing changes themselves. Initial outlining of the dynamics of public sector business models, and especially its co-production mechanisms (co-creation, co-delivery, co-capturing) of a multiple value suggests, that circularity may and should be implemented through design methods. It is not only about designing more circular products and services or changing business models of private and public organizations into circular ones. It is also about designing synergy within circular multiple value chain and achieving it through cooperative actions of public, private and civic organizations.

Through provided conceptualizations, this chapter outlines potential paths to unlock new possibilities to foster circular economy. However, in the next steps more empirical evidence is needed to confirm utility of indicated options. It is being argued that the debate on sustainable business models should go beyond strict sectoral divisions. Public sector is not only a supporter of circular economy, it is an important and active player in a cross-wins game. Therefore public sector business model and the role of design therein appear as an important perspective to investigate and enhance circular and sustainable business models.

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Part II
Theoretical and Conceptual Approaches Towards Sustainable Business Models

Chapter 6
Sustainable System Value Creation: Development of Preliminary Frameworks for a Business Model Change Within a Systemic Transition Process

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Abstract Although corporate sustainability has gained more attention and companies have recently showed a growing interest in sustainable practices, the progress towards sustainable development has been slow leading to increasing environmental and social challenges. Business model innovations are recognized as a key to the creation of sustainable business and as a bridge between company level and system level changes. Sustainable business model innovations create, deliver and capture economic, social, and ecological value for customers and other stakeholders in various societies. The aim of this chapter is to deepen the understanding of the ways how companies create and capture sustainable value through business models in a larger operation system. From the theoretical perspective, the chapter adopts the transition theory and the concept of strong sustainability for understanding socio-technical transitions and business model changes towards sustainability. Here the focus is on companies' dualistic role pursuing sustainable development targets—both contributing to sustainability within the business dimensions, and assisting the broader systemic change through the new sustainable business models. Furthermore, the chapter deals with the external factors that either enable or hinder companies to transform their existing business models towards sustainability. By reviewing previous literature, this study develops preliminary frameworks combining the approaches of transition management, sustainable value creation and corporate sustainability levels. The work aims to decrease the existing gap between the literature of system transition and business models. The frameworks can be applied in the future in analyzing new sustainable business models, value processes, value creation and capture, and broader systemic changes towards sustainability.

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6.1 Introduction

The number of publications on corporate sustainability has increased exponentially since the early 1990s (Linnenluecke and Griffiths 2013), and companies overall are showing increasing interest towards corporate sustainability practices (e.g., Lacy et al. 2012). However, the progress towards sustainable development has been slow, and ecological and social problems are increasing. Dyllick and Muff (2015) identified a significant disconnection between the organizational, micro-level concepts of corporate sustainability and sustainable business and the global, macro-level concept of sustainable development. Company-level actions contribute marginally to global sustainability if corporate sustainability and sustainable development are disconnected, and consequently, the performance measures remain disconnected. Three conceptual challenges disconnecting the concepts of corporate sustainability and sustainable development were addressed: (1) the poor integration of all three dimensions (economic, ecological and social) in the business sustainability discourse, (2) the insufficient integration of the societal macro level with the organizational micro level, and (3) the focus on economic success as the dominating performance measure.

The concept of the business model is presented as a bridge between changes at the company level, micro level, and the system level, macro level (Boons and Lüdeke-Freund 2013; Boons et al. 2013). Monumental challenges, such as climate change, resource depletion and inequality, question the traditional manner in which companies create value. Innovations promoting the sustainable performance of companies are more crucial than ever for long-term success, and sustainability issues should be fully integrated into the strategy and operations of a company (Lacy et al. 2012). Sustainable business model is an approach for firms to reconceptualize their purpose and value creation logic to improve their economic, environmental and social sustainability (Bocken et al. 2014), and sustainability can be seen as a central driver of innovation (Nidumolu et al. 2009). Although the question of how companies can transform their business models towards sustainability is highly relevant for society and management, and sustainable business model literature is evolving, companies have been slow to adopt sustainability strategies and sustainable business models. Sustainability transitions are complex and unique because sustainability is a collective good, which means that most sustainable solutions do not offer direct user benefits (Geels 2011). It is therefore unlikely that sustainable business model will be able to replace existing systems without wider system level changes, such as changes in regulatory frameworks and industry level policies.

Firms are capable of contributing to sustainability through multiple transition pathways (Geels and Schot 2007; Geels 2014) when firms can be interpreted as agents of sustainability transitions. Transition literature typically perceives business enterprises as external agents that challenge the status quo, whereas the internal processes of firms are often underplayed. The processes of value creation and capture within business environments are needed to understand both business model change and system transition.

In addition, business models are typically considered from the viewpoint of a focal company, and to date, business model research has predominantly focused on company level analyses and examples, whereas sustainability often requires a broader, system level perspective (Abdelkafi and Täuscher 2016; Gorissen et al. 2016; Pedersen et al. 2016). Internal activities through which companies enhance sustainable business are greatly affected by the business environment in which the companies operate (Zott and Amit 2007). It is thus important to take a step beyond the business model of the individual company and identify and analyze driving forces and barriers that have an impact on sustainable business models. A deeper understanding is required on the mechanisms on how the business model concept can bridge corporate sustainability and system level innovation. System level change and industry transformation require the joint efforts of several actors and the change of more than one company's business model.

This chapter contributes to these calls by applying transition theory to explain both the business model change at the company level and wider socio-technical transition towards sustainability. Transitions emerge through agency that can be, for example, an individual, a business enterprise, or a governmental or non-governmental organization. It aims at explaining the mechanisms of sustainable value capture and creation at the company level but within a larger operating system.

The chapter is organized into two main sections and conclusions. The next section reviews the literature from different disciplines and presents the central concepts of the study and the theoretical background related to them. The following section integrates the disciplines and ends up presenting preliminary frameworks emerging from the relevant theories. The initial integration of different disciplines may help to reduce the gap between system transition literature and business model literature. The final section draws conclusions and presents implications and avenues for future research. Since the focus of this chapter is theoretical, the proposed future research directions include testing the frameworks empirically.

6.2 Theoretical and Methodological Background

Previous literature was reviewed in order to create the basis on understanding socio-technical transitions and business model change towards sustainability. The qualitative literature analysis (see e.g., Marshall and Rossmand 1999; Miles and Huberman 1994) was conducted in two iterative stages. First, we identified the main concepts and conducted the literature review. Second, we used constructive research to synthesize the findings from the previous literature and to develop the integrative frameworks. We used the Scopus database and the following keywords and their combinations to find relevant articles: 'business model', 'sustainability', 'transition management', 'system transition' and 'systemic change'. Scopus is an extensive database and probably the best tool available for literature searches, particularly for articles published after 1995 (Falagas et al. 2008).

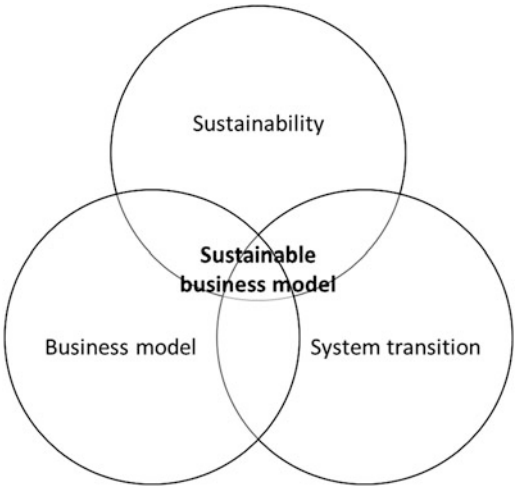

Fig. 6.1 Conceptual framework for sustainable value creation

Based on three key concepts identified—namely, sustainability, business model and system transition—the conceptual framework was outlined for integrating business model change and system transition towards sustainability (Fig. 6.1). The key concepts are discussed in this section. The synergy between the disciplines is created based on the findings of the discussion in the following section.

6.2.1 Concept 1: Sustainability

6.2.1.1 Planetary Boundaries

Since the world faces mounting sustainability threats and great challenges, researchers have attempted to determine sustainable limits to human activities. After the Industrial Revolution, human actions have been the main drivers of global environmental change, hence pushing the Earth outside of its stable environmental state with consequences that are detrimental or even catastrophic for large parts of the world. Rockström et al. (2009) have developed "planetary boundaries" that define the safe operating space for humanity with respect to the Earth's system and are identified in terms of the planet's biophysical subsystems or processes. Steffen et al. (2015) addressed the impact of accelerating economic growth and equity for the changing safe operating space. Milne et al. (2006) emphasized management approaches to corporate responsibility in this context. The debate has led to investigating on the contribution of companies to the degradation of the nine specific boundary processes on different focal scales (Whiteman et al. 2013).

6.2.1.2 Sustainability

WCED (1987) defined sustainability as the development meeting the present needs without compromising the ability of future generations to meet their own needs. Within this view, pursuing sustainability is seen as a process of gradually conjoining demands on and the supply of resources, the infinite and finite aspects of human life (Williams and Millington 2004). Traditionally, sustainable development is portrayed as a convergence, or a triple bottom line, of three different pillars: economic, ecological and social (e.g., Mikkilä 2006; Mikkilä et al. 2015).

The debate by scholars and practitioners culminated into the categories of weak sustainability and strong sustainability. The distinction between weak and strong sustainability was derived from the attempts to operationalize sustainability in a purposeful way. Weak sustainability refers commonly to a need to expand the stock of resources by, for example, developing renewable resources, making more out of existing resources or finding technological solutions to environmental problems (Williams and Millington 2004). The idea underlying strong sustainability is to revise the demands on the Earth. For instance, the consumption should be decreased, rather than adapting the Earth to suit human needs (Williams and Millington 2004). The distinction between weak and strong is, however, rather crude and the reality much more diverse.

6.2.1.3 Sustainable Development Related to Corporate Sustainability

The idea of sustainable development is often dominated by the macro level. Baumgartner and Ebner (2010) argued that sustainable development is designated only at the macro level of societies. Comprehensive corporate sustainability strategy eventually have positive effects on societies at large. This micro level sustainability refers commonly to corporate sustainability or responsibility including the three dimensions of economic, environmental and social sustainability (Mikkilä 2006; Mikkilä et al. 2015). Corporate sustainability is a value-bound concept that varies in place and time depending on the surrounding, dominating regime. Corporate sustainability and responsibility refer commonly to the operation environment: natural resource based industries favor corporate sustainability, whereas several other sectors apply corporate responsibility (Mikkilä and Toppinen 2008; Mikkilä et al. 2016).

The research on how corporations can contribute to sustainability has continued over the past decade and, for example, Dyllick and Muff (2015) have introduced a four-level typology for corporate sustainability in order to clarify when business is truly sustainable. These levels are "business-as-usual", "refined shareholder value management", "managing for the triple bottom line" and "truly sustainable business". The first focuses on producing economic value in the form of profit and shareholder value, and externalized costs are not understood or measured. At the second level, the business objective is to create shareholder value, but environmental and social concerns are considered in decision-making and actions as economic risks

but also opportunities for business. At the third level, value creation goes beyond shareholder value, including social and environmental values. This means a broadened stakeholder perspective, pursuing a triple bottom line approach, and creating sustainable value not just as a side-effect of business activities but as the result of deliberately defined goals. The highest level, truly sustainable business, shifts the perspective from the traditional "inside-out" approach to "outside-in", referring to the creation of a significant positive impact in critical and relevant areas for society and the planet in addition to the mitigation of negative impacts. Sustainability challenges are turned into business opportunities making "business sense" of environmental and social issues.

6.2.2 Concept 2: Business Model

6.2.2.1 Business Model Innovation

A business model describes the rationale on value creation, delivery and capture of organizations (Osterwalder and Pigneur 2010). It reflects the company's realized strategy (Casadesus-Masanell and Ricart 2010), emphasizes a holistic approach to explaining how companies "do business" (Zott et al. 2011) and provides a link between an individual company and the larger production and consumption system (Boons et al. 2013). The business model describes *how* and to *whom to do business in addition to what* a business does (Zott and Amit 2010).

Business model innovation is widely acknowledged as a source of innovation (Zott and Amit 2007; Amit and Zott 2012) and as a key source of competitive advantage (Baden-Fuller and Morgan 2010; Chesbrough and Rosenbloom 2002; Teece 2010). It is also recognized as key to the creation of sustainable business (e.g. Boons et al. 2013; Boons and Lüdeke-Freund 2013; Carayannis et al. 2014) and the enhancement of the transition towards a circular economy (e.g., Lewandowski 2016; Planing 2015). Comprehensive sustainability efforts are more likely to take place in organizations that demonstrate high levels of business model innovation (Pedersen et al. 2016).

6.2.2.2 Business Model for Sustainability

Business models for sustainability, i.e. sustainable business models, significantly increase positive impacts or reduce negative ones for societies by changing value creation, delivery and capture by organizations and their networks (Bocken et al. 2014). According to Schaltegger et al. (2012, 2016), sustainable business modeling aims at identifying opportunities that allow firms to capture economic value whilst generating environmental and social value, thereby establishing the business case for sustainability. A business model that contributes to sustainable development needs to create value to the whole range of stakeholders and the natural environment,

beyond customers and shareholders (Schaltegger et al. 2016). Upward and Jones (2016) have presented a more theoretical approach; they discuss weak and strong sustainability and compare more profit-oriented business models to strongly sustainable business models building on the natural and social science of sustainability. They see that strongly sustainable business models do no harm but create positive environmental, social, and economic value throughout the value networks, thereby sustaining the possibility that human and other life can flourish on this planet forever. Strongly sustainable business models take financial, societal and environmental costs into account and measure financial rewards, social benefits and environmental regeneration—so called tri-profit.

Stubbs and Cocklin (2008) defined a sustainable business model to draw economic, environmental and social aspects of sustainability in defining a company's purpose and measuring its performance, considers the needs of all stakeholders, treats nature as a stakeholder, and encompasses both a system and a company-level perspective. Abdelkafi and Täuscher (2016) emphasized the system-level perspective by conceptualizing a sustainable business model, that enables the company to reinforce the mutual interdependencies between the value created for its customers and the environment as well as the value captured for itself. The more value the company can create for its customers and the wider environment, the higher the value it captures for itself.

The literature has identified a wide range of examples on specific companies aiming at contributing to business model innovation for sustainability, for example Interface Inc. and Bendigo Bank (Stubbs and Cocklin 2008), and British Sugar (Short et al. 2014). Some examples show solutions and mechanisms of extended producer responsibility and end-of-life strategies (Rizzi et al. 2013), product-service systems (Tukker 2015), base of pyramid solutions (Chaurey et al. 2012), and collaborative consumption (Bardhi and Eckhardt 2012).

6.2.2.3 Business Model Change Towards Sustainability

Business model innovation covers changes from incremental adjustments to more radical and systemic changes (Cavalcante et al. 2011). The innovations required for sustainable development need to move beyond incremental adjustments (Johnson and Suskewicz 2009; Boons et al. 2013). Gauthier and Gilomen (2016) proposed a four-stage typology of the business model transformations where the first two stages represent business as usual or incremental innovation and marginal modifications to business model elements without major changes to the whole value delivery system, and the latter two more radical innovation. These four stages are: "business model as usual", "business model adjustment", "business model innovation", and "business model redesign". Business model innovation refers to major business model transformations and the strong potential of new value propositions and value creation mechanisms, and business model redesign refers to a complete rethinking of companies' business model elements to bring radically new value propositions to the market. From the sustainability perspective, the first stage could mean pollution

prevention, cleaner production and good working conditions within legal and other external standards, whereas designing products for sustainability, resource efficiency and sustainable marketing and communication with stakeholders are covered at the second stage. The third stage highlights designing whole processes for sustainability. At the highest, the fourth level, companies see sustainability as a real business opportunity and source of differentiation. Companies translate sustainability challenges into business opportunities by making "business sense" of societal and environmental issues (Dyllick and Muff 2015). Shifting from traditional energy business to solar energy-based solutions business represents an example of a sustainability based business.

6.2.3 Concept 3: System Transition

6.2.3.1 System Transition and Multi-Level Perspective (MLP)

Previously, the literature on environmental innovation was dominated by single technologies, such as developing wind turbines or biofuels. The multi-level perspective brings together both technological and social approaches to system transition, hence being one of the leading theories regarding sustainability transitions in the socio-technological system (Geels 2011). MLP explains trajectories of sustainability transitions. Emerging sustainability innovations challenge and aim at replacing the existing, typically unsustainable system (Geels and Schot 2007; Geels 2011). MLP is based on the assumption of the three-level structure: niche level, regime level and landscape level. Technological trajectories locate in the socio-technical landscape, consisting of a set of deep structural trends, such as economic growth or oil price (Geels 2002).

The landscape is described as an external structure or context for interactions of actors. Regimes refer to rules that enable and constrain activities within communities, whereas the landscape refers to wider technology-external factors (Geels 2002). The landscape is constantly transforming, but relatively slowly compared to regimes. Regimes generate incremental innovations, whereas radical innovations are generated in niches (Geels 2002).

Genus and Coles (2008) and Berkhout et al. (2005) criticized the definition of transitions being problematic overall, being challenging to specify the start and end of transitions. Markard and Truffer (2008) argued that the definition of a regime is incoherent in MLP and regimes can be defined at different levels of combination and from different perspectives. Moreover, MLP has steadily discussed policies as steering methods within the framework, but the policy is often an external force that is not actually implemented in the socio-technical transition (Smith et al. 2010). One of the critiques against MLP considers agency and how it is underplayed in the framework. Sometimes MLP falls to focus on the technological transition rather than agency that has the capability to transform the existing regime (Smith et al. 2005; Genus and Coles 2008).

6.2.3.2 Agency and MLP

Agents are capable of creating and advancing sustainability transitions and sustainable value. Agency is understood here as the capacity of performing acts that contribute to sustainability. The representations of agency can appear as both individuals and larger groups, such as firms pursuing sustainability. Several scholars recognize that agency plays a crucial role in sustainable transitions as a part of MLP. For example, Grin et al. (2011) and King (2008) suggested that agency creates change, having a necessary role during particular episodes of a transition. Agency typically possesses abilities, means, and power for deliberative action on multiple scales to contribute to sustainability (Wiek et al. 2012). Agency also deeply influences the internal translation and interpretation of sustainability and helps to embed it further (Lehner 2015; Heijden et al. 2012).

6.2.3.3 Agency Shaping the System

The power of agency lies in its potential to shape the prevailing regime. Most pioneering studies suggested that agency could be the most effective element in creating lasting transition for better future (Walker et al. 2010; Fudge et al. 2016). MLP framework recognizes the agents to be capable to introduce transitions outside the prevailing regime, and discursive activities at regime and niche levels eventually result in cultural repertoires at the landscape level (Geels and Schot 2007; Geels and Verhees 2011; Geels 2011). The ability of achieving a more sustainable system ultimately depends on agency, which drives niche innovations and implements regime changes or connects niches and regimes (Grin et al. 2011).

Agents shape the prevailing system by challenging the current regime. To challenge the prevailing regime, niche innovations have to achieve legitimacy, which is required for an innovation to initially become relevant and in the end dominant in the system (Bork et al. 2015; Haxeltine and Seyfang 2009). Legitimacy is achieved by surpassing resistance to change. Resistance from the current regime is likely since agents ultimately challenge the existing system. The current regime also embodies power: the rules, resources and actor configurations which are part of the regime will privilege particular practices over others (Grin et al. 2011). Whereas the incumbent regime uses its power to create resistance towards transition, it is also true that regime changes eventually result in changes in power relations (ibid.). The challenge for regime shaping agents lies in making transition dynamics and the political dynamics associated with it to reinforce each other generously to gradually destabilize the harmony of power and legitimacy between incumbent and sustainable practices, which consequently may lead to merging through common visions or through the graduate, self-reinforcing structuring of practices (ibid.).

6.2.3.4 From Multi-Level Perspective (MLP) to Triple Embeddedness Framework (TEF)

MLP has dominated the related sustainability transition theories even though it has been rather policy oriented and paid marginal attention to the business environment. To address this gap, Geels (2014) developed a new conceptual framework, the triple embeddedness framework (TEF) acknowledging interactions between incumbent business firms and operation environments. The interactions between business industries and their economic and socio-political environments were conceptualized as bi-directional.

The major global challenges, such as climate change, energy security, transport and resource efficiency, and food safety, are results of negative externalities for incumbent firms in industries, such as, oil or coal (Geels 2014). These typically unsustainable systems are rigid and filled with various lock-in mechanisms (Geels 2011). A stable incumbent regime is the outcome of various lock-in processes and it reinforces itself as conflicting to novel innovations (Klitkou et al. 2015). In addition, incumbent firms typically embody power and internal resources and incumbents use their adaptive capacity to orient emerging transition trajectories into a path set in the parameters of the current regime (Geels and Schot 2007). For this reason incumbent firms tend to prefer incremental change and the continuation of existing trajectories (Geels 2014). However, incumbent firms can also adopt innovations that are developed in niches and then utilized in regimes, which gradually trigger further changes in the regime (Geels and Schot 2007). In addition, large incumbent firms can also develop and market radical innovations and hence have an influence on confronting grand challenges (Geels 2014). Incumbents may display many ambivalent strategies (Bakker et al. 2012). Consequently, incumbent firms bear the potential in contributing to sustainability through multiple pathways.

The underlying assumption of TEF is that a mismatch between widespread institutions, such as broadly accepted norms, values, belief systems, and industry-specific institutions, does not generate pressure on firms as such. Pressure is rather created through activities—for example, complaints, demands and criticisms by socio-political actors, such as consumers, policymakers, civil society and social movements (Geels 2014). Consequently, the purpose of TEF is that increasing pressure towards incumbent industries might result in incumbent firms to overcome lock-in mechanisms and reorient towards more radical innovations (ibid.). This is crucial since in addition to incremental innovations, the mounting challenges of the world need radical innovations. Since large firms are capable of pursuing sustainability, they can be seen as agents of sustainability transitions, and consequently, creating sustainable value. Since sustainability transitions have multiple possible pathways, transitions also include multiple types of agency (Geels and Schot 2007). Firms as agencies can be interpreted as twofold. Firstly, firms are able to contribute to sustainability within the limits of the current regime related with the concept of weaker sustainability and sustainable development through incremental innovation. Secondly, large firms are capable of acting as agents of radical innovations of

sustainability if they are able to overcome the lock-in mechanisms of the existing system.

6.3 Building an Integration Between Different Disciplines

6.3.1 Integrative Concept: Value

6.3.1.1 Different Forms of Value

Value is a multifaceted and elusive concept, which is used as a central construct in the form of value propositions when analyzing market opportunities (Anderson et al. 2006) and designing business models (Osterwalder and Pigneur 2010). From the economic point of view, the two most common notions of value are exchange value and use value. The first one refers to the price of an item in the market, and the latter is determined by how useful an item is to a given person or situation (value-in-use, value-in-context). The latter view has been promoted especially by the service researchers since services are more intangible (e.g., Vargo et al. 2006). In business, it is most relevant to analyze value from the customer's point of view; that is, the value of the supplier's offering for the customer. In this view, value is normally understood as some form of assessment of perceived benefits against sacrifices required by the customer (e.g., Woodall 2003). Customer value is, however, a narrow definition of value if we look at larger systems of stakeholders and different perspectives into value. From the system's point of view, besides customer value, we should also consider value for the organization, ecosystem and society, and understand value as not only economic, but as a psychological, sociological and ecological concept (Den Ouden 2012). Only then can we approach what sustainable value as a whole in a system under study could be.

6.3.1.2 Sustainable Value

The idea of value leads to ponder further the relation between sustainability and value within business environments. Sustainability is stated to be one of the firm's key success factors in the long term business strategy (Kuosmanen and Kuosmanen 2009). Since firms use economic, environmental and social resources to produce goods and services to help the society to satisfy its needs, firms are at the same time both drivers and burdens to sustainable development (Hahn et al. 2007). The sustainability performance of firms needs to be measured to encourage sustainability instead of burdening it.

The concept of sustainable value (SV) was developed by Figge and Hahn (2004) to measure firms' contributions to sustainability based on opportunity costs. The additional value created by a firm is measured ensuring that every environmental and social impact is in total constant because the idea of strong sustainability requires

that each form of capital is kept constant. SV is inspired by the concept of strong sustainability, taking into account corporate eco- and social-efficiency as well as the absolute level of environmental and social resource consumption; in other words, the efficiency and effectiveness of all three dimensions of sustainability (Figge and Hahn 2004). The outcome of SV is a value that expresses how much more value is created because a firm is more efficient than a benchmark company and because the resources are allocated to the firm and not to benchmark companies (ibid.). The target of SV is to measure the potential advantages from the reallocation of resources and to identify firms to or from which resources should be allocated (Kuosmanen and Kuosmanen 2009). SV steers businesses towards strong sustainability, hence enabling a stable economic position while adapting human activities—in this case business operations—to meet the boundaries of natural resources.

By creating SV, firms are also acting as agents of sustainability transitions since the value creation process ultimately results in stronger sustainability performance. Consequently, the adoption of SV approach can support the firms meeting their sustainability targets at large. First, by adopting the SV approach, the company's business operations contribute to sustainability in all of its dimensions. Second, firms that engage in SV creation challenge the current system. Firms that have created SV have also benchmarked their operations. By gaining a leading position (regarding sustainability) in the markets, firms are able to apply pressure to their competitors. Eventually, this leads to increasing pressure on the whole business sector and at the same time on the prevailing regime. Also in this case, a firm's agency can be seen as two-dimensional: as agency towards the whole regime but on the other hand also as agency towards competing actors. If SV is closely associated with the concept of strong sustainability, the transition trajectory should proceed towards more radical innovations. However, various elements are likely to contribute to whether the competition caused by the SV approach results in transition pathways set by the parameters of the current regime or stir the transition more towards novel trajectories.

6.3.1.3 Business Models as Tools for Creating and Capturing Sustainable Value

The idea underlying sustainable value associated with business models is to unveil how SV is created, delivered and captured through business models. Den Ouden (2012) expressed the economic value for the expected users of the system, product or service to be the value for money, which reflects the usefulness of a product/service and value or the price of a product/service compared to the value or price of another product/service. The economic value that companies strive for is profit, and for an ecosystem it is financial stability and resilience. The economic value for society is summarized as wealth. The concepts of ecological value refer to an individual's ecological footprint, eco-effectiveness at a company level, sustainability at the ecosystem level and the livability of the environment at the society level. The livability of the environment relates to biodiversity as well as the physical beauty

of nature. The social value for the user translates into belonging, which is an important parameter in determining people's happiness. At the company level, the social value is summarized as social responsibility, which represents the impact of a firm's behavior on society. Value at the ecosystem level from a social perspective translates into reciprocity, reflecting a system to which all parties contribute and from which they benefit. At the societal level, the ultimate value is the greatest happiness of the greatest number of people and meaningful life.

Sustainable business models propose sustainable value, but in practice, the value can be either captured or destroyed or missed (Bocken et al. 2013, 2015). Captured value represents the positive benefits delivered to users and other stakeholders. Destroyed value includes the negative outcomes of the business, such as greenhouse gas emissions, resource scarcity, biodiversity loss, unemployment, the neglect of health and safety, unfair competition and inequality. Missed value represents situations where stakeholders fail to capitalize on existing assets, capabilities and resources, or fail to benefit from the network, which might be due to poorly designed business models.

None of the companies on their own are able to achieve the system level goals (e.g., sustainability goals), but it is possible within a wider ecosystem where companies operate (Hellström et al. 2015). The business model of an individual company can reflect only part of the overall value creation, but it can be seen as a unit that serves a certain function in the ecosystem, thereby enabling system value creation. Firms can be interpreted as individual agents that trigger transitions that can gradually change the wider business environment and eventually the whole system. Hellström et al. (2015) summarize that the overall system-level value is created in the transactions and non-transactional links between the companies. Thus, to understand the sustainable value created and captured, value analysis and assessment at both the company level and the system level are needed. Sustainable value is created and captured on a system level, but the company level approach is equally important because the value capture of each individual company is ultimately the main incentive for engaging in collaboration.

On the way towards sustainable value creation and capture through business model innovation and strong sustainability, there is a wide range of recognized barriers in three primary areas: regulatory, market and financial, and behavioral and social barriers (Laukkanen and Patala 2014). It is obvious that companies and regulatory bodies need to take individual and combined action to overcome all these. Companies' task is to create new radical innovations towards sustainability, and well-functioning, consistent and long-term regulatory frameworks should support this development by creating a favorable innovation environment (e.g., Hekkert et al. 2007). To accelerate the transition towards strong sustainability, companies must not remain passive with respect to the system level either, but rather collaborate actively with relevant stakeholders to form common norms that support the creation of sustainable business model innovations.

6.3.2 Preliminary Frameworks for Integrated Sustainability Through Different Disciplines

6.3.2.1 Synergy Between Corporate Sustainability, Business Model and System Transition Literature

The main theoretical elements of the literature review were sustainability, business model and system transition. In this chapter, the synergy between these elements emerges as sustainable business models that create sustainable value. Since none of the companies on their own are able to achieve the system level goals of sustainable development through their business models, system transition had to be integrated into business studies.

Sustainability literature emphasizes the dichotomy of strong and weak sustainability (Williams and Millington 2004). The distinction between strong and weak sustainability describes the general target levels of sustainability. The underlying assumption is that firms should pursue strong sustainability to shift the paradigm towards a sustainable society even if weak sustainability were an improvement compared to the previous circumstances. The literature suggests that companies are able to pursue different levels of sustainability. For example, both business model literature and literature on system transition recognizes firms' sustainability transition capabilities (e.g., Cavalcante et al. 2011; Boons et al. 2013; Geels 2014). In addition, both disciplines acknowledge that businesses are also able to orientate themselves more towards radical innovations or niche-driving transitions if enough pressure is expected from other system actors or from stakeholders (e.g., Cavalcante et al. 2011; Boons et al. 2013; Geels 2014). In the literature of business model change, the pathway towards strong sustainability is perceived as a trajectory from incremental innovation through business model innovation and business model redesign to radical innovation (e.g., Boons et al. 2013; Gauthier and Gilomen 2016). System transition portrays a similar path from a sustainability transition set by the parameters of the current regime through transition where the current regime adopts niche innovations eventually to sustainability transition where niche innovation pressure alters the current regime (e.g., Geels and Schot 2007; Geels 2014). Corporate sustainability literature also recognizes the pathway from weak sustainability to strong sustainability. In the corporate responsibility literature, the trajectory is seen as an ongoing process from business as usual through refined shareholder management and triple bottom line management to truly sustainable business (e.g., Dyllick and Muff 2015). This implies that in the literature of different disciplines, the terminology varies but the actual phenomena often overlap. To sum up the interdisciplinary literature review, an integrative conceptual framework is proposed in Fig. 6.2 as the outcome of the analysis.

Despite the scattered terminology, the capability of firms to create sustainability through agency and sustainable value through business models is acknowledged. The proposed integrative framework could be utilized in the future in analyzing new sustainable business models, system value, and value creation and capture, and

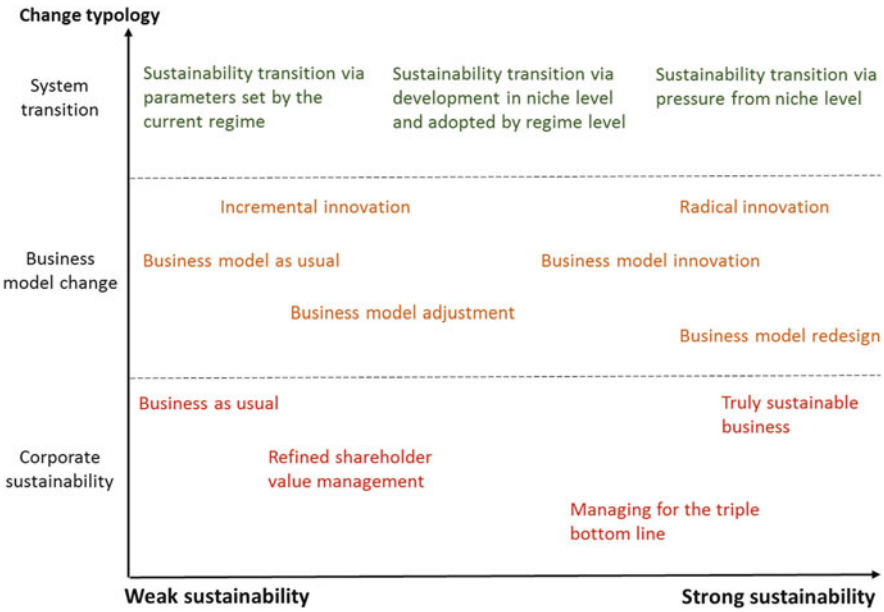

Fig. 6.2 Proposed integrative framework (adapted from Geels 2014; Gauthier and Gilomen 2016; Dyllick and Muff 2015)

eventually in evaluating how strong the sustainability performance of the company is. The proposed framework is an outline that employs a variety of terms for similar phenomena. Understanding similar phenomena in different disciplines may help to reduce the current gap between literatures of system transition and business models.

Illustrations of phenomena are always simplifications of reality, and Fig. 6.2 demonstrates the pathway towards strong sustainability rather roughly. On the end of "weak sustainability" is "business as usual", "incremental innovation", and "sustainability transition via parameters set by the current regime"—not because these phenomena could not contribute to sustainability but because they are typically strongly restricted by the existing environment and hence unable to meet their full sustainability potential. For example, typical end-of-pipe methods that remove already formed emissions do contribute to sustainability but not to the extent as new material saving technology. At the other end of the line, "strong sustainability" encompasses "truly sustainable business", "radical innovation", and "sustainability transition via pressure from the niche level". Figure 6.2 shows that these phenomena pursue strong sustainability through "refined shareholder value management", "triple bottom line management", "business model adjustment", "business model innovation", and "sustainability transition via development in niche and adopted by regime". The reason why radical innovation and sustainability transition via niche pressure are situated at the end of the strong sustainability is because the radical innovations and niche pressure help the business to overcome the lock-in mechanisms set by the current regime and become truly sustainable.

In reality, the phenomena might overlap also in a vertical sense. In addition, there are multiple transition trajectories, and for that reason, Fig. 6.2 does not imply that only radical innovations are relevant to achieve holistic sustainability. Sustainability transitions are effected, for example, by timing and spatial conditions (Geels and Schot 2007; Markard and Truffer 2008). Radical innovations are needed in addition to incremental innovation to achieve major sustainability changes, transform industries and consequently move towards strong sustainability and truly sustainable businesses.

6.3.2.2 Integration of Business Model Change Towards Sustainability and System Transition

The gap between the system transition research and business model literature remains clear. For example, Markard and Truffer (2008) presented the synergies and differences of transition literature and innovation studies, but the holistic integration is still incompletely researched. Business model literature pays little attention to system level effects on the process of business model change; instead, the focus stays on the company's internal operations (e.g., Abdelkafi and Täuscher 2016; Gorissen et al. 2016). Transition literature emphasizes system level changes and underplays the role of individual companies. Recently, Geels (2014) emphasized the need for bidirectional interaction between firms and larger systems in the new conceptual framework, TEF. However, these attempts still overlook firms' internal operations. Firms are mainly interpreted as external agents of sustainability transition.

Moreover, the business model literature often leans on reliance on market forces (e.g., Dyllick and Muff 2015; Gauthier and Gilomen 2016). On one hand, relying solely on markets involves the risk that sustainable development remains slow and weak since markets are driven by other incentives. On the other hand, transition theory often emphasizes governmental steering in creating sustainability (e.g., Geels 2002; Geels 2010; Smith et al. 2010; Berkhout et al. 2005). Consequently, the operation of companies is restricted by laws and regulations. This implies that business model literature would need stronger understanding of how policy pressure or governmental steering influences business model change and hence also value capture. In turn, transition literature would benefit from more detailed knowledge of how firms' internal operations affect sustainability transitions and how the agency of firms is represented. Figure 6.3 visualizes the integration of the two disciplines. The framework is a tentative proposal for the early integration of business model change literature and system transition literature, and therefore, it also has several simplifications.

At the company level, the framework introduces business model change towards strong sustainability. The idea underlying sustainable business model is to create economic, ecological, social and psychological benefits for the wide range of stakeholders in the society where the firm operates, to enhance corporate responsibility and further sustainable development. The framework illustrates that the

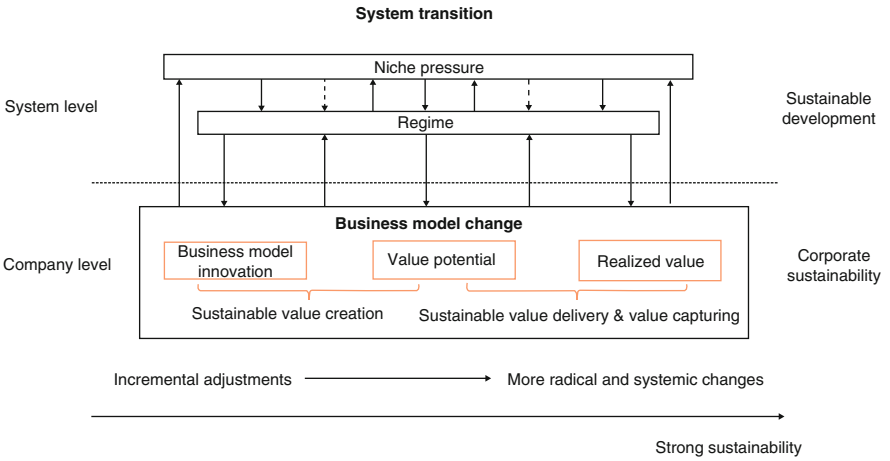

Fig. 6.3 Tentative integration of business model change and system transition

potential and impacts of the sustainable business models are measured through sustainable value created, delivered and captured. First, the idea of business model change towards sustainability is to strengthen the value propositions, i.e. value potential through the business model elements (Osterwalder and Pigneur 2010), such as key resources, key activities and partnerships that are needed to create value. Second, the framework highlights the fact that the potential value is not always equal to the actual realized value. Potential value can be either captured, destroyed or missed (Bocken et al. 2013, 2015). The overall objective is to increase the realized sustainable value through different value delivery and capture mechanisms. The framework shows that firms can have a dualistic role in their aspirations to meet their sustainability targets. First, by adopting the sustainable value approach, firms contribute to sustainability within all of the firm's dimensions. Second, firms that engage in sustainable value creation challenge the current system. Actions of businesses pursuing sustainability are interpreted as agency that appears both within individual firms but also within the wider business environment. Firms are able to act as internal sustainability agents through business model change in addition to simply being external agents of sustainability transition. On the other hand, literature (i.e. Hellström et al. 2015; Geels 2014) stated that individual firms are not able to achieve the system level goals, i.e. sustainable development, since for that bidirectional actions within firms and a wider ecosystem where firms operate are also highlighted. Regime pressure can affect both created potential value and realized value positively or negatively.

At the system level, the framework introduces a sustainable regime towards sustainability. To achieve strong sustainability, a sustainability oriented regime is needed as a gatekeeper for (1) unsustainable niche innovations and for (2) steering through policies or through a regime's legitimacy, business environments towards business model change and hence to capturing sustainable value. Niche pressure is

emphasized because niche agency often enables sustainability transitions by driving innovations, implementing regime changes and eventually connecting niche and regime levels (Grin et al. 2011). Niche agency is crucial for sustainability transitions since it bears the potential for system level changes and radical innovations (Geels 2011). This implies that niche pressure is needed for effective sustainability transitions.

Since stable regimes are the outcome of various lock-in mechanisms, they typically reinforce themselves against innovations (Klitkou et al. 2015). This means that regime actors are constrained by parameters from the existing regime. Hence, sustainability transitions enacted by regime actors were found to be path-dependent and trajectories are set by the current regime, thereby evolving through incremental innovation (Geels and Schot 2007). The regime can be a significant barrier for radical innovation to overcome, and typically radical innovations occur only if they are protected in niches (Markard and Truffer 2008). In reality, transitions happen through multiple trajectories. The interactions of niche and regime levels should be studied more since regime actors may have ambivalent motivations (Bakker 2014). As lock-in mechanisms typically reinforce a certain pathway of transition, the opportunity of upscaling a given niche depends on the characteristics of the regime in question (Klitkou et al. 2015). For example, Geels and Schot (2007) have presented four different pathways for sustainability transitions: transformation, reconfiguration, technological substitution, and dealignment and realignment. They have also noted that certain transition pathways can shift from one to another. This suggests that even if niche pressure is often crucial for sustainability transitions multilevel interactions are evident and regime conditions, such as policy drivers, also play a role in the transition process. Further, both company level and system level components that create or hinder sustainability transitions need to be concretized in more detail.

6.4 Conclusion

This chapter contributes theoretically to existing sustainable business model literature in three ways. First, it presents how sustainable business models can be used to create sustainable value. Sustainable value is captured through business model change from business as usual to truly sustainable business. Challenges in sustainable development, and therefore in corporate sustainability, in business model change and value capture are related to the poor integration of the system level and company level and also to the slow progress towards strong sustainability. However, a firm's capability to act as an agent of sustainability is acknowledged through different disciplines. Sustainable value steers firms towards strong sustainability, hence creating possibilities for a stable economic position while adapting human activities—in this case business operations—to meet the boundaries of natural resources. Hence, value creation can be interpreted as a bridge to sustainable business and later as a component of larger system level transition.

Secondly, the chapter presents pathways towards sustainability in relation to companies in different disciplines. Different disciplines use scattered and often overlapping terminology to describe the change from weak sustainability to strong sustainability. A stronger understanding of overlapping typology, while the phenomena remain much the same, can ultimately advance the integration of different disciplines.

Thirdly, the findings imply that there is still a lack of integration between system level (system transition) and company level (business model change). To adopt sustainable business models and hence sustainable value, firms need to consider system level influences on the change process. Since the current regime strongly puts pressure on firms' operations—for example, via legislation—a sustainable regime would assist companies in adopting sustainable business models. To achieve strong sustainability, more synergies between the system level and business environments is needed. This interplay between policy oriented system transition and business model change that focuses on business environments could also be associated with private-public partnerships that aim for cooperation between the public and private sectors.

The focus of this chapter was theoretical. Since it is likely that the somewhat scattered phenomenon of firms acting as intermediates of sustainability is close to operationalization, the framework should be tested empirically to see the actual adjustment of the framework in business environments.

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Chapter 7
Creating Integrated Value Through Sustainable Innovation: A Conceptual Framework

Wayne Visser

Abstract In the context of a plethora of worsening social, environmental and ethical negative conditions often associated with economic growth and industrial activity, Integrated Value is proposed as a conceptual and practical framework for business to respond credibly and effectively as a force for innovation and solutions. In order to do so, the chapter begins by asking: how is value to society currently being destroyed by economic activities? Taking a systems science perspective, the answer is: whenever it causes fragmentation, or disintegration. This disintegration in society occurs in at least five principle ways, namely the five forces of fragmentation: disruption, disconnection, disparity, destruction and discontent. The next question is: how might this value destruction in society be countered or reversed? We find clues in innovations that are occurring in five emerging economic spheres: the resilience, exponential, access, circular and wellbeing economies. In each of these areas, there are breakthrough business models, practices, products and services that are building, rather than destroying, societal value. These are the five pathways to innovation, defined in terms of the desired future state they are trying to advance, which is a society that is more secure, smart, shared, sustainable and satisfying. Four strategic value-creation options are then described (singular, focused, diffuse and integrated value) before citing illustrative cases and describing the seven steps of a methodology to implement integrated value.

7.1 Introduction

In the context of a plethora of worsening social, environmental and ethical negative conditions often associated with economic growth and industrial activity, this chapter proposes Integrated Value as a conceptual and practical framework for business to respond credibly and effectively as a force for innovation and solutions.

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In order to do so, it begins by asking: 'how is value to society currently being destroyed by economic activities?' Taking a systems science perspective, the answer is 'whenever it causes fragmentation, or disintegration'. This disintegration in society occurs in at least five principle ways, namely the five forces of fragmentation: disruption, disconnection, disparity, destruction and discontent.

The chapter then proceeds by asking how this value destruction in society might be countered or reversed. Clues are found in innovations that are occurring in five emerging economic spheres: the resilience, exponential, access, circular and wellbeing economies. In each of these areas, there are breakthrough business models, practices, products and services that are building, rather than destroying, societal value. These are the five pathways to innovation, defined in terms of the desired future state they are trying to advance, which is a society that is more secure, smart, shared, sustainable and satisfying. Four strategic value-creation options are then described (singular, focused, diffuse and integrated value) before citing illustrative cases and describing the seven steps of a methodology to implement integrated value.

7.2 Redefining Value Creation

The scale, urgency and worsening of numerous social, environmental and ethical global challenges, from income inequality and biodiversity loss to climate change and pervasive corruption, has led to prevailing concepts and practices of value creation in business and economics coming under increasing scrutiny by scholars and practitioners alike.

In particular, there is a strong call to reform incumbent business models that have done little to resolve these global challenges—and may even be argued to have caused or exacerbated the problems. Volans (2016) suggests that in order to achieve sustainability, breakthrough business models will need to be social (delivering both financial and extra-financial value through positive impacts for people—in the present and in the future), lean (optimizing the use of all forms of capital, from physical and financial through human and intellectual to social and natural), integrated (managing financial and extra-financial value creation across economic, social and environmental systems) and circular (sustaining inputs and outputs at their highest value in both technical and biological cycles).

Similarly, AMS and ING (2017) propose hybrid business models, which can be either incremental or radical. These new approaches may be seen as an attempt to respond to longstanding critiques of neo-classical, neoliberal capitalism (Hertz 2002; Hart 2005; Klein 2007) and corporate social responsibility (Christian Aid 2004; Blowfield 2005; Visser 2008; Karnani 2010). For instance, I have argued previously that sustainable business models would need to embrace 'responsible capitalism' based on the principles of investment, long-termism, transparency, full cost accounting and inclusion (Visser 2012) and 'transformative CSR' based on the principles of creativity, scalability, responsiveness, glocality and circularity (Visser 2010).

This questioning and recasting of value has been building for a number of decades now. For example, Freeman's (1984) stakeholder theory was largely proposed as an alternative to narrow, neoclassical economics conceptions of value creation solely in terms of shareholder returns, typified by Friedman's (1970) contention that "the social responsibility of business is to increase its profits." Freeman (2010) stressed that managing for stakeholders should be approached as a new business model for value creation, rather than a way of making trade offs between stakeholders.

Subsequent to Freeman, this questioning and expanding of the concept of value continued with Elkington's (1994) 'triple bottom line', Kanter's (1999) 'social innovation', Emerson's (2000) 'blended value', Prahalad and Hart's (2002) 'bottom of the pyramid' (BOP) inclusive markets and Porter and Kramer's (2011) 'creating shared value' or CSV. Of course, not all of these re-conceptions have been without criticism, e.g. see Crane et al. (2014) on CSV. Nevertheless, shifting to the language of value, rather than of responsibility, is important, as is the emphasis on a more strategic and integrated focus (Visser 2013).

Typically, all these new conceptions built on what went before, but called for greater integration and an expansion of the potential of business to make positive impacts. For example, Hart's (1997) 'sustainable value' framework incorporates pollution prevention, product stewardship, base of the pyramid (BOP) and clean tech. Emerson's (2000) 'blended value', much like Elkington's (1994) 'triple bottom line', looks for an overlap between profit and social and environmental targets, while Porter and Kramer's (2011) CSV focuses on synergies between economic and social goals.

We have also seen efforts from standards bodies (King and Roberts 2013). For example, the International Integrated Reporting Council (IIRC 2013) published their International Integrated Reporting Framework, the International Organization for Standardization (ISO 2014) issued guidance on integrated management systems as part of its ISO Directives and the Future Fit Foundation (2016) launched their Future Fit Business Benchmark.

In addition, numerous practitioner organisations have been working on methodologies for measuring value in a way that incorporates externalities, including for example (cited in KPMG 2014): True Value (KPMG), B Impact Assessment, Environmental Profit & Loss (EP&L) Statement, Natural Capital Protocol (Natural Capital Coalition), Redefining Value (WBCSD), Social Return on Investment (SROI Network), Total Impact Measurement & Management (PwC) and True Price.

7.3 Introducing Integrated Value

Taking into account these trends and developments—and building on previous groundwork (Visser and Kymal 2015)—I am proposing Integrated Value as a conceptual framework for pulling together these intellectual and methodological threads. In order to do so, I begin by asking: how is value to society currently being

destroyed by economic activities? Taking a systems science perspective, the answer is: whenever it causes fragmentation, or disintegration. This is consistent with the idea that the tendency towards greater integration in nature and society is a fundamental principle of evolution (Smuts 2013; Capra 2014).

Hence, fragmentation is by definition devolutionary, literally causing disintegration or the destruction of complexity. Complexity in this instance does not refer to 'complicatedness', but rather to synergistic connection or positively reinforcing relationships, in the same way in which our brains embody complexity through its 100 billion interconnected neurons. My contention is that this disintegration in society occurs in at least five principle ways, through five forces of fragmentation, namely disruption, disconnection, disparity, destruction and discontent.

I then ask: how might this value destruction in society be countered or reversed? Clues can be found in innovations that are occurring in five emerging economic spheres: the resilience, exponential, access, circular and wellbeing economies. In each of these areas, there are breakthrough business models, practices, products and services that are building, rather than destroying, societal value. I call these the five pathways to innovation, defined in terms of the desired future state they are trying to advance, which is a society that is more secure, smart, shared, sustainable and satisfying.

Hence, one of the decisive factors that may tip the balance between these opposing evolutionary forces in society—in favour of integration rather than disintegration—is synergistic innovation. Table 7.1 summarises these tension and potentials.

There is ample case-study evidence that the five pathways to innovation are creating value beyond narrow financial or economic conceptions. Viewed in terms of a multi-capital perspective, we can demonstrate that they are building—in addition to financial capital—infrastructural, technological, human, social and ecological capital. However, the real breakthrough in value creation comes when two or more of the pathways to innovation are synergistically combined, thus creating integrated value.

Before going on to describe the essential building blocks in more detail, it is important to define the concept fully:

> *Integrated Value is the simultaneous building of multiple capitals (notably financial, infrastructural, technological, human, social and ecological) through synergistic innovation across the resilience, exponential, access, circular and wellbeing economies that result in a world that is more secure, smart, shared, sustainable and satisfying.*

Table 7.1 Forces of global disintegration, integration and innovation

Forces of fragmentation	Forces of integration	Pathways for innovation
Disruption	Resilience economy	Secure
Disconnection	Exponential economy	Smart
Disparity	Access economy	Shared
Destruction	Circular economy	Sustainable
Discontent	Wellbeing economy	Satisfying

7.4 Five Forces of Fragmentation

An emphasis on integrated value may seem obvious or even inevitable to some. After all, following decades (some would even say centuries) of globalisation and the acceleration of international trade and tele-digital connectivity, the world seems more integrated than ever before (The Economist 2013). But the globalisation trend has also masked cracks in the façade of integration, beyond the recent political trend of rising nationalism and protectionism in the Trump era (Plender 2017).

As systems scientists remind us, any complex system exists in a state of dynamic equilibrium, which, if sufficiently disrupted will either break through to a higher state of integration, or break down into a lower state of fragmentation (Laszlo 2014). In our world today, we feel the tension between the tendency towards integration and the counter-tendency towards disintegration. For example, if we look at the data on security risks, digital distribution, social inequality, ecological integrity and human wellbeing, we can see that there are powerful forces of disintegration that threaten global harmony and progress for all. These can be distilled into the following five forces of fragmentation in what I call the fracture economy (Fig. 7.1).

7.4.1 Disruption

This refers to any instability that threatens human life, safety and security, and is most often associated with political conflicts, acts of terrorism, demographic disruption, industrial accidents and natural disasters. For instance, according to the Global Peace Index 2016, only ten countries in the world can be classified as conflict free (Institute for Economics and Peace 2016). Another example is the 65.3 million forcibly displaced people worldwide, including 21.3 million refugees and 10 million stateless people (UNHCR 2017).

7.4.2 Disconnection

This refers to any form of isolation that prevents human communication and effective data sharing, and is most often associated with a lack of access to knowledge and smart technologies, including the internet-of-things, big data and artificial intelligence. For instance, 4 billion people still lack access to the internet and nearly 6 billion people do not have high-speed internet (World Bank 2016). And nearly 2 billion do not use a mobile phone, and almost half a billion live outside areas with a mobile signal (ibid.).

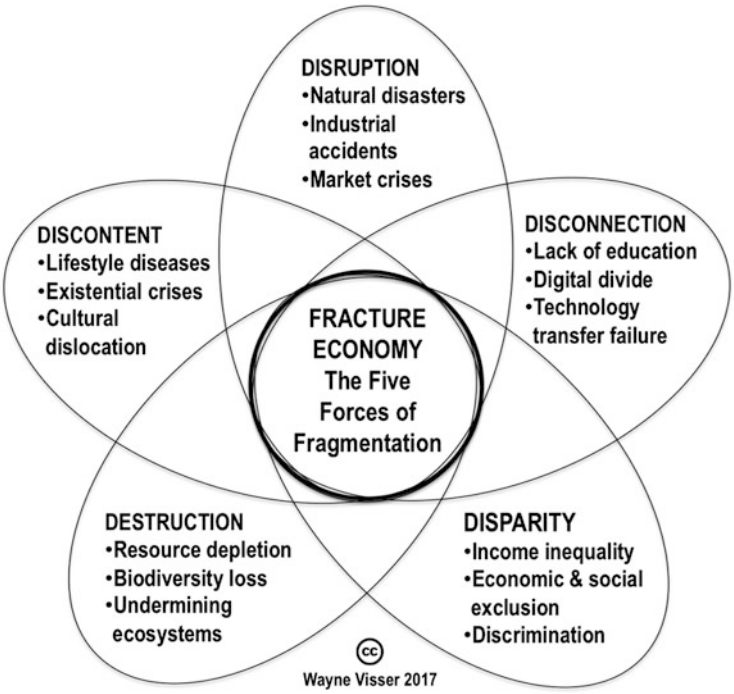

Fig. 7.1 Five forces of fragmentation in the fracture economy

7.4.3 Disparity

This refers to any inequities that increase social friction or inefficient resource utilisation, and is most often associated with income inequality, discrimination and economic exclusion. For instance, since 2015 the richest 1% has owned more wealth than the rest of the world's population and eight men now own the same amount of wealth as the poorest 50% (Oxfam 2017). And from 1960 to today, the absolute gap between the average incomes of people in the richest and poorest countries has grown by 135% (Bolt and van Zanden 2014).

7.4.4 Destruction

This refers to any production and consumption that leads to the decline of resources and disruption of ecosystems, and is most often associated with economic growth, over-consumption, land-use change and industrial pollution. For instance, according to the Living Planet Index, populations of vertebrate species declined 58% between 1970 and 2012 and will decline 67% by 2020 if current trends continue (WWF

2016). And unabated climate change, resulting in 2.5 °C warming, will devastate ecosystems, increase poverty and cost the global economy U$12 trillion by 2050 (UNDP 2016).

7.4.5 Discontent

This refers to all unhealthy lifestyles and toxic environments that impair human wellbeing, and is most often associated with lack of purpose, work stress, poor diets and insufficient exercise. For instance, more than 40% of deaths from non-communicable diseases (which account for 70% of all deaths, an increase since 2000) are premature or preventable, notably from cardiovascular and respiratory diseases, cancers and diabetes (WHO 2017). And depression and anxiety disorders affect 10% of people, cost the global economy U$1 trillion each year and have increased 50% from 1990 and 2013 (WHO and World Bank 2016).

7.5 Five Forces of Integration

Countering the five forces of fragmentation are five forces of integration, which are really economic trends that collectively form a nexus economy that is rapidly transforming our world for the better. Many of these trends were anticipated by pioneering systems thinkers like Boulding (1966), Capra (1984), Russell (1991), Henderson (1997), Harman (1998), Hawken et al. (1999) and Meadows and Wright (2008). Consider the following five forces of integration (Fig. 7.2).

7.5.1 The Resilience Economy

The resilience economy includes all the defensive expenditures and investments that lower risks in society, from property insurance and health and safety controls to flood defences and emergency response training. The Stockholm Resilience Centre (2017) defines resilience as “the capacity of a system, be it an individual, a forest, a city or an economy, to deal with change and continue to develop. It is about how humans and nature can use shocks and disturbances like a financial crisis or climate change to spur renewal and innovative thinking.” As we enter a period of greater turbulence, we expect the resilience economy to grow as a strategy to survive and thrive.

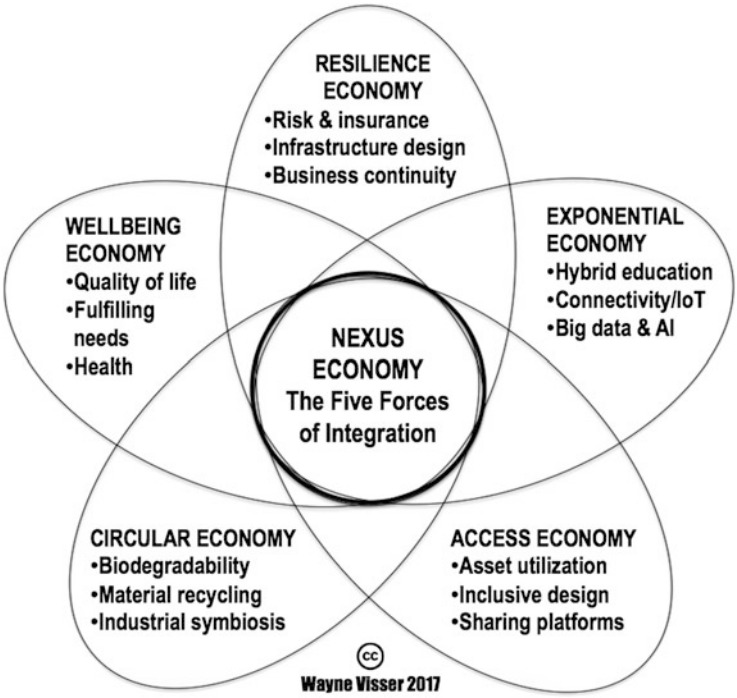

Fig. 7.2 Five forces of integration in the nexus economy

7.5.2 The Exponential Economy

The exponential economy includes all the technological expenditures and investments that increase connectivity and intelligence in society, from high-speed internet and The Internet-of-Things to MOOCs (massive open online courses) and artificial intelligence. The increased use of exponential technologies could add U$1.36 trillion to total global economic output in 2020, according to a recent study by Accenture (2015) (that's the same size as the whole South Korean economy). The World Economic Forum calls this the Fourth Industrial Revolution and describes it as a "blurring the lines between the physical, digital, and biological spheres", which is growing exponentially (Schwab 2016).

7.5.3 The Access Economy

The access economy includes all the expenditures and investments in shared services and company practices that promote fairness and economic inclusion, from car-sharing (like Zipcar) and "couch surfing" (Air BnB) to entertainment streaming

(Netflix) and crowdfunding (Kickstarter). The access economy (a term promoted by Harvard Business Review to suggest that customers increasingly want utilitarian value from accessing benefits from a product or service, rather than social value from intimate exchanges) is also known as the sharing economy, peer-to-peer marketplace, or collaborative consumption (Eckhardt and Bardhi 2015). PwC (2015) estimates the access economy may be worth U$335 billion by 2025.

7.5.4 The Circular Economy

The circular economy includes all the expenditures and investments that decouple economic growth from environmental impact by 'closing the loop' on resource and energy flows, from waste recycling and biodegradable plastics to renewable energy and biomimicry designs. The circular economy draws on an evolution of concepts and practices since the 1960s that include 'spaceship earth' thinking, eco-balance, life cycle analysis, industrial ecology, industrial symbiosis, cleaner production, eco-innovation and cradle to cradle (Visser 2017). In the book *Waste to Wealth*, based on analysis by Accenture, the circular economy opportunity is valued at U$4.5 trillion by 2030 (Lacy and Rutqvist 2015).

7.5.5 The Wellbeing Economy

The wellbeing economy includes all expenditures and investments that increase human health and happiness in society, from stress-relief practices and life coaching to plant-based diets and solutions to social diseases (like crime, inequality, suicide, domestic violence). There are various national indicators that have been created to demonstrate the limitations of economic growth as an indicator of progress in society, by measuring human wellbeing instead, such as the Social Progress Index, the Happy Planet Index and the OECD Better Life Initiative. As we become more conscious of the health impacts of lifestyle, consumerism, diet and pollution, the wellbeing economy is set to grow rapidly.

7.6 Five Pathways for Innovation

Each of these economic trends has spawned an aligned pathway for innovation in response to the opportunities that they represent. Some of these approaches have been captured in research on concepts and practices such as social innovation (Nicholls et al. 2015), responsible innovation (Koops et al. 2015), frugal innovation (Radjou and Prabhu 2015), eco-innovation (Reyes-Mercado 2016) and sustainable

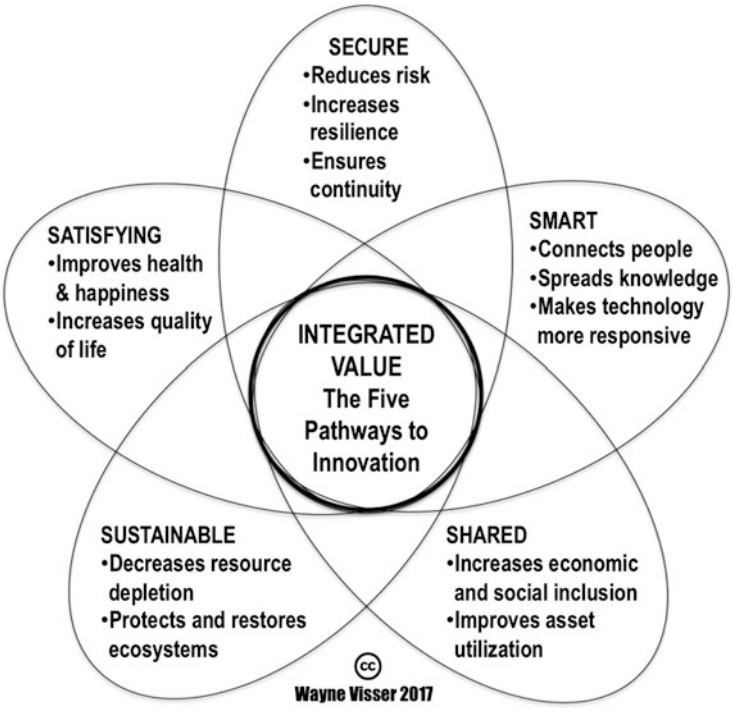

Fig. 7.3 Integrated value synergies from the five pathways for innovation

innovation (Hargadon 2015). Each of the five pathways (Fig. 7.3) is a lens through which to create more positive, integrated futures.

7.6.1 A Secure Pathway

A secure pathway is one in which our organisations, communities, cities and countries do not create or exacerbate disasters or crises; rather, they help us prepare for and respond to emergencies and catastrophes, allowing us to survive and thrive through periods of breakdown, uncertainty and volatility. The test question is: to what extent does your organisation protect and care for us, i.e. your stakeholders? Keywords are secure and resilient, and indicators might include occupational health and safety, insurance cover and emergency preparedness. ClimateWise illustrates this pathway for innovation, through its dedication to preparing the insurance industry to respond effectively to the impacts on climate change.

7.6.2 A Smart Pathway

A smart pathway is one in which our organisations, communities, cities and countries use technology to better connect us to each other and allow us to share what we value most, and facilitate more democratic governance by allowing us (as customers or citizens) to give direct, immediate feedback. The test question is: to what extent does your organisation connect and empower us? Keywords are educated, connected and responsive and indicators might include connectivity, access to knowledge, and R&D investment. Worldreader illustrates the smart pathway for innovation, through its use of tablets and mobile devices to make 31,000 educational titles in 44 languages available to over 17 million people in 69 countries.

7.6.3 A Shared Pathway

A shared pathway is one in which our organisations, communities, cities and countries address issues of equity and access by being transparent about the distribution of value in society and working to ensure that benefits are fairly shared and diversity is respected. The test question is: to what extent does your organisation include and value us? Keywords are fair, diverse and inclusive and indicators might include value distribution, stakeholder participation, and diversity. Park24 Group illustrates the shared pathway for innovation, through its Times Car PLUS car sharing scheme in Japan that has over 15,000 vehicles operating in over 8,000 locations, with more than 700,000 participating members.

7.6.4 A Sustainable Pathway

A sustainable pathway is one in which our organisations, communities, cities and countries operate within the limits of the planet by radically changing resource consumption and ecosystem impacts, with a shift to renewable energy and resources, closing the loop on production and moving to a low carbon society. The test question is: to what extent does your organisation protect and restore our environment? Keywords are renewable, enduring and evolutionary, and indicators might include externality pricing, footprint analysis, and renewability. Danone illustrates the sustainable pathway for innovation, through its targets to build plants with zero liquid discharge, use 100% bio-sourced second generation plastic, and achieve 100% rates of recycled materials in packaging.

7.6.5 A Satisfying Pathway

A satisfying pathway is one in which our organisations, communities, cities and countries produce high quality services that satisfy our human needs, as well as enabling a lifestyle and culture that values quality of life, happiness and other indicators of wellbeing. The test question is: to what extent does your organisation fulfil and inspire us? Keywords are beneficial, beautiful and meaningful, and indicators might include quality standards, levels of satisfaction, and happiness. AllLife Insurance illustrates the satisfying pathway for innovation, through offering whole life cover to HIV positive individuals who were previously excluded from mainstream financial services, by linking the cover to customers' adherence to various dietary, lifestyle and health behaviours.

7.7 Differentiating Integrated Value

When an organisation, community, city or country pursues one of the 5-S pathways to innovation, they are already adding societal value. But depending on their approach, they may not be maximising the value creation opportunity. To simplify, there are four strategic value-creation options available: singular, focused, diffuse and integrated value (Fig. 7.4).

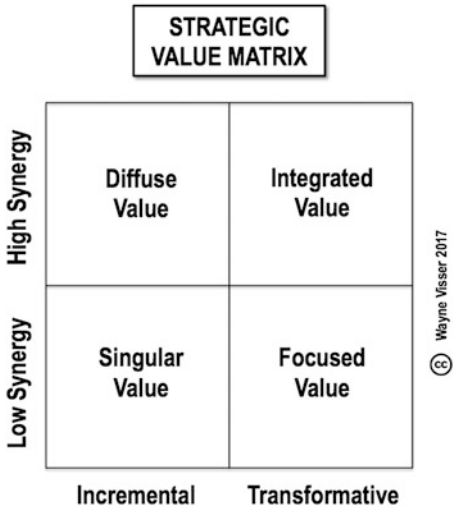

Fig. 7.4 Strategic value matrix

7.7.1 Singular Value

Singular value is when an organisation focuses on one of the 5-Ss as its innovation pathway, but does so in an incremental way. This means they will have a management system (objectives, targets, programs, KPIs, reporting, audits, etc.), but they are content to make a marginal contribution on the issue. The potential for synergy is low, because they are only focused on one innovation pathway. For example, a chemicals company may decide that a secure strategy is key for their success.

7.7.2 Diffuse Value

Diffuse value is when an organisation focuses on multiple of the 5-Ss as its innovation pathway, but does so in an incremental way. This means they will have a management system, but they are content to make a marginal contributions on the issues they have prioritised. The potential for synergy is medium, because they are looking to leverage more than one innovation pathway at a time. For example, a mining company may decide that a dual secure and sustainable strategy is key for their success.

7.7.3 Focused Value

Focused Value is when an organisation focuses on one of the 5-Ss as its innovation pathway, but does so in a transformative way. This means they will have a disruptive innovation approach, and they will only be content with rapid, scalable change on the issue, especially within their industry. The potential for synergy is low, because they are only focused on one innovation pathway. For example, a food and agricultural company may decide that a shared strategy is fundamental and they wish to completely transform the lives of farmers in their supply chain.

7.7.4 Integrated Value

Integrated value is when an organisation focuses on multiple of the 5-Ss as innovation pathways, but does so in a transformative way. This means they will have a disruptive innovation approach, and they will only be content with rapid, scalable change on the issues, within and beyond their industry. The potential for synergy is high, because they are looking to leverage more than one innovation pathway at a time. For example, an electric car company may adopt an integrated 5-S strategy that

takes secure, smart, shared, sustainable and satisfying to a completely new level of performance.

The way in which integrated value manifests—when more than one of the 5-S strategies is applied simultaneously in a transformative way—is through synergy, which Ackoff (1999: 40) described as "the principle purpose of a social system: to contribute to the development of its parts, itself, and the larger system of which it is part." We know this more commonly by the catchphrase: the whole is greater than the sum of the parts. Synergy is the driver of the new nexus economy and will be the key to competitiveness in the coming decade.

7.8 Illustrating Integrated Value

To illustrate the potential and practice of integrated value, let's look at a few cases (Table 7.2).

7.8.1 Novamont

Novamont, as an Italian producer of bio-based plastics and biodegradable plastics, has adopted a 2-S (sustainable+satisfying) integrated value strategy. Among their clients are the global coffee company Lavazza, which now sells compostable coffee capsules that Novamont have produced, which biodegrade within 20–40 days. It is *sustainable* because it is addressing climate change and resource depletion and it is *satisfying* because it decreases respiratory diseases associated with the manufacture of fossil fuel based plastics and eliminates the possibility of persistent plastics leaching toxic residues.

Table 7.2 Cases illustrating Integrated Value strategies

Case	*Secure*	*Smart*	*Shared*	*Sustainable*	*Satisfying*
Novamont					
Dutch Awearness					
Caterpillar					
Tesla					

7.8.2 Dutch Awearness

Dutch Awearness demonstrates a 3-S (smart+shared+sustainable) integrated value strategy in the Netherlands as one of the first textile companies to make fully 'circular' clothes. For example, their WearEver suits are made from 100% recyclable polyester, which can be turned back into a suit at least eight times, giving the total life of the materials of between 40 and 50 years. It is *smart* because it uses a 'track-and-trace' digital app to record material flows in the supply chain; it is *shared* because the suits can be leased and returned or swapped; and it is *sustainable* because it is extending the life of its products, thus reducing the extraction of virgin resources. There are also plans to use reconstituted end-of-life clothing as a substitute for tropical hardwoods in the reinforcement of dykes and canals.

7.8.3 Caterpillar

Caterpillar, the heavy machinery company, has pursued a 4-S (secure+smart+shared +sustainable) integrated value strategy through their Remanufacturing Centre in South Africa (the second largest in the world, operated by Barloworld), which is designed to rebuild 'as new' CAT components for 20–60% less than the cost of replacing with new parts. It is *secure* because it recalls equipment before it fails in the field, thus reducing industrial accidents; it is *smart* because it constantly assesses the performance and maturity of equipment with real time, online monitoring; it is *shared* because it includes an asset lease (rather than ownership) scheme; and it is *sustainable* because it reduces environmental impacts through a circular economy strategy of closing the loop on material flows.

7.8.4 Tesla

Tesla, the integrated automotive and energy company, has pursued a 5-S (secure+smart+shared+sustainable+satisfying) integrated value strategy. It is *secure* because its electric cars with autopilot features already reduce automotive accidents and its fully autonomous cars due on the market soon are expected to be 10 times safer than human drivers; it is *smart* because the cars are digitally connected to the company, with live performance monitoring, over-the-air software updates and computer managed driving; it is *shared* because autonomous cars will scale car-sharing by allowing car owners to add their car to the shared Tesla fleet; it is *sustainable* because the cars eliminate fossil fuels and the utility and home-storage batteries, solar panels and solar tiles are speeding up the adoption of renewables; and it is *satisfying* because the cars directly clean the air that drivers and passengers breath (with

their HEPA filtration system), as well as indirectly by cutting carbon emissions, thus reducing respiratory diseases.

7.9 Implementing Integrated Value

Integrated value is not only a conceptual framework for driving innovation to create a better world, it is also a practical methodology for embedding a multi-capital perspective in the management systems of business. This methodology, which I developed in collaboration with Chad Kymal and called Integrated Value Creation (IVC), is a 7-step process illustrated in Fig. 7.5 and described below (Visser and Kymal 2015).

7.9.1 Context Analysis

Context analysis takes stock of all the relevant societal trends, disruptive technologies, changing legislation, responsible business codes and standards, cross-sector partnerships and competitor activity. During this stage, the company is using a multi-capital perspective to identify what are the most critical pressures that are shaping its operating environment. This is in line with the ISO (2014) High Level Structure for management systems, which states that: "the organization shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcome(s) of its management system."

7.9.2 Stakeholder Assessment

Stakeholder assessment is an iterative process that systematically identifies, categorises and prioritises all stakeholders (Mitchell et al. 1997)—including customers, employees, shareholders, suppliers, regulators, communities and others—before mapping their needs and expectations and analysing their materiality to the business (Zadek and Merme 2003). The output of this process is often a stakeholder materiality matrix, popularised by the Global Reporting Initiative, in its G3.1 Sustainability Reporting Guidelines in 2011 (GRI 2011).

7.9.3 Leadership Review

Leadership review is where top management should review (and if necessary, revise) its values, vision and mission to ensure that they are truly aligned with the priorities

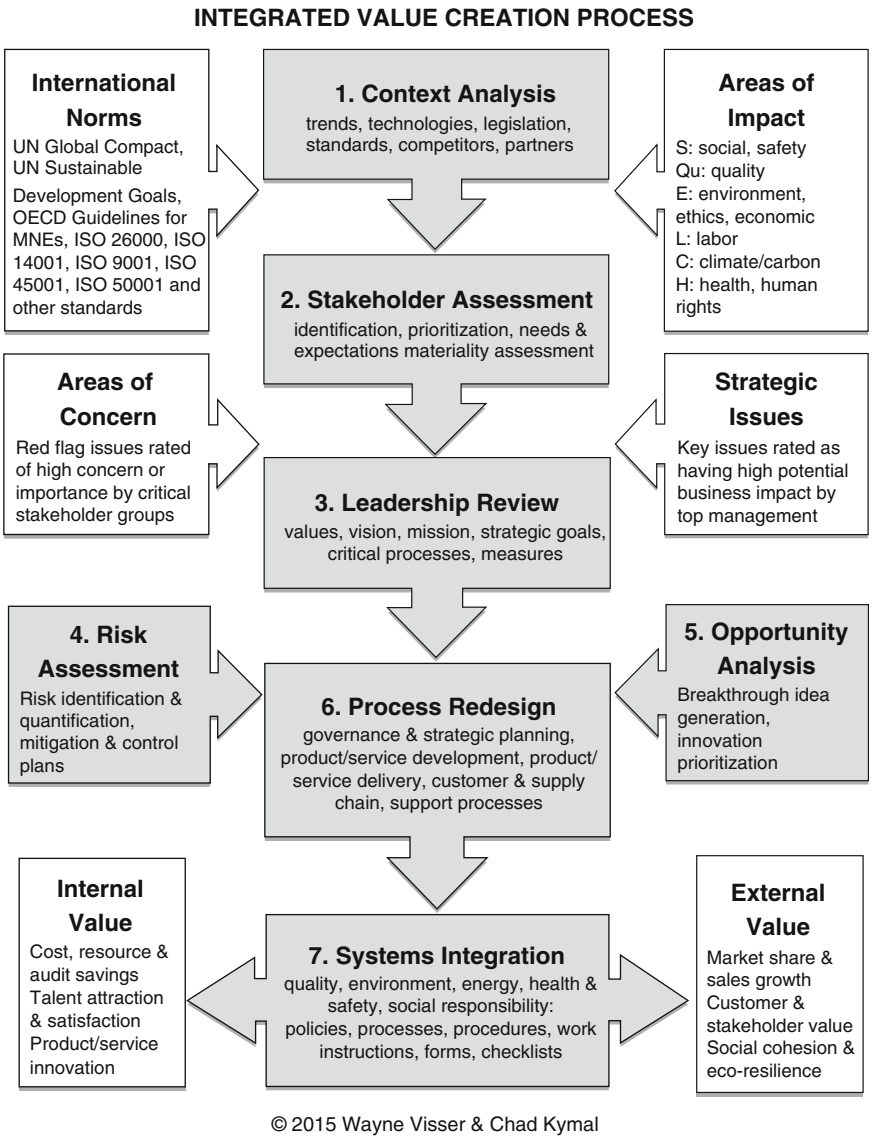

Fig. 7.5 Integrated value creation methodology

identified in the first two steps. The material issues then need to be translated into strategic goals and targets. Companies can use established frameworks like the balanced scorecard (Kaplan and Norton 1992), linking it to sustainability accounting and sustainability reporting (Schaltegger and Wagner 2006), or the goals can simply be integrated with existing strategic performance measurement systems in the company (Gates and Germain 2010). These goals will then act as another filter,

leading to the identification of critical business processes that will enable the achievement of the strategic goals.

7.9.4 Risk Assessment

Risk assessment is the process of identification and quantification of quality, cost, product, environment, health and safety and social responsibility risks, in terms of their potential affect on the company's strategic, production, administrative and value chain processes. As Linder and Sexton (2014) observe, different risk assessment methodologies have evolved for different types of risks. For integration, however, the risk measures developed need to be valid and comparable for all the different types of risks and different entities of the business, and mitigation measures identified. The key to integrated risk assessment is to understand that risk is always a function of severity times occurrence ($R = S \times O$) (Kymal et al. 2015).

7.9.5 Opportunity Analysis

Opportunity analysis entails the innovation and value identification element. It recognises that not only is technological innovation booming, but it is rapidly shifting towards sustainable solutions. Opportunity analysis is comprised of idea generation and screening and the creation of a breakthrough list. This is the chance for problem solving teams, Six Sigma teams, Lean teams, Design for Six Sigma teams and others to use improvement tools to take the company towards its chosen transformational goals (Fargani et al. 2014). The improvement projects will continue for a few months until they are implemented and put into daily practice.

7.9.6 Process Redesign

Process redesign is where business processes are mapped and redesigned in order to align with stakeholder expectations, move towards the strategic goals, minimise risks and maximise breakthrough opportunities. For example, if eliminating corruption is a strategic goal, management will determine which business process is most critical—most likely procurement/purchasing (in the customer and supply chain process) and employee training (in the HR support process). By mapping out the process, and determining key measures for that process, opportunities for improvement can be identified—for example, introducing a procurement policy on bribery and corruption, or a third party due diligence or forensic audit procedure for new supplies.

7.9.7 Systems Integration

Systems integration is the final step, where the requirements of the various sustainability standards most relevant for the organization, together with the transformational strategic goals, are integrated into the management system of the organization, including the business processes, work instructions and forms/checklists. The Annex SL of the ISO Directives provides useful guidance on the key components of integrated management systems. This goal of integrating management systems for quality, environment, health and safety and social responsibility is well established in the literature (Almeida et al. 2014; Mohamad et al. 2013).

7.10 Conclusion

To conclude, integrated value is an important evolution of the corporate responsibility and sustainability movements—and a timely addition to the live debate on creating new, more sustainable business models. It combines many of the ideas and practices already in circulation, but signals some important shifts, especially by combining integration and value creation, and by aligning the practice with pathways to innovation in the five areas of the nexus economy. In addition to adding some meat to the bones of the emerging language of integrated value, the IVC methodology provides a window on the 'how to' of implementing integrated value in organisations.

Hence, integrated value helps organisations respond to the proliferation of societal aspirations and stakeholder expectations in a credible way. The focus on innovation and transformation suggests the potential of integrated value to turn the corporate social responsibility and sustainability practices from defensive, philanthropic and promotional practices into a positive, solutions-driven approach.

Integrated value has five main implications for sustainable business models, notably that it encourages scholars and practitioners to:

1. *Re-assess*: Business models are implicitly about creating value, but if measures of value remain narrowly conceived, or if sustainability KPIs remain peripheral to management and investment decision making, very little will change. Integrated value calls for better assessment of impacts on multiple capitals (economic, technological, social, natural and human).
2. *Re-align:* Integrated value is premised on finding synergistic relationships and breaking down silos; hence, it underscores the importance of collaboration in making many new business models effective, whether it be sharing platforms in the access economy, or industrial symbiosis in the circular economy.
3. *Re-define*: Integrated value is a philosophy based in systems thinking, as well as a practical methodology for transforming business models, which stresses the importance of integrated leadership, whereby the systems pressures and the diverse perspectives of stakeholders are translated into strategic goals that drive change throughout the business.

4. *Re-design:* Innovation is at the heart of many new business models. Integrated value highlights that the probability for innovation to occur—as well as its transformational potential—is increased when we seek synergies between varied disciplines, such as combining two or more of the five pathways to innovation (secure, smart, shared, sustainable and satisfying).
5. *Re-structure*: Finally, by taking a multi-capital approach, integrated value stresses that it is critical to look beyond institutional boundaries in creating new business models; to see the opportunities in connecting natural and social capital, or technological and human capital. This prompts us to focus on changing the context, i.e. the 'rules of the game' in the economy.

Each of these merit further research. However, two areas that may be particularly fruitful are: (1) assessing the UN Sustainable Development Goals from an integrated value perspective, especially what synergies for value creation exist between the 17 goals and which show the strongest potential for joining together in solutions; and (2) assessing the contribution that sustainability accounting can make to integrated value, especially the extent to which externalities are being credibly measured and integrated in management and decision making in business.

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Chapter 8
Creating Value Via Sustainable Business Models and Reverse Innovation

Marek Ćwiklicki and Linda O'Riordan

Abstract This paper focuses on the perspective of commercialising innovation in the quest to create sustainable value. Against a background of a growing societal awareness of global sustainability challenges, which both threaten mankind's prospects for long-term survival while simultaneously presenting huge potential to create new economic opportunity, it systematically examines a selection of key concepts related to New Business Models (NBM) and Reverse Innovation (RI) via a qualitative, theoretical approach. Linking corporate responsibility with organisational value creation structures and processes at the interface between business and society, the authors critically examine the potential effects of RI as a mechanism for enabling pathways and solutions to achieve sustainable value creation (SVC). By defining the relevant key terms, conceptualising the RI process which derives from a Base of the Pyramid (BoP) context, and by presenting case study examples of RI in action, the authors investigate the characteristics and critical success factors of successful NBMs. This highlights the prospects of NBMs and RI for optimally leveraging organisations as catalysts for positive change in society. They tentatively conclude, that this theoretical study of the SVC potential of RI strategies, furnishes initial evidence to indicate that RI can play a valuable role within a NBM context.

8.1 Introduction

This chapter explores the relevance of New Business Models (NBM) and Reverse Innovation (RI) strategies to investigate their prospects for achieving Sustainable Value Creation (SVC) by critically investigating the implications of their connection for sustainable business strategy and management systems. A review of the still emerging literature on the themes of NBM innovation and RI strategies reveals that

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specific research on the sustainable value propositions of RI strategies in NBMs remains in its infancy. A concrete need "to improve our understanding of the connective mechanisms and dynamics involved in business model development, particularly from the challenging perspective of commercializing innovations" (Dmitriev et al. 2014: 306–307) is triggered by past scholarship which suggests that business models and their developmental process interact in an iterative and evolutionary manner. As a result, many questions remain unanswered with respect to the conceivable value of RI as a vehicle to enhance sustainable development within the NBM construct (Brem and Ivens 2013). This includes questions related to the relevance of RI within a NBM context, as well as whether these concepts deliver business solutions which simultaneously produce sustainable (e.g. balanced social, ecological, and economic) value. Further pertinent questions include: how well RI adds sustainable value for a range of constituents; whether its value creation process is novel, or even unique in its own right; and if so, its implications for business strategy and management systems. To answer these questions, the role of NBMs and RI in SVC requires examination.

The study adopts a qualitative, theoretical approach based exclusively on secondary data sources. The desk-based research presented in this paper explores the questions noted immediately above to discover the potential role of RI for NBMs, their inter-relationship, and the nature and dynamics of their combined sustainable value proposition. By defining the relevant key concepts, conceptualising the RI process which derives from a Base of the Pyramid (BoP) context, and by presenting case study examples of RI in action, we critically examine the potential effects of RIs as a mechanism for enabling pathways and solutions to achieve SVC, which is based on triple bottom line (TBL) (Elkington 1997) or triple top line (TTL) (McDonough and Braungart 2002) principles. This investigation highlights the prospects of NBMs and RI for optimally leveraging organisations as catalysts for positive change in society.

8.2 Review of Key Concepts

8.2.1 Establishing the Components of Sustainable Value Creation

The concept of sustainability adopted in this paper derives from the one provided by the World Commission on Environment and Development (WCED), also known as the Brundtland Commission (1987), which defines sustainability as "a development which meets the needs of current generations without compromising the ability of future generations to meet their own needs". Based on this definition, sustainability can be interpreted as a general (over-arching) value, within which the various stakeholder interests (e.g., social, economic, and ecological) are optimally *balanced*. This rationale assumes a broadening of the current economic focus of business value

Table 8.1 Sustainable value creation overview [source: Authors' elaboration based on Jonker and O'Riordan (2016), Jonker (2014), Porter and Kramer (2011)]

Value creation term	Feature	Focus
Multiple	*Inclusive*: Numerous parties involved	Diversity
Collective	*Mutual opportunities*: Novel exchanges '*together*' (in and between organisations and other constituents in the network)	Reciprocation
Shared	Focusing on the *Distribution* of the value created among the multiple collective constituents	Outcome/ impact

creation to include not merely one isolated economic, but three objectives for value creation i.e. including social and environmental as well.

Within the context of this sustainability TTL/TBL definition, a concept of SVC emerges. Adapted from the rationale originally proposed by Jonker (2012, 2014), SVC incorporates three value 'features' focused on varying aims. The first principle is termed: 'Multiple Value' and relates to the nature of diversity in SVC, in the sense that the value is created inclusively among many parties in a network. The second principle addresses the value that is created mutually among and between the various constituents in the network. It is termed the principle of: 'Collective Value'. It transcends the meaning of terms such as relationship value, which is understood narrowly as a sum of buyer and supplier value (Pinnington and Scanlon 2009: 39), or relational rent also called inter-organisational rent-generating process (Dyer and Singh 1998: 661). It refers to value creation and value appropriation in innovation-related co-opetition (Ritala and Hurmelinna-Laukkanen 2009). The third principle is labelled: 'Shared Value' based on its reciprocal character. It is defined as "policies and operating practices that enhance the competiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (Porter and Kramer 2011: 6). Combining these *inclusive* and *collective* qualities determines that the value which is created is designed from the outset to be allocated or *shared* among a broader range of (multiple) constituents or stakeholders than mainly gratifying exclusive shareholder interests, as is the case in 'old' business models. These concepts are illustrated in Table 8.1.

8.2.2 Business Models, Business Model Innovation and 'New' Business Models

A review of the increasing body of related literature which has emerged since awareness of business models (BMs) essentially began in the mid-1990s with the advent of the Internet, reveals that the main focus of the scholarship which has subsequently appeared, is primarily based on generic aspects of BMs largely related to themes such as e-commerce, strategy, and innovation (Chesbrough and Rosenbloom 2002; Osterwalder et al. 2005; Shafer et al. 2005; Teece 2010; Zott

et al. 2011). A study of the academic literature and mainstream management knowledge of business models over the last 15 years highlights several definitions. However, detailed analysis of its meaning conducted by Zott et al. (2011) indicates that the business model, as a root concept of this study, does not hold one unambiguous interpretation. In order to establish the current most dominant understanding of business models, we conclude that it may be broadly defined as: *a way of doing business which creates and delivers value* (Saebi and Foss 2014: 204; Taran et al. 2015: 303). Consequently, BMs can be interpreted as a construct comprising both the rationale and the route for organising value creation, but based on 'conventional' ideas and perspectives with a primarily narrow economic emphasis focused largely on a competitive profit maximisation route to value creation.

According to Lindgren and Jørgensen (2012: 6), BMs enhance innovation by presenting "a business operational manifestation of the way business model innovation works and is carried out from ideation to market introduction". Afauh (2014: 4) defines Business Model Innovation (BMI) as "a framework or recipe for creating and capturing value by doing things differently" and indicates 'change' as a main characteristic of BMI. Markides wrote about the discovery of fundamentally different BMs in existing businesses: "To qualify as an innovation, the NBM must enlarge the existing economic pie, either by attracting new customers into the market or by encouraging existing customers to consume more" (Markides 2006: 20). Notwithstanding the potential need to question the implications of the impact of increased consumption on social and ecological interests inherent in this definition of innovation, other BMI definitions—similar to BMs—additionally cover broader aspects. For example, one of the important features of BMI is highlighted as: "finding the optimal combinations of internal and external knowledge in ways that create and capture value" (Denicolai et al. 2014: 259). Overall however, these examples exhibit a lack of consistency in describing BMI due to the different perspectives applied by the researchers (Spieth et al. 2014: 238).

Within the context of the undoubtedly general definitions presented immediately above, past scholarship suggests that NBMs can be interpreted as a form of BMI. While the concepts of BMs and consequently BMI have their foundation in corporate practice, strategic management, and industrial economics (Carayannis et al. 2015; Teece 2010), and are therefore not 'new' in their own right per se, Casadesus-Masanell and Zhu (2013: 464) defined NBMs as the "search for new logics of the firm, new ways to create and capture value for its stakeholders, and focusing, primarily, on finding new ways to generate revenues and to define value propositions for customers, suppliers, and partners".

Building upon these key principles, we define NBMs to designate a process for realising a sustainable supply of relevant offerings to clients, customers, the community, and other stakeholders. We interpret their novelty as 'new' in the sense of their quest for innovation beyond a narrow profit maximisation focus towards a SVC balanced value optimisation approach. Both the novelty and the comprehensiveness associated with this approach by definition leads to (re-)design via co-creation, and ultimately, added value for a range of constituents.

According to Jonker and O'Riordan (2016: 12), seven key *features* of NBMs exist:

1. "A form of co-operative collaboration as a central element, in which doing business is the art of the new collaboration, and where connecting increasingly drives social and economic value;
2. Deliberately creating multiple value (s) is a key attribute, which aims to achieve a balance between values such as nature, care, attention, and money;
3. Money is no longer the only means of trade; time, energy, or care can also be earned, deployed or exchanged;
4. The development of an economy based on needs and uses (now and in the future) which consequently employs credit books for energy, warmth, vegetables, or care, for example;
5. Ownership of property or the means of production is no longer central—access to these resources is perhaps more important;
6. Parties expressing and securing long-term commitment to each other;
7. The use of alternative 'money' (time, care, points, etc.)."

Some of the key *elements* of NBMs according to Eyring et al. (2011: 93) include:

1. A customer value proposition (pricing, payment schedule, type of offering, access options);
2. A profit formula (cost structure, revenue model, target unit margin, resource velocity);
3. Key processes (R&D, manufacturing, HR, marketing, IT);
4. Key resources (brand, people, technology, partnerships, channel).

Consequently, NBMs can be assumed to enhance innovation, due to the 'difference' and the 'change' via which the organisation enables SVC through the production and supply of new offerings for its customers and other stakeholders. Significantly, this novelty refers to a way of organising, which not only focuses on the task of internal organisation within the organisation itself, but also on organisation *between* organisations and their constituents. This inclusive approach to organising inherent in NBMs enables exchange opportunities which uniquely facilitate social and ecological, in addition to economic value(s) creation (Jonker and O'Riordan 2016).

In contrast with the claim of *a missing centrality of profit generation in sustainable business models* (Dentchev et al. 2016; Seelos and Mair 2007; Teece 2010; Yunus et al. 2010), we highlight the very existence of the word 'business' in the term to represent a required safeguard of long-term profit generation. Accordingly, sustainable NBMs do not stand in contrast with conventional BMs per se, but simply represent a broader scope of value creation. This mobilises the voluntary integration of social and environmental interests within the business activity of investing and organising resources along the entire value chain of the business as a valuable business opportunity. Our interpretation of sustainable NBMs thereby assumes a broad enabling scope which includes companies as intermediaries (or other parties)

in business activities facilitating market-mediated access via exchange for and between customers/users as the basis of their success.

8.3 Organising Sustainable Change via NBMs

At the micro level, the organisation creates sustainable change via the NBM which facilitates the generation of new offerings (including products and services) for its stakeholders. Increasingly, a SVC awareness is already re-defining interpretations of 'success', as well as strategic approaches to the 'value(s) proposition'. Notwithstanding the measurement issues associated with establishing social value, the evidence indicates that decision-makers who more broadly seek to balance varying stakeholder interests can generate more optimal value for organisational enterprise (Grant and Jordan 2015).

Moreover, a mind-set transition beyond profit maximisation in the first instance as the organisation's sole intent or purpose can be interpreted as a way of legitimising the role of business in society and improving the value of business practices via the gained acceptance. By maintaining a "licence and goodwill to conduct business" (Ulrich and Fluri 1995), this approach inclusively addresses the interests of a broad range of constituents who have a 'stake' in the business (Haniffa and Cooke 2005: 3; Stark 1993; Woodward et al. 2001: 357).

Gradually, business is beginning to improve the quality of life in communities via a new appreciation of the inherent latent opportunities lingering at what has been expressed as the '*white space*' at the intersection of the TTL/TBL value proposition (O'Riordan and Zmuda 2015: 49–500). Seizing such opportunities enables business to both enjoy greater economic opportunity in previously uncharted market zones, while simultaneously tackling challenging social and environmental problems.

8.4 Managing RI Within the NBM Construct in a BoP Setting

8.4.1 Reverse Innovation: Raised in the Developing World, Spread in Developed Countries

One example of the potential to achieve SVC for an inclusive range of constituents via such 'white space' opportunity comprises the abundant latent demand which exists at the 'base of the pyramid' or 'bottom-of-the-pyramid' (BoP) as conceived by C.K. Prahalad et al. (Prahalad and Hammond 2002; Prahalad and Hart 2002), as a source of market innovation. The BoP concept refers to consumers whose annual per capita income is less than U$1500 (Prahalad and Hart 2002: 2). This emphasises the huge potential for organisations to create new economic opportunity by offering

Fig. 8.1 Reverse Innovation stages (Source: Authors' elaboration based on Immelt et al. 2009: 60–61, Von Zedtwitz et al. 2014: 17)

commercial responses to address global social and environmental challenges (O'Riordan and Zmuda 2015). When approached from the stance of a TTL/TBL purpose, such business strategies, if organised with a view to balancing the objective of minimising the costs and maximising benefits overall for an inclusive range of stakeholders, could arguably possibly even be deemed to be sustainable.

One interesting approach for leveraging organisations as catalysts for positive change in society in the way described immediately above is RI, which comprises the relatively recently identified strategy of innovating in emerging (or poor, developing) markets and then distributing/marketing these innovations in developed markets in advanced economies (Govindarajan and Trimble 2012). Precisely in this regard, the abundant opportunities at the BoP as a source of market innovation highlight how social needs can be viewed as a basis for innovative technological solutions via strategies which make them commercially viable (e.g., Linna 2012; Prahalad et al. 2012).

The general process of creating RI can be described as illustrated in Fig. 8.1.

The typical direction of the form of RI popularised by Govindarajan and Trimble (2012) is described as follows: ideation and development happens in low-income countries ('in country, for country'), and market introduction takes place in developed countries ('in country, for the world').

In cases where the creation of the original product idea derives from SVC enlightened behaviour by decision-makers in low income countries, the role of the NBM could already begin in stage 1.

A term that is often referred to in conjunction with RI is: Frugal Innovation (FI). It is defined as "a derived management approach, based on *jugaad*,[1] which focuses on the development, production, and product management of resource-saving products and services for people at the BoP by achieving a sufficient level of taxonomy and avoiding needless costs" (Brem and Wolfram 2014: 19). 'Frugal' means that products fulfil basic needs by focusing on necessary functions only. The product examples given by Gupta (2011), such as: Tata Swach (drinking water purifier), Sakshat (laptop), Tata Nano (car), Chottukools (refrigerator), and Nokia 1100 mobile handset, are generally characterised by: low-cost, user friendliness, and coherence with customers' needs at the BoP.

[1]Jugaad is a colloquial Hindi-Urdu word meaning an 'innovative fix' or an 'improvised solution' born from ingenuity, cleverness, and resourcefulness (Radjou et al. 2012a, b).

One of the most quoted RI case studies is the portable electro-cardio machine (ECM)—GE MAC 800, which was created by General Electric Healthcare in 2002 (Immelt et al. 2009). The product facilitated patient examinations in rural clinics thanks to its significantly lower cost (a reduction of over half the original cost for patient examinations) (ibid.). Govindarajan and Trimble (2012: 65) state that the biggest challenge was "changing the mind-set of managers who have spent their careers excelling at glocalisation". While those authors conclude that this departure from the traditional business model to the new one was successful overall, because this NBM is still an on-going project under improvement, only time will tell whether this solution did in fact succeed.

Another example of RI is the case of Harman, which is a well-known producer of audio-visual systems for cars. Its CEO decided to launch a new company in India called 'Saras' (Govindarajan 2012). The general model created by Saras consists of the same stages depicted in Fig. 8.1. Here, the added value to society could be considered to include the provision of lower-priced technology, as well as knowledge and employment transfer to emerging markets.

8.4.2 Framework, Enabling Mechanisms, and the Generic NBM for RI Strategies

The most recognised *framework* for doing business at the BoP is the 4As (affordability, acceptability, awareness, availability) introduced by Anderson and Billou (2007). They are closely linked to the 4Ps (Product, Price, Place, and Promotion), and the 4Cs (Customer Value, Cost, Convenience, and Communication) of the marketing mix, which were popularised by Kotler (Kotler and Armstrong 2013).

London and Hart (2011: 21) present seven principles for creating value at the BoP which connects enhancing a mutual value. They include to:

- Create market opportunities (assess market-creation investment needs, explore potential partnerships with development sector);
- Craft solutions with the BoP (dialogue grounded in mutual respect, adopt appropriate mind-set);
- Orchestrate effective experiments (utilise metrics that support a process of trial-and-error);
- Manage failures (avoid turning learning-orientated pilots into philanthropic projects, ensure soft landing for BoP when pilot ends);
- Generate mixed competitive advantage (gain access to rich and diverse sources of information, ensure partners' value creation goals are achieved);
- Leverage and transfer social embeddedness (remain open to local value creation);
- Opportunities (frame analysis based on identifying and enhancing optimally balanced TTL/TBL value outcomes).

According to some authors, the main *enabling mechanism* for RI is a new or "other market or market segment with resource-constrained needs" (Zeschky et al. 2014: 25). Innovation at the BoP requires "a deep immersion into consumers' lives to get unique insights" (Prahalad et al. 2012: 10). Innovation strategies for RI are described as "cost, 'good-enough' innovation, or frugal solutions for Western markets" (Zeschky et al. 2014: 25), which we interpret in the sense that they are based on low cost strategies and sufficient (rather than break-through/new to the world) innovation.

Within the context of the above-mentioned features, elements, framework, and enabling mechanisms for RI which derives from a BoP setting, NBMs for undertaking RI strategies can be described as 'dual-purpose organisations'. This consists of the main company organisation in addition to a new one which is specifically developed for the RI purpose. Each organisational form operates as a distinct sub-unit within the corporation, but the operational links continue to exist, and each unit has its own general manager who reports to the same senior executive (Govindarajan and Trimble 2005: 50). Govindarajan and Trimble stress that this type of BM addresses strategic experiments when the innovation is based on investing the company's current resources in activities which depart from the organisation's typical routines. This diversification by definition suggests a certain degree of novelty.

With respect to organisation design, Soni and Krishnan (2014: 34) suggest that the following three dimensions should be considered: mind-set, process, and outcome. 'Mind-set' refers to an attitude towards innovation and problem solving using whatever is at hand; 'Process' requires a clean-sheet approach to product design; and the 'Outcome' is perceived as an appropriate technology which is understood according to Schumacher's interpretation as "a set of small-scale, labour-intensive technologies that are easy to operate and maintain, and have minimal harmful impact on the environment" (Soni and Krishnan 2014: 32). The social and ecological impact of such activities could also conceivably be interpreted to include purposefully planned outcomes, which ultimately generate positive effects for society and the environment.

From a SVC perspective, the economic impact appears in the form of the job creation potential; the environmental effect derives from the use of locally-sourced raw materials, as well as the potential resource-saving opportunities linked with frugal innovation and *jugaad*; the socio-economic consequence may be interpreted in the ability to maintain cultural stability in the local context (from the perspective of individual, family, and community welfare) (Viswanathan and Sridharan 2012: 63–64).

Table 8.2 summarises the above findings into a framework, which is designed to systematically illustrate and describe the key dimensions and constituents for organising RI within the NBM construct.

Table 8.2 NBM framework for RI strategies

Key dimension	Component	Description
Relations with main organisation	Main support	Access to company's knowledge and areas of expertise
	Communication	Reporting to CEO
	Authority dependence	Independent decision-making process
	Strategy dependence	Own strategy based on radical targets
Organisational design/model	Personnel	Local employees possessing expert competencies and knowledge about local market needs
	Organisational structure	Project orientated, cross-functional, lean and flexible
	Resource usage	Local organisation: Tangible assets Main organisation: Both types of assets are used/ borrowed: • Intangible: Transfer of knowledge and expertise • Tangible: Borrowing physical assets
	Key processes	R&D, manufacturing, marketing
	Internal process design	New, adjusted to new product requirements
	Product orientation	Cost-orientated, ease-of-use
Local environment	Partnership	Strong linkage with local partners
	Customer proposition	Strongly related to the BoP market characteristics (affordability and acceptability)
	Access to resource	Easy to access, but resources limited
RI challenges	Distribution channels	From emerging markets to developed market
	Product scalability	Meeting customers' needs in developed market
	Profit formula	Adjusted to developed markets
Novelty	Mind-set	Creating commercial solutions to social needs
	Demand	Leveraging latent BoP and developed world market potential
	Focus	Serving market based on need rather than margin
Sustainability	Purpose/intent	Triple bottom line perspective
	Value creation	Optimally leveraging organisations as catalysts for positive change in society creating sustainable value via a multiple, collective, shared approach

8.5 Discussion

8.5.1 The Relevance of RI Within a NBM Context

We propose that the relevance of RI within a NBM context derives from its 'transition potential'. Since the relatively recent emergence of both NBMS and RI

strategies, continuing economic and political crises, as well as persistent environmental issues increasingly highlight the need for organisations in society to change their existing well-established 'routines' and 'beaten paths' with respect to their strategic resource conversion processes (Jonker and O'Riordan 2016). This transition is beginning to shift the economic emphasis of organisational purpose away from traditional business models focused of profit maximisation and an aggressive competitive orientation to an approach based on diverse (multiple/ inclusive), co-created (collective), and shared value creation. This changing focus considerably alters the underpinning logic of value creation towards value optimisation, an approach which we have labelled in this chapter: SVC.

SVC could give way to a new generation of business models which change the conventional view of competition towards inclusive capitalism along the lines, for example, depicted in a widely cited 2002 article, by two of its earliest advocates Prahalad and Hart (2002). Those authors reasoned that powerful corporations have the potential to improve the conditions of the world's poor by promoting commercial activity, employment opportunities, access to credit, and wealth creation among those at the bottom of income distribution—a group they refer to as the 'fourth tier', the world's poorest 4 billion people (Edsall 2015).

In contrast to stakeholder theory and the TTL/TBL concept, we contend that the current economic competitive approach, focused exclusively on profit maximisation is limited in various respects because it merely narrowly satisfices an incomplete scope of internal interests (namely exclusively those of the owners of the firm), while not sufficiently taking into account negative external side-effects (such as: waste, depletion, unbalanced pricing, and opportunity costs).

In its place, RI within a NBM context signifies a transition towards a new approach, which could be interpreted as 'collaborative advantage' based on the rationale of the inclusive SVC nature highlighted previously. This approach, which is established via multiple and shared SVC based on *collective collaboration*, suggests a new form of competition. The collaborative advantage inherent in the RI approach augments the profit maximisation focus to facilitate sustainable development by enabling a 'striving together' rationale as one potential route to achieve the objective of *value optimisation* for a broader range of the constituents overall.

8.5.2 The SVC Potential of RI Strategies Within a NBM Context

We reason that RI strategies within the NBM context can manifest themselves as solutions which enable sustainable business with respect to the use and distribution of, as well as access to scarce resources for customers in local markets.

Against the backdrop of the growing societal awareness, concern, and response to global sustainability challenges, we view RI strategies via the NBM construct as a potential future sustainable pathway to achieve more equitable recognition and

distribution of the wealth and the other 'spin-off' impacts created by organisations. Founded on the premise of their potential to collectively create and share economic opportunity, which is based on multiple TTL/TBL principles and outcomes, we consequently interpret RI strategies as a mechanism for enabling sustainable routes and solutions to SVC.

When endeavouring to address the pressing and persistent problems of our time via innovative SVC logic and routes, doing 'business as usual' will arguably merely continue to provide ineffective solutions. Instead, discovering an approach to stop replicating the past requires a fundamental mind-set change. Although RI strategies within a NBM context emphasise a social focus, this does not imply the abandonment of a profit orientation. On the contrary, the prerequisite for distributing wealth is first generating it, and it would be naïve to expect business to transform into the new role of the exclusively social, non-profit organisation. Accordingly, a TBL or TTL strategic orientation does not constitute a conflict between social, ecological, and economic interests for RI strategies in a NBM context, but rather *a more optimal balance between them*.

8.5.3 The Implications of RI Strategies Within a NBM Context for Business Practice

Based on the preliminary evidence available, we propose that RI strategies via NBMs comprise a novel approach to SVC via a new organisational construct. We consider that RI could hold the potential capability to present a highly interesting field as one conceivable strategy for achieving sustainable solutions which enable more optimally-balanced TTL/TBL value for a broader range of constituents.

However, in order for RI strategies within an NBM context to exploit their full potential as catalysts for sustainable change in society at the micro level, we highlight the requirement for a different, more inclusive, macro-economic context as a particularly important prerequisite. As a necessary pre-condition for optimally enabling all members of the network to create their own value in a sustainable way, we propose that the transition potential in the emerging characteristics of a circular economy approach, could play an important role if organisations are to succeed in achieving the kind of the transformation which is required to address the pressing sustainability issues of our time.

Positioned amidst a circular economy or WEconomy framework (Jonker 2012), RI strategies within a NBM context could signify the first steps in establishing a new management direction for organising resources, which generate more optimally sustainable TTL/TBL value.

8.6 Conclusion

By delivering novel and potentially unique business solutions which simultaneously produce social, ecological, and economic value, we contend that RI strategies can potentially add value for a range of constituents. Most significantly, their approach to organising, not only focuses on the task of internal organisation within the organisation itself, but also on organising *between* organisations and their constituents. By consciously designing business purpose from its preconception with the intent to provide access to and sharing of the value created with those at the bottom of the income distribution hierarchy, we reason that the data substantiates the potential benefit of such strategies.

Within the broader SVC context, the implications of the connection between RI strategies and NBMs for business strategy and management systems are threefold. At both a macro and micro level, they include the inherent (white space) opportunity to create TTL/TBL value for the environment, as well as socially for the organisation's clients, customers, and the needs of other stakeholders involved, in addition to economically for the business itself. In this way, powerful corporations can improve the conditions of the world's less well-off citizens by directing their commercial activity towards SVC. Based on Schumpeter's rationale, by "democratising wealth", such solutions enable sustainable business with respect to the use and distribution of, as well as access to scarce resources for customers (Schumpeter 2008).

We consider NBMs to comprise a useful organisational construct with the potential capability for achieving sustainable solutions, which enable more optimally-balanced TTL/TBL value for a broader range of constituents than 'conventional' business models. This implies that the classical stakeholder spoke-and-wheel thinking is replaced by a much wider networked scope of parties involved in creating value such as citizens, NGO's and others besides business or governments.

Because the design of the functional NBM for the RI strategy does not, by definition, exist in isolation, we recommend that it should always be viewed in relation to the various parties involved (members, suppliers, etc.), as well as the environment. The project initiator's key role is to maintain an overview and to 'control' the way in which value is created with others. In this process, it is important to remember that however well one stakeholder in the process may be developing; each 'stake' is merely one part in the 'value chain' of others. Significantly, this means that the NBM may also contribute to the ambitions of other parties inside, as well as outside, the value network (Jonker 2012).

Lessons from frugal innovation at the BoP and NBMs provide a set of recommendations, which could help to adjust RI strategies for creating SVC:

– Carry out social inclusion with a business mind-set by checking that the activity has the ambition to simultaneously produce social (people), ecological (planet), and economic (profit) value. Determining value in this way in clear and concise terms is a key principle of SVC;

- When organising your NBM, try to verify your NBM's impact on the design team, the physical and social environment, and on the community that forms around the NBM;
- Cater to expanding your low-income western consumer base by considering how your NBM creates value for your customers and vice versa;
- Create an inclusive work culture;
- Recognise that marginal segments are not marginal minds i.e. that companies should not treat secondary customers as unimportant in BoP markets;
- Use technology to lower the cost of inclusion;
- Partner with non-profit organisations;
- Secure CEO-level buy-in to drive systemic business model changes;
- Adopt—and adapt—proven best-practices from emerging markets;
- Embrace inclusive design principles (Jonker 2014; Radjou et al. 2012a, b).

Lastly, and possibly most crucially, we recommend the requirement for the emergence of a new quality of management as a key prerequisite in the search for practical business solutions to realise SVC within a RI/NBM context. This new mind-set transitions away from a profit maximisation focus in the first instance, measured exclusively by money, to evaluate in a balanced way an organisation's ability to create, preserve, or erode economic, environmental, and social value for itself, its stakeholders, and society at large.

Given the fact that the research relating to NBMs and RI strategies is still emerging, as well as the controversy surrounding the BoP potential (see for example The Economist 2004), the study of developing sustainable multiple, collective, and shared value from the perspective of NBMs and RI strategies requires further investigation. This could include subsequent research regarding how to strategically manage and implement the SVC concept in practice into the NBMs of (commercial) organisations, as well as the identification of new measurement tools designed to more appropriately capture the sustainable impact of SVC strategies.

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Chapter 9
Towards Understanding Collaboration Within Circular Business Models

Phil Brown, Nancy Bocken, and Ruud Balkenende

Abstract This chapter presents emerging work on mapping collaborative activities related to Circular Business Model (CBM) implementation. Findings pertain to the importance of collaboration presenting specific types demonstrated while pursuing CBMs. Future research areas are highlighted to explore potential impacts of collaboration upon CBMs.

Collaboration is essential to simultaneously ensuring economic, environmental and social performance throughout a product's life cycle(s). This chapter addresses the following question: *What types of collaboration are presented by companies pursuing Circular Business Models?*

Companies developing CBMs, a subcategory of sustainable business models, explore life cycle perspectives through aspiring to slow and close resource loops. The required system change is beyond individual companies and requires transition towards inter-organisational collaborative networks. Collaboration, although vital, is also described as "opaque", an "amorphous meta-concept", and a "black box". Collaboration is therefore a highly diverse and expansive concept, explored here within the specific focus to its implications and interactions upon CBMs.

A literature study combining research fields of CBMs and collaboration within sustainable supply chain management was conducted. Specific types of collaboration crucial to CBMs are presented. These are applied through a proposed framework to describe eight Dutch companies pursuing CBMs. Their collaborative processes are analysed through pattern matching and cross-case analysis. Based on this, initial characteristics of the collaborative activities that are linked to CBMs are proposed.

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9.1 Introduction

The Circular Economy (CE) concept is seen as holding great promise and is increasingly researched for its potential to achieve sustainability (Andersen 2007; Asif et al. 2016; Ghisellini et al. 2016; Murray et al. 2015; Tukker 2015). CE's conceptual foundations are diverse with the overall concept in a pre-paradigmatic stage (Ghisellini et al. 2016) and argued here as a subset and key potential driver within the wider sustainability paradigm (Geissdoerfer et al. 2017). This chapter regards a circular economy as an economic system designed to be regenerative and decouple growth from material inputs of finite resources, while maximising value creation opportunities and minimising environmental impacts throughout.

Collaboration between organisations is central to sustainability oriented agendas and performance (Chin et al. 2015; Lozano 2007, 2008), which requires collaboration across intra and inter-organisational levels (Sancha et al. 2016; Sarkis 2012). Miles et al. (2006) state that collaboration directed towards mutually desired objectives such as new business opportunities, creation of new products or systems holds great promises. CE proposes reengineering systems through incorporating systems thinking to pursue such mutually desired objectives, while aiming for improved efficiencies across operations. This process requires inter-organizational collaboration across horizontal, vertical and network dynamics (Zils et al. 2016). Companies and their networks are therefore central actors within transitioning modes of operation and value creation logic to include CE concepts within strategies for innovation, stakeholder and network engagement (Geissdoerfer et al. 2017; Porter and Kramer 2011; Valkokari and Rana 2017). This requires setting clear strategic commitments to a sustainable vision delivered by leadership able to re-think relationship management strategies and change business practices that account for the wider system dynamics (Klassen and Vereecke 2012; Lüdeke-Freund et al. 2016; Romero and Molina 2012; Waller et al. 2015).

It is the pursuit of CE concepts across the system that inherently generate complexities, manifested within overcoming linear lock-in, exploring new business model and product design combinations, while minimising the negative impact upon wider systems dynamics (Linder and Williander 2017; Rizos et al. 2015b; Zils et al. 2016). Thus, taking a system view, end-of-life (EoL) strategies are inexorably intertwined with the business model, product design and value network, necessitating new or altered collaborations between partners to deliver circular transitions (Aminoff and Kettunen 2016; Kraaijenhagen et al. 2016; Schaltegger et al. 2016; Velte and Steinhilper 2016). The challenge is in understanding what types of collaborative activities are required within CE. Lehmacher (2017) proposes that this requires a transition towards a circular supply chain paradigm, referencing that partner integration and co-creation capacity is directly linked to the development of CBMs. The framework for looping and cascading value within CE proposed by Bocken et al. (2016) and work by Den Hollander et al. (2017) also directly link business model and product design strategies. These works present uncertainties and obstacles that require collaborative activities, which also indicates the need for

assessments of where and what value is created, consumed, captured, recovered and cycled between partners (Schenkel et al. 2016).

This chapter reviews the concepts of CBMs and collaboration with a specific focus on sustainable supply chain management and network collaborations. It expands upon these concepts proposing that at a fundamental level CBMs require a deeper understanding of collaboration mechanisms, processes and types related to the design, formation and delivery of circular products and services. Preliminary work that illuminates the types of collaboration used within the development of CBMs, will be presented. Initial characteristics of collaborative activities assessed between actors are proposed for mapping types of collaboration within the context of Dutch companies pursuing CBMs. Focus is directed towards instances of collaboration between partners supporting product design, business model and network activities.

Our exploration will be directed by answering the following research question: 'What types of collaboration are presented by companies pursuing Circular Business Models (CBMs)?'

Firstly, the methodology is presented. Subsequently, the concepts of CBMs and collaboration across value networks are summarized, culminating in a proposed conceptual framework. The framework subsequently directs exploration of eight illustrative Dutch circular case snap-shots and cross case analysis. The results support subsequent discussion, limitations and future research, and conclusions.

9.2 Methodology

The broad nature of the concepts conjoined within this research led to the rationale to pursue a qualitative and exploratory research design, combining a theory and practice review to categorise findings based on theory building from a case study approach (Eisenhardt 1989; Eisenhardt and Graebner 2007). Case study reviews (snap-shots) were used to provide an evidentiary base for cross-case analysis presenting findings as abbreviated vignettes (Yin 2009). The multiple case snapshot method was chosen to provide rich examples of the studied phenomenon of collaboration across reported actions between different companies to support potential generalisation of findings.

Desk-based research for eight selected Dutch companies, developing CBMs was carried out, as presented in below table. Data was sourced from publically available sources, journals, company websites, press releases and reports. The key selection criterion was that the company is actively engaged in and developing CBMs. Subsequent determinants for case selection are: (1) external communication of activates, (2) stated circular/sustainability vision, (3) accessibility of data, (4) CBM communication presents collaborative partner activities.

Snap-shots were analysed by aligning exploration of CBM, circular strategy and the underlying nature of collaborative partners, activities and outcomes demonstrated by cases within their pursuit of stated visions. The unit of analysis was

Overview of company case snap-shots observed within research

Company	Company size	Type of products/services
Royal Auping	International	Manufacturer of beds, mattresses and accessories
Desso	Multinational	Carpet and flooring materials
Fairphone	Start-up	Consumer electronics—Smartphone
Gispen	International	Furniture
G-star Raw	International	Clothing
Mud Jeans	Start-up	Clothing—Jeans
Philips Healthcare	Multinational	Healthcare equipment
Philips Lighting	Multinational	Lighting solutions

collaborative behaviour and activities between two or more companies conducted to support CBM development, with case data reviewed for such instances.

Following Yin (2009) information has been summarised in the form of tables supporting pattern matching and cross-case analysis. These analysed collaborative partners identifying their purpose, nature, capabilities or contribution and outcome(s). The CBMs, CE strategies and the collaboration types assessed from literature and presented in subsequent Sect. 9.3 are incorporated into analysis. The tables were used to develop, categorise and group specific characteristics of collaborative activities.

9.3 Literature Review

9.3.1 Circular Business Models

The business model concept allows for simplification of complex reconfigurations, innovations and experimentation of new market systems (Osterwalder 2004; Zott et al. 2011). It describes the logic, process and architecture for value creation and capture systems between stakeholders (Bocken et al. 2014; Zott and Amit 2010). Business model components consolidated into three essential building blocks (Richardson 2008) have been expanded to the sustainable business model framework presented in Fig. 9.1. This highlights additional concepts of value that should be considered such as value missed, destroyed and uncaptured (Bocken et al. 2013, 2015; Yang et al. 2016). Sustainable Business Models (SBMs) therefore challenge profit maximization (Friedman 1970) through changing mindsets to pursue shared value, while developing ecological and wider sustainable value(s) (Boons 2009; Mäkinen and Seppänen 2007; Porter and Kramer 2011). SBM concepts establish the sustainable impacts businesses can develop through engaging stakeholders and systems thinking (Hart and Milstein 2003; Stubbs and Cocklin 2008; Wells 2013). Hereby sustainability is now seen as axiomatic to performance and integral to business strategy (Boons and Lüdeke-Freund 2013; Gimenez and Tachizawa 2012).

Circular Business models (CBMs) and SBMs are closely related themes (Antikainen and Valkokari 2016) with CBMs positioned here as a subset of SBMs (Bocken et al. 2014). However, the social pillar is arguably underrepresented within

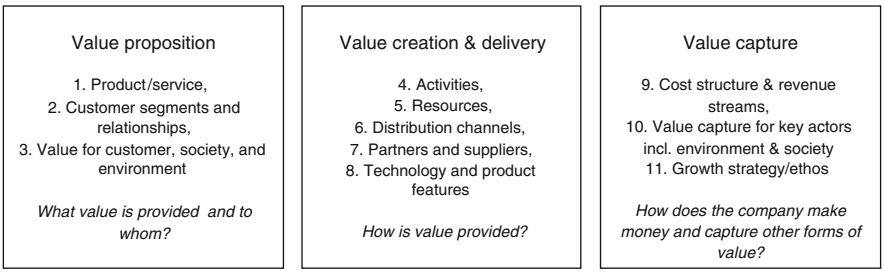

Fig. 9.1 Sustainable Business Model framework (Source: Bocken and Short 2016)

current circular economy thinking (Geissdoerfer et al. 2017; Ghisellini et al. 2016; Murray et al. 2015). The focus of CE is upon system optimisation to decouple economic growth from natural resource inputs and environmental degradation, aiming to be restorative. CBMs incorporate system design and network perspectives with the primary focus upon slowing and ultimately closing material flows (Bocken et al. 2016). This is linked to maintaining product integrity (Hollander et al. 2017) within the network to deliver and maximize value opportunities and positive impacts. The intended benefits include reduced material inputs, consumption and elimination of leakage from the system in the forms of lost value, waste, toxic materials and pollution (Ghisellini et al. 2016; Lieder and Rashid 2016). Key strategies CE are to slow and close resource loops (Bocken et al. 2016).

Closing loops has multiple affects across current business models (Stahel 2014). Aminoff and Kettunen (2016) and Lieder and Rashid (2016) show that a crucial requirement is integration and interplay between business model, product design, materials and supply chain configurations. This therefore requires new forms of thinking, interaction and operations across a product life cycle(s) and the partners to facilitate CBMs and their intended benefits (Bakker et al. 2014; Bocken et al. 2016). Bocken et al. (2016) show strategies for slowing and closing resource flows correlated to specific types of CBMs. Also, inclusion of design criteria result in specific differences between CBMs strategies (Bakker et al. 2014; Bocken et al. 2016). The concept of slowing resource flows is associated to strategies of (1) access and performance models, (2) extending product value, (3) long-life models and (4) encouraging sufficiency, whereas closing loop strategies (5) extend resource value (Bocken et al. 2016). Both looping strategies present the requirement for a wider group of stakeholders (Stubbs and Cocklin 2008), alignment of interests with goals to pursuing circularity (Bocken et al. 2015) and shared values amongst the whole value network (Zils et al. 2016). This suggests a correlating requirement for networked inter-firm collaborative approaches to coordinate capabilities and resources to overcome complexity, lock-in and uncertainty of creating new CE systems (Antikainen and Valkokari 2016; Miles et al. 2006; Rohrbeck et al. 2013; Velte and Steinhilper 2016).

The complexity inherent in CE is mirrored in the exploration of collaboratively developed business models for networked approaches (Arana and Castellano 2010;

Heikkilä and Heikkilä 2013; Heikkinen 2014; Rohrbeck et al. 2013; Romero and Molina 2012). Correspondingly, no clear sequence of internal and external change management activities are identified (Heikkilä and Heikkilä 2013). This is due to the interdependences across elements such as customer, service, technical, organisational, financial, value exchange, information and process alignment perspectives (Heikkilä et al. 2016). Additionally, as most BM frameworks take a focal company perspective this demonstrates limitations and potential inaccuracies crucial to CBMs through potentially missing opportunities across the product life cycle(s). Collaborative partners could illuminate and increase innovation and value capture potential within the BM design, strategy and delivery processes by presenting propositions based on new technologies, provision of services, capabilities or assets and/or new forms of communication and distribution (Arana and Castellano 2010). Additionally, Rohrbeck et al. (2013) proposes that visions, aims, the creation of trust and a common understanding is required to jointly create delivery roadmaps, which are vital for collaborative BMs. This is achieved through harmonising strategies, goals and assessing current capabilities, overlaps and gaps within processes to deliver desired BM innovation (Heikkilä and Heikkilä 2013; Romero and Molina 2012). Collaborative BMs, therefore, aim to jointly develop and define the economic and societal value creation and capture systems, while planning the complex and uncertain market delivery (Rohrbeck et al. 2013). Also, an additional requirement is to balance fairness between profit and costs, while minimizing bottlenecks or underestimation of required processes (Arana and Castellano 2010; Heikkilä and Heikkilä 2013; Janssen et al. 2016). Current understanding is lacking as to how required loops and cascades within CBMs positions alignment of visions, the specific types of collaborative activities and which types of partners are required to support CBMs.

9.3.2 Nature of Collaboration Across the Value Network

Conceptualisation of collaboration is diverse with no overriding theory, described as "opaque" (Wood and Gray 1991b), an "amorphous meta-concept" (Barratt 2004) and a "Black Box" (Fawcett et al. 2012; Thomson and Perry 2006; Wiengarten and Longoni 2015). However, most scholars agree that collaborations basic characteristics incorporate trust and communication, shared decision-making, goals, vision and a balance of power, which distinguishes it from other forms of interaction (Blomqvist et al. 2005; Blomqvist and Levy 2006; Sedgwick 2016). Collaboration is where two or more parties interact closely, sharing rules, norms and structures to achieve mutually beneficial and improved outcomes over what is achievable singularly (Miles et al. 2006; Soosay and Hyland 2015; Wood and Gray 1991a, b). This chapter focuses upon collaboration between partners voluntarily and jointly constructing activities to develop new processes or products (Barratt 2004; Luzzini et al. 2015; Soosay et al. 2008).

Collaboration, moreover, is a key theme within sustainable supply chain literature, whereby Lüdeke-Freund et al. (2016) have clearly presented the conceptual similarities and connections with SBMs. Sustainability increases the boundary of responsibility for

environmental and social impacts beyond the focal company (Blome et al. 2014; Pagell and Shevchenko 2014; Seuring and Müller 2008; Vachon and Klassen 2008). This results in an increased focus upon inter-organisational capabilities and networked collaborations (Carter et al. 2014; Luzzini et al. 2015; Vachon and Klassen 2006). This is due to collaborative network activities securing skills, capabilities and resources to deliver complex value propositions (Jagdev and Thoben 2001; Taylor et al. 2001). This collaborative paradigm is rooted within the concept of collaborative advantage, over competitive advantage (Barney 1991; Dyer and Singh 1998; Touboulic and Walker 2015a, b). It is shown such inter-organisational relationships generate opportunities for value creation, increased scope for efficiencies and innovation (Horvath 2001; Ignatiadis et al. 2007; Seuring and Gold 2013; Soosay and Hyland 2015). Therefore this indicates the sustainability and innovation potential of an organisation is connected to network functions (Krause et al. 2009; Zimmermann et al. 2016).

The collaborative capacity, the specific operational, coordinative and communicative skills and culture of an organization to collaborate, requires learning over time (Barratt 2004; Blomqvist and Levy 2006; Boons 2009; Van Hoof and Thiell 2014). This requires increased sharing of information, motivations and nurturing open mindsets and behaviors that extend competences and share experiences to build trust between individuals and organisations (Heikkilä and Heikkilä 2013; Miles et al. 2006; Pisano and Verganti 2008). These elements can also signal the willingness and depth of integration for joint benefit companies pursue (Wiengarten and Longoni 2015). Collaboration is thus a strategic governance choice, demanding decisions as to how open, closed, hierarchical or flat a pursuit of collaboration is to be (Pisano and Verganti 2008). Gold et al. (2010) describe collaboration as higher order behavioral, operational and strategic processes, which requires sustained investment (Barratt 2004; Soosay et al. 2008; Taieb and Affes 2013), most notably those of time and energy (Thomson and Perry 2006). Furthermore, collaboration holds specific challenges, namely finding the right partners to collaborate with, balancing information sharing and investments between partners (Ignatiadis et al. 2007; Touboulic and Walker 2015a, b; Wiengarten and Longoni 2015). Whereas the benefits of collaboration are produced from the differences in perspectives, knowledge, capabilities and problem solving approaches that generate an increased quantity and diversity of ideas for innovation, value creation, engagement of different markets and customer segments (Arana and Castellano 2010; Blome et al. 2014; Lozano 2007; Witjes and Lozano 2016). So understanding flows of information and expertise is critical for assessing collaborative value creation and innovation (Miles et al. 2006; Touboulic and Walker 2015a; Van Hoof and Thiell 2014). This is especially apparent within CE, whereby many CBMs require strategic, product and tactical data such as bill of process and materials, design and forecasts to be available to partners within the network for multiple lifecycles to be efficient.

Successful collaborations require balancing multiple interconnected components, explored in detail by Cao and Zhang (2011, 2013), Dietrich et al. (2010) and Fischer and Pascucci (2017) with a summary presented here. A primary component is to define clear roles, processes, collaborative communication and chain coordination mechanisms between partners. Information sharing is identified as a priority to these and all subsequent activities (Barratt 2004; Soosay et al. 2008). Information sharing is directly linked to trust between actors, who are required to share strategies,

financial, technology or new product information, planning and complete confidential information in a timely manner (Cao and Zhang 2013; Delbufalo 2012; Sheu et al. 2006). This willingness and timely nature is critical for success as information supports long-term viability and efficiency of collaborative relationships (Cao and Zhang 2013; Morgan et al. 2016). The key complexity within collaborative relationships is how organisations achieve trust to facilitate collaborative activities and improved performance (Almeida et al. 2015; Jarratt and Ceric 2015). Trust depends upon the communication, actions and behaviors experienced between organisations over time as well as on alignment between internal visions, organisational identity, business relationship management strategy and capability (Jarratt and Ceric 2015).

Based upon the studied literature, additional to the foundations of trust and information sharing, four types of interconnected collaborative activities are identified that explore the nature of collaborative behavior within circular activities, presented in below table. Joint learning is one of the primary functions of collaborative activities through co-developing, testing and experimenting with win/win situations, while internalising newly acquired knowledge into the organisation to increase value capture opportunities. This represents an on-going reciprocal process between partners establishing resilience, adaptability, innovation and long-term competitiveness (Cao and Zhang 2013). This is facilitated by collaborative partners assessing their goals and aims are shared (Cao and Zhang 2013; Dietrich et al. 2010). Accordingly, this establishes the need to align both goals and incentives across organisations, incorporating both tangible and intangible transactions and deliverables (Allee et al. 2015), while ensuring equitable distribution between partners (Janssen et al. 2016). Ultimately fairness is required for organisations to actively share resource capabilities efficiently to support collaborative activities and their success, which requires clear finance and contracting alignment. This is particularly relevant for CE due to shifting and extending revenue generation processes (Achterberg and Fischer 2016; Fischer and Pascucci 2017; Linder and Williander 2017).

Collaboration types identified for assessment

Collaboration type	Description
Joint learning	The ability to co-develop learning opportunities and assimilate relevant knowledge within specific situations to exploit in different contexts.
Goal congruence	Goal congruence or shared goals is where parties assess that their individual objectives are met by the overall success of collaboration, requiring clear goal agreements and strategy between parties. The extent to which goals are aligned is signified by how organisations share future and strategic visions and demonstrate continued commitment.
Resource sharing	The process of using capabilities, assets and investments across organisations. This requires decision synchronisation, also termed joint planning, to maximise capability, asset and resource flows (both tangible and intangible) are efficient within networked activities.
Finance alignment	This is the process whereby organisations share costs, risks and benefits among partners. This requires aligned finance and contracting mechanisms for equitable and fair balance of economic returns.

9.3.3 *Conceptual Framework for Collaborative Partner Assessment*

This research aims to assess what types of collaboration partners and activates are pursued to support CBMs. Figure 9.2 introduces the interconnected nature of partners engaged across product, business model and value network design activities. The focus on the value network over the narrower concept of the value chain has been proposed for two reasons. Firstly, it allows for categorisation of actors who support value creation activities, but not necessarily via the movement of goods or direct provision of services. Secondly, networks are a non-linear concept, therefore allowing the incorporation of both forward and reverse chains and auxiliary actors who support functions of the network. Although, this proposed distribution of partners across the three concepts in Fig. 9.2 is however somewhat artificial as to the extent that a partner may be involved in multiple aspects. The separation is presented based upon the rationale of their critical role in enabling the business model or product design, although they naturally are incorporated within the wider value network. Additionally, a partner operating across the presented concepts is also desirable for CE network functions. For instance, those partners directly involved in the product design engaging in network and logistics aspects would support increased efficiency and innovation potential for the design (product durability, reusability, packaging) optimising product lifecycles for reuse and reverse logistics and easy handling. Or conversely, business model partners supporting design features, access to markets and proposed use phase information feedback loops would optimise value creation potential across the network.

This framework however allows for a categorisation of partners, their nature, capabilities and key contribution within collaborations observed. These are subsequently presented in case snap-shots. Having an explicit vision is proposed as being primary and central to initiating a company's pursuit of CE strategies and subsequent CBMs (Bocken et al. 2016). Explicitly stating a committed vision is suggested to act as a rallying call and performance enhancer to potential collaborative activities (Luzzini et al. 2015; Rohrbeck et al. 2013; Witjes and Lozano 2016).

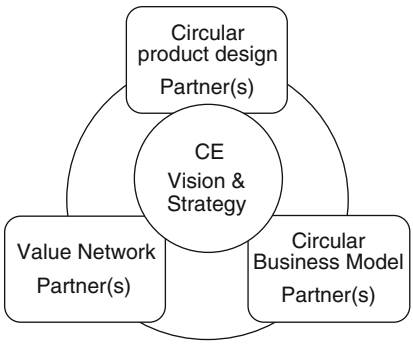

Fig. 9.2 Proposed assessment of collaborative partners for circular product/service development

9.4 Results

This section presents high-level overviews, stated vision and context for the cases explored. This is followed by tables synthesizing findings pertaining to the types of collaborative activities exhibited within the pursuit of CBMs. The following tables combine the CBM(s) and CE strategies as described by Bocken et al. (2016), collaboration types (Table above) and the proposed collaborative partners (Fig. 9.2). Where no collaborative partners have been identified within the available information, these fields have been left blank.

9.4.1 Case Overviews and Snap-Shots

9.4.1.1 Royal Auping

Royal Auping manufacture bedding, mattresses and accessories within the Netherlands and operate marketing, sales and distribution across Europe, Asia and South America. The company internalised C2C systems thinking, design and manufacturing principles in 2011 (see Table below).[1]

Royal Auping case snap-shot

	CBM(s) presented	Long-life products Performance model Extending resource value	
	CE strategy presented	Combined—slowing and closing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	(1) EPEA	(1) Landal GreenParks	(1) Kvadrat (materials) (2) RetourMatras (EoL)
Nature of partner(s)	C2C knowledge experts	Holiday resorts	(1) Textiles manufacturer (2) Mattress recycler
Collaboration purpose	Support C2C concepts inclusion into product design and production processes	Develop and test 'sleep as a service'business model	(1) Closed loop materials (2) Take-back (ATBS) scheme
Partner contribution/ capabilities	C2C knowledge	Scale of operation to pilot business model process	(1 and 2) Material recycling, processing and recovery expertise
Collaborative activity	Supporting C2C vision and material assessment	Sleeping services to end customers	(1) Development of revive, recycled PET fabric (2) Recovery processes requiring +90% material recovery

(continued)

[1]Source: http://epea.com/en/case-studies/auping (Accessed on 18/02/2017).

Outcome(s)	C2C deventer facility including C2C products, take-back systems and material selection	Reducing Landal's EoL challenges for sleeping products. Supporting Auping developing B2B leasing and material recovery	(1) Sustainability of materials for products (2) Repurposing post-consumer materials—into door handles, judo matts and benches
Collaboration type	Joint learning	Goal congruence	Resource sharing

9.4.1.2 Desso

Desso is a manufacturer of flooring and carpets within two factories in the Netherlands using 100% hydropower,[2] with sales and distribution in 100 countries.[3] Desso incorporated C2C production and design principles in 2008[4] stating their vision is to make all products according to C2C principles by 2020.[5] Desso have patented modular carpet tile production and a separation techniques[6] and EoL recovery facilities and technologies,[7] launching take-back systems in 2010 (see Table below).[8]

Desso case snap-shot

	CBM(s) presented	(1) Performance model (2) Extending resource value	
	CE strategy presented	Combined—slowing and closing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	EPEA	DLL	(1) Reststoffenunie (now aqua minerals—2016) (2) Aquafil (ECOYNL) (3) HealthySeas
Nature of partner(s)	C2C knowledge experts	Financial knowledge expertise	(1) Water network processors and material recovery

(continued)

[2]Source: https://www.ellenmacarthurfoundation.org/case-studies/cradle-to-cradle-design-of-carpets

[3]Source: http://www.desso.com/about/history/ (Accessed on 01/03/2017).

[4]Source: http://www.desso-businesscarpets.com/corporate-responsibility/the-road-less-travelled/ (Accessed on 01/03/2017).

[5]Source: http://www.desso-businesscarpets.com/corporate-responsibility/the-road-less-travelled/ (Accessed on 01/03/2017).

[6]Source: http://www.desso-businesscarpets.com/corporate-responsibility/refinityr/ (Accessed 01/03/2017).

[7]Source: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4735 (Accessed 01/03/2017).

[8]Source: http://www.desso.nl/globalaccounts/regus/take-back%E2%84%A2-programme/ (Accessed 01/03/2017).

			(2) Textiles manufacturers (3) Environmental campaigners
Collaboration purpose	C2C knowledge	Finance carpet leasing services	(1, 2, 3) Closed-loop materials (3) Increase awareness
Partner contribution/ capabilities	Knowledge and expertise	Financial and leasing expertise	(1, 2) Material recycling and recovery expertise (3) Campaigning knowledge, stakeholder network and dissemination
Collaborative activity	Supporting 2020 C2C vision and material assessment	Using DLL's life cycle asset management program connecting to take-back program for end customers	(1) Calcium recovery for EcoBase (2) Cross-sector campaign for cleaner oceans (3) ECOYNL recovered nylon
Outcome(s)	C2C products ecobase, refinity, airmaster and take-back systems	End-to-end leasing and take-back business model for carpet leasing	(1) 100% recovered and recyclable material for EcoBase (2) +50% of carpet range is available with ECOYNL (3) Demonstrating material recovery and reprocessing
Collaboration type	Joint learning	Finance alignment + resource sharing	(1 and 2) Resource sharing (3) Resource sharing + goal congruence

9.4.1.3 Fairphone

Fairphone started in 2010, as a collaborative campaign raising awareness of conflict materials in consumer electronics (Rizos et al. 2015b) and later was incorporated as a social enterprise in 2013 (Akemu et al. 2016; Wernink and Strahl 2015). Fairphone designs smartphones incorporating modularity and ease of repair to maximise product lifetimes (Rizos et al. 2015b). Fairphone's stated vision is creating positive social and environmental impact from the beginning to the end of a phone's life

cycle through long-lasting design, fair materials, good working conditions, reuse and recycling (see Table below).[9]

Fairphone case snap-shot

	CBM(s) presented	(1) Extending product value (2) Long-life—design (compared to market alternatives) (3) Encouraging sufficiency	
	CE strategy presented	Slowing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	Ifixit	(1) Circle economy (2) Fairphone end-users	(1) Closing the loop, ReCell Ghana, WEEE Nederland, Teqcycle (2) H2020 SustainabilitySMART + Maras B.V., Helmholtz institute Freiberg for resource technology
Nature of partner(s)	Repair information dissemination and tool/parts providers	(1) Circular social enterprise network (2) Product purchase	(1) Waste electronic companies (2) Collaborative European project involved in electronic value network
Collaboration purpose	Inclusion of iFixit in design process for Fairphone 2	(1) LCA + business model exploration for use phase of Fairphone (2) Use of mobile phone	(1) Supporting supply chain partners with knowledge and finance to improve recovery processes (2) Assessing optimum recycling options for Fairphone 2
Partner contribution/ capabilities	Repair knowledge, dissemination and marketing potential through shared content	(1) Research and expertise for LCA and circularity (2) Proof of market demand and alignment with Fairphone's vision	(1) Closing the loop support recovery of waste electronics and expertise (2) Research and expertise for material recovery
Collaborative activity	Collaboratively drafting designs based on repairability	(1) LCA analysis and business modeling (2) Pre-purchasing phone prior to manufacturing	(1) 3 euro premium to each phone to support and fund projects and sale revenue to support campaigns (2) Fairphone 2 recyclability report assessment for modularity
Outcome(s)	Ifixit gave a 10/10 score for repairability	(1) Supporting development of business model (2) Fairphone pre-financing manufacturing costs	(1) Support recovery of old electronics (2) Identified benefits of modular design and available material recovery

(continued)

[9]Source: https://www.fairphone.com/en/our-goals/ (Accessed 18/02/2017).

Collaboration type	Joint learning	(1) Joint learning (2) Finance alignment and goal congruence	(1) Finance alignment (2) Joint learning

9.4.1.4 Gispen

Gispen designs and manufactures office furniture incorporating core values of sustainability, innovation, inspiration and design.[10] Circular economy was included as a key strategy in 2013 (Kraaijenhagen et al. 2016), whereby Gispen includes circular principles into new products and growth of the business (Gispen 2014) (see Table below).

Gispen case snap-shot

	CBM(s) presented	(1) Performance model (2) Extending product value	
	CE strategy presented	Slowing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	(1) Macanoo (2) EU FP7 USE-it wisely consortium—specific partner on project TNO	Alliander (Duiven project)	No collaborative partners identified
Nature of partner(s)	(1) Architects (2) Collaborative European project—TNO research organisation	Energy and utility service providers	
Collaboration purpose	(1, 2) Knowledge development	Tendering process including circular vision and product service capabilities	
Partner contribution/ capabilities	(1) Architectural knowledge of new working environment designs (2) Circular and LCA expertise	Circular vision and ambition. Openness to co-development of solution	
Collaborative activity	(1) Co-designing Zinn modular chair (2) Research business model platforms enabling long-life and product-services	Tendering included specific co-design circular criteria for product design, suppliers and EoL	
Outcome(s)	(1) Zinn chair exceeds sales figures (2) LCA assessment	Gispen supports Alliander's Duiven circularity ambition for 85% reuse. Gispen	

(continued)

[10]Source: https://www.gispen.com/en/about-us/vision-and-mission (Accessed 18/02/2017).

	calculation for re-use and remanufacturing (furniture) and circular product design) framework. Used on triennial chair, improving circularity[a]	revitalize 750 working spaces and shift business model to servicing inclusive of additional service opportunities (Lozano and Witjes 2016)	
Collaboration type	Joint learning	Goal congruence + Finance alignment	

[a]Source: https://www.gispen.com/nl/blog/lancering-eerste-circulaire-stoelenfamilie-triennail/ (Accessed on 24/02/2017)

9.4.1.5 G-Star Raw

G-star Raw is a clothing manufacturer with a societally driven vision, incorporating responsible supply chain programs including; supplier codes, clean production and commitment to zero discharge and hazardous chemicals[11] and sustainable operations.[12] G-Star Raw's vision is to continue striving for a sustainable evolution of products (see Table below).[13]

G-Star Raw case snap-shot

	CBM(s) presented	Extending Resource Value	
	CE strategy presented	Closing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	No collaborative partners identified	No collaborative partners identified	(1) Circle economy, Wieland textiles, ReShare and recover (2) Yarn weavers within supply network (3) Parley for the oceans, bionic (yarn), project vortex
Nature of partner(s)			(1) Research group and textile value network companies (2) Textile weavers (3) Environmental campaign
Collaboration purpose			(1) Develop textile-to-textile recycling (2) Supporting weavers to produce bionic yarn (recovered ocean plastic)

(continued)

[11]Source: https://www.g-star.com/nl_nl/about-us/responsibility/responsible-supply-chain (Accessed on 24/02/2017).

[12]Source: https://www.g-star.com/nl_nl/about-us/responsibility/sustainable-operations (Accessed on 24/02/2017).

[13]https://www.g-star.com/en_us/about-us/responsibilty/raw-responsibility (Accessed on 24/02/2017).

			(3) Campaign raising awareness of plastic in oceans to close material loop in fabric industry
Partner contribution/ capabilities			(1) Project to create business case for textile-to-textile recycling (2) Yarn weaving expertise (3) Campaigning, marketing and dissemination knowledge. Material recovery, processing and production expertise
Collaborative activity			(1) Research and development to support closing the material loop (2) Changed sourcing structure providing material to weavers. Purchasing back woven fabric, creating incentive and means for weavers to use bionic yarn (3) Project to support cleaning oceans of PET bottles converting into new fashion garments
Outcome(s)			(1) Roadmap for textile-to-textile recycling (2) G-star secure bionic yarn. Weavers not pressured to use cheaper available yarns (3) Production methods for recovered plastic materials. Raw for the ocean clothing line released
Collaboration type			(1) Joint learning (2) Finance and contracting (3) Goal congruence + resource sharing

9.4.1.6 Mud Jeans

Mud Jeans was founded with the aim to minimize environmental and societal costs of fast fashion.[14] Price volatility for cotton led Mud Jeans to pursue sustainable production and sales models,[15] launching in 2013 the "lease a jeans" program whereby customers pay upfront membership fees[16] including free repairs and three end of lease term solutions (Achterberg and Fischer 2016). Currently 40% of their customers lease, with 80% choosing a new pair at the end of a lease term (Achterberg

[14]Source: http://www.mudjeans.eu/about-mud-jeans/ (Accessed 25/02/2017).

[15]Source: https://www.ellenmacarthurfoundation.org/case-studies/pioneering-a-lease-model-for-organic-cotton-jeans (Accessed 25/02/2017).

[16]Source: http://www.mudjeans.eu/lease-a-jeans/ (Accessed 25/02/2017).

and Fischer 2016). Mud Jeans' vision is to produce jeans in the most sustainable way and recycle them when worn down (see Table below).[17]

Mud Jeans case snap-shot

	CBM (s) presented	(1) Access model (2) Extending product value	
	CE strategy presented	Slowing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	No collaborative partners identified	Mud jeans retailers	(1) Tejidos Royo, Stanley&Stella and Youssetx international (2) RePack
Nature of partner(s)		High street retailers	(1) Textiles manufacturers and EoL recovery experts (2) Environmental logistics experts
Collaboration purpose		Delivery of jeans and development of information feedback	(1) Process and using recycled materials. Closing own material loop (2) Delivery and return of jeans
Partner contribution/ capabilities		Providing stocking, purchase and sales data	(1) Material recycling, processing and recovery expertise (2) Reuseable logistics packaging facilitating recovery
Collaborative activity		No minimum orders in purchasing arrangements supporting on-demand purchasing	(1) Reusing own material sources and simultaneously developing "fair factories" campaign to improve workers conditions (2) Developing financial incentive for customers to use RePack to return jeans
Outcome(s)		Reduced overstocking, reducing need for disposal. Mud jeans gains rich information for product sale and trends (Achterberg and Fischer 2016)	(1) Closing material loop recovering cotton from denim for jumpers. Improved working relationships with factories and conditions for workers[a] (2) 10% discount for RePack + MudJeans combo which can be used for any RePack service[a]
Collaboration type		Finance alignment	(1) Resource sharing (2) Finance and contracting

[a]Source: http://www.mudjeans.eu/about-mud-jeans/sustainability/ (Accessed 25/02/2017)

[17]Source: http://www.mudjeans.eu/ (Accessed 25/02/2017).

9.4.1.7 Philips Healthcare

The vision of Philips is that for a sustainable world a transition from linear to a circular economy is a necessary boundary condition.[18] Philips Healthcare manufactures medical equipment and provides services to the medical industries. Philips Healthcare started refurbishing medical equipment in 1989[19] transitioning from selling to providing services for hospital equipment, maintaining lower total lifecycle costs through maintenance, repair and refurbishment (Coronado Palma 2015) (see Table below).

Philips Healthcare case snap-shot

	CBM(s) presented	(1) Performance model (2) Extending product value	
	CE strategy presented	Slowing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value network
Collaboration partner(s)	Internal divisions of Philips	DLL	No collaborative partners identified
Nature of partner(s)	Design, production and refurbishment divisions of Philips Group	Financial knowledge expertise	
Collaboration purpose	Optimise product life cycles	Support financial leasing models for capital expenditure	
Partner contribution/ capabilities	Knowledge and expertise	Financial and leasing expertise	
Collaborative activity	Support product design for refurbishment	Using DLL's life Cycle asset management program connecting to refurbishment programs	
Outcome(s)	Improved reuse of components and recycled materials (Philips Healthcare 2014)	Longer term contracting (10+ years). Upgradable equipment reducing energy consumption by 50%, recovering components and materials	
Collaboration type	Joint Learning + resource sharing	Finance and contracting	

[18]Source: http://www.philips.com/a-w/about/sustainability/sustainable-planet/circular-economy.html (Accessed 27/02/2017).

[19]Source: http://www.philips.com/a-w/about/news/archive/standard/news/press/2014/20141113-Philips-takes-circular-economy-to-healthcare-and-inaugurates-a-new-imaging-systems-refurbishment-facility-in-Best.html

9.4.1.8 Philips Lighting

Philips Lighting manufactures lighting solutions and developed the circular solution "Pay per lux" in conjunction with the development of long life LED lighting, converting revenue from point of sale to a service model. The collaboration included RAU Architects and installation partners CasSombroek who integrated sensors and control systems to maximise the use of natural light.[20] Philips has since improved and expanded services, optimising lighting connecting to Cisco IoT monitoring[21] and improving products with circular design to support the "pay per Lux" model (see Table below).[22]

Philips Lighting case snap-shot

	CBM(s) presented	(1) Long-life model (2) Performance model (3) Extending product value	
	CE strategy presented	Slowing loops	
	Collaborative partner(s) focused on:		
	Design	Business model	Value Network
Collaboration partner(s)	(1) External: Kossmann dejong (2) Internal: Philips division	Cofely (now Engie Services—2016)	Schiphol airport
Nature of partner(s)	(1) Architects (2) Design	Technical services company	International airport services
Collaboration purpose	Bespoke co-design for airport installation	Expanding light as service "pay per lux' model	Upscale and secure efficient end to end lighting solution
Partner contribution/ capabilities	Architectural and design expertise	24 hour on-site maintenance and servicing, re-use and EoL recycling	Scale of operation and vision to upscale lighting service model
Collaborative activity	Co-design light fixtures	Philips lighting and Cofely develop end-to-end lighting solution	Sharing refurbishment plans, information and co-design installation

(continued)

[20]Source: https://www.ellenmacarthurfoundation.org/case-studies/selling-light-as-a-service (Accessed 27/02/2017).

[21]Source: http://www.philips.com/a-w/about/news/archive/standard/news/press/2015/20151209-Philips-and-Cisco-form-global-strategic-alliance-to-address-EUR-1-billion-office-lighting-market.html#.VmgXcbh97IV (Accessed 27/02/2017).

[22]Source: http://www.philips.com/c-dam/corporate/about-philips/sustainability/sustainable-planet/circular-economy/power-balance-gen-2/case-study-circular-economy-lighting-PowerBalance.pdf (Accessed 27/02/2017).

Outcome(s)	Fixtures to last 75% longer than conventional designs. Improved serviceability, individually replaceable. Reducing maintenance costs and ease of recovery[a]	50% reduction of energy consumption within Schiphol airport[b]	24 h maintenance and servitised lighting solution with no upfront and reduced lifetime costs
Collaboration type	Joint learning	Resource sharing + financial alignment	Goal congruence + resource sharing

[a]http://www.philips.com/a-w/about/news/archive/standard/news/press/2015/20150416-Philips-provides-Light-as-a-Service-to-Schiphol-Airport.html (Accessed 27/02/2017)
[b]http://www.scienceandtheenergychallenge.nl/sites/default/files/multimedia/organization/sec/2016-06-16_NWO_Sc4CE/NWO%20Sc4CE%20-%20Markus%20Laubscher%20-%20Philips.pdf (Accessed 27/02/2017)

9.5 Cross-Case Synthesis and Analysis

The case snap-shots assessed within this study present a variety of collaboration activities linked to circular strategies. Combined slowing and closing strategies exhibit collaboration partners across all circular product and service elements. Slowing strategies are assessed to be the most observed. All case snap-shots except G-Star Raw exhibit combinations of CBMs that are pursued to support circular visions. Additionally G-Star Raw is the only company that is assessed to be solely pursuing a closing circular strategy through pursuit of extending resource value. The cross-case synthesis and analysis presented in below Table has allowed initial characteristics to be proposed. This highlights a number of new roles and key circular players who collaboratively support CBM activities; notably circular knowledge brokers, financiers and network building for closing material loops.

Cross-case analysis overview

					Type(s) of collaboration		
					Characteristic(s) of collaborative activities		
Company	Size	Product/Service	CBM (s) presented	CE loop Strategy	Design	Business model	Value network
Auping	International	Beds, mattresses and accessories	Long-life products Performance model Extending resource value	Combined	Joint learning	Goal congruence	Resource sharing
					Circular knowledge broker	CBM pilot/upscale supporter	Closed loop material expert
Desso	Multinational	Carpet and flooring materials	Performance model Extending resource value	Combined	Joint learning	Finance alignment and resource sharing	Resource sharing Goal congruence
					Circular knowledge broker and intrapreneurs	Circular financier	Closed loop network builder
Fairphone	Start-up	Consumer electronics—Smartphone	Extending product value Long-life Encouraging sufficiency	Slowing	Joint learning	joint learning, finance alignment and goal congruence	Finance alignment, joint learning and resource sharing
					Circular start-up pioneers	Circular knowledge broker and circular end-users	Circular start-up pioneers, and closed loop material expert
Gispen	International	Furniture	Performance model Extending product value	Slowing	Joint learning	Goal congruence	
					Circular knowledge broker	Circular contractor collaboration	
G-star Raw	International	Clothing	Extending resource value	Closing			Finance alignment Goal congruence Joint learning
							Closed loop material expert and circular contractor

(continued)

					Type(s) of collaboration		
Mud Jeans	Start-up	Clothing—Jeans	Access model Extending product value	Slowing		Finance alignment	Resource sharing Finance alignment
						Circular contractor and knowledge broker	Closed loop material expert and circular start-up pioneers
Philips Health-care	Multi-national	Healthcare equipment	Performance model Extending product value	Slowing	Joint learning and resource sharing	Finance alignment	
					Circular intrapreneurs	Circular financier	
Philips Lighting	Multi-national	Lighting solutions	Long-life model Performance model Extending product value	Slowing	Joint learning	Resource sharing and finance alignment	Goal congruence and resource sharing
					Circular intrapre-neurs & knowledge broker	Circular use-phase supporter	CBM pilot/upscale supporter

9.6 Discussion

This chapter explores 'what' types of collaborations companies pursuing CBMs developed to understand the nature, dynamics and necessity for collaborations. The following section develops discussion building upon key findings; (1) the presentation and prerequisite nature of explicitly stating a vision, (2) the proposed characteristics and collaborative activities between partners, (3) initial assessment of company types, and dynamics. Limitations and future research areas are explored and conclusions presented.

9.6.1 Vision

The importance of vision and of aligning corporate activities as assessed in literature is validated within the explored cases, shown within collaborations between: Auping with Landell, Desso with Aquafil, and G-Star Raw with Parley for the Oceans. Moreover, two cases exemplify a visions importance for the development of collaborations to support CBMs. Firstly, the circular tender process of Gispen and Alliander signifies how procurement, tendering and contracting agreements and processes incorporate increased requirements for alignment of circular visions, strategies and capabilities. This mirrors the propositions of Witjes and Lozano (2016) regarding the impact of and opportunity for procurement to incorporate collaborative activities to facilitate systemic changes. Secondly, Fairphone's explicit and prioritised social and circular vision engaged and aligned with end-users ("circular end-users") allowing pre-selling in advance of production, removing traditional channels to financing, sales and marketing (Akemu et al. 2016; Velden 2014). Although Fairphone represents a small market share, it is the assemblage of this active customer base who shares values and ambitions for fairness and sustainability, which supported 'extending product value' and 'slowing' strategies developed in collaboration with Ifixit. Accordingly, our research hints at the prerequisite nature of explicitly presenting a vision for successfully developing CBMs and is shown to be beneficial to collaborative activities, which echoes the primacy of vision and goal setting within their proposed framework by Bocken et al. (2016).

9.6.2 Characteristics of Collaborative Activities

The cross-case analysis (Table above) explores the characteristics of 'circular players'; actors who have developed specific knowledge and capabilities relevant to CE areas that case companies collaborated with. Assessing the underlying characteristics has resulted in generalisations and terms to be proposed such as: 'CBM pilot/upscale supporter', 'circular financier', 'circular contractor', 'circular

knowledge broker', 'circular use-phase supporter', 'closed loop material expert' and 'circular network builders', which are subsequently discussed below.

The 'CBM pilot/upscale supporters' help the experimentation and expansion of new business models. CBMs are in a state of piloting permutations of value elements presented in Fig. 9.1. The pilot between Auping and Landal GreenParks shows goal congruence for improved sustainability and customer experience through changing the value propositions towards 'sleep as a service', which also generates joint learning through exploring cost and revenue streams. Kraaijenhagen et al. (2016) proposed a CBM development framework that clearly shows piloting and experimenting as a crucial step for learning by doing. The majority of assessed companies are testing CBM ideas on individual products, lines or within divisions, thus generating insights into what works, potential bottlenecks and obstacles. Hence experimenting offers the ability to assess capability gaps and therefore potential collaboration partner requirements. This is shown by the collaboration between Philips lighting, Engie Services and Schiphol upscaling the light as a service model. Experimentation in itself should become an important capability in the transition to a competitive and sustainable business (Chesbrough 2010; Weissbrod and Bocken 2017).

The 'Circular financiers' help fill the gaps in financing and contracting requirements. Here, DLL leverages its finance and leasing expertise facilitating up-front cash flow and longer-term revenue models associated with performance models. This substantiates the support required and specific challenges presented by Linder and Williander (2017), Rizos et al. (2015a) and Achterberg and Fischer (2016) regarding finance for CBMs. This role is closely linked to the 'Circular contractor', who facilitates the CBM process through changed contractual arrangements. This is illustrated by Gispen & Alliander's tendering and service arrangements and G-Star Raw's purchasing of Bionic yarn. This process can also help to provide information feedback loops from sales and marketing, use phase and product life extension representing a source of collaboration and advantage, as with Mud Jeans changed purchasing model for retailers. Here, information through on-demand purchasing can be used to assess trends, success of styles and changing market segments. How the dynamics of information feedback loops and the role of end-users within CE networks, such as within Fairphone and Mud Jeans examples, interact with the performance of CBMs and the collaborative arrangements required presents valuable future areas of exploration.

The 'Circular knowledge brokers' are engaged within collaborations for joint learning. Represented here by Circle Economy, EPEA and TNO who use expertise to research and/or leverage the value of existing specific knowledge developed within design, product life extension, assessment and recovery. Expertise, experience and knowledge are not widely or readily available, since the CE concept is pre-paradigmatic. It is therefore expected that organisations that have actively pursued specific knowledge creation will be collaboratively engaged within such learning activities.

The 'Circular use-phase supporter' demonstrates the increasing role for service-orientated companies within CE value networks. They support product life

extensions and are represented here by the collaboration for in-situ maintenance between Philips lighting, Engie Services and Schiphol. However, it is difficult from the available information to assess the depth of collaboration for installed devices. Although, this shows servicing and use-phase extension capabilities will likely present increased collaborations represented by in-situ maintenance or product level recovery options such as repair, refurbishment and remanufacturing companies to facilitate maximisation of product integrity. The specific arrangements will depend on product category, strategy and available capabilities.

The 'Closed loop material expert' supports development of closed network functions for materials, predominantly shown here to be recovered materials or EoL processing research. This can be seen from two perspectives. Firstly the foundation of CE is the cycling and retention of materials at their highest value for as long as possible, which requires exploration of material degradation levels and reuse potential. This is shown to be a capability gap for companies, which is required to be filled through joint learning and resource sharing collaborations. Additionally the current focus upon CE within EU legislation can be argued to be initially focused upon EoL material recovery (European Commission 2015). Secondly, EoL material recovery options to close loops are more aligned with current purchasing-ownership-disposal model for consumers (Hobson 2016). This requires reduced radical alterations to current business processes and less engagement with end-users compared to a business model in which repair, refurbishing or remanufacturing operations are used, such as Fairphones' example of redesigning the phone to be modular coupled with selling of repair parts and providing repair guides.

This research also indicates that becoming 'circular network builders' is a characteristic that is shared by all case companies pursuing CBMs. Through exploring collaborations across and between 'circular players' to maximize efficiencies and innovation potential, the companies are in effect building the networks required to develop, deliver and maintain circular products and services. This confirms the proposition that organisations require network functions when pursuing circular strategies (Krause et al. 2009; Zimmermann et al. 2016).

In summation, the presented 'circular players' provide clear benefits (knowledge, finance and/or capabilities) as collaborative partners. Furthermore, they simultaneously increase their own knowledge and experience gaining mutual benefits through joint learning, increased exposure to test ideas and refine their own value propositions. This supports previous research into how different types of collaboration are interconnected and mutually reinforcing the benefits of collaborative activities (Cao and Zhang 2013). Key to generating benefits of collaboration is trust, traditionally developed through time and successful working relationships, which presents a dilemma between the time and levels of trust required to successfully develop collaborative activities. The alignment of visions between partners and repeated collaborative activities and roles, by 'circular players' DLL and EPEA, potentially supports increased external perceptions of reputation and trust, which may overcome this issue. With regard towards trust, time and depth within collaborative relationships, G-Star Raw's successful collaboration with Bionic and the

Parley for the Ocean's campaign has resulted in the combined ownership of the two companies.[23] This shows initial insights into the deeper levels of trust and strengthened bonds between cited organisations.

9.6.3 Company Dynamics

Based on this work, rudimentary company 'types' are proposed based on maturity and size of the company suggesting the categorisation of 'circular start-up pioneers' and 'Circular Intrapreneurs'. 'Circular start-up pioneers', represented here by Fairphone and Mud Jeans, founded upon environmental and societal focus predominantly collaborate with similarly aligned start-ups such as Ifixit and RePack. Fairphones' vision and Ifixit's free dissemination of information shows goal congruence for transparency and fairness. Both Fairphone and Mud Jeans show extensive experimentation, collaborative activities and more radical approaches were pursued compared to the larger companies assessed within this sample. This may simply be due to their relative size and start-up nature, as they are required to collaborate more due to limited internal resources and capabilities, while having more freedom to explore radical value propositions due to reduced existing lock-in. In contrast, multinationals represented by Philips and Desso, described as 'Circular Intrapreneurs', whereby individuals or teams within the company pursue circular strategies, collaborate with larger organisations suggesting that for such companies scale of operations is a critical factor for seeking collaborative partners when testing CE strategies to reduce risk. These findings are reminiscent of the concept of "Greening Goliaths versus emerging Davids" proposed by Hockerts and Wüstenhagen (2010).

9.7 Limitations and Future Research

A clear limitation of the applied research approach is the desk-based assessment of publically available information over direct engagement. This firstly creates potential for incomplete data sets, as shown in above Table, and secondly reduces the ability to probe data to understanding what was not successful, how the different types of collaboration were initiated, time-lined, perceived and facilitated between collaborating parties. Future research engaging with cases is therefore suggested to assess these elements. Furthermore, it is suggested to test the a priori nature of presenting a CE vision hinted at within this chapter. This aligns with assessed literature gaps with regard to the importance of vision alignment linked to the underlying necessity for collaborations and securing performance throughout the

[23]Source: https://www.g-star.com/en_us/news/pharrell-announcement (Accessed 27/02/2017).

value network (Aminoff and Kettunen 2016; Bocken et al. 2016; Lieder and Rashid 2016).

Additionally, although not explicitly studied within this chapter, the nature and starting point of a vision and alteration depending on the size, maturity and ownership structure of a company pertaining to the levels, types, depth and openness of collaboration and innovative approaches is an interesting future research area. Also, no assessment has been made to define improvement of 'circularity' based upon assessed collaborations, although this is a crucial area for future research to align performance across the proposed CBM partners. Recent affinities between sustainable supply chain and SBM knowledge (Lüdeke-Freund et al. 2016) and the presentation of a circular supply paradigm (Lehmacher 2017) offer insights. However specific knowledge and understanding of required capabilities, gaps and systemic change across stakeholder interactions and types of partners required linked to performance is lacking (Boons and Lüdeke-Freund 2013; Schaltegger et al. 2016; Witjes and Lozano 2016). Furthermore, this should be linked to analysis of the impact of strategic decisions for slowing and/or closing strategies within CBMs and required collaborations within CE compared to linear processes at both focal firm and network levels.

Future research should address developing the case studies through direct engagement providing the opportunity to test and validate findings and expand conclusions generating deeper insights into the nature of collaboration within CBMs. this will expand this research area to identify the parameters, boundary conditions and success factors to understand 'how' collaboration works amongst and between network partners.

9.8 Conclusion

Through eight Dutch Circular Economy cases, this research has shown that at a fundamental level, companies pursuing CBMs require understanding, operational capacity and adoption of collaboration. We show the specific nature of collaboration with CBMs is by virtue due to increased complexity and experimentation that is required for developing strategies for slowing and closing of material loops. Companies respond to this increased complexity by seeking collaborative strategies and networks to support their circular product and service development. This is coupled with the finding that explicitly presenting a circular vision is central for the development of collaborations and circular networks required to pursue CBMs. It advertises externally the company's goals, builds momentum and attracts companies who share and support the vision.

Different types of collaborative activities are presented within throughout the CBM development process. Companies in circular networks assume different characteristics and roles, including 'CBM pilot supporter', 'circular financier', 'circular use-phase supporter', 'knowledge broker' and 'closed loop material experts', with all companies pursuing CBMs in essence becoming 'circular network builders'.

Companies are experimenting, piloting and testing different permutations of CBMs exploring new value models and present new or altered relationships, roles and capabilities required to facilitate them.

Finally, differences in size and maturity of the companies assessed indicated different CBM strategies. 'Circular Intrapreneurs' predominantly explore CBMs within an existing business unit and retain a strong monetary focus. Smaller 'Circular Start-Up Pioneers', however, are shown to orientate the company towards pursuit of specific visions focusing more towards environmental and societal goals over directly economic goals. Such visions are indicated to be a source of collaborative engagement with other companies and crucially engaging their customers. Circular collaborations incorporate specific characteristics with actors engaged to fill roles, capability gaps, enhance knowledge or share resources throughout the CBM development, implying that CBMs success and collaboration are coalesced.

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Chapter 10
Information Asymmetries and the Paradox of Sustainable Business Models: Towards an Integrated Theory of Sustainable Entrepreneurship

Vincent Blok

Abstract In this conceptual paper, the traditional conceptualization of sustainable entrepreneurship is challenged because of a fundamental tension between processes involved in sustainable development and processes involved in entrepreneurship: the concept of sustainable business models contains a paradox, because sustainability involves the reduction of information asymmetries, whereas entrepreneurship involves enhanced and secured levels of information asymmetries. We therefore propose a new and integrated theory of sustainable entrepreneurship that overcomes this paradox. The basic argument is that environmental problems have to be conceptualized as wicked problems or sustainability-related ecosystem failures. Because all actors involved in the entrepreneurial process are characterized by their epistemic insufficiency regarding the solving of these problems, the role of information in the sustainable entrepreneurial process changes. On the one hand, the reduction of information asymmetries primarily aims to enable actors to become critical of sustainable entrepreneurs' actual business models. On the other hand, the epistemic insufficiency of sustainable entrepreneurs guarantees that information asymmetries remain as a source of new sustainable business opportunities. Three further characteristics of sustainable entrepreneurs are distinguished: sustainability and entrepreneurship-related risk-taking; sustainability and entrepreneurship-related self-efficacy; and the development of satisficing and open-ended solutions, together with multiple stakeholders.

10.1 Introduction

The contribution of entrepreneurs to sustainable development has been increasingly receiving attention in the literature (Hall et al. 2010; Klewitz and Hansen 2014; Parrish 2010; Thompson et al. 2015). Sustainable entrepreneurship is defined as entrepreneurs' quest to contribute to the supply of innovative environmental

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products and services with the potential of substantial market success, societal change and changed market conditions (Schaltegger and Wagner 2011). Whereas traditional entrepreneurs are primarily motivated to address commercial needs and add economic value, without specific concerns regarding sustainability, sustainable entrepreneurs are primarily motivated to address sustainable needs (Trivedi and Stokols 2011). And whereas traditional or commercial entrepreneurs discover and exploit primarily *profitable* business opportunities to address customer needs (Shane 2003), environmental problems are the primary source of profitable business opportunities for sustainable entrepreneurs (Dean and McMullen 2007). The distinction between profit-driven entrepreneurs and sustainable entrepreneurs is not dichotomous however, but rather a continuum ranging from a purely sustainable to a purely profit-driven orientation (Austin et al. 2006). In fact, many entrepreneurs are profit oriented and at the same time generate environmental and social impacts.

In this, the sustainable entrepreneur seems to combine the best of both worlds by initiating those activities and processes that lead to the identification, evaluation and exploitation of profitable business opportunities (i.e., entrepreneurship) in order to contribute to sustainable development. In their framework for recognizing opportunities for sustainable development for instance, Patzelt and Shepherd (2011) identify additional knowledge of the natural environment, in addition to motivation and entrepreneurial knowledge, as crucial to being able to identify business opportunities for sustainable development. Environmental problems are seen as additional sources of new business opportunities, just as contributing to the solution of environmental problems can be seen as adding to the economic value-adding process in eco-entrepreneurship (Dean and McMullen 2007). Sustainable entrepreneurs are thereby expected to be better able to balance economic (profit), social-cultural (people) and environmental (planet) interests by entrepreneurial action. The same picture emerges in the sustainable business model (SBM) literature; whereas regular business models focus primarily on value propositions that generate economic returns, SBMs focus on ecological value propositions in addition to economic returns (Boons and Lüdeke-Freund 2013; Bocken et al. 2014). In this respect, sustainable entrepreneurship builds a specific category of entrepreneurs.

The question is, however, what consequences sustainable development has for the concept of entrepreneurship. Is the presupposition of a win-win, in which economic and environmental interests can be integrated in SBMs, legitimate, or is there a fundamental tension between processes involved in sustainable development and processes involved in entrepreneurial practices (cf. Hahn et al. 2015; Van der Byl and Slawinski 2015)? In this article, we challenge the win-win paradigm of sustainable entrepreneurship and explore a fundamental tension in this concept. This tension is found in the notion of information asymmetries and their impact on SBMs. Information asymmetries can be defined as the situation in which at least one actor in an economic exchange has more or better information than the other actors. The tension in the concept of sustainable entrepreneurship can be preliminarily formulated in the following way: sustainable development involves the reduction of information asymmetries, because it enables collaborative action with multiple stakeholders for sustainable action. At the same time, entrepreneurial processes

require enhanced and secured levels of information asymmetries in order to achieve and secure competitive advantage. This tension between sustainable development and entrepreneurial processes calls for a new and integrated theory of sustainable entrepreneurship.

In this chapter, we synthesize theory from entrepreneurship, SBMs and sustainable development and develop an integrated concept of sustainable entrepreneurship, including the mechanisms by which entrepreneurs can contribute to sustainable development. First, the role of information in collective actions for sustainable development and the need to reduce information asymmetries in order to engage stakeholders in sustainable entrepreneurial action is explored. Subsequently, I investigate the role of information in entrepreneurship, and the need to enhance and secure information asymmetries in SBMs. In the next section, a new and integrated theory of sustainable entrepreneurship that overcomes this paradox is proposed. The basic argument is that sustainable development has to be conceptualized as a wicked problem or a sustainability-related ecosystem failure. Because all actors involved in entrepreneurial action are characterized by their epistemic insufficiency regarding the solving of these problems, information asymmetries are maintained as a source of new sustainable business opportunities. From the analysis of the paradox of sustainable entrepreneurship and its solution, I propose three further characteristics of an integrated concept of sustainable entrepreneurs and draw conclusions in the final part.

10.2 The Role of Information in Collective Actions for Sustainable Development

The point of departure of this chapter is an economic perspective on entrepreneurship, rather than a moral-based or anthropology-based conception. According to environmental economics, environmental problems can be conceptualized as market failures. Because many natural resources like air and water are not easy to allocate to markets and because it is difficult to hold markets accountable for global phenomena like climate change resulting from increased or changed production and consumption processes, markets fail to ensure the sustainable provision of the natural resources on which economic actors depend (Dorfman 1993).

It is important to take the conceptualization of environmental problems as the result of market failures into consideration, because market failures can also be seen as the source of new entrepreneurial business opportunities. Entrepreneurial opportunities can be defined as "those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production" (Shane and Venkataraman 2000: 220). Sources of opportunities can be found in changes in supply or demand in the market, for instance new products or technologies for production or new preferences of customers. Furthermore, they can be found in different levels of awareness of these changes and their

solution by the entrepreneur, for instance different levels of information about the problem or its solution (Eckhardt and Shane 2003).

Three key factors seem to enable entrepreneurs to identify superior business opportunities: the active search for opportunities, alertness to opportunities and prior knowledge of market failures, the industry or the customer (Baron 2006). Opportunity recognition involves not only the 'alertness to changed conditions or overlooked possibilities' (Kirzner 1985)—i.e. the intellectual capacity and creativity to develop new solutions, new technologies and new products (Shane 2003)—but also the active search for new or alternative solutions for existing or anticipated problems (Shane 2000). The ability to identify superior business opportunities is dependent both on the prior knowledge possessed by the entrepreneur and on how this knowledge or information is processed by the entrepreneur (Gaglio and Katz 2001). In this respect, entrepreneurship can be seen as the *recognition* of opportunities in combination with the ability to *act* upon these opportunities, i.e. explore and exploit these opportunities.

Because on the one hand environmental problems can be conceptualized as the result of market failures, and on the other hand market failures can be seen as sources of new entrepreneurial business opportunities, Dean and McMullen (2007: 57–58) argue: "Whereas environmental economics concludes that environmental degradation results from the failure of markets and the entrepreneurship literature conclude that opportunities are inherent in market failure, the logical conclusion is that environmentally relevant market failures represent opportunities for simultaneously achieving profitability while reducing environmentally degrading economic behaviours. In other words, some market failures which result in environmental damage provide entrepreneurial opportunities whose exploitation promises profit and improvements in social welfare."

If we broaden our perspective on sustainable development however, it becomes clear that environmental problems can be considered as wicked problems (cf. Rittel and Webber 1973). Wicked problems are complex, ill-structured and public problems, like international terrorism, climate change and poverty. Environmental problems are such highly complex problems because they concern global and interconnected issues like climate change, increasing populations and changing consumption patterns, which cannot be solved in traditional ways or by simple solutions (Blok et al. 2015a). Some authors even call global warming a super wicked problem: "time is running out; the central authority needed to address them is weak or non-existent; those who cause the problem also seek to create a solution; and hyperbolic discounting occurs that pushes responses into the future when immediate actions are required to set in train longer-term policy solutions" (Levin et al. 2010: 2).

On the one hand, entrepreneurial action in response to sustainability-related market failures seem to be quite simple, suggesting that sustainable entrepreneurship can eliminate or correct market failures while reducing environmental degradation, pollution and greenhouse gas emissions (cf. Dean and McMullen 2007). If we on the other hand take the biophysical finiteness of planet Earth into account under the condition of economic growth, whether or not as a result of increased world population growth, it becomes clear that the problem is difficult to pin down and

highly complex, just as its solution; environmental problems do not only concern market failures, which can principally be solved by the market when the failure is fixed, as Dean and McMullen seem to assume. On the contrary, they concern an ecosystem failure to provide infinite resources for production and consumption, to provide optimum conditions for sustained production and consumption, and to do justice to intra- and inter-generational equity criteria (Korakandy 2008). As long as environmental problems are seen as market failures, the solution to these failures is found within the economic paradigm, in which the environment is seen as a subset of human economy, i.e. as a resource for production. The wickedness of phenomena like global warming makes clear, however, that the economy is on the contrary a subsystem of the ecosystems of planet Earth (cf. Van den Bergh 2001) and operates within the limits of the carrying capacity of Earth's life-support system. It is in this respect that environmental problems like global warming, which are even expected to increase because of population growth, do not primarily constitute market failures, but an ecosystem failure to provide infinite resources for economic exchange. Sustainable entrepreneurship therefore has to be understood as the process of exploring and exploiting opportunities that are present in sustainability-related ecosystem failures.

The complexity of environmental problems is also confirmed in the cross-sector partnership (CSP) and multi-stakeholder alliance (MSA) literature. Because the primary responsibility for economic, social and environmental issues is allocated to different types of actors in society—the private sector on the one hand and governments, NGOs and civil society on the other—action by multiple stakeholders is needed in order to address wicked problems like global warming (Van Huijstee et al. 2007). Stakeholder engagement, multi-stakeholder alliances and cross-sector partnerships between entrepreneurs and their stakeholders are important to manage wicked problems like global warming (Ayuso et al. 2006; Sharma and Kearnis 2011; Lowitt 2013) and to enhance responsible business practices (Wood 2002). An increasing number of both small and medium enterprises (SMEs) and large corporations (MNEs) are in fact involving stakeholders in order to contribute to sustainable development (cf. Veldhuizen et al. 2013).

In the context of sustainable entrepreneurship, this means that the exploration and exploitation of new sustainable business opportunities presupposes the active involvement of multiple stakeholders. Stakeholders are a broad range of groups or individuals who can affect, or are affected by, an organization, both internal such as suppliers, customers, employees, and external such as governments and NGOs (Freeman 1984). On the one hand, information from stakeholders can open a window of opportunity, i.e. new ideas for sustainable solutions, new forms of green supply and logistics, new substitutions for exhaustible natural resources, new market needs and so forth (Ayuso et al. 2011; Hart and Sharma 2004; Noland and Phillips 2010). In this respect, stakeholder engagement is key in the process of sustainable entrepreneurs' value creation and business model development (cf. Harrison et al. 2010). Because of the complexity of environmental problems

and the high uncertainty of the future impact of (un)sustainable innovations—one can think of biotechnology and nanotechnology—the active involvement of many stakeholders can enable a better understanding of these challenges and the risks and uncertainties involved in new sustainable business opportunities (cf. Belucci et al. 2002; Bulkeley and Mol 2003; Chilvers 2008). Furthermore, it can help to assess the social-ethical risks related to actual developments in sustainable production and consumption (Adriana 2009; Anderson and Bateman 2000; Dunphy et al. 2007; Freeman 1984; Lee 2009; Molnar and Mulvihill 2003; Blok 2014a). In this respect, stakeholder engagement is key to managing ecosystem failures in an entrepreneurial way.

From the previous analysis, we can define sustainable entrepreneurship as the process of exploring and exploiting opportunities that are present in sustainability-related ecosystem failures. Because ecosystem failures cannot be solved by the market alone, sustainable entrepreneurship involves collaboration with multiple stakeholders in the development of SBMs.

However, stakeholders have different, often conflicting, value frames and ideologies with regard to sustainability (De Wit and Meyer 2010; Peterson 2009). They have for instance differing ideas about what the 'real' problem behind sustainable development is, ranging from a market failure to an ecosystem failure, and the solutions they propose are based on multiple viewpoints that can differ widely among stakeholders and are not (always) based on shared values (Batie 2008; Kreuter et al. 2004; Blok 2014b). The active involvement of stakeholders can be hindered by the incompatibility of the value frames of actors in the private sector (i.e. entrepreneurs), NGOs for sustainable development and governmental organizations (Yaziji and Doh 2009; Selsky and Parker 2010), because of power imbalances among partners and so on.

For this reason, research is focusing increasingly on drivers of stakeholder involvement in business practices. The outcome of a collaboration can be influenced by the form and content of a collaboration's initial agreements for instance (Bryson et al. 2006). Such agreements describe the composition, mission and process of the collaboration. When partners do not completely agree on a shared purpose or when power issues are at stake, they may not be able to agree on subsequent steps for instance. Stakeholder engagement in SBM development is more likely to succeed if partners use resources and tactics to equalize power and manage conflicts effectively. Interaction, communication and sharing information can be crucial here, as this increases consensus among multiple stakeholders and helps to explore win-win situations and to establish agreements in resulting SBMs. Sharing information and knowledge is also a way for partners to build trust (Andriof and Waddock 2002; Bryson et al. 2006). Overall, therefore, information sharing increases the level of stakeholder engagement in sustainable entrepreneurial processes and can even be seen as an important predictor of partnership success (Mohr and Spekman 1994; Burchell and Cook 2006).

In the context of sustainable entrepreneurship, we can conceptualize information and knowledge sharing in terms of the reduction of information asymmetries. Information asymmetries, as already stated, can be defined as the situation in

which at least one actor in a collaboration has more or better information than the other actors (Kirzner 1973, 1985). Two specific problems arise in relation to information asymmetries. Information asymmetries may result in adverse selection before the collaboration or engagement with stakeholders is established, because actors' actual motivation to collaborate remains hidden from other actors. One can think of entrepreneurs involved in green washing, but also of entrepreneurs who are bluffing about the sustainability performance of new technologies that are still under development (Husted 2007; Van Oosterhout et al. 2006). Information asymmetries may result in moral hazard after the collaboration or engagement with stakeholders is established, because actors' actual performance remains hidden from other actors. One can think of entrepreneurs who do not keep their promise to contribute to sustainable development and are actually involved in industrial pollution, entrepreneurs who mislead their customers and other stakeholders by manipulating software that measures the sustainability of actual performance, but also of stakeholders who, deliberately or otherwise, share information about the collaboration with the entrepreneur's competitors.

The reduction of information asymmetries enables stakeholders to assess the socio-ethical issues related to the business model, thereby helping to prevent moral hazard and adverse selection problems. Furthermore, by the "linking and sharing of information, resources, activities, and capabilities", sustainable entrepreneurs enhance and secure the involvement of, and collaboration with, stakeholders in order to "achieve jointly an outcome that could not be achieved by organizations in one sector alone" (Bryson et al. 2006: 44). The corporate social responsibility (CSR) literature also acknowledges the importance of reducing information asymmetries (Lopatta et al. 2015). Transparency towards stakeholders is associated with good governance (Christensen and Cheney 2015) and involves all kinds of practices, ranging from financial disclosure statements and CSR annual reports, to stakeholder dialogues and codes of conduct (cf. Floridi 2010). Ethical codes for instance can be seen as a way to reduce information asymmetries in order to reduce stakeholders' adverse selection problems (Beneish and Chatov 1993; Ciliberti et al. 2011).

To conclude, if environmental problems have to be conceptualized as wicked problems and involve collaboration and engagement with multiple stakeholders in the development of SBMs, sustainable entrepreneurs explore and exploit sustainability-related ecosystem failures together with multiple stakeholders. In this respect, sustainable entrepreneurs acknowledge that the market alone cannot resolve ecosystem failures and, therefore, they actively collaborate with multiple stakeholders in collaborative action to address the wicked problem of sustainable development.

The entrepreneurial action that follows logically from this definition is captured in the first proposition:

Proposition 1: In their effort to address sustainability-related ecosystem failures, sustainable entrepreneurs enhance collaborative action with multiple market- and non-market-oriented stakeholders by reducing information asymmetries.

10.3 The Role of Information in the Entrepreneurial Process

The reduction of information asymmetries is, however, problematic from an entrepreneurial point of view. A fundamental characteristic of entrepreneurship is the ability to identify and pursue business opportunities (Kirzner 1973; Shane and Venkataraman 2000), which can be found in market or ecosystem failures as we have seen. These sources of opportunities can be conceived as additional *information* of which the entrepreneur takes advantage in the development of business models. Opportunities arise from information about market and ecosystem failures and their solution, and, in this respect, entrepreneurial engagement in, and the active search for, new opportunities is an active search for appropriate information (Shane 2003). It involves entrepreneurial alertness to information about demand conditions (customer needs, customer tastes and so on) and supply possibilities (new technologies, newly found resources and so on), but also overlooked possibilities resulting from emerging market and ecosystem failures (Kirzner 1985); it concerns the intellectual capacity and creativity to develop new solutions, new technologies and new products based on this information (Shane 2003).

The crucial role of information in business model development shows that it is the main source of competitive advantage (Conner and Prahalad 1996). Entrepreneurs' competitive advantage is based on information asymmetries, i.e. additional knowledge that enables them to identify business opportunities in the market, while others do not (Amit and Schoemaker 1993). This additional or 'prior' knowledge (McMullen and Shepherd 2006) may consist in the ability to "see where a good can be sold at a price higher than that for which it can be bought" (Kirzner 1973: 14, 1985). In this case, information asymmetries result from market participants' ignorance or imperfect knowledge with regard to *existing* information, and new business opportunities "arise out of the entrepreneur's alertness to [these] information asymmetries existing in the economy" (Dutta and Crossan 2005: 431). Information asymmetries may also be related to market and ecosystem failures that create market gaps that can be filled by entrepreneurs; new business opportunities arise then in entrepreneurs' efforts to develop markets for preserved environmental resources (Dean and McMullen 2007). Finally, information asymmetries may be *created* by the development of new information or new knowledge. This information provides opportunities for new or alternative solutions for existing or anticipated ecosystem failures.

The importance of information asymmetries as a source of competitive advantage means that, from an entrepreneurial perspective, sustainable entrepreneurs cannot reduce information asymmetries unlimitedly in favour of information symmetries among multiple stakeholders. The reduction of information asymmetries might create vulnerability by revealing the company's core competencies to other actors (Bigliardi and Galati 2013). This can affect the entrepreneur's ability to compete,

Table 10.1 The paradox of sustainable business models

	Sustainable entrepreneurial value creation	Collaboration for sustainable value creation
Reducing information asymmetries	Needed to explore and exploit opportunities that are present in sustainability-related market and ecosystem failures; may cause the loss of core competencies, knowledge or information	Needed to enhance collaborative action with multiple stakeholders to address sustainability-related market and ecosystem failures; may cause the loss of competitive advantage
Maintaining information asymmetries	Needed to enhance and secure competitive advantage; may limit access to new knowledge and information about sustainability-related market and ecosystem failures and their solution	Needed to secure and enhance competitive advantage; may hinder the engagement of, and collaboration with, multiple stakeholders

and this could have a negative influence on its competitive advantage (Islam 2012). Regarding economic actors, therefore, withholding information from other stakeholders is acceptable in order to enable entrepreneurs to achieve competitive advantage (Nayyar 1990), whereas such practices would not be acceptable in the public or political domain for instance (Dahl 1997).

To conclude, if entrepreneurship has to be conceptualized as the ability to take advantage of information asymmetries, sustainable entrepreneurial action does not only consist in the enhancement of collaborative action with multiple stakeholders by reducing information asymmetries (proposition 1). On the contrary:

> *Proposition 2: In their effort to address sustainability-related ecosystem failures, sustainable entrepreneurs maintain and enhance information asymmetries in order to achieve and secure competitive advantage.*

The analysis of sustainable development as an ecosystem failure and entrepreneurial practices confronts us with the paradox of SBMs, which becomes concrete in the first and in the second proposition formulated. The reduction of information asymmetries during the sustainable entrepreneurial process results in the integration of sustainable development within the business model. However, this reduction of information asymmetries undermines the entrepreneurial process at the same time, i.e. the ability of the entrepreneur to enhance and secure competitive advantage. This paradox is depicted in Table 10.1.

In the next section, I take advantage of the paradox of SBMs in order to build an integrated theory of sustainable entrepreneurship in which this paradox is resolved by the introduction of a new concept in the conceptualization of sustainability and entrepreneurship (Lewis 2000; Poole and Van de Ven 1989; Smith 2014): epistemic insufficiency.

10.4 Information Asymmetry as Epistemic Insufficiency

How can the paradox of SBMs be resolved? There seem to be at least two strategies available: a radical preference for information symmetry over information asymmetry in sustainable entrepreneurship, which seems to be Dean and McMullen's position, or a radical preference for information asymmetry over information symmetry, which requires a new and integrated theory of sustainable entrepreneurship. Let us focus first on the first solution and see its advantages and disadvantages.

According to Dean and McMullen (2007), we should not perceive the disequilibrium in the economic system—i.e. sustainability as a market or ecosystem failure—to be a state of nature, in which entrepreneurs take advantage on the basis of existing and created information asymmetries. "The environmental and welfare economics literature recognize not only the ignorance of producers or potential producers, but other barriers that, when overcome, allow the generation of economic rents and the movement of markets towards superior states of equilibrium and efficiency" (Dean and McMullen 2007: 57). According to these authors, imperfect information is one of these market failures, which, if sustainable entrepreneurs are able to overcome them, prevent or mitigate environmental degradation (Dean and McMullen 2007: 67).

This perspective seems to be promising in the case of sustainable entrepreneurship, because it allows the entrepreneur to reduce information asymmetries while maintaining his/her role in exploring and exploiting new business opportunities to solve sustainability-related market failures, leading to superior states of equilibrium and efficiency—i.e. more perfect levels of competition because of information symmetry—in which environmental issues also are addressed. This strategy solves the paradox of SBMs by highlighting the reduction of information asymmetries so that sustainable entrepreneurs can address sustainability-related market and ecosystem failures. Is this a suitable solution of the paradox discerned in the previous section?

From a theoretical perspective, information asymmetries and market failures represent a departure from Pareto efficiency, as Dean and McMullen (2007) rightly acknowledge. "Pareto efficiency is often equated with a state of perfect competition in which prices are equal to average total costs and, as a result, economic profits, or rents (profits) above all costs (including a risk-adjusted return to capital), are non-existent" (Dean and McMullen 2007: 54) thanks to perfect or symmetric information (Scherer and Ross 1990). Although Dean and McMullen acknowledge that it is questionable whether perfect knowledge and perfect competition can ever be reached, the *ideal* of sustainable entrepreneurship is that sustainability-related market failures are solved by the reduction of information asymmetries; the solution of these failures will allow sustainable entrepreneurs to develop business models that generate economic rents *and* that move markets towards superior states of equilibrium and efficiency, according to Dean and McMullen (2007).

But this is only one side of the story. The solution of market failures will indeed contribute to superior states of equilibrium and efficiency (information symmetry as

a solution for market failures), but, with this, it will no longer generate economic rents *after* the market failure is solved. Indeed, the more perfect the knowledge (information symmetry), the more perfect the competition, and the more perfect the competition, the lower the economic return of sustainable entrepreneurs, and the lower the competitive advantage of sustainable entrepreneurs. This concept of sustainable entrepreneurship focuses, in other words, indeed on the solution of sustainability-related market failures by the reduction of information asymmetries, but the price it has to pay for this achievement is the denial of entrepreneurial potential, which requires levels of information asymmetry to be maintained. It is precisely for this reason that entrepreneurs in fact maintain information asymmetries in practice in order to benefit economically from the opportunities provided by sustainability-related market and ecosystem failures.

The first solution to the paradox of SBMs does in fact not solve the paradox, but prefers one aspect of the concept (sustainable development) at the expense of the other aspect (entrepreneurial practices). What this solution in fact introduces is a duality between sustainable development on the one hand and entrepreneurial practice on the other in SBMs, in which sustainable development is preferred at the expense of entrepreneurial practice (reduction of information asymmetries). Reality, however, shows that the opposite can also happen (maintenance of information asymmetries). The advantage of this concept of sustainable entrepreneurship is that it explains the internal tensions within the concept of sustainable entrepreneurship—the continuous trade-offs between sustainability- and entrepreneurship-related interests—and it explains why and how these tensions may result in scandals and cases of fraud (cf. Hahn et al. 2015; Van der Byl and Slawinski 2015). The disadvantage of this dual concept of sustainable entrepreneurship is that it does not solve the paradox of SBMs. Negatively speaking, we learn from this dual concept of sustainable entrepreneurship that, in order to remain entrepreneurial, sustainable entrepreneurs should try to overcome ecosystem failures without any ideal of competitive equilibrium, because information symmetry would involve the self-denial or self-destruction of the entrepreneurial potential to explore and exploit new business opportunities.

In fact, reality meets this requirement of sustainable entrepreneurship, because information *is* often imperfect and incomplete and even *made* imperfect by entrepreneurs. In general, one can already question whether the reduction of information asymmetries, for instance the enhancement of transparency about business models and innovation practices, in fact promotes corporate responsiveness towards stakeholders (Christensen and Cornelissen 2015). Crilly et al. (2012) found that, in the case of information asymmetries between firms and their stakeholders, managers' responses to stakeholder pressures may consist in an intentional decoupling of firm policies and actual practices in favour of their own interests. Especially because entrepreneurs deal with multiple stakeholders with different and often opposing value frames, ambiguity seems to be a better strategy than transparency in order to serve one's own interests while being open to multiple stakeholders without offending them (Eisenberg 1984; Christensen and Cheney 2015). Information asymmetries are not only enhanced and secured in order to be *seen* as responsible,

rather than *being* responsible (Robert 2001), but are also sometimes enforced by privacy laws and regulations regarding the disclosure of competitive information.

In open innovation practices also, the paradox of information sharing and information protection can be recognized (Bogers 2011). Sometimes, firms discourage or restrict their employees from collaborating with stakeholders (Flipse 2012; Blok et al. 2015b) in order to prevent knowledge leakages (Mohamed et al. 2006). Notwithstanding the expected benefits of open innovation, the risk of negative knowledge leakage and, with this, the loss of competitive advantage, is significant for most companies (Gould 2012). Sometimes, entrepreneurs even increase information asymmetries to claim features of their innovations that are not (yet) justified, such as technical features or sustainability impacts in order to attract investments, or social features or impacts of new products in order to attract stakeholder support (cf. Millar et al. 2012). We therefore reject the preference of information symmetries to solve the paradox of SBMs, because the reduction of these asymmetries would involve the self-destruction of the entrepreneurial potential to exploit sustainable business opportunities.

Let us therefore turn to the other possible solution of the paradox of SBMs, which involves a preference of information asymmetry over information symmetry. This approach seems to be more legitimate because environmental problems have to be considered as wicked problems as we have seen, i.e. as problems that result not only from market failures but also from ecosystem failures; they concern highly complex problems regarding climate change with no finite set of clearly separated causes and effects, and they involve multiple visions and value frames (see Sect. 10.1).

This means that the asymmetry of information has a permanent and structural character; this implies that the ideal of perfect knowledge can never be reached; the sustainable entrepreneur has to acknowledge and deal with imperfect foresight. For this reason, we can conceptualize information asymmetries in the case of wicked problems in terms of actors' *epistemic insufficiency* regarding sustainability-related ecosystem failures. That is, our knowledge of the solution of environmental problems—i.e. SBMs—is principally imperfect and therefore insufficient to distinguish between good and bad strategies to solve these ecosystem failures. Climate smart innovations, for instance, may have unintended consequences or even irreversible consequences that may be harmful for future generations.

Actors' epistemic insufficiency regarding sustainability-related ecosystem failures implies that the sustainable entrepreneurial ideal of perfect knowledge and perfect equilibrium in the economic system has to be dropped, and that the fact of permanent information asymmetries has to be acknowledged by the entrepreneur. This means, first of all, that, irrespective of the sustainable entrepreneur's epistemic insufficiency regarding these ecosystem failures, information asymmetries can still be seen as a source of new sustainable business opportunities. This means, secondly, that sustainable entrepreneurs can enhance collaborative action with multiple stakeholders by reducing information asymmetries in their development of SBMs (proposition 1), because actors' epistemic insufficiency regarding these ecosystem failures will principally prevent the achievement of information symmetry and enable the

entrepreneur to uphold information asymmetries in order to maintain and enhance competitive advantage (proposition 2).

The epistemic insufficiency of sustainable entrepreneurs, their stakeholders and their competitors sheds another light on the meaning of entrepreneurship. The word entrepreneur comes originally from *entre-* (between) and *prendre, prehendere,* to grasp, to get hold of. What the sustainable entrepreneur *grasps* and *acts* upon is the wickedness—or in more philosophical terms, the strangeness or otherness—of sustainability-related ecosystem failures, which can only be 'apprehended', with no ability to 'know' them or to 'predict' their solution. It is this apprehension of sustainability-related ecosystem failures that is the source of new sustainable business opportunities. Hence, the third proposition:

> *Proposition 3: The maintenance of information asymmetries as a source of new sustainable business opportunities is enhanced and secured by the epistemic insufficiency of entrepreneurs and their stakeholders and competitors regarding sustainability-related ecosystem failures, which can be 'apprehended' by the sustainable entrepreneur as a source of new sustainable business opportunities.*

By reformulating the maintenance of information asymmetries in terms of actors' epistemic insufficiency regarding sustainability-related ecosystem failures, we provide a solution for the paradox of SBMs.

10.5 Consequences of Entrepreneurs' Epistemic Insufficiency for an Integrated Concept of Sustainable Entrepreneurship

Entrepreneurs' epistemic insufficiency regarding sustainability-related ecosystem failures has some additional consequences for an integrated concept of sustainable entrepreneurship. First of all, it makes clear why it is crucial to involve and engage multiple stakeholders in the sustainable entrepreneurial process, as we have seen in the previous section.

The critical stance of stakeholders towards the exploration and exploitation of sustainable business opportunities is crucial, because sustainable entrepreneurs' epistemic insufficiency makes the development of SBMs a highly risky and uncertain endeavour. This risk is not necessarily problematic from an entrepreneurial perspective, because risk-taking is traditionally seen as one of the main characteristics of entrepreneurship. Knight (1921) distinguishes between insurable and uninsurable risk, and argues that the entrepreneur takes an uninsurable risk by exploiting business opportunities that are highly uncertain upfront, for instance investment in new sustainable product development without any guarantee of sufficient returns on investment.

Although Knight's concept of uninsurable risk assumes a general equilibrium economic system in which risks occur as a consequence of economic changes and differences in the entrepreneurial ability of different actors within this economic

system, we can see risk-taking that results from the entrepreneur's epistemic insufficiency regarding sustainability-related ecosystem failures as a key element of sustainable entrepreneurship. The reason is that sustainability also can be considered as an uninsurable risk. No insurance can cover the risk of limited availability of natural resources like oil and gas for future generations—all opportunities to satisfy the needs of the current generation will change the conditions of the opportunities for future generations—and no insurance can cover the risk of the future negative impacts of new technologies like GMOs, nanotechnology or synthetic biology for future generations. In this respect, both sustainability and entrepreneurship concern radical uncertainty, and sustainable entrepreneurs deal with this radical uncertainty in their exploration and exploitation of new sustainable business opportunities in SBM development. This leads to the fourth proposition:

> *Proposition 4: In their effort to address sustainability-related ecosystem failures, sustainable entrepreneurs take risks by exploring and exploiting radical, uncertain sustainable business opportunities. The risks and uncertainty involved in sustainable entrepreneurship concern not only the entrepreneurial risk involved in the exploration and exploitation of new business opportunities in SBM development, but also sustainable entrepreneurs' epistemic insufficiency to assess the long-run sustainability of their solution to ecosystem failures.*

The difference between the risks taken by the entrepreneur and the risks concerning sustainability-related ecosystem failures is that the uncertainty relating to entrepreneurship is not necessarily problematic—one could argue that the free market decides which entrepreneur will be successful in his/her risk assessment—whereas uncertainty relating to sustainability is in fact problematic if we take into account the urgency to address global warming for instance. Because sustainable entrepreneurs apprehend the sustainability-related ecosystem failures without the ability to 'know' them or to 'predict' their solution, they acknowledge that the exploration and exploitation of new sustainable business opportunities in SBM development involve not only entrepreneurial risks, but also sustainability-related risks and uncertainties that may decrease but also may increase sustainability-related ecosystem failures.

This brings us to a second consequence of epistemic insufficiency for an integrated concept of sustainable entrepreneurship. Although sustainable entrepreneurs acknowledge this fundamental uncertainty, for instance the potential harm they can cause for others (customers, civil society, future generations and so forth), and, although they will continuously have to recapture their business models in their struggle against their possible unsustainability for future generations, the acknowledgement of their epistemic insufficiency does not necessarily have to lead to an entrepreneurial attitude characterized by *prudence* with regard to new innovative technologies and business models.

One of the key individual competencies of entrepreneurs is found in entrepreneurial self-efficacy. Self-efficacy concerns an actor's belief in his/her own ability to perform well (Bandura 1982), and entrepreneurial self-efficacy concerns an actor's belief in his/her own entrepreneurial competence to explore and exploit new business opportunities (cf. Ploum et al. 2017; Rauch and Frese 2007). Interestingly, the concept of self-efficacy has also emerged in the literature on competencies of sustainability professionals. Here, self-efficacy determines the action competence

of sustainability professionals (Almers 2013; Mogenson and Schnack 2010). Action competence can be defined as the "capability . . . to involve yourself as a person with other persons in responsible actions and counter-actions for a more humane world" (Schnack 1996: 15). In the context of sustainable entrepreneurship, self-efficacy means that, because of the epistemic insufficiency regarding sustainability-related ecosystem failures and their solution, sustainable entrepreneurship does not consist in prudence. On the contrary, self-efficacy means that the sustainable entrepreneur is involved in actions to address sustainability-related ecosystem failures and also believes that he/she is capable of addressing these failures. Whereas self-efficacy in the context of the action competence of sustainability professionals means that actors feel themselves responsible for, and capable of, acting in a more sustainable way—a trait that is not necessarily present in entrepreneurial self-efficacy—self-efficacy in the context of *sustainable* entrepreneurs concerns their belief in their own responsibility and capability for addressing sustainability-related ecosystem failures (Lans et al. 2014; Ploum et al. 2017). Indeed, entrepreneurship originally means an undertaking, i.e. the ability to undertake action to address sustainability-related ecosystem failures, leading to the fifth proposition:

> *Proposition 5: Notwithstanding their epistemic insufficiency and the risks and uncertainties involved in the exploration and exploitation of new sustainable business opportunities, sustainable entrepreneurs feel responsible for, and capable of, addressing sustainability-related ecosystem failures, and act upon these failures in their development of new SBMs, on the basis of their sustainable entrepreneurial self-efficacy.*

The undertakings of the sustainable entrepreneur are focused primarily on the solution of sustainability-related ecosystem failures, and, in this respect, sustainability is definitely a normative concept. It does not describe the world as it is but the way it *should* be and focuses on Earth's sustainability as a life-supporting ecosystem. This does not mean, however, that the sustainable entrepreneur embraces pre-given norms in his/her exploration and exploitation of new sustainable business opportunities: neither the norm of economic growth nor the norm of economic degrowth (cf. Jackson 2011; Schneider et al. 2010; Van Griethuysen 2010), neither the norm of prudent innovation nor the norm of reckless innovation like geoengineering and so on. If we take actors' epistemic insufficiency regarding sustainability-related ecosystem failures seriously, responsibility cannot mean that we apply pre-fixed norms and values regarding proposed solutions; they are not available upfront and are often in conflict among multiple stakeholders (Blok et al. 2015a). For this reason, the sustainable entrepreneur's responsibility is not informed by pre-given norms, but these norms and principles of the exploration and exploitation of new sustainable business opportunities are developed, negotiated and reconciled on the basis of multiple stakeholders' judgements. This process of developing and negotiating norms is unique in every situation, in which the interests of multiple stakeholders have to be weighted and revised over and over again because of changing circumstances or new insights.

In this respect, the responsibility of the sustainable entrepreneur can be seen as irreducibly *futural*: principles and norms regarding sustainable solutions are always

only applicable in a limited way, i.e. there always remain sustainability-related ecosystem failures that are not covered by these norms and principles. Responsible action by the sustainable entrepreneur therefore consists in his/her paradoxical responsibility to develop, negotiate and apply norms and principles in his/her exploration and exploitation of new sustainable business opportunities in SBM development, and at the same time to reflect, renegotiate and suspend these norms and principles in light of his/her epistemic insufficiency regarding sustainability-related ecosystem failures (cf. Morton 2013). Blok et al. (2015a) explored this paradoxical responsibility of the sustainable entrepreneur in terms of a virtuous competence.[1]

This brings us to a third consequence of epistemic insufficiency for an integrated concept of sustainable entrepreneurship. In practice, this means that the sustainable entrepreneur is not looking for perfect solutions, which in any event do not exist in the case of wicked problems like sustainable development, but for *satisficing* business models that, on the one hand, are satisfactory *and* sufficient to maintain Earth as a life-supporting ecosystem and, on the other, are always open to future subversions, revisions and improvements. The sustainable entrepreneur feels responsible for exploring and exploiting such satisficing business models together with multiple stakeholders, but acknowledges the futural status of his/her responsibility in light of the wickedness of sustainability-related ecosystem failures. This leads to a final proposition:

> *Proposition 6: Sustainable entrepreneurs take responsibility for sustainable actions by engaging in the exploration and exploitation of new sustainable business opportunities together with multiple stakeholders, thereby providing satisficing and open-ended business models for sustainability-related ecosystem failures.*

10.6 Conclusions

In this chapter, I pointed to the paradox of SBMs in the current conception of sustainable entrepreneurship in the literature. Although at first sight environmental problems seem to provide an additional source of new business opportunities, we raised the question of the consequences of the integration of sustainable development and the opportunity recognition process for the concept of entrepreneurship. The win-win paradigm of sustainable entrepreneurship was challenged by pointing to a tension between processes involved in sustainable development and processes involved in entrepreneurial practices, conceptualized as the paradox of SBMs. Sustainable entrepreneurship contains a paradox, because sustainable development involves the reduction of information asymmetries whereas entrepreneurial practices involve enhanced and secured levels of information asymmetries.

Because the paradox of SBMs calls for a new theory of sustainable entrepreneurship, theory from entrepreneurship, SBMs and sustainable development was

[1] Further elaboration of this concept is beyond the scope of this article.

synthesized in order to develop an integrated conception of sustainable entrepreneurship in this article. We defined sustainable entrepreneurship as the process of exploring and exploiting opportunities present in sustainability-related ecosystem failures. Because ecosystem failures cannot be solved by the market alone, sustainable entrepreneurship involves collaboration with multiple stakeholders in the development of SBMs. On the basis of this definition of sustainable entrepreneurship, it is possible to identify the paradox of SBMs. On the one hand, it was argued that, in order to collaborate with multiple stakeholders to address collectively sustainability-related ecosystem failures, sustainable entrepreneurs should reduce information asymmetries. On the other hand, it was argued that, in order to achieve and secure competitive advantage, sustainable entrepreneurs should maintain and enhance information asymmetries.

A possible solution to the paradox of SBMs was provided by the preference of information symmetry over information asymmetry in sustainable entrepreneurship. This solution was rejected in this chapter, as it indeed focuses on the reduction of information asymmetries needed to address sustainability-related ecosystem failures, but at the price of its denial of entrepreneurial potential, which requires levels of information asymmetry to be maintained. What this concept of sustainable entrepreneurship introduces is a duality between sustainable development on the one hand and entrepreneurial practice on the other, in which either sustainable development is preferred at the expense of entrepreneurial practice (reduction of information asymmetries) or the other way around (maintenance of information asymmetries). The first contribution of this chapter is that it articulates a duality in the traditional concept of sustainable entrepreneurship found in the literature, thereby explaining the internal tensions in sustainable entrepreneurial practices—the continuous trade-offs between sustainability- and entrepreneurship-related interests—and why and how these tensions occur in SBMs.

The second contribution of this chapter is that the analysis of this dual concept of sustainable entrepreneurship enables us to criticize the traditional concept of sustainable entrepreneurship. On the one hand, this dual conceptualization of sustainable entrepreneurship does not solve the paradox, but only prefers one aspect (sustainable development) at the expense of the other aspect (entrepreneurial practices). On the other hand, this dual conceptualization of sustainable entrepreneurship shows that, in order to remain entrepreneurial, sustainable entrepreneurs should try to overcome ecosystem failures without any ideal of competitive equilibrium, because high levels of information symmetry would involve the self-denial or self-destruction of their entrepreneurial potential to explore and exploit new business opportunities.

The third contribution of this chapter is that the reflection on sustainable development as a wicked problem enables us to solve the paradox of SBMs by developing an integrated theory of sustainable entrepreneurship. The basic argument is that sustainable development has to be conceptualized as a wicked problem or a sustainability-related ecosystem failure. Because all actors involved in the development of SBMs are characterized by their epistemic insufficiency regarding the resolution of these ecosystem failures, the role of stakeholder information in the

sustainable entrepreneurial process changes. On the one hand, the reduction of information asymmetries aims primarily to enable actors to become critical of sustainable entrepreneurs' actual business model; stakeholder information helps to question the limitations of the value frames and interests involved in the actual business model and the possible one-sidedness of the provided solutions as a result of entrepreneurs' epistemic insufficiency. On the other hand, even if this requires the reduction of information asymmetries in collaborative entrepreneurial action, the epistemic insufficiency of sustainable entrepreneurs and their stakeholders guarantees that information asymmetries remain as a source of new sustainable business opportunities.

This resolution of the paradox of SBMs implies three other characteristics of an integrated concept of sustainable entrepreneurs. First, sustainable entrepreneurs take risks by exploring and exploiting radical, uncertain sustainable business opportunities in SBM development. This uncertainty concerns not only the classical entrepreneurial risk involved in the exploration and exploitation of new business opportunities, but also the sustainability-related risks that proposed solutions do not, or do not sufficiently, solve sustainability-related ecosystem failures. Second, notwithstanding their epistemic insufficiency and the risks and uncertainties involved in exploring and exploiting new sustainable business opportunities, sustainable entrepreneurs feel responsible for, and capable of, addressing sustainability-related market and ecosystem failures, and act upon these failures in their development of SBMs on the basis of their sustainable entrepreneurial self-efficacy. Third, sustainable entrepreneurs take responsibility for sustainable actions by engaging in the exploration and exploitation of new sustainable business opportunities together with multiple stakeholders, thereby providing satisficing and open-ended business models for sustainability-related market or ecosystem failures.

In conclusion, this chapter contributes to our understanding of the role of entrepreneurs in addressing sustainability-related ecosystem failures, i.e. sustainable entrepreneurship. By viewing sustainable development as an ecosystem failure, we conceptualize sustainable entrepreneurship as the process of exploring and exploiting, together with multiple stakeholders, the new and innovative business opportunities present in these sustainability-related ecosystem failures. Sustainable entrepreneurs feel responsible for exploring and exploiting new SBMs to address sustainability-related ecosystem failures, and, notwithstanding their acknowledgement of the fundamental risks and uncertainties involved, they feel capable of providing, together with multiple stakeholders, satisficing and open-ended business models for sustainability-related market or ecosystem failures.

A possible limitation of this chapter is its focus on the economic perspective on entrepreneurship as its point of departure. In future research, moral-based and anthropology-based conceptions of entrepreneurial activity, to name just a few, should also be considered and contrasted. Another potential limitation of this study is its focus on the environmental aspects of sustainability, with the social and anthropological aspects of sustainable development receiving less attention. Finally, because of the theoretical orientation of the current contribution, future work is needed to operationalize the theory both from a managerial perspective

and from the perspective of empirical research. With this contribution, I hope to fuel such future theoretical and empirical research in the field of sustainable entrepreneurship and the development of SBMs.

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Chapter 11
Sustainable Business Models Through Servant Leadership: Theory and Praxis

Mara Del Baldo

Abstract Sustainable business models (SBMs) archetypes have been introduced to develop a common language that can be used to accelerate the development of SBMs in research and practice. The way in which SBMs are triggered by managers or entrepreneurs who act as leader of an organization has not yet been deeply investigated. Accordingly, the works aims to inquire the role of entrepreneurial and managerial leadership style—with a particular focus on servant leadership—in influencing the strategies, the organizational culture and the stakeholders engagement of companies, orienting them toward sustainable business models. After having traced the theoretical background, the empirical research in this chapter helps to shed light on corporate sustainability management and sustainable innovation in daily business and to inquire the extent to which servant leadership allows SBMs implementation. The cases-studies are relative to two Italian large-sized companies (Brunello Cucinelli Spa and Geico Spa) belonging to different sectors and geographical areas, led by managers and entrepreneurs with common traits in their servant leadership styles and characterized by the implementation of distinctive sustainable business models. Findings emphasize the role of the values and ethical-based conducts of the managers/entrepreneurs in forging the sustainable and servant leadership model and affecting the SBMs adopted by the companies.

11.1 Introduction

Although comparable conceptual notions of sustainable business models (SBMs) do not exist today (Lüdeke-Freund 2009), SBM archetypes have been introduced and categorized to develop a common language that can be used to accelerate the development of SBMs in research and practice (Bocken et al. 2014), because sustainability concepts shape the driving force of the firm and its decision-making process (Abdelkafi and Täusher 2015).

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An SBM encompasses a wider range of change within the organization, as well as within its external network, than traditional business models (Boons and Lüdeke-Freund 2013), since it enhances social value creation and provides solutions to alleviate urgent social problems (Seelos and Mair 2005, 2006; Johnson 2010). The way in which SBMs are constructed by actors involved in value creation is an important topic for research, which has not yet been sufficiently investigated (Boons and Mendoza 2010).

Sustainable and responsible leadership can play a crucial role in shaping ethical organizational culture, everyday routine, procedures and structures and the promotion of dynamic and innovative sustainability-oriented strategies (Visser 2011; Von Ahsen 2015; Melé 2012; Malloch 2009; Capaldi 2013; Ruisi 2010; Von Weltzien Hoivik and Melé 2009; Von Weltzien Hoivik 2014; Liu 2007; Kaptein 2009; Lloyd and Mey 2010; Del Baldo 2016). Theories on responsible leadership emphasize the importance of engaging stakeholders to build the best communities and workplaces (Jones 2014; Magni and Pennarola 2015; Bass and Steidlmeier 1999), enhance an ethical climate founded on integrity and justice, inclusion and long-term orientation (Magni and Pennarola 2015). The theoretical construct of sustainable leadership emphasizes the leadership role in creating a social capital (Avery and Bergsteiner 2011) through cultivating a way of being and acting immersed in sustainability values and a dynamic and collaborative process (Burns et al. 2015) as a result of sharing the values of sustainability inside and outside of the company.

Moreover, servant leadership places the good of those led over the self-interest of the leader (Laub 1999, 2004; Greenleaf 1977; Page and Wong 2000; Graham 1991; Spears 1995; Patterson 2003; Winston 2003; Irving 2005).

According to this theoretical construct, the paper intends to inquire into the role of leadership styles and, in particular, servant leadership in influencing the strategies, the organizational culture—starting from the employees and internal collaborators—and the stakeholders' engagement of companies, orienting them toward sustainable business models. In particular, taking a human resource development perspective on the role of the leader in transforming and orienting the company towards a SBM, the paper intends to provide a reply to the following research questions: How does the leadership style influence the development and application of SBMs? How and why does a servant leadership style affect sustainability in the internal and external business context?

Empirical research helps us to shed light on corporate sustainability management and sustainable innovation in daily business (Boons and Lüdeke-Freund 2013; Stubbs and Cocklin 2008; Roome and Louche 2016) and to inquire into the extent to which servant leadership allows for SBM implementation (Salzmann et al. 2005; Schaltegger et al. 2012). To this end, after a literature review on SBMs and servant leadership (Visser 2011; Bouckaert 2011; Bocken et al. 2014; Schaltegger et al. 2012 Schaltegger et al. 2016), a case study analysis is presented and discussed, relative to two Italian large-sized companies (Brunello Cucinelli Spa and Geico Spa) belonging to different sectors and geographical areas and led by managers and entrepreneurs with common traits in their servant leadership styles, which are characterized by the implementation of distinctive SBMs. The results of the

empirical analysis emphasize the role of the values and ethical-based conducts of the managers/entrepreneurs in forging the sustainable and servant leadership models, which affect the SBMs adopted by the companies.

The remainder of the chapter is organized as follows. First, the theoretical framework of sustainable business models and servant leadership is introduced. Secondly, after the description of the methodological research approach, the two case studies are presented and discussed, followed by a final section containing concluding remarks and insights.

11.2 Literature Framework

11.2.1 Sustainable Business Models

Many approaches used for corporate social responsibility (CSR) and sustainability have been (and are) predominantly inward-oriented and incapable of linking firms' social responsibilities to the core business and the value creation processes (Visser 2011). Therefore, the need for more outward-oriented approaches has been pointed out, claiming the relevance of the SBM with regard to the firms' value creation processes as a starting point useful for avoiding the narrower concept of CSR (Bocken et al. 2014; Schaltegger et al. 2012; Looser and Wehrmeyer 2015; Del Baldo 2014, 2016, 2017). "The world needs a comprehensive re-assessment of our understanding of value—its parameters and its effects—to restore trust in economic and business decision-making, and achieve investment that contributes towards financial stability and sustainable development", as formulated by Jonathan Labrey, Chief Strategy Office of the International Integrated Reporting Council (Labrey 2015). An SBM is built upon the creation of value for all stakeholders and the natural environment (Abdelkafi and Täusher 2015), encompassing a wide range of changes that affect the company culture and values, translated into business practices and sustainable strategies, the skills and knowledge, the leadership model and the internal and external relationship, involving inter-organizational networks formed by different stakeholder (firms, public institutions, banks, entrepreneurial, civic associations, etc.) and wider societal systems (Del Baldo and Baldarelli 2017). The SBMs are constructed through the interactions between individuals and groups inside and outside of companies (Roome and Louche 2016). A complex process based on identifying, translating, embedding and sharing requires the construction of networks and collaborative practices for learning and action based on a new vision and a new business logic.

Previous literature on corporate sustainability management points out the contribution of SBMs in driving and nurturing sustainable innovation (Boons and Lüdeke-Freund 2013; Schaltegger et al. 2012). The business model perspective promotes the exploration and understanding of how different types of sustainable innovations [for technological innovation, see: Wells (2008); for organizational innovation, see: Birkin et al. (2009a, b)] can be developed (Lovins et al. 1999; Charter et al. 2008; Fielt 2013).

In their research agenda on SBMs, Boons and Lüdeke-Freund (2013) point out the contribution of empirical research and shed some light on the state-of-the-art models of corporate sustainability management, sustainable organizational development and sustainable innovation in daily business (Stubbs and Cocklin 2008). They also provide further information on investigating the extent to which the business model allows or hinders specific types of innovations (Johnson 2010). Moreover, the need emerges to demonstrate how to translate social and environmental value creation into economic profit and competitive advantage in order to build the 'business case for sustainability' (Salzmann et al. 2005; Schaltegger et al. 2012).

Through a case-study analysis, Stubbs and Cocklin (2008) empirically verified that organizations adopting a SBM developed internal (structural and cultural) capabilities to achieve firm-level sustainability and collaborated with key stakeholders to achieve sustainability for the socio-economic and environmental system they belong to. This takes place because societal and cultural demands for sustainable development evolve outside the economic sphere, and because sustainable development denotes a process where ecological, economic and social values are balanced in continuous action (Lélé 1991). Accordingly, organizational change in business enterprises (Birkin et al. 2009a, b) rests on structural and cultural business model attributes and are derived from the external socio-economic environment or internal organizational capabilities (Stubbs and Cocklin 2008).

Moreover, literature points out the relationship between SBMs and social value creation (Seelos and Mair 2005, 2006; Johnson 2010). Corporate social innovations provide solutions to alleviate urgent social problems and can be procured in different ways: for instance, by developing self-sustaining businesses instead of profit maximizing businesses and giving space to entrepreneurs and managers so they can focus on social and environmental issues and create value for the wide spectrum of stakeholders, starting from internal stakeholders among whom a fundamental category is represented by employees and internal collaborators.

In this regard, the way in which SBMs are constructed by actors involved in value creation is an important topic for research (Boons and Mendoza 2010) which has not been yet sufficiently investigated. Entrepreneurial and managerial leadership styles and models play a crucial role in shaping organizational culture, especially through leaders' moral behaviour and values and the ethical criteria applied to decision-making, which affect everyday routine and intra-organization procedures and structures (Melé 2012).

As pointed out by Blok et al. (2015) in the context of corporate sustainability, we can think of the application of universal ethical principles like the socio-ecological system integrity (Gibson 2006), education for sustainable development (De Haan 2006), environmental values like altruism or self-transcendence rather than egocentrism (De Groot and Steg 2008), and positive attitudes that enable a professional in corporate sustainability to recognize moral issues related to sustainability and to make a moral judgment about the right thing to do based on ethical norms (see Blok et al. 2015: 306).

Assuming that a thorough implementation of CSR in a company's core business process is fundamental for effectively dealing with sustainable development (Osagie

et al. 2017), in the last year scholars have been increasingly focusing on the role of CSR leadership (Cramer 2003; Waldman et al. 2006; Huang 2013). It is in fact commonly acknowledged that leaders play a crucial role in the implementation process. Moreover, within a human resource development perspective, they influence employee behavior and shape the organizational climate and the organizational culture. In this specific regard a recent work of Osagie et al. (2017) empirically examined the individual competence of CSR leaders, intended as those professional that bear the responsibility of leading the CSR implementation. Exploring how the CSR leaders' competences are affected by contextual and personal work-related factors and which learning activities are used for developing their competencies, they verified that the effectiveness of CSR leaders depends to a large extent on their individual competences.[1] Informal learning activities, as well as some dimensions of the companies' learning climates (facilitating, awarding and appreciating learning climate) and the CSR leaders' learning goal orientation positively affect the competence of CSR leaders. In order to inquire which individual CSR-related competencies leaders need in order to perform their jobs and how these competences can be acquired and maintained the relevance of fundamental personal values, disposition, and motivation through which learning and experiences are directed and evaluated represent key factors in enhancing leaders' CSR-related competencies (Osagie et al. 2016a, b). These set of personal values, dispositions and motivations are also fundamental attributes of servant leadership in whose context a human resource development perspective is performed.

Accordingly to this framework, the following section addresses servant leadership as a model linked to the effectiveness of SBMs.

11.2.2 Sustainable and Servant Leadership

As mentioned, leadership style plays a key role in driving a company toward sustainable business and implementing responsible strategies (Du et al. 2013) and authentic sustainable oriented strategies (Avolio and Gardner 2005; Del Baldo 2017). Leaders are responsible for creating interventions appropriate for change (Jacobson 2000; Winston and Patterson 2006) and serve as a catalyst for change, seeking change (Sadler 1997) and coping with change (Kotter 1999). Moreover, they build positive and productive change (Meyer et al. 1998) and manage it (Ulrich et al. 1999). The pressures to change and the role of a virtuous leader has been pointed out by several authors. Spears (1995) claimed that the most effective change is best achieved through interventions from virtuous individual systems acting and behaving with high ethical standards and moral character. In other words, good people (those with moral character) make good moral choices since the moral- and

[1]Individual competences have been defined as a complex set of performance-oriented knowledge elements, skills, and attitudes needed to achieve specific objectives (Mulder 2014).

character-driven people usually understand the holonic nature of life, believe in moral codes, and make choices for the larger common good, which includes self and other (Spear 1995: 70).

Among the theoretical constructs on leadership, leadership ethics tend to emphasize leaders' behaviour and values (Liu 2007; Kaptein 2009; Lloyd and Mey 2010; Bouckaert 2011; Von Weltzien Hoivik 2014) and the benefits deriving from moral-based models of leadership. Moral imagination involves the ability to envision and evaluate new models that create new possibilities to reframe problems and new solutions in ways that are economically viable and morally justifiable (Werhane 1999). Moral creativity fosters dynamic and innovative CSR strategies and actions and is tied to responsible and sustainable leadership (Visser 2011; Bouckaert 2011; Von Ahsen 2015). Several benefits derive from an organizational culture imbued with moral leadership: understanding of the interdependence between stakeholders; learning environment; respect and trust; cooperation and cohesion, transparency and accountability (that is to ask for and to give account of actions and decisions) (Von Weltzien Hoivik and Melé 2009; Riggio et al. 2010; Dutta and Banerjee 2011; Collier and Esteban 2000; Del Baldo 2016).

Drawing from a research focused on a number of organizations that employed virtuous people who created an organizational system culture of high moral character and were able to successfully sustain individual and organizational systems, Johnson (2009) suggest that individual systems aiming to address organizational system change and wanting to do so from a humanistic perspective must embody the virtues of courage, integrity, humility, reverence, optimism, and justice, as well as cardinal virtues (such as temperance, prudence and fortitude) and theological virtues (faith, hope and charity).

Moreover, raising the question on how moral competencies for sustainability have to be understood a recent study pointed out that "both normative and action competence can be considered moral competences since they concern norms, values and beliefs which define what is right and wrong concerning sustainability, and enable professionals to take the right decision and behave in a responsible way" (Blok et al. 2015: 298). Normative competence enables professionals involved in corporate sustainability to assess and improve the sustainability of social-ecological systems, on the basis of a set of fixed values and principles (Wiek et al. 2011). In order to deal with the challenges related to complex, public and controversial problems (the so called wicked problems, like sustainability) "organizations have to develop the skills, capabilities and competencies to (re)consider sustainability in all strategic and operational decisions which are made" (Blok et al. 2015: 302). Both organizational and individual competences are thus necessary inputs to manage the problem of sustainability.

In the business context, a framework of basic competencies for a manager involved in solving sustainability problems has been developed and tested by Dentoni et al. (2012) and Lans et al. (2014). These competences—that are familiar both to management, business and entrepreneurship literature—include: system thinking competence, foresight-thinking competence, strategic management, embracing diversity and inter-

disciplinarity, interpersonal competence, normative competence and action competence (Wiek et al. 2011).

Starting from MacIntyre's (1985) conceptual framework of virtue ethics, based on practical wisdom, Blok et al. (2015) conceptualize normative competences and action competence as virtuous competences for corporate sustainability. They define the normative aspect of virtuous competence as the ability to identify, develop and generate virtues that solve sustainability problems together with multiple stakeholders; virtuous competence constitute the good character of the professional and the normative basis for decision making process concerning corporate sustainability. Moreover, they assume action competence[2] as the ability based on critical thinking and incomplete knowledge, to actively involve oneself in responsible actions to improve the sustainability. Both virtues and competence focus on the individual level, are developed and learned by practicing, and are widespread by witnessing professional behavior of others, by imitating this behavior and by reflecting on one's own behavior (see Blok et al. 2015: 311).

Accordingly, the theoretical construct of responsible leadership places the leader's behaviour, attitudes and choices at the core of the good management of a company, a division or a team (Magni and Pennarola 2015). Responsible leadership requires leaders to engage in involving stakeholders with virtue and integrity to build the best community and workplace (Jones 2014). The model rests on five pillars: stakeholder consideration and ethical climate; integrity and justice; role modelling and empowerment; climate geared toward diversity and inclusion and long term orientation. Through this model, the responsible leader triggers a resilience path that guides the company toward sustainable development (Magni and Pennarola 2015). People and culture are the key factors of the sustainable model of leadership (Wayne and McDonnell 1994). The people strategy is based on the enterprise conceived as a community of people. Therefore, its value is measured based on the commitment to encourage the skills of employees, and this leads to the virtue of humility (Seligman 2004). Responsible leadership is supported by the idea that the person responsible must have flexible thinking (i.e., strategic and systematic), which includes the dimensions of logic (to sort, select, plan), ethics (foresight, transparency and perseverance) and aesthetics. Therefore, it requires specific cardinal virtues, such as prudence and courage (Sansone 2014; Melé 2009), which are relevant in the business context both at the individual and organizational level (Ruisi 2010; Del Baldo 2013). Virtues[3] are characteristics of a person that enable him/her to lead a good life, and can be found in intellectual virtues like practical wisdom and moral virtues like courage,

[2]The components of action competence include: knowledge and insight; concerns knowledge about the problem of sustainability and the ability to think critically about its possible solution; commitment relates to the motivation and drive to engage oneself in the solution of sustainability problems; visions concerns the ability to conceptualize the future state of the world or the good life one wants to pursue; action experiences finally stresses the importance of actual involvement in concrete sustainable actions (Jensen and Schnack 2006).

[3]Virtue concerns the disposition of a person to do the right thing and virtue in combination with practical wisdom is the ability to actually do this right thing in a given situation (Aristotle 1990).

friendship and modesty (Solomon 1992; Blok et al. 2015). Virtue ethics assumes that good actions come from good persons and therefore that ethical behavior will be undertaken by actors with virtuous characters (Blok et al. 2015).

These virtues are fundamental (so-called cardinal virtues) because they are tied to the human faculties affecting the decision-making process. In this sense, fortitude (courage) is the competence to handle decisions; prudence (practical wisdom) is the ability to predict; temperance (moderation) (the habit of self-control) is the capability to evaluate; justice (friendship) is integrity for action (Bastons 2008). From a virtue ethics perspective, action competence can be conceptualized as the practical wisdom to apply the virtues needed to realize sustainability followed by appropriate action (Blok et al. 2015).

Finally, the theoretical construct of sustainable leadership emphasises the three dimensions of sustainable development and the leadership role in creating a social capital (Avery and Bergsteiner 2011) through cultivating a way of being and acting immersed in sustainability values and a dynamic, inclusive and collaborative process. Therefore, the leader's role does not rest in guiding others, but in guiding with the others (Burns et al. 2015) as a result of sharing the values of sustainability inside and outside of the company and leading change.

In the last few decades, awareness of transformational leadership and virtues-based leadership styles and approaches has grown. Using Bass and Avolio's components (2000), transformational leadership was measured according to three major dimensions (Bass 1985; Waldman et al. 2006): (1) charisma, which "provides followers with a clear sense of purpose that is energizing, a role model for ethical conduct, and builds identification with the leader and his or her articulated vision"; (2) intellectual stimulation, which "gets followers to question the tried and true ways of solving problems, and encourages them to question the methods they use to improve upon them"; and (3) individualized consideration (four items), which "focuses on understanding the needs of each follower and works continuously to get them to develop to their full potential" (Avolio et al. 1999: 444).

Servant leadership is part of this theoretical and managerial construct and has established a solid foundation in theory and practice. Starting with Greenleaf's work (Greenleaf 1977), several theoretical models have been proposed to capture the essence of servant leadership (Laub 1999; Page and Wong 2000; Spears 1995; Patterson 2003; Winston 2003; Irving 2005) in terms of fundamentals and behaviours which characterize servant leaders. To test servant leadership, Greenleaf (2002) followed the following questions: "Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?" (Greenleaf 2002: 27). The answers lie in the assumption that "[t]he servant leader is servant first since he/she is "naturally" inclined and willing to serve first (...) then conscious choice brings one to aspire to lead" (Greenleaf 2002).

Similarly, Laub (2004) defines servant leadership as "an understanding and practice of leadership that places the good of those led over the self-interest of the leader" (Laub 2004: 81), thus distinguishing itself from other leadership models such as transactional leadership, permitting theoretical connections between servant

leadership and variables like follower commitment, leader trust, organizational trust, and job satisfaction (Groves and LaRocca 2011; Liu 2007). Typical servant leadership behaviours are: valuing and developing people, building communities, displaying authenticity, providing leadership and sharing leadership (Laub 1999, 2011). Valuing people is relative to the ways used to demonstrate that the leaders value employees and collaborators. "People are to be valued and developed, not used. Leaders accept the fact that people have present value not just future potential. . .Effective leaders accept a person's value up front. They give them the gift of trust without requiring that they earn it first. As leaders work with people in organizations they will serve them by displaying the qualities of valuing people" (Laub 2011). Developing people involves the ways used to favour the flourishing of people both in professional and personal terms within the organization, while building community is relative to the leader's capability to construct and nurture a sense of community within the organization. Displaying authenticity affects the ways the leader is and demonstrates honesty and integrity (including being open and accountable, demonstrated willingness to learn), while providing leadership affects the means used to provide leadership for each employee and the whole organization. Finally, sharing leadership relates to the leader's willingness and capability to share leadership.

Patterson (2003) presented a theoretical model that predicted that servant leadership would produce a higher level of service by the followers. Accordingly, Winston (2003) predicted that servant leadership is positively connected to greater service by the followers and results in greater commitment to the leader by the followers. Organizations perceived as servant-led exhibit higher levels of both leader trust and organizational trust than organizations perceived as non-servant-led (Errol and Winston 2005). West and Bocarnea (2008) found that the servant leadership constructs of service, humility and vision contributed to organizational commitment and job satisfaction. A relevant body of literature has been developed on this last topic, confirming the positive relationship between servant leadership and job satisfaction (Laub 1999; Irving 2005; Hebert 2004; Thompson 2002; Miears 2004; Anderson 2005; Van Tassell 2006; Drury 2004).

These considerations place servant leadership in the field of ethical leadership, rendering it an expression/manifestation because it is centered on ethical values (such as sharing, participation, trust and solidarity) that recall specific virtues and values, which positively affect the sustainability of the business model.

The pillars of servant leadership will be considered as a theoretical framework for the empirical analysis in the following sections, aimed to inquire about the presence of these attributes within the selected cases.

11.3 Methodology

The research design has been developed using a qualitative approach (Bailey 2007) based on a case study method (Yin 2009, 2014; Eisenhardt and Graebner 2007). As a research strategy, the distinguishing characteristic of the case study is that it attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident (Wisnoentoro 2014). Objective quantification, in a way, is not suitable for lead case study researchers to completely understand a phenomenon. Despite the limitations of this research approach, tied to the problem of non-generalizability of the results, the ability of a case study researcher to portray a comprehensive analysis of phenomenon becomes important to capture the original vantage points from both sides (see Wisnoentoro 2014: 260). With specific regard to the aim of the current work, the use of a qualitative and case study approach has been detected in recent literature on the field of servant leadership (McNeff and Irving 2017) in order to point out the positive relationship between servant leadership and job satisfaction through the analysis of a single case study of servant leadership practice in a network of family-owned companies. Because many studies have focused on quantitative analyses of the subject, we thus agree with the claim for further develop a qualitative perspective (see McNeff and Irving 2017: 1).

Accordingly, two Italian companies have been considered: Brunello Cucinelli and Geico Spa, respectively belonging to the fashion industry and the mechanical industry. The companies are based in different Italian regions: Umbria (Brunello Cucinelli) and Lombardy (Geico Spa). They were selected for the presence of traits of excellence, both relative to the business model and the leadership model, which makes them an interesting workshop on a scientific and managerial level. Both are important protagonists of relationships and collaboration networks with the scientific world and universities. In particular, Geico is part of a multi-stakeholder round table with the participation of scholars, academics, entrepreneurs, who discuss issues and business principles, collaborating with ISVI (Institute for Corporate values). Brunello Cucinelli has worked for years with different universities and national and international research centers. He has been recently awarded with the Global Economy Prize assigned by the Kiel Institute for the World Economy "*for his work as an honorable entrepreneur, able to put the focus of his attention on humans work and the sustainability of the environment*" (Micelli 2017). Finally, both the companies have been recently included as selected cases within a publication focused on Italian excellent medium sized enterprises (Serio 2017) and aimed to stress the pillars of the companies' flourishing: a sustainable development, far-sighted orientated, in which the multiple objectives (financial, social, environmental and ethical) combine in a harmonic and successful way.

Data has been collected from two main secondary sources, due to the difficulty to access primary sources. First, a document analysis of materials downloaded from the Internet site in a period of 3 months (from December 2016 to February 2017) has been carried out. The documents include: annual and intra-annual reports; press

releases: information on the company's principles posted on the website. Secondly, a document analysis of books and articles relating to the company and their entrepreneurs/managers published in newspapers in the last 5 years (2012–2016) (national and international newspapers downloaded by the company corporate website) has been carried out. Information has been selected in order to cover the following topics: mission and basic values of the companies; strategies; stakeholders initiatives (stakeholders engagement). A manual coding on the texts and managers/entrepreneurs statements and speeches has been performed. Finally, for Geico, a participant observation was carried out during the researcher's participation in two sharing meetings and two focus group held at the University of Bocconi (Milan) during the ISVI round tables in 2016 and 2017. In those occasions, attending 'reserved meetings' aimed to directly promote discussions and share information among a selected number of Italian managers, entrepreneurs and university researchers, open interviews have been addressed to the Geico's President and direct speeches and quotes have been noted.

11.4 Servant Leadership for a Sustainable Business

11.4.1 Brunello Cucinelli

11.4.1.1 Company Profile

Brunello Cucinelli Spa is an Italian couture house of approximately 1400 employees listed on the Italian electronic stock exchange (MTA). The company was founded in 1978 by Brunello Cucinelli, stylist and entrepreneur, in the medieval hamlet of Solomeo, a small hilltop village located on the outskirts of Perugia (Umbria, Italy). Currently, it represents one of the most exclusive brands and testimonials of Italian lifestyle worldwide in the international luxury prêt-à-porter sector, specialized in cashmere. Cucinelli's brand is distributed internationally in over 60 countries to mono-brand boutiques and selected multi-brand stores located in leading capitals and cities. Brunello Cucinelli Spa's success, whose financial results are briefly shown in Table 11.1, is rooted in the history and legacy of great craftsmanship as well as in modern design: a quality strategy founded on a combination of high quality material, innovation, creativity and artisan skill.

Brunello Cucinelli, Chairman and CEO of the company, commented on this data: "*Another splendid year for our industry has just ended with double digit revenue growth and a very agreeable image of our brand at a universal level. To all our esteemed employees, coworkers, clients and shareholders, who help us feel like custodians of creation, we would like to express our most heartfelt thank you, thank you, thank you*".

Brunello Cucinelli is an expression of a sophisticated concept of a contemporary lifestyle. The brand is firmly rooted in quality excellence, Italian craftsmanship and creativity, which are the foundations on which the company's growth can be built in

Table 11.1 Brunello Cucinelli Spa preliminary results (2016)

Net revenues	456.0 million euros, +10.1% at current exchange rates compared to December 31, 2015
Growth in all distribution channels	Retail mono-brand +17.1%, wholesale mono-brand +2.4%, wholesale multi-brand +4.2%
Net debt	Approximately 51 million euros on December 31, 2016, a decrease on the figure of 56.4 million euros on December 31, 2015
Investment	Approximately 30 million euros in 2016
2015 EBITDA	69.1 million euros (up by 11.0% compared to the normalised EBITDA of 2014)

Source: www.brunellocucinelli.com

the long run. The positive results that have been achieved confirm the sustainability of the business model and mark the company's long-term growth project, which together with the development of human resources falls in with the concept of "humanistic capitalism", an integral part of the Group's DNA.

11.4.1.2 The Leader's Philosophy and the Business Model

The humanistic enterprise model trigged by the so called "Prince of Solomeo" (Mead 2010) derives from the vision and charisma of the founder, Brunello Cucinelli, born in 1953 in a peasant family in Castel Rigone, a fifteenth century little hamlet near Perugia (Umbria Region). After obtaining a diploma as surveyor, he enrolled in the faculty of Engineering. However, he dropped out in 1978 to set up a small company and implement his basic intuition. The business idea was to dye cashmere, which at that point had mainly come in natural or more basic colours. In 1982, after getting married, Brunello moved to Solomeo, a small, ancient town in Umbria, where, in 1985, he purchased the fourteenth century tumbledown castle that became the corporate headquarters and venue, making his dreams come true.

Indeed, Solomeo became a great workshop for him to build his success as an entrepreneur capable of putting a contemporary form of "neo-humanistic capitalism" into practice, which is a different way of doing business in the twenty-first century, where profit can be sought without damaging mankind. This concept of contemporary capitalism has been defined by the press as an innovative example of "humanistic capitalism". This vision was rooted in Brunello as a boy, when he witnessed his father working in an unwelcoming environment. He became a close observer of the world, thus developing his dream to promote a concept of work that ensured respect for the moral and economic dignity of human beings. This is the key element to understanding Brunello's personality and the success of his business, which is intended not only as a wealth-generating entity, but also as a driver to develop capitalism that enhances human beings. Brunello's philosophy can be summarized in his words: "*During my lifetime, I have always nurtured a dream: useful work to achieve an important goal. I have always felt that business profit alone was not enough to fulfil my dream and a higher purpose was to be found*". Over the years,

Brunello has been acknowledged by national and international honours, such as the "Knight of Industry" nomination assigned by the President of the Italian Republic and an honorary degree in Philosophy and Ethics of Human Relations from the University of Perugia.

In 2012, the company was listed on the stock exchange, not only for financial reason, but also because the wider participation in his business activity represented an opportunity to spread Brunello's ideals of capitalism, conceived as a new Renaissance in its infancy, a golden century resting on the great values of humanity. Sustainability of growth and healthy profitability are distinctive features of the company.

Accordingly, many projects were triggered to make these ideals come true. In 2013, the Solomeo School of Arts and Crafts was established and is located in the Forum of Art, built exclusively by Umbrian master craftsmen. It also includes the Neo-humanistic Aurelian Library, the Gymnasium, the Amphitheatre and the Theatre, because Brunello's vision requires that the memory of an important humanistic factor such as craftsmanship is preserved and passed on to future generations. Moreover, the Project for Beauty presented in 2014 and supported by the Brunello and Federica Cucinelli Foundation entails the creation of three huge parks in the valley at the foot of the Solomeo hill (the Agricultural Park, the Secular Youth Club Park and the Industry Park), recovering part of the property occupied by old abandoned factories and using it to grow trees, orchards and lawns. This initiative symbolizes the crucial value of earth, "from which all things are" and highlights the duty to restore the dignity of the land and to act as a guardian of creation. Excellent quality, Italian craftsmanship, creativity and exclusive distribution are the pillars and foundations of corporate identity and philosophy which nurture the business model (Fig. 11.1).

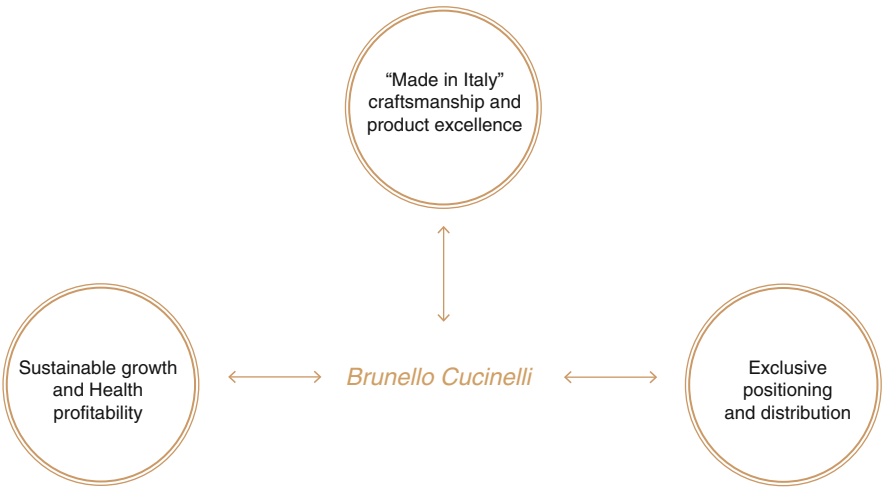

Fig. 11.1 Brunello Cucinelli Spa's business model (Source: Brunello Cucinelli 2016 Annual report)

The foundations of the business model are: (1) search for top-notch quality, excellence in craftsmanship and manual work and skills; (2) exclusive products which are expressions of authentic Made in Italy; (3) the preservation of values that make up the company's DNA: dignity of work, profit and a special relationship with the surrounding territory, in a "gracious" and constant long-term development plan (Tables 11.2 and 11.3). Brunello Cucinelli has set up an innovative business dimension, that is, a reality in which the human being lies at the core of the company and work is seen as an expression of human value, where profit becomes a means to achieve the higher end of the ultimate good to improve the workers' lives. Besides the fundamental values and general principles of compliance with the law, honesty, transparency, fairness and good faith (as per the company's Code of Ethics), strategic priority is given to sustainable development objectives, including the well-being of all those working for and cooperating with the company as well as the company's responsibility *vis-a-vis* humanity. This orientation represents a value proposition for customers who are always receptive to ethics and sustainability.

Gracious growth and healthy profitability, deriving from the attention that Brunello Cucinelli shows unconditionally and consistently to the surrounding community and all stakeholders, represent the key to the long-term development.

In the annual report section devoted to *Shareholders and Values*, we can read: "*I would like our products to speak of our land and place of origin, while we strive to work with dignity, tolerance and respect*". Being shareholder of Brunello Cucinelli means supporting and sharing a value system and philosophy that places the human being at the core of every business project; sharing a very long-term project of sustainable and ethical profit growth, according to a business model that has enabled the brand to become a world-class member of the "absolute luxury" segment thanks to craftsmanship, top quality and exclusive distribution; investing in a sound company whose balance sheets report positive results year in and year out, with sustainable growth that enables the brand to safeguard its exclusivity and positioning in the absolute luxury category, seizing long-term development opportunities.

In assigning the recent "Global Economy Prize", the international jury of the Kiel Institute for the World Economy wanted to reward an entrepreneur (Brunello Cucinelli) who comes out of the usual "habit" of the industry (luxury and fashion). Brunello Cucinelli remained impressed for the laudation they awarded to him, that recites: "In a globalized and frantic world, the work of Brunello Cucinelli performs a precious invitation to calm down, drawing from a personal story that is not easy, a deep sense of attachment to his Country and territory of affiliation, a high-quality manufacturing capacity, an international projection that has made his product an icon in the world".

Table 11.2 Some pillars of Brunello's philosophy and sustainable business model

The decline of consumerism in favour of a fair use of things	"Consuming means impoverishing and depleting, whereas if we use our resources reasonably, they have the time to grow back. The well-being of society coincides with a fair use of things, therefore a gracious, sustainable and healthy growth turns out to be perhaps more human. We need gracious growth" (*La Repubblica*, September 20, 2014).
Humanist artisans of the web	"Thanks to new technological horizons our tradition of seeking knowledge, human relations and the circulation of ideas can reverberate with new exciting energy, a deeply ethical and social one. The quality of knowledge and therefore of life improves only if critical thinking progresses along with innovation. The time has come to humanise the web" (*QN*, June 22, 2016).
Pleasant peripheries	"Peripheries are often seen in a negative fashion. However, city outskirts, such as Solomeo, are beautiful places when their humanity and the dignity of the people living there can express themselves fully. We must be able to envisage and imagine a new concept of periphery, a place that respects the dignity of human beings and things alike". "In ancient Greek the word "periphery" signified circumference, a circle, namely the most perfect of all shapes. Peripheries must be pleasant places, where people acknowledge their identity and find meaning in their existence. "The Project of beauty carried out in Solomeo means giving back to nature and to the wonderful landscape of the Umbrian hills covering over 80 hectares of land" (*La Repubblica*, November 27, 2014).
A fair working life	"A fair working life rests on the same ideal principles as a fair use of things. Work, regardless of its nature and kind, should never encroach upon people's life, their rest, the time they need to find a balance between their soul and their body. In our company, it is forbidden to work past the agreed working time. Employers should never steal the soul of their workers by depriving them of the time they need to lead a healthy life. Employees in Solomeo are invited not to send emails or to be available for business purposes past the end of their working time. And even during work, we have realised that talking on the phone rather than just communicating via email can be more effective and satisfying. In this regard, it is worth recalling a suitable statement by Saint Benedict who warned that every day we should look after our mind through study and our soul through prayer and work" (*La Repubblica*: "Capitalism must keep step with mankind", June 21, 2016).

Source: Own elaboration from the Brunello Cucinelli Website

Table 11.3 Business model fundamentals in theory and practice

Principle	Practice
Italian craftsmanship and manual skills: "*passion for beauty and the recognition of talented people who can make items that are sought after across the globe*". "*Italian craftsmanship and manual skills epitomise the beauty of our products, our culture, our identity. Being acknowledged as "artisanal industrialists" is a value that is maintained over time; the whole world is fascinated by products from our land, by our care in choosing raw materials, and by our search for high quality and creativity in every single step of the production chain*".	The design of collections and development of samples is carried out in-house by a team of over 100 people working exclusively in product development and striving to combine innovation, creativity and manual skills. The manufacturing and production of collections takes place exclusively in Italy and is entrusted to over 300 independent highly specialised artisan workshops mostly based in close proximity to the factory, in Umbria, as well as to selected Italian production sites.
Centrality of communication (transparency): the corporate philosophy is strongly rooted in the humanistic culture and in the teachings of ancient figures such as Socrates, Aristotle, Seneca, Saint Benedict, Saint Francis, Saint Augustine, Dante and Palladio, targeting social and existential "well-being" that goes hand in hand with the growth of the company's true value.	The corporate communication strategy hinges on: 1. communicating the values embodied in the company's philosophy 2. communicating the taste and lifestyle of the Brunello Cucinelli universe and his way of interpreting humanity.

Source: Own elaboration from the Brunello Cucinelli Website, 2016–2017

11.4.2 GeicoTaikisha

11.4.2.1 Company Profile

Geico is a world industry leader in the design and manufacturing of compete automated turnkey vehicle body painting plants (car painting systems), with headquarters in Cinisello Balsamo, in the province of Milan (Italy). Geico Taikisha is part of the Gecofin Group. Their main customers are global car manufacturers. Geico's mission is "to understand and pursue customer expectations with respect for people, the local community and the environment. For us the future has a date, a name and a goal: 16 June 2020, Energy Independence Day, to produce zero environmental impact painting systems". The corporate Philosophy states that its purpose is to "establish a company that can perpetually grow and contribute to the society" (Geico Annual Report 2015).

Geico's history spans 50 years. Founded by G. Neri and G. Mandelli, since its beginning, the company has developed important partnerships: first with Drysys Equipment, a company engaged in the car treatment and painting system sector, together with Carrier since 1905, then with the English company Haden, an international industry giant. In the 1970s, the oil crisis and the tense political climate upset the balance: Haden Drysys sold its shares to Gecofin, run by the Neri family. In the meantime Geico's group subsidiaries were expanding: Arabnia Ali Reza, son-in-

law of Pippo Neri, managed the Nigerian branch and was later called back to Italy to manage FAST, a company that manufactures paint tinting and mixing machines. Pippo Neri died on February 4, 1994. Arabnia and his wife Laura took control of the company, a 51% interest in which was acquired by Fiat Group Company, Comau, in 1997. In 2006, Geico was back in the hands of the Arabnia family, which took over Haden Drysys patents and launched the all Geicoproject international network. The 2009 economic crisis challenged the corporate assessment again: despite the economic downturn, Arabnia decided to stake everything on innovation and development, with the view of being competitive and displacing competitors on the recovery of the market. The Pardis Innovation Centre, Geico's flagship centre for research and development, was thus established.

In 2011, an alliance was entered into with Taikisha, the Japanese giant which specialized in the construction of car painting systems. Gecofin continued to hold a 49% interest and could therefore rely on greater financial strength and open up to a broader internationalization process, while maintaining technological leadership. The Geico and Taikisha partnership aims to achieve a sustainable size and financial stability; competitive solutions (in terms of both time and prices); technological organization and global infrastructures; innovative product development and project management approach; continuous solutions in the ecological and energy saving field. Geico and Taikisha have a joint presence in 28 countries with a network comprising over 52 offices and 6 manufacturing units, with annual turnover of US $1.8 billion. They currently have a joint market presence with over 5000 employees: more than 1000 are engineers and painting industry specialists. Geico Group's management and its winning philosophy, an expression of Gecofin, have not changed, even following their alliance with Taikisha Ltd. The financial statements of Geico SpA and its subsidiaries are consolidated in the financial statements of the Taikisha Group, the company responsible for managing and coordinating the Group.[4]

In 2013, the new Pardis Innovation Centre was inaugurated as the most important R&D center in the car painting sector in the world and the maximum expression of Geico philosophy. On occasion of its 50th anniversary, Gecofin inaugurated the "Laura's Garden of Thoughts", the ideal place to find the perfect balance of physical and mental well-being.

11.4.2.2 The Fundamentals of the Business Model

The company strives towards achieving excellence through on-going innovation of the processes and technology solutions, investing in know-how and developing

[4]Drawing from the Annual Report 2015 (Taikisha Ltd. and its Consolidated Subsidiaries, as of March 31, 2014 and 2015; April 2014–March 2015) the company has total liabilities and net assets of US$1,565,511 (Thousands of US dollars), Net sales of completed construction contracts US $1,526,969; Net income: 50,592; Sales: ¥183,648 million (consolidated: year ended March 2015) and a number of employees: 4795; Research & Development costs of approximately 6 million euros were recorded in 2013 alone.

Table 11.4 Pillars of the Geico business model[a] and fundamental values

Business model pillars	Values
Respect for the past	Loyalty
Passion for the present	Transparency
Great confidence for the future	Consistency
Focus on the growth and development of individuals	Determination and passion

Source: Our elaboration from Geico corporate website
[a]www.taikisha-group.com

human resources. Geico is a company "made by people for people" that strongly believes in human relations, in people and their well-being: "We believe in innovation and passion: our true edge. It is our people who inject fuel into our engines, who allow us to continuously improve our performance and who guide us towards our next stop, Energy Independence Day. We believe in people and their well-being. Only when rationality and creativity combine can unimaginable results be achieved. We believe in excellence and continuous improvement. And that is what we aim to achieve" (Table 11.4). Accordingly, Geico corporate strategies focus on: strong human resources development; continuous method, process and product innovation; constant willingness to invest in technology and know-how; diligent and targeted penetration of international markets and new customers; set of global commercial and technological alliances; continuous project execution efficiency improvement and systematic control of fixed costs.

With this "philosophy", today Geico is the second in the world in the industry and the most important centre in terms of technology and avant-garde, with peaks of excellence that led Geico to obtain major awards from major auto makers, including the prize for a study on how balance between emotional and analytical intelligence can lead to important results in terms of business (Table 11.4).

The aforementioned values are the soul of Geico and drive the company towards its mission. The core business focus (painting systems for the automotive industry) requires continuous investment in process engineering and services to provide customers with the best and most competitive technological solutions, while respecting the environment. At the same time, the focus is on people—customers, employees, suppliers and partners—understanding their expectations, respecting their differences and encouraging their passions in order to create a healthy and challenging work environment. Moreover, Geico's focus is on ethics by encouraging honest, dignified and respectful behaviour, both internally and externally. This is the soul of Geico. With this "philosophy", today Geico is the second in the world in the industry and the most important center in terms of technology and avant-garde, with peaks of excellence that led Geico to obtain major awards from major auto makers, including the prize for a study on how balance between emotional and analytical intelligence can lead to important results in terms of business.

11.4.2.3 The Leadership Model

Geico's board of directors comprises seven members including Ali Reza Arabnia, the Chairman and Chief Executive Officer; the board of statutory auditors is made up of five member of which Deloitte & Touche Spa acts as independent auditor. The company adopts an organizational model relating to the conduct of directors (which includes the Code of Ethics, whose implementation is carried out by an external Supervisory Body), employees and partners in the running of Group company affairs in compliance with Italian Legislative Decree no. 231 of June 8, 2001 on corporate liability and with Legislative Decree no. 61 of April 11, 2002 on the reform of corporate offences and, following the subsequent and recent regulatory changes, particularly those relating to security.

Ali Reza Arabnia, who is currently CEO and President of Geico, is of Persian decent and in 1980, in Italy, he began to lead the company at the age of 29, after a brilliant education and professional background as CEO of large companies in countries around the world. He joined the company at a critical time, marked by generational change and a backdrop of severe financial situations, for the company and the engineering sector.

"At the helm of the company, I adopted an analytical approach, that is, an emotional approach. The latter, not based on rational calculations, prevailed when I decided to buy back the family business, founded by my father-in-law, to ensure a professional future, thanks to those employees to whom the company had become important. Many thought the choice was 'crazy' and it was hardly understood. My friends could not understand me. A few years earlier, I had managed the listing of a company on the American Stock Exchange. I was rich but also very sad because I knew that I had no autonomy. This time I had left Magneti Marelli, in debt, but extremely happy, because I was not enriched by the people who had worked there for years" (A.R. Arabnia as cited in Olivari 2015: 54).

Reza Arabnia has begun to create an in-house school, a working group for innovation, and started intensive training activities. "I believe that every leader, every CEO worth his title, will not forget that when success comes, his/her responsibility is towards society and communities inside and outside the company. Therefore, important projects were created for young people who want to work but cannot find the way, like New Gate-Bridge, a driver, a bridge between young people looking for work and companies looking to give them a chance. A second project is New Bridge, for people younger than 55 years old, out of work and having difficulty in finding it, to whom we offer information, introduce them to the businesses and pay their salaries for three months" (A.R. Arabnia as cited in Olivari 2015: 56).

The leadership model is triggered by the CEO, whose inspiring principles and resulting projects, some of which are summarized in the following table, are shared by the whole organization (Table 11.5).

To the questions *What does the good governance of Geico means* and *What does it mean to do the good of the enterprise*? Ali Reza Arabnia's answers: "There are no

Table 11.5 Reza Arabnia's principles and Geico's projects

Laura's Garden of Thoughts	"Rationality follows a straight line. Creativity moves along unpredictable curves. Emotion consists of exploring and at the same time creating emotions". Laura's Garden of Thoughts is the physical place that the Chairman Arabnia wanted to dedicate to his wife Laura and to his extended family: his employees. It is the very heart of Geico. Here, the right side of his brain has free rein and thought processes take place. This is where the company's soul is.
The Pardis Innovation Centre	2000 square metres of beauty and well-being for the physical and mental well-being of all those employed by Geico; an essential prelude before accessing the Centre, the perfect synthesis of emotions and creativity. A meditation space, corporate gym, bistro area and cultural and entertainment area comprising an amphitheatre and a photo gallery make up this wonderful Zen garden.
The Pippo Neri Campus	"Finish lines are designed to be overcome. Thus, only can one step onto the winners' podium. For us, growth is a value. Always, at any age and with any experience. The same applies to 360 degree training. We have set a demanding yet incredibly exciting challenge: broaden your perspectives, look beyond and immerse yourself". The Campus has been created to make a way for words such as ongoing training and knowledge sharing, balance among experience and technology, because technological innovation can only be achieved through cultural innovation. Five rooms in all, with an entire floor dedicated to the company's founder and reserved for the culture and training of employees who are continuously engaged in refresher courses.
Training Fridays	"At Geico we are well aware that we allow ourselves to be guided by a GPS that is always set on professionalism and well-being. Because for us, professionalism and culture merge into a harmonious balance. That's what Training Fridays are for". This project allows collaborators to take part in refresher courses and explore areas that are only partly known or yet to be discovered, with growth at both a business and personal level.
School and University training	"For us, every little failure can and must be turned into an opportunity for growth, for oneself and for the company. Particularly following courses of study". For Geico, training also starts with schools and universities, through conferences and lectures delivered by the Chairman and Geico senior management directly. Students "get a taste" of Geico and can visit the company through open days. The educational curriculum can expand in many ways, including the possibility of curricular or extra-curricular corporate dissertations and internships.
J-Next	"We believe in young people and in the passion that drives them. Even the best drivers need a good co-pilot in the passenger seat. That place could be yours!" This project aims to provide an opportunity for young people to gain direct employment with the company through dedicated integration paths and constructive coaching for different business areas.

particular secrets, to do the good of the company, rather simple correct and honest behaviors towards others. The command of an ancient Persian religion inspired by Zoroaster was: think good, tell good and act good. I believe that every leader, to be worthy of the title, must understand that his/her approach, his/her way of thinking, his/her work, has a direct a relevant effect on society, not only on the company. If

I'm doing well my role, I'm doing well with my employees, who do not bring home malaise and problems; as a result, they will transfer positiveness to society. By contrast, if I create a Darwinian environment, putting one against each other, treating employees as subjects, this will hinder the possibility to give the best of themselves. The productivity of the company is a consequence of the climate that one breathes in the company. A cynical working environment, based on fear, paralyzes intelligence, enthusiasm and creativity. Fearing, you may have immediate results. The quarterly growth obsession is the enemy of the company's good. Bad periods can happen, even ugly years, but this must not touch the company spirit". The answer continues: "I'm not saying that just because I'm the entrepreneur and the business owner. I had the same opinion when I was a manager in other companies. I always say: if you're not afraid to die, you will live forever! Companies operating in the automotive sector (mechanical, plant and metal engineering) often experience dark moments. You have to be psychologically prepared and have the strength to react. And the reaction must be both rational and spiritual, because you must have the power of spirit. In companies like mine, it is necessary to create an attitude to tackle adversity. Geico slogan is "living by resilience": every difficulty has to make you stronger! We must convey the sense of difficulty, but also confidence and optimism to overcome it!" (R. Arabnia, Geico Ceo and President; see: ISVI 2017).

11.5 Discussion and Concluding Remarks

In both examined cases different traits that are typical of the servant leadership model emerged (Greenleaf 1977, 2002; Laub 2011). Drawing from Brunello Cucinelli and Geico's experiences, the following synthesis as presented in Table 11.6 can be traced.

Both companies, although very different with regard to their business sector, as well as the origins and professional and cultural training of their leaders, pursue sustainable-oriented business models market by an authentic attention to human beings, the environment, the stakeholders' needs, that are positively affected by a leadership style which is tied to servant leadership (Page and Wong 2000; Patterson 2003; Van Tassel 2006; Laub 2011; Du et al. 2013) and is founded on integrity and a set of values and virtues that affect leaders' behaviors and competences (Liu 2007; Von Weltzien Hoivik and Melé 2009; Von Weltzien Hoivik 2014; Del Baldo 2017; Blok et al. 2015) and shape the business strategy, the mission, goals and organizational culture, orienting them toward a consistent sustainable business model.

What animates these organizations and drive them to achieve a sustainable development through a "good management" is a the leadership style which lies on: a "passion" for the good of company—stronger than the attachment to one's self and personal interests—; an inexhaustible desire that people flourish; and a sincere wish to develop the company in harmony with that of all its interlocutors and its surrounding territory (Greenleaf 1977; Spears 1995; Johnson 2009; Solomon 1992). Such a leadership "spirit" that enhances employees' enthusiasm and creativity,

Table 11.6 Brunello's and Arabnia's servant leadership traits

Pillars of servant leadership	Contents	A.R. Arabnia—Geico	B. Cucinelli—Brunello Cucinelli Spa
Valuing people	Leaders take interest in each/all employee as people not just as an asset. Leaders make decisions for the company with their employee's best interest in mind	"I had always said that for me it was a moral debt. Then, when things started to go well, I decided to return what they all had lost. It was hard to imagine that when the company began to have significant profits, the employees, who had invested their energies in the company were to stay out of it" (A.R. Arabnia, President of Geico). "Money lost was returned in payroll by unemployment insurance (Geico Project Manager). An award was also given, thus we received much more than what was taken" (Geico Communication Manager). "It may seem strange to instruct people over 60 years old to innovate, but in fact they are well-trained people whose job is to make innovation fun. Thanks to their work, the situation has improved, but the crisis of 2008 has again requested an incredible test" (A.R. Arabnia, Olivari 2015: 56).	Brunello Cucinelli likes to call his employees "thinking souls", thus revealing all the values that are featured in his company's history: the "people-centred" approach to development, the concept of work as a full expression of the human being and the philosophical inquiry and care of workers. "Our comprehensive quality is the result of the inner quality of each and every one of us" (B. Cucinelli)
Developing people	Leaders treat everyone/employees and collaborators with great respect and help them to feel that their work is greatly valued. Leaders favour opportunities for personal and professional growth and change within the organisation.	"But the company (Geico) was failing: a 56 million euro turnover and a loss of 22 million (p. 53). In the midst of difficulties, we started working hard with the elders of the company, with whom I made a deal: in two years, they would have to find people within the company to take their	Dignity and Guardianship: "Humanistic company, ethics and production... I found it increasingly difficult not to adopt a concept of work and human action based on positivity and belief in the future".

(continued)

Table 11.6 (continued)

Pillars of servant leadership	Contents	A.R. Arabnia—Geico	B. Cucinelli—Brunello Cucinelli Spa
		place. 18 months later, they found a pool of great young engineers. Together we decided to "have fun." I invited them to focus on the things they wanted to do because their experience is a precious asset to this company" (A.R. Arabnia, Olivari 2015: 53).	
Building community	Leaders built a sense of community within the organisation by always nurturing the growth of personal and community culture and socio-economic environment.	A distinctive feature of Geico is the local roots or 'Italianness': "Why invest in Italy?" To this question, I reply by saying that "because there are so many companies, Italian industries, many people can't forget when things are going well. When we realise a project, it is all the result of Cinisello's work, but above all Italy" (Olivari 2015: 59). And "This is the reason why one should choose to stay in Italy despite offers of subsidies to create plants abroad".	"We must listen to the genius loci, the spirit of place: for centuries, Solomeo has produced olive oil and wine, and now it produces cashmere" (B. Cucinelli). Brunello Cucinelli is a genuine expression of the Umbrian region. He carefully safeguards the sensitivity and values of this land; The humanistic vision, the search for Beauty and the passion for original handcrafted products are generated by the beauty of the landscape that recalls a Renaissance painting, with its fortified villages, churches, castles and towers standing out against the hills. Spiritual tension, a philosophy of work and the attention on workforce have their roots in an extraordinary medieval history, enlightened by the religious experiences of Saint Francis of Assisi and Saint Benedict of Norcia, by Giotto's frescoes in the Assisi cathedral and the works of Perugino.

(continued)

Table 11.6 (continued)

Pillars of servant leadership	Contents	A.R. Arabnia—Geico	B. Cucinelli—Brunello Cucinelli Spa
Displaying authenticity	Leaders display authenticity in personal and professional choices. Leaders are generous people and great to work for.	"I had a Maserati that I sold straight away because I was ashamed to arrive at the office with it. It was a matter of modesty and respect. Only four months before had I been traveling the world by private jet; That's when I started traveling at a low cost. I continually communicated everything that was happening to everyone in the company. I was telling the truth to everyone, complete transparency. We started to make sacrifices following a top-down logic and not the contrary—me first and then the managers. Even in difficult times, we spent one day a week doing research and development. In the most difficult period in the life of the company (2009), we invested more than ever in our entire history. When the market broke down in 2010, we strongly internationalised. In time of crisis, our company won contests not for the money but for the value that our plants brought" (A.R. Arabnia, Olivari 2015: 56).	Beauty generates value. We feel responsible for the beauty in the world. The School of Arts and Crafts in Solomeo mainly aims to train human beings and it strives to dignify and elevate work focusing on "Art, culture and spirituality, which meet in absolute freedom to enhance human awareness". Culture and beauty emphasise human creativity. They are a treasure to be safeguarded, an ideal to strive for and a resource to make good use of. They enable Brunello Cucinelli to blend tradition and modernity in a single picture, to smoothly combine corporate objectives and human needs, and to work in harmony with the local and global dimensions.
Providing leadership	Leaders continue to innovate stimulate challenges for their employees. They lead by example and show an inspiring vision of the organisation's future.	"I brought up the boys who were in the company until they become leaders and we have become number one in our industry worldwide with the ability to understand the expectations of the end	His products preserve its charisma and keep telling its story that is made possible thanks to generous people, their daily commitment, their shared history and their

(continued)

Table 11.6 (continued)

Pillars of servant leadership	Contents	A.R. Arabnia—Geico	B. Cucinelli—Brunello Cucinelli Spa
		users of the product and to develop a product that did not exist" (A.R. Arabnia, Olivari 2015: 54).	skilled hands intertwined in their common work.
Sharing leadership	Leaders put a lot of trust in their employees an develop	"We believe that success is something to be shared, with both partners and financial institutions. Innovation Days provide valuable opportunities to showcase and share the continuous improvements achieved by Geico, thanks to their continued support. For us, growth equals investment, and investment equals innovation, even at the most critical times. There was an investment of 27.9 million euros in the period of 2005 to 2013 alone. 60% of investments were allocated to Technological and cultural innovation, with the remaining 40% being allocated to facilities and corporate structure and organisation" (Geico CEO, corporate website).	In their pursuit of the "humanistic enterprise" in Solomeo, people work to achieve a shared objective, a system of non-material values that represents the living core of the entire company.

Source: Our elaboration of Laub (2011)

propagates inside and outside the company and generates an attitude of willingness to take care of the social, ethical and environmental aspects involved in the 'internal and external' life of the enterprise, such as the welfare of employees, a good working environment, the work-life balance, relationships with the territory (ISVI 2017). The leadership is centered on moral and action competencies which manifests in particular in terms of attention to people and their human and professional growth, on enhancing trust, justice, inducing to find out confidence, courage and strength to overcome the difficulties, positively face challenges, promote change and manages successes (Drury 2004; Kaptein 2009; Lloyd and Mey 2010; Bouckaert 2011; Gibson 2006; Dentoni et al. 2012; Blok et al. 2015). This virtuous leadership style leads to a business model that allow people inside and outside the company to flourish and allows the company

to growth harmoniously and synergistically across all dimensions (economic, financial, competitive, social, environmental and ethical), preserving the dangers of a short view orientation (Huang 2013; McNeff and Irving 2017).

The vision of Brunello Cucinelli's development is concretely manifested through a leadership style which merges moral and action competences since he is an overtime builder of a "humanistic" enterprise where people are respected and valued. The business model promotes the beauty in his deep and overall sense: not only of the products, but first of all of the context in which people work and live (the factory, the canteen, the village of Solomeo in Umbria, the theater, etc.). To concretize this vision of sustainable development, the leadership implies great commitment and energies to overcome obstacles and resistances that arise in implementing innovative changes, tackle and overcome phases of crisis, and continuously undertake individual and organizational training and learning. As Brunello Cucinelli attests: "Much time and energy in meetings and meetings—with employees and other stakeholders—are spent, to ensure that this vision was and is effectively communicated and understood, for share in-depth analysis to check progress along this journey" (Serio 2017).

With respect to the Geico's leader as we directly acknowledged, drawing from interviews, he frequently speaks of spirit, a shared sense of responsibility and values spread in the company that he is capable to instill in others, enjoying the esteem of his collaborators and employees who are considered genial and creative people.

Accordingly, we can assume that corporate sustainable behavior and business model orientation toward sustainability originates from the good character of corporate decision-makers who are searching for the good life, both in their actual living inside and outside the company, thus ensuring their disposition to do the right thing in a given situation (Blok et al. 2015).

Both leaders are characterized by a learning goal orientation and show a proactive and learning behavior that facilitates them in leading the CSR implementation process and the orientation towards sustainability (Osagie et al. 2017). Moreover, the virtue ethics perspective allow us to acknowledge their moral emancipation and engagement in corporate sustainable behavior (action competence) since the leaders are personally involved in their perfection of the good life (Jensen and Schnack 2006) at the individual and organizational and system level. This presupposes the competence to challenge established ways of working, explore new and more sustainable ways of living and working, deal with resistance in the application of virtues according to practical wisdom (Blok et al. 2015).

Even if the first results of the empirical analysis cannot be generalized, this explorative study is of particular value to grasp some important traits of the servant leadership behaviours, which are positively connected to the success of the companies, oriented toward long-term growth, thus pursuing economic, social and environmental objectives. Servant leaders place people at the core, whose lives and well-being (before and after their work) are fundamental for the company's success. In other words, valuing people, respecting people, sharing ideas and objectives with people is the baseline to perform a high level of innovation. It is the soul of the company's success (Visser 2011; Von Ahsen 2015). In light of these beginning results, future studies and additional research should further examine the benefits and outcomes of servant

leadership. Because of the limited evidence of this positive correlation within the literature on sustainability business models, it would be helpful to have additional qualitative studies that provide rich descriptions of this observation in a variety of organisational sectors (Stubbs and Cocklin 2008; Boons and Lüdeke-Freund 2013; Schaltegger et al. 2012).

The work in this chapter is affected by limitations, some of which can be overcome in future research steps. First, the number of cases is only limited to two companies, while it should be extended to other enterprises included among the group that is going to collaborate with the ISVI Institute. Secondly, we mainly used secondary data to grasp information, because it was not possible to directly access primary sources. Finally, the qualitative approach used in this study does not allow to generalize results and can be "per se" affected by a limited objectivity and validity of data. Despite its limitations, the work has both scientific and managerial implication. The results can be useful both for education and practice because—from a virtue ethics perspective—the study points out specific virtues (such as courage, fortitude, temperance, justice) that enable servant leadership to effectively develop virtuous competencies for sustainable development, while—from a business perspective—results underline that the virtuous competences can be developed in educational and professional practice (namely, also through a collaboration among companies and universities and research centers). On the one hand, the work contributes to understand the relationship between leadership and the SBM, which is still under investigated; on the other hand, it exemplifies resilience derived from a sustainable business model, activated through relationships among internal and external stakeholders and supported by a coherent leadership approach.

As such, the research project helps to improve the education of the sustainability-oriented process and sustainable leadership in real business contexts, thus opening new trajectories for a fruitful convergence of theory and practice.

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Part III
Applications of Sustainable Business Models: Sectoral and Country Examples

Chapter 12
Are Sharing Platforms Sustainable (Business Models)? A Consumer Survey on the Drivers of Using Sharing Platforms in the Travel Industry

Jorna Leenheer and Marco Kuijten

Abstract Both growing consumer awareness regarding the effects of excessive consumption and the existence of worldwide internet platforms have contributed to the rise of the sharing economy. Internet platforms for consumer sharing and collaborative consumption are considered sustainable business models, because consumers make use of each other's unused capacity reducing resources needed. In particular the sharing of accommodation through internet platforms is very popular, with Airbnb and Couchsurfing as the best known platforms. This chapter investigates whether sharing platforms in the travel industry can be considered sustainable (business models) and how they impact hotels that have always offered stable supply to travelers. By means of a representative survey among 2591 Dutch consumers, the key stakeholders of the platforms, we investigate the use, perceived value and market position of both sharing platforms and hotels. Our research shows that the platforms are well-known, 8.8% of Dutch consumers have used them and this number will approximately double in the next three years. Current users are typically are between 25 and 34 years, and either high- or low-educated but not so much medium-level educated (professional education). Social value and not so much economic value is the main driver for travelers to choose for a sharing alternative, perceived sustainable considerations play a minor role. Furthermore, given the price attractiveness of sharing platforms they may increase travel consumption, making sharing platforms unsustainable from an ecological point of view. The competiveness of sharing platforms puts downward pressure on the market for overnight stays. However, given that consumers' preferences for sharing alternatives are not mainly financially driven, hotels better innovate in their business models to guarantee continuance, rather than to compete on price. Possible innovations can be found in

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partnerships with local business, local communities, and even Airbnb landlords. In sum, sharing platforms create more value than economic value only, but at the same time the supposed positive environmental impact is somewhat controversial. More research is needed on the exact considerations for choosing for sharing alternatives versus hotels at specific trips since many travelers are currently using both alternatives next to each other. Replication of the research in other countries is useful as well to draw more far-reach conclusions on this timely topic.

12.1 Introduction

Most companies experience that their business models tend to evolve over time, even though this evolution might develop at a moderate pace (Jonker 2014), as has been the case for the hotel industry. Business models can be characterized as the determination of the way in which the organization is able to profit through the provision of products or services (Osterwalder et al. 2005; Boons and Lüdeke-Freund 2013). However, sometimes industries are startled by a new incumbent with a new type of business model that puts the economic sustainability of current business models under strong pressure. The incumbent is a disrupter which causes a change within the market and urges existing players to adjust their existing business models accordingly (Belk 2014). This chapter discusses such an example, namely the hotel industry that has employed a relatively stable business model: self-owned property is rented out to travelers. Innovations mainly concerned addition of services such as conference room rentals, restaurant services or tourist facilities such as sight-seeing guidance, etcetera.

However, the market for short-stay accommodation, and hotels specifically, has been inundated with the rise of sharing alternatives with radical different and (supposedly) more sustainable business models (SBMs) (Heinrichs 2013; Botsman and Rogers 2010b; Verboven and Venherck 2016). The best known initiative is the online platform Airbnb, which successfully entered the market in 2008. Rather than owning and renting out self-owned real estate and property, the online platforms enable consumers to rent out their unused rooms and houses to each other. Consumers make the bookings and payments through the platform. The platform earns money per realized booking, both the host and the traveler pay a fee to the platform. Since 2012 Airbnb has been growing rapidly with now over 2,000,000 accommodations in more than 34,000 cities and 60,000,000 users (Airbnb.com). By 2016 Airbnb had 31,000 accommodations in the Netherlands (Business Insider.nl 2017). A recent study from Statistics Netherlands reveals that 25% of the Dutch hotels experience substantial competition from the existence of sharing platforms; note that since the total market has been growing making the problem smaller than it otherwise would be (Marketline 2016; Statistics Netherlands 2017). Hotels seem to be uncertain how to react. Whereas some demand stricter regulation, others largely neglect the developments.

A critical issue is that it is unclear what the implications of sharing platforms are for the travel industry in general and for the business models of hotels specifically.

To grasp this, more information than current aggregate numbers and anecdotic evidence is needed on the users of these sharing platforms: the key stakeholders of the platforms. Who are the users of sharing platforms? What is their socio-demographic profile? And what drives them to make use of sharing platforms now and in the future? Although the current situation may not be alarming for most hotels, but how is that going to change in the near future. This relates to the question whether hotels and sharing alternatives are substitutes or complements. In order to find answers to the questions raised, consumer research is needed.

Furthermore, sharing platforms are considered a SBM (Heinrichs 2013), and the question is whether this is justified. Business models become SBMs if they adopt strategies that not only meet the needs of the enterprise and its stakeholders today but are also protecting, sustaining and enhancing the human and natural resources that will be needed in the future. On the one hand, unused capacity is being put to use through sharing platforms. On the other hand, the platforms may cause additional travelling resulting in even more consumption known as the "rebound effect" (Bocken et al. 2014; Demailly and Nove 2014; Verboven and Venherck 2016). Furthermore, sharing platforms may seriously harm the hotel sector, which has always offered a stable supply of accommodations rather than offering unused capacity which is more fluctuating by nature. Further, a related question is if and how hotels should adequately develop their business models in order to become or remain sustainable in the future. By investigating consumer reactions to specific scenarios we will obtain insights into preferred directions for change.

This chapter aims to shine light on the raised questions by means of a large-scale survey conducted in March 2016 among 2591 Dutch consumers. The survey clarifies the questions addressed above. The remainder of this chapter is structured as follows. The next section provides necessary background information on (sustainable) business models, the sharing economy, and the sharing of accommodations in particular. Subsequently, the method of data collection will be described. Then, the results of our research will be presented. Finally, conclusions will be drawn and the sustainability of business models of sharing platforms will be discussed and suggestions and directions for further research will be formulated.

12.2 Background

12.2.1 The Development of Business Models to Sustainable Business Models

Recently business models have received growing attention by scholars as well as practitioners due to their importance in determining the fundamental logic of a company (Rauter et al. 2017). The rise of the internet and new technologies asked for new means of describing the way how companies made their products and services profitable (Timmers 1998; Ghaziani and Ventresca 2005; DaSilva and Trkman 2014).

Yet despite the great interest in business models by scholars and practitioners, there is no consensus about a widely accepted and uniform definition on what a business model actually is (Zott et al. 2011). Scholars agree though that fundamental elements of the business model are (i) the determination of the way in which the organization is able to profit through the provision of products or services and (ii) thereby identifying the basic elements and relationships in which the company conducts business (Osterwalder et al. 2005; Boons and Lüdeke-Freund 2013). Therefore the business model can be used to explore and understand the economic logic of production and consumption around the fulfillment of specific needs (e.g. an overnight stay) through specific artifacts (e.g., rooms) in which it connects suppliers and customers through economic exchange relationships (Boons and Lüdeke-Freund 2013).

When do business models become SBMs? In the context of business (models), sustainability can be defined as *"the adoption of business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future"* (IISD 1992). Both conventional business models and SBMs thus include the creation and capitation of value, but it is how this value is defined that determines whether sustainability issues are considered (Rauter et al. 2017). Value creation can refer to different forms of value, not just economic value, but also ecological value, social value, minimization of negative environmental impact, mobility, knowledge, time, etcetera (Zott et al. 2011; Jonker 2014; Rauter et al. 2017).

New technologies have extended the possibilities of creating SBMs. New SBMs are a means for rethinking products and services based on the consideration of new technologies which offer ecological, social and economic value (Abdelkafi et al. 2013; Schaltegger et al. 2016), for instance sharing platforms which offer, through online communities, the access of unused capacity and the redistribution of wealth. Integration of sustainability becomes evident in the business model when companies no longer strive for profit maximization but furthermore balance economic, social and environmental goals and take into account the interests of a wide variety of stakeholders (Verboven and Venherck 2016; Rauter et al. 2017). Whether or not sharing platforms can be considered an SBM will be addressed later in this chapter.

12.2.2 The Rise of Sharing Platforms

In the last decade a growing societal awareness has arisen among consumers making them realize that consumption has severe economic and institutional drawbacks such as pollution, poverty, and over-production resulting in depletion of natural resources (Bray et al. 2011; Eckhardt et al. 2010). These developments have led to new initiatives such as localness and communal consumption (Albinsson and Perera 2012; Belk 2010; Botsman and Rogers 2010a). Communal consumption consists of people within a community willing to share and lend out their own products and services to each other. Sharing a car with your neighbor, taking care of your friends' kids while watching your own as well, and lending your party dress are just a few

examples. It reduces the number of consumption goods needed, and consequently leads to less production of goods, and a lower burden on earth's natural resources.

This growing consumer awareness regarding the negative effects of consumption and the resulting behavioral responses have led to a new economy: the economy of sharing (Belk 2007; Botsman and Rogers 2010a; Lamberton and Rose 2012; Hamari et al. 2015). Consumers are willing to trade, share, sell or rent their own unused products and goods, both within and outside the own community. This ranges from tools, books and music to knowledge and living space. Sharing is considered a sustainable and profitable alternative to ownership (Belk 2007; Botsman and Rogers 2010a; Heinrichs 2013), because it extracts more value from existing assets and limits the strain on earth's natural resources (Botsman 2016).

The development of ICT and the internet functioned as a catalyst for the sharing economy making it easier to share unused capacity within the community and it broadens the community as well (Hamari et al. 2015). Due to the internet a community does not have to be physical anymore nowadays; communities can originate and function solely online. Take for example online communities such as Wikipedia and YouTube where people share their knowledge and personal stories, and platforms such as eBay where people share (by selling) their unused products to others. Online platforms have thus enabled the sharing of goods and services through the internet with large worldwide platforms (Hamari et al. 2015). In response to this the sharing economy has arisen and grown rapidly over the last few years. In 2010 the estimated market value of sharing platforms was valued at $100 billion (Lamberton and Rose 2012) and it is expected to grow further as consumers seek to maximize efficiency in volatile economic conditions (Sacks 2011). In other words, due to the internet, sharing initiatives have evolved from an informal, marginal phenomenon towards substantial, substantive and (supposedly) sustainable new business models.

12.2.3 Sharing Platform as a New Sustainable Business Model

The rise of sharing alternatives not only originate from social and institutional consequences, it addresses the actual developments that are going on with regard to sustainable business modelling (Jonker 2014). Recent developments in information technologies allowed for new ways to create and deliver value through unconventional exchange mechanism which in turn led to the development of business models resulting in new business models which fundamentally change the way they are organized and engage in economic exchanges (Mendelson 2000; Amit and Zott 2001; Boons and Lüdeke-Freund 2013). Furthermore many new business models who embrace sustainability start as niche market players who integrate sustainability principles as a core aspect into their business model (Hall et al. 2010; Jolink and Niesten 2015).

An example of such an SBM can be found in the sharing economy: consumers actively participate in the business model, both as customer and producer by sharing their own products and services with others. The sharing economy has been heralded as the new pathway to sustainability (Heinrichs 2013) or at least that it will provide some disruption for unsustainable practices due to the fact that mass market players who give sustainability a low priority must react to these niche players and are challenged to revise their products and services in order to become more sustainable (Botmans and Rogers 2010; Schaltegger et al. 2016). Niche SBMs as sharing platforms can stimulate or even force existing (unsustainable) businesses to change their business model accordingly. The positive effects of the sharing economy are widely acclaimed and it is thereby claimed to be a business model that is sustainable (Pralahad and Hart 2002; Bocken et al. 2014; Verboven and Venherck 2016). The sustainability of sharing platforms can be traced back to the value they create; not just economic value for the shareholders, but in addition social, ecological and economical value for several other stakeholders. Airbnb, one of the largest sharing platforms claims to re-distribute wealth to get the money to whom it need the most; stimulates the economy in local communities; and to make the most use of unused capacity which enlightens the pressure on natural resources (Airbnb.nl).

Creating SBMs that make use of the sharing trend is consistent with rational models which aim at value maximization; consumers seek products that provide the greatest value at the lowest cost (Lamberton and Rose 2012; Möhlmann 2015). SBMs do not merely address ecological and/or social value but in addition address the creating of economic value by offering a new form of competition leading to lower prices for the sharing alternative and ultimately to price reductions within the market (Bocken et al. 2014; Demailly and Nove 2014). When the costs of sharing are minimized and utility is maximized, preference for sharing alternatives will rise (Lamberton and Rose 2012). By using sharing alternatives consumers will familiarize themselves with these alternatives thus increasing the possibility of using the sharing alternative again (Möhlmann 2015). This might imply that an important motivation for using a sharing alternative is driven by value maximization for users itself instead of social or ecological motives. Academic literature identifies several motivations for using sharing alternatives such as *transaction utility* the value perceived in sharing system relative to ownership, *anti-industry utility* which denies support for traditional ownership, *social utility* the approval of reference groups or *sustainability* (Lamberton and Rose 2012). Other research by Hamari et al. (2015) identifies "ideology" as a driver for sharing but furthermore *enjoyment* and *economic benefits* as significant drivers for using a sharing alternative.

Despite the widely acclaimed sustainability of sharing platforms (Belk 2010; Botsman and Rogers 2010b; Heinrichs 2013) and the acceptance by scholars of sharing platforms as a new SBM (Pralahad and Hart 2002; Bocken et al. 2014; Verboven and Venherck 2016), different restraints exist whether this is also the case for the current sharing platforms in the travel industry. First, in most cases renting through a sharing platform is simply cheaper for consumers. The question is whether using sharing creates more value than just economic value to users, such as social or (perceived) sustainable value. The research model presented later in this chapter

explains how we specifically conceptualize this for our consumer survey. In addition, sharing may lead to additional consumption, that is more travelling which can be considered unsustainable (Bocken et al. 2014; Demailly and Nove 2014; Verboven and Venherck 2016). Because sharing alternatives are less expensive or in some cases even for free, consumers can consume more given the same disposable income. If this is the case, business models that anticipate on the sharing trend are not necessarily SBMs because they lead to more consumption. This comes down to the question to what extent sharing platforms are substitutes or complements for existing offerings? Related to this, is the question to what extent hotels are harmed by the developments and whether their continuity is jeopardized. Hotels have always offered a stable supply of accommodations to travelers (rather than offering unused accommodations on a more infrequent basis), in this way adding to the sustainability of the travel sector.

12.2.4 The Impact of Sharing Platforms on Existing Players in the Hotel Market

The sharing economy has trickled down into the travel industry susbtantially after Airbnb entered the market in 2008. Sharing through the internet does not only upscale sharing initiatives, internet is especially relevant when consumers are willing to share with consumers from other areas; as travelers are often looking for an accommodation outside their own local area. Since 2012 Airbnb has been growing rapidly with rooms in more than 2,000,000 accommodations in more than 34,000 cities and over 60,000,000 users (Airbnb.com). Airbnb claims they address the consumers' need for a communal, sustainable and profitable alternative for hotels by maximizing efficiency of spaces (Botsman 2014), enabling consumer to make use of any unused living capacity. Airbnb is just one of many of these platforms which also encompass Couchsurfing (2003), Flipkey (2008) and Bidroom (2014) which enables consumers to rent out their unused living space. Couchsurfing is the oldest player and the more idealistic counterpart of Airbnb. It facilitates free exchanges, and currently has approximately 9,000,000 members. The platform enables members to stay as a guest at someone's home, host travelers, meet other members, or join an event.

With the predicted growth of the sharing economy as a whole, the role and impact of these new market players seems to gain importance. Research has indicated that the arrival of Airbnb on the hotel market can have serious consequences. Due to the arrival of Airbnb, some types of hotels in the Texan market—mainly smaller independent hotels—have had an estimated decrease in turnover of 8–10% (Zervas et al. 2016). Other research indicates that the loss for the hotel industry due to Airbnb worldwide is approximately U$450 million per year with an estimated booked room nights of 2.8 million in 2015. This loss is expected to grow further in the next few years with an estimated 5 million booked nights by 2018 (Mahmoud 2016). In the

Netherlands the sharing economy is starting to affect the travel industry with approximately 25% of the hotels that experience competition from platforms such as Airbnb (CBS.nl 2017). This is congruent with Martin (2016) who claims that sharing platforms for accommodation, such as Airbnb, provide an alternative business model for the tourism sector and seems to establish itself as a serious new competitor.

Despite the powerful entrance of Airbnb, the Dutch hotel industry itself however does not seem very impressed by the rise of this new market player to date (ING 2015). This can be concluded on the basis of six in-depth interviews with hotel owners and market specialists. Headlines in the media underscore this sentiment: *"Why Airbnb and hotels can coexist"* (NRC 2016). This might be due to growing hotel market—a result of the recovery of the Dutch economy since the crisis of 2008—and the growing number of tourists that visit the Netherlands—due to low fare airlines (Marketline 2016). In addition, Airbnb states that they attract a different kind of consumer and thus serve a different market than hotels do (Airbnb.com). Another research question is therefore to gain insights into the scale of success of the sharing platforms in regard to the hotel industry. Our field study focuses on who use the sharing platforms. How often do they use it and for what motives?

These market developments might result in keeping hotels from taking a critical look at their business models. However due to the expected rise of the sharing economy and the changing consumer behavior one might question if this restraint is justified. Academics consider sharing an alternative that might not only turn out to be competitive but even lethal to traditional industries which have to adjust their business models or else go out of business. Thus the sharing economy is an actual topic that needs further academic research (Sacks 2011; Möhlmann 2015). All developments taken in to account, the question arises what kind of response hotel owners can have to the upcoming growth of the sharing economy. Or to be more precise, how to adapt their business models accordingly in reaction to these new market players. In our research we would in addition like to address the options hotels have regarding their business model in reaction to the upcoming business models that are based on the sharing trend. Obtaining more knowledge on consumers' behavior and preferences is a necessary first step.

12.2.5 Research Model of Consumer Behavior Regarding Sustainable Alternative Business Models

The sharing economy encompasses both the sharing or renting of unused capacity for free as well as sharing by selling or renting this unused capacity. A distinction between these two has been made by Belk (2014). Belk defines collaborative consumption as people coordinating the acquisition and distribution of a resource for a fee or other compensation, whereas for sharing no compensation is requested to swap or lend goods. According to this definition Airbnb is considered collaborative

consumption due to the fact that people pay to use the unused capacity (living space) of others, whereas Couchsurfing is considered an example of sharing because people get access to the unused capacity for free. In this chapter sharing as well as collaborative consumption will be researched, and we do not make a strict distinction between both.

Users may derive different types of value from using sharing alternatives. To large extend following the conceptualization of Hamari et al. (2015), we distinguish between four types of value sharing alternatives can offer to users: (1) economic value, because hosts earn money from unused resources and renters who find a cheaper alternative than hotels offer; (2) hedonic social value, because it provides consumers with enjoyment to be e.g., in a local environment, have unique experience, and meet local people; (3) sustainable value, that is the extent to which consumers consider using the alternative ideological in terms of ecology and fair distribution of resources; (4) reputation value, the extent to which consumers can positively identify themselves with the use of sharing alternative. We expect that these value components explain consumer attitude towards sharing alternatives, and a positive attitude subsequently leads to a higher intention to actually use the sharing alternative. As such attitude is a mediator in the model, but in addition there is possibly a direct effect of the drivers for using the sharing alternative towards behavioral intentions (Fig. 12.1).

12.3 Method

To investigate consumer perceptions and use of sharing platforms for overnight stays, a consumer survey was conducted among a representative Dutch consumer panel, CentERpanel. The panel is a probability sample panel (in contrast to an access

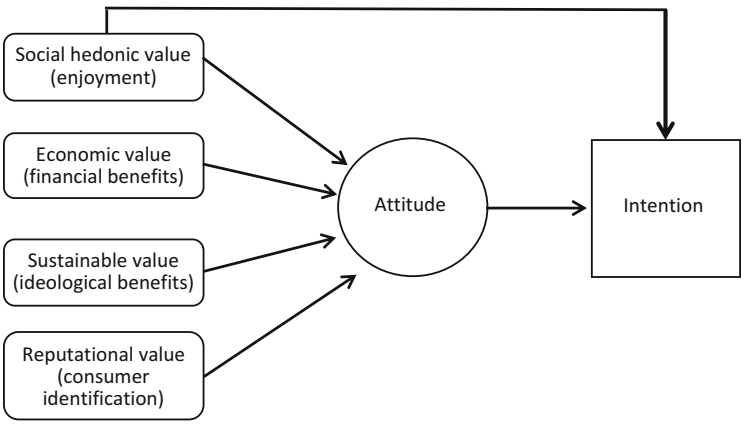

Fig. 12.1 Model for consumer attitude towards sharing platforms and intention to use them for overnight stays

panel), which draws samples from the population registers and invites consumers to participate in the panel. Because of this unique participation model, the sample is representative on observed variables such as age, gender, and educational level but also unobservable characteristics such as lifestyle and psychographics. Moreover, the panel provides non-internet households with facilities to be able to participate in the internet panel which also adds to the representativity of the panel (Leenheer and Scherpenzeel 2013). The online panel is essentially used for scientific purposes, more information can be found on www.centerdata.nl.

The survey was conducted in March 2016 among 18+ panel members. In total 2591 consumers participated of which 1328 were familiar with sharing platforms for overnight stays, either only by name or by actually using the platforms. This was measured by providing the names of the four best known sharing platforms: Airbnb, Couchsurfing, Flipkey, and Bidroom. Only consumers who knew at least one of the named platforms completed the full survey. Motivation for this was that consumers who are unfamiliar with sharing platforms for overnight stays cannot make valid statements regarding their perceptions and intentions towards these sharing platforms. The subgroup of consumers familiar with sharing platforms consists of 51.4% male, 23.8% holds a college degree, with an average age of 49.9 years.

The questionnaire consists of four parts: familiarity and use of both sharing platforms and hotels, statements considering perceptions, attitudes, and intentions with respect to sharing platforms, a limited number of scenarios on possible new business models for hotels, and use of other sharing platforms. Socio-demographic information was retrieved from the panel database.

12.3.1 Measures

The questionnaire contains multi-item constructs for the measures *social hedonic value*, *economic value*, *sustainable value*, *reputational value* and overall attitude towards sharing platforms. Each construct consisted of three to four statements which were measured on a 5-point Likert scale. Items are based on Hamari et al. (2015) but adapted slightly (see Table 12.3 for exact formulations). Ideally different items intercorrelate relatively strongly for internal consistency, captured by the Cronbach's Alpha statistic (ranging from 0 to 1). Perceived sustainable value (CA = 0.815) and perceived social hedonic value (CA = 0.883) show high CA's, but extrinsic motivations does not (CA = 0.552, below threshold of 0.7). Therefore, the construct was split into a two-item construct for perceived economic value (CA = 0.911) and a single-item construct for reputational value. The multi-item constructs were measured as the average over the related items while neither of the four constructs correlate significantly with each other ($\rho < 0.01$). The internal consistency for attitude of sharing platforms was sufficiently high (CA = 0.834).

Intention for future use was measured with a single item scale: *"How likely is it that you will rent an accommodation via a sharing platform in the next 3 years?"*. The use of other sharing platforms was captured by asking about the past use of five

popular sharing platforms (in the Netherlands): Peerby, Snappcar, Seats2meet, Uber, and Thuisafgehaald.

12.4 Results

12.4.1 The Users of the Sharing Economy for Accommodation

Overall 51.9% of the 18+ Dutch population is familiar with sharing platforms for accommodation, with no differences between male and female ($\chi^2 = 0.090$; $p = 0.76$) (Table 12.1, left column). Among this group a minority has actually made use of a sharing platform by renting accommodation (16.8%), which equals to 8.8% of the total population. Only 1.1% of the total population rented out their properties on a sharing platform.

Airbnb is by far the best known platform: 91.8% of those familiar with sharing platforms know it, equal to 47.0% of the total population. This is followed by Couchsurfing (42.3%), and lagging behind are Flipkey (0.9%) and Bidroom (0.7%). Sharing platforms for accommodation services seem by far the most popular sharing initiative. That is, only 4.5% of all respondents make use of any sharing platforms for other goods and services (e.g. cars, construction tools, meals), for users of accommodation sharing platforms this is 11.2%.

Whereas use of sharing platforms does not relate to gender, we observe differences with respect to several other socio-demographics characteristics (Fig. 12.2, Table 12.2). First of all, we observe that both familiarity and use are strongly related to age. The group between 25 and 34 years is most familiar with sharing platforms (70.1%), and almost one out of five has used it at least once (19.6%). Both familiarity and use of sharing platforms decrease with age. For consumers 65+ only 4.8% have ever rented accommodation from sharing platforms, and less than half is aware of the phenomenon. Remarkable, use and familiarity with sharing platforms are higher among the age group 25–34 than among the youngest age group (18–24).

Table 12.1 Familiarity and use of sharing platforms for accommodation

	Familiarity with sharing platforms	Use of sharing platforms (only those who are familiar with sharing platforms)	Use sharing platforms (total)
Men	52.2%	14.9%	7.8%
Women	51.6%	18.8%	9.8%
Total	51.9%	16.8%	8.8%
N	2591	1328	2591
Chi2 (p)	0.090 (0.76)	3.475 (0.06)	3.077 (0.08)

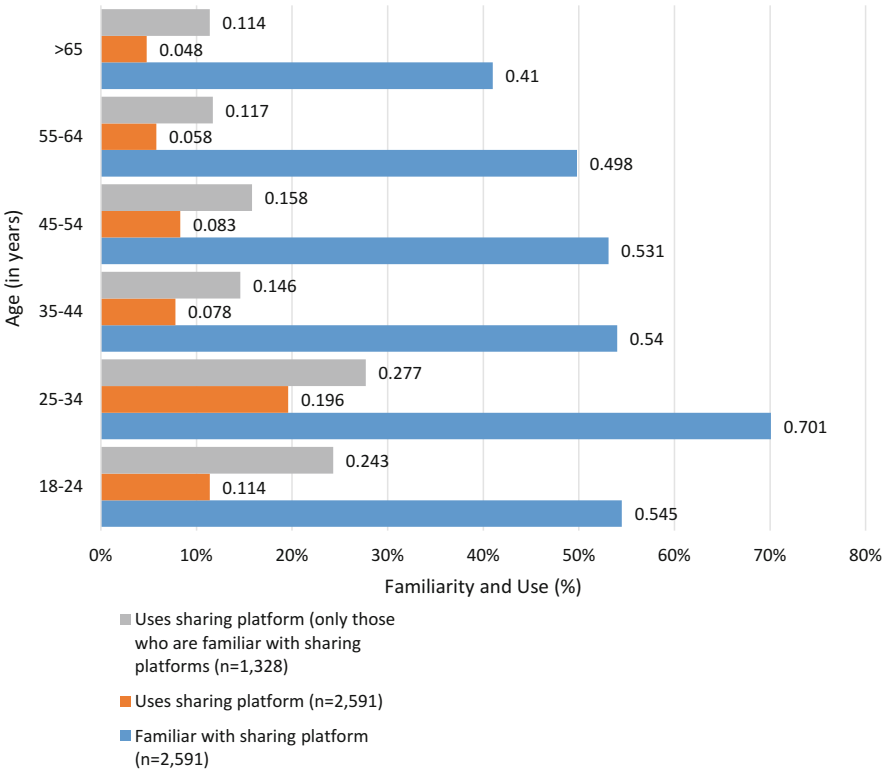

Fig. 12.2 Familiarity and use of sharing platforms by age

Table 12.2 Use of sharing platforms for accommodation for different socio-demographic groups (only consumers who are familiar with sharing platforms)

Household size		Education		Household income	
Categories	Use	Categories	Use	Categories	Use
1	17.0%	Low	7.4%	<1150 €	20.7%
2	16.5%	Middle	13.1%	1151–1800 €	9.9%
>2	17.1%	High	21.1%	1801–2600 €	14.6%
				>2601 €	18.5%
Total	16.8%		16.8%		16.8%
N	1328		1328		1328
χ^2 *(p)*	0.085 0.96		25.495 <0.001		8.787 0.03

Furthermore, Table 12.2 reveals that use of sharing platforms relates to education and household income ($p < 0.05$), but not to household size ($\chi^2 = 0.085$; $p = 0.96$). Dutch inhabitants with a college degree more often use sharing platforms (21.1%)

than professionally educated (13.1%) or lower educated persons (7.4%). Furthermore, an interesting finding is that the lowest income group (20.7%) is most likely to use a sharing platform followed by the highest income groups (18.5%). This finding might indicate that financial motives are a motivation for using a sharing alternative for those with a low income. Furthermore it suggests that there are non-economic motivations for using a sharing alternative as a large number of higher income consumers use these sharing alternatives as well. This will be further investigated in the next subsection.

12.4.2 The Perceived Benefits, Attitudes and Future Intentions for Using Sharing Platforms

Table 12.3 describes the various benefits consumers perceive related to using sharing platforms. Consumers value the financial benefits of using sharing platforms the highest. Most consumers consider renting through a sharing platform financially beneficial (59.7%) and think they can save money with it (62.9%). Second, roughly one third of consumers enjoy sharing platforms and consider them interesting (35.3%), fun (28.2%) or even exciting (20.8%). Third, one out of six value the ideological or sustainable benefits of sharing. This relates to reduction of resources used (17.5%), being environmentally friendly (17.0%), and having the money ends up where it is most needed (17.4%). As such, ideological motivations for using a sharing alternative score relatively low compared to economic and hedonic motivations. Finally, Dutch consumers do not think that they can impress others by using sharing platforms; in fact only 4.3% think they can. High percentages described above (and right-hand column of Table 12.3) reflect in higher means (second column on the left).

Overall most consumers consider the rise of sharing platforms a positive development (53.7%) and useful (52.9%) (Table 12.4). On the other hand respectively 12.2% and 11.5% do not agree with this at all. Moreover only a small group of consumers currently considers sharing alternatives in absolute sense a better option over hotels (8.0%). The overall attitude scores above the neutral value of 3 (avg. = 3.22).

12.4.3 The Drivers of Future Consumer Use of Sharing Platforms

To investigate the key drivers of consumer attitude and intention to use sharing platforms in the near future multivariate regression models were estimated with attitude towards sharing platforms and intention to use sharing platforms as the dependent variables and the perceived benefits and socio-demographic

Table 12.3 Perceived benefits of renting from a sharing platform

Item	Mean	S.d.	% (totally) agree
Less (natural) resources have to be used by using a sharing platform (SUSTAINABLE1)	2.77	0.87	17.5
Renting through a sharing platform is environmental friendly (SUSTAINBALE2)	2.79	0.85	17.0
By renting through a sharing platform, money ends up by those who need it most (SUSTAINABLE3)	2.81	0.84	17.4
SUSTAINABLE_TOTAL (CA = 0.815)	2.79	0.73	–
Renting through a sharing platform is fun (SOCIAL1)	3.10	0.80	28.2
Renting through a sharing platform is exiting (SOCIAL2)	2.88	0.85	20.8
Renting through a sharing platform is interesting (SOCIAL3)	3.12	0.88	35.3
SOCIAL_TOTAL (CA = 0.883)	3.03	0.76	–
Renting through a sharing platform is financial beneficial (ECONOMIC1)	3.60	0.69	59.7
By using a sharing platform you can save money. (ECONOMIC2)	3.64	0.67	62.9
You van impress family and friends by using a booking a room through a sharing platform (REPUTATIONAL1)	2.23	0.83	4.3
ECONOMIC_TOTAL (ECO1 + ECO2) (CA = 0.911)	3.62	0.66	–

5-points Likert scales, with 1 totally disagree, 5 totally agree

Table 12.4 Attitude towards sharing platforms

	Mean	S.d.	% (totally) agree
Renting through sharing platforms (Airbnb, Couchsurfing, Flipkey, etc.) is a smart choice. (ATTITUDE1)	3.36	0.80	42.6
The rise of sharing platforms is a positive development. (ATTITUDE2)	3.44	0.83	53.7
The sharing of living spaces and rooms is useful (ATTITUDE3)	3.44	0.81	52.9
Renting through a sharing platform is a better option than booking a hotel room. (ATTITUDE4)	2.64	0.77	8.0
ATTITUDE_TOTAL (CA = 0.834)	3.22	0.66	

5-points Likert scales, with 1 totally disagree, 5 totally agree

characteristics as explanatory variables (Table 12.5). Consumer attitude towards sharing platforms is significantly driven by social hedonic drivers (perceived enjoyment) ($b = 0.863$; $F = 40.79$, $p < 0.001$), but not by perceived reputational,

Table 12.5 Multivariate regression models for consumer attitude and intention to use sharing platforms

	Attitude toward sharing platforms		Intention to use sharing platforms	
	b	*F*(*p*)	*b*	*F*(*p*)
Perc. Social value	0.863	40.789 (<0.001)	0.343	5.124 (0.024)
Perc. Economic value	0.229	2.838 (0.092)	−0.052	0.133 (0.716)
Perc. Reputational value	−0.146	2.077 (0.150)	−0.089	0.726 (0.394)
Perc. Sustainable value	−0.061	0.255 (0.613)	−0.292	4.944 (0.026)
Attitude towards sharing platforms	–	–	1.417	52.123 (0.000)
Gender (male)	−0.006	0.001 (0.972)	−0.068	0.173 (0.678)
Education		11.831 (0.003)		11.051 (0.004)
Education (low)	−0.852	7.536 (0.006)	−0.878	7.702 (0.006)
Education (middle)	−0.469	6.414 (0.011)	−0.441	5.349 (0.021)
Education (high)				
Age		14.069 (0.015)		9.415 (0.094)
Age (18–24)	0.517	1.318 (0.251)	0.477	1.093 (0.296)
Age (25–34)	0.630	7.277 (0.007)	0.400	2.738 (0.098)
Age (35–44)	−0.022	0.006 (0.937)	−0.137	0.240 (0.624)
Age (45–54)	0.135	0.245 (0.621)	0.005	0.000 (0.987)
Age (55–64)	−0.052	0.036 (0.850)	−0.230	0.654 (0.419)
Age (>65)				
R^2	0.142		0.209	

economic or sustainable value ($p > 0.05$). Furthermore, consumer attitudes are higher for higher educated consumers, and those between aged 25 and 34. The relationship with age is non-linear, with lowest attitudes among the group 55–64 years.

Positive attitudes towards sharing platforms translate into a higher intention for future use ($b = 1.417$; $F = 52.123$, $p < 0.001$). Next to this we find a positive direct effect of perceived social hedonic value ($b = 0.343$; $F = 5.12$, $p = 0.024$) and a negative effect of perceived sustainable value of sharing platforms ($b = -0.292$; $F = 4.94$, $p = 0.026$). Again higher educated are most likely to use sharing platforms in the next 3 years, and the same applies for inhabitants between 25 and 34 years of age.

Overall, the model results reveal that social hedonic value has a positive effect on use of sharing platforms which is partly mediated by attitude. On the other hand, remarkably, consumers who perceive the sustainable value of sharing highly are less likely to use sharing platforms for accommodation. Whereas consumers value the economic value of sharing this motivation does not translate into actual use of the platforms. To follow the procedure of Baron and Kenny (1986) we estimated a model for intention to use without attitude as an independent variable; conform the assumptions of mediation perceived enjoyment was significant in that model as well ($p < 0.05$).

Table 12.6 Likelihood of renting accommodation through a sharing platform in the next 3 years per age group

	Mean	S.d.	% (very) likely
Total	1.94	0.95	38.8
18–24	2.24	0.96	38.8
25–34	2.28	1.04	45.3
35–44	1.99	0.87	28.7
45–54	1.98	0.92	29.1
55–65	1.86	0.87	24.3
>65	1.59	0.83	15.2

Table 12.7 Likelihood of renting accommodation through a sharing platform in the next 3 years users versus non-users

	Mean	S.d.	% (very) likely
Total	1.94	0.95	28.8
Users	2.99	0.93	76.2
Non-users	1.73	0.79	19.2

12.4.4 Prognoses for the Near Future

One notable aspect of the regression model is the non-linearity of age. The model shows that the older respondents get, the less positive their attitudes towards sharing platforms are and the less likely they expect to actually use a sharing alternative. However, respondents in the age group between 45 and 54 have a rather aberrant positive attitude towards sharing platforms and are more likely to use a sharing alternative in the next three years compared to 35–44 years old (Table 12.6).

Whereas 16.8% of consumers who know about sharing platforms have made use of it, this is likely to rise in the near future. Once someone has used a sharing platform the likelihood that they will use the sharing option again in the next three years is much higher (76.2%) than for non-users (19.2%) ($F = 437.0$; $p < 0.001$). When we look at the likelihood of using a sharing option in the nearby future, previously use of the sharing platform is a good indicator (Table 12.7). This is in line with the results of Möhlmann (2015) that familiarity with the sharing platform increases the possibility of using the sharing option again. However most consumers are not likely to use Airbnb or other related platforms ($71.2\% = 100 - 28.8\%$), and almost one out of four current users does not expect to continue using it in the near future (23.8%).

Tables 12.8 and 12.9 give a more integrated picture of the current and expected future situation, that is three years from now. Table 12.8 is based on all respondents' current behavior, that is in the past 12 months. It shows that almost all consumers have visited hotels ($96.9\% = 88.3\% + 8.6\%$), a relatively small percentage in

Table 12.8 Current users of hotels and/or sharing platforms (N = 2591)

User of sharing platforms and User of hotels #224 (8.6%)	User of sharing platforms and NOT a user of hotels #2 (0.1%)
NOT a user of sharing platforms and User of hotels #2288 (88.3%)	NOT a user of sharing platforms and NOT a user of hotels #77 (3.0%)

Table 12.9 Prognoses use in the next 3 years for hotels and sharing platforms (N = 2563)

User of sharing platforms and User of hotels #356 (13.9%)	User of sharing platforms and NOT a user of hotels #27 (1.1%)
NOT a user of sharing platforms and User of hotels #1977 (77.1%)	NOT a user of sharing platforms and NOT a user of hotels #203 (7.9%)

comparison with those that have had an experience with sharing platforms (8.7% = 8.6% + 0.1%).

To make an estimation for the next three years, the following assumptions and subjective decisions have been made. First, respondents that indicated that it is (very) likely that they will use a sharing platform in the next three years are categorized as future users; respondents that indicated that it will be (very) unlikely that they will use a sharing platform in the next three years as (expected) non-users. Second, respondents that have used hotels in the past are categorized as future users; respondents that have not used hotels in the past are categorized as users that are unlikely to use a hotel in the next three years. Reasoning behind this is that given the high usage rate and long history it is unlikely that non-users will visit hotels in the near future. Third, all respondents that are currently unfamiliar with sharing platforms were categorized as non-users of sharing platforms in the next three years. Though this assumption may be somewhat conservative, it is at least the best guess given the current information. Table 11.9 shows the prognoses resulting from these conservative assumptions.

The prognoses show that the expected number of consumers that will use sharing platforms rises: from 8.7% now to 13.9% in the next three years. Sharing is expected to become increasingly popular as an alternative for hotels where the number of respondents that just uses hotels and no sharing platforms decreases from 88.3% to 77.1%. Furthermore for some respondents sharing platforms are becoming a substitute for hotels where the number of people that expects to just use sharing platforms rises from 0.1% to 1.1%. For most respondents sharing platforms will provide a complementary option for overnight stays that they will consider as a viable option.

We can expect that the demand for overnight stays through sharing platforms is likely to grow, at the cost of an overnight stay at hotels. It is plausible that hotels will be hindered in the nearby future by this changing consumer behavior. Our model shows that this will not be just for younger respondents (25–34), but in addition for older age groups (45–54) as well.

Table 12.10 Possible strategic reactions of hotels and consumers' expected probability of choosing for hotels

	Mean	S.d.	% Increase probability
More sustainable operation than currently the case	3.21	0.499	18.5
Decrease prices with 20%	3.69	0.687	57.9
Choosing for a specific theme or concept	3.19	0.594	22.9
Providing extra facilities and services (e.g. restaurant, gym, pool, etc.)	3.48	0.682	42.4
Providing extra activities (e.g. city tours, evening activities, etc.)	3.24	0.643	27.3

5-points Likert scales, with 1 very unlikely, 5 very likely

Part of the questionnaire was used to gain more insights on which possible reactions hotels can use in respond to the upcoming popularity of sharing platforms in order to alter their business models and thereby become the more attractive alternative. Five options were given to the respondents (see Table 12.10). All options tend to have a positive effect, as all means are higher than the neutral score of 3.0.

Respondents indicate that they are most sensitive for a price decrease, 57.9% is (very) likely to use a hotel when prices are decreased (mean 3.69). Providing additional services and facilities within the hotel is also a suitable option: 42.4% of the respondents thinks this will (very) likely increase to possibility that they will stay in a hotel for an overnight stay (mean, 3.48). Initiating additional activities leads to an increase of 27.3% (mean 3.24). Finally a specific theme or a more sustainable way of doing business both have a relatively small impact on the likeliness of choosing a hotel for overnight stays. This is reflected in the mean score of these items which are close to the neutral score of 3.

All of the above indicates that hotels can undertake several actions in response to the rising popularity of the sharing economy, though these differ in effectiveness and desirability from the hotel owners' perspective. For instance, providing consumers with an additional discount of 20% directly affects the profitability, possibly negative. Further, not all hotels have the resources or space to provide additional facilities and services.

12.5 Conclusions

12.5.1 Sustainability of the Business Models

Sharing platforms for accommodation is a substantial phenomenon and not likely to disappear given consumers' preference for it. The internet has enabled sharing to become a mature business model, especially because consumers predominantly share accommodation with consumers from other local areas. Consumers use of sharing platforms in the next three years are likely to grow at the cost of overnight

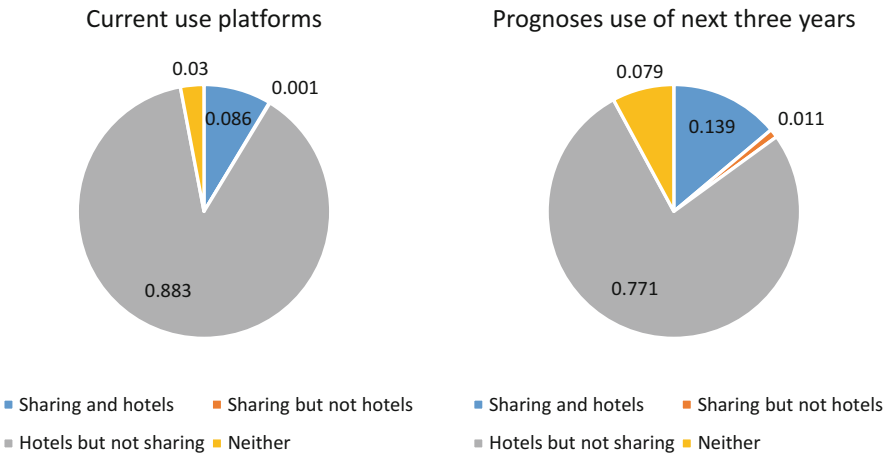

Fig. 12.3 Current and expected use of hotels and sharing platforms

stays in hotels, as becomes visible in Fig. 12.3. Whereas the group of travelers who completely avoids hotels will still be small (around 1% of total population), the group who combines shared accommodations and hotel visits will substantially grow (from 8.7 to 13.9%). Younger and higher educated groups are currently overrepresented, but other age groups are likely to catch up in the nearby future. Airbnb is far ahead over its close competitors, but also over comparable initiatives in other industries such as cars, meals or tools. The platform currently offers an extensive and attractive supply.

Though consumers value the financial attractiveness of renting shared accommodation through online platforms, it is mainly social value that makes them choose for sharing alternatives. This may relate to the feeling of living in a local neighborhood, having a lively apartment rather than an anonymous room, possible contact with locals, etc. This is in line with statements from Airbnb itself in reaction to their popularity. Though the initiative of Couchsurfing was based on more ideological and sustainable reasons, these are not the main driver of using sharing accommodations anymore today. This might explain the success of Airbnb over Couchsurfing even though Couchsurfing offers a free alternative with comparable service level.

This raises the question to what regard Airbnb and related sharing platforms are sustainable. The SBM of sharing platforms such as Airbnb claim to create ecological value by limiting the use of scarce natural resources and social and economic value creation for local communities. However, to what extend are these claims justified? First, the percentage of consumers renting out their properties is very low. Potentially, many semi-professional organizations offer accommodations through this channel, rather than consumers renting out temporarily unused capacity. An example of these semi-professional renters can be found in the city of Amsterdam. Some rooms were rented out practically all year round, implying that it does not concern temporarily unused living space which is rented out but professional activities. The

municipality of Amsterdam has reacted by limiting the number of days an accommodation can be rented annually.

Second, most consumers make use of both hotels and sharing alternatives next to each other, the segment of pure "sharers" is small—even though this is expected to increase, it remains limited. Sharing platforms seem to provide a viable alternative for hotels regarding overnight stays. Although the (expected) number of overnight stays consumers make was not a part of our research, an interesting question remains whether sharing platforms provide such an interesting alternative that it actually stimulates travelling. There could be a "rebound effect" (Bocken et al. 2014; Demailly and Nove 2014; Verboven and Venherck 2016) in reaction to the sharing platforms (more travelling/overnight stays). In line with findings of Zervas et al. (2016) and Martin (2016), our research suggests that sharing alternatives are serious competitors for hotels which can reduce income for hotels but in addition may stimulate travelling.

Third, consumers do not opt for sharing alternatives for sustainable or ideological reasons, so at least the business model is not very sustainable from an ideological point of view. Whereas Belk (2014) argues that several collaboration consumption practices, e.g. sharing cars, may be business-cycle driven and therefore temporary anomalies, our research indicates that changes tend to be more permanent for the travel industry. On the other hand, consumers currently still prefer hotels over renting through sharing alternatives and hotels should aim to maintain that position. Our research reveals that a business model with a focus merely competing on price is not the best way even though it increases the likelihood that a hotel will be chosen as the more attractive option. That is, it is not price that makes consumers switch to sharing alternatives but the enjoyment one experiences, i.e. social value created. This may be because travelers do value social elements more than is the case for e.g. using a drill. The rise of sharing platforms as a successful new (sustainable) business model forces conventional business models (hotels) to change their business models accordingly (Schaltegger et al. 2012). In order to remain attractive hotels should focus on creating added value, e.g. through collaborations with partners such as local businesses, local community and possibly even Airbnb landlords themselves. This added value does not have to be economic or sustainable value *per se* since SBMs grasp different types of value (Zott et al. 2011; Jonker 2014; Rauter et al. 2017). The key challenge is to properly communicate the added value to its customers (Schaltegger et al. 2012). Trade organizations (e.g., Koninklijke Horeca Nederland) strongly focus on getting a level-playing field for sharing alternatives. Our study reveals that this may not be enough to keep hotels on track, especially those who have hardly adapted their business model and offering for a long time. The finding of Zervas et al. (2016) that especially lower-end hotels suffer from Airbnb is in line with our findings, and urges especially those players to innovate.

12.5.2 Further Research

This research is one of the few representative quantitative consumer studies on sharing platforms. Whereas the insights will help regulators, sharing platforms, and existing players to take better strategic decisions, there is much space for more research in this area. Reaching out to other countries than the Netherlands and replicating the study could be useful. Furthermore, there is need for research on consumer decision making or choices when opting for a hotel versus a sharing alternative in a specific situation. The trade-offs may differ between short and long trips, city and country side trips, main reason for travel, etc. Furthermore the specific attributes on which choices are based are relevant. Conjoint studies may be a fruitful way to explore this.

Second, more research is needed on the supply side of the sharing system, to identify the drivers of consumers renting out property. As said, currently many rent-outs seem to take place by semi-professional renters. On the other hand due to regulation and more consumer enthusiasm and familiarity with this system, the traditional end-consumer or prosumer may obtain a more prominent position on the platforms.

Third, more research is needed on the creating of (sustainable) business models for hotels. Part of this research should focus on which type of value consumers would appreciate the most from hotels. Our study reveals that a transition to an SBM consists of the creation of different value types, not only economic oriented but social, ecological, and stakeholder-oriented as well.

Finally, more research on the business models for dwellings in general is useful. Not only for trips the housing market is in transition, new business models for accommodations take place for long term or (semi)-permanent stay. Student hotels, dwellings with large number of included services, time-sharing, and lease apartments are just a few examples. Whereas most consumers still tend to own their houses and apartments, the future may bring up more business models that facilitate use rather than ownership. A more integral study on the market of dwellings and relevant developments in new business models is worthwhile. This study reveals that young higher- and low-educated Dutch consumers are open for renting shared accommodations, with social rather than financial or sustainable considerations as the key driver.

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Chapter 13
A Southern-Based Code of Conduct in the Global Tea Supply Chain: Implications for Sustainable Business Models

Andrew Mzembe

Abstract In recent times, there have been an increase in the concerns about the effectiveness of the traditional business models in achieving sustainable value creation within the global supply chains. The recent scandals suggest the dominant form of maintaining their supply chain's integrity which largely places some form of liability on the upstream suppliers for social and environmental risks may not be as effective as many scholars and practitioners may have initially conceived. In the light of this, we argue that firms may need to re-evaluate their business models and experiment with a new generations of sustainable business models: the models that call for the direct involvement of networks of stakeholders including suppliers in co-creation of sustainable value. This chapter therefore, seeks to show the processes that a Southern based upstream supplier of big western companies has undertaken in an attempt to create sustainable value. The case study company attempts to do this by developing and implementing a code of conduct based on the combined liability and shared responsibility approach with a network of its direct suppliers. The chapter concludes by drawing implications for sustainable business models within the developing country's context.

13.1 Introduction

There has been an increased realisation in recent years that the traditional business models are not effective in addressing the social and environmental challenges in the global supply chains (Beske et al. 2008; Lund-Thomsen and Lindgreen 2014; Schrempf et al. 2013). As such, firms are implementing codes of conduct as a tool for delivering new forms of business models that can effectively deliver social and environmental innovations in the global supply chains (Carasco and Singh 2013; Jenkins 2001; Sethi 2002; Welford and Frost 2006). While a huge strand of literature suggests that codes have to some extent been instrumental in creating and delivering

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sustainability driven value for firms and various stakeholders in the global supply chain, doubts still remain as to whether these codes are effective in changing the behaviour of actors at the very upstream end of the global supply chain (Carasco and Singh 2013; Locke et al. 2007). The serious factory accidents in Bangladesh and China in 2013 for example, showed that the fundamental elements of sustainable business models (SBMs) may not be fully integrated into the global supply chain as the large western buyers would want stakeholders to believe. The key actors in the global supply chain have limited understanding of how sustainability can be deeply embedded in the firms' business models (Evans et al. 2017; Langella et al. 2013; Pedersen and Andersen 2006).

From a scholarly point of view, the interest in SBMs has generally remained at a conceptual level, and the phases or processes firms undergo in developing and operationalizing such models remain scantly understood and under-researched (Inigo et al. 2017; Goodman et al. 2017; Melissen and Moratis 2016; Roome and Louche 2016). Scholars tend to focus on social entrepreneurship (Schaltegger and Wagner 2011) and the Bottom of the Pyramid (BoP) approach (Schrader et al. 2012). In a similar vein, studies investigating how codes of conduct can facilitate creation of value in the global supply chains have so far been given little attention in the SBM literature.

This chapter aims to contribute to SBM literature by reporting on the process southern-based supplier Eastern Produce Malawi (EPM) Limited undertook to develop and implement a two tier code of conduct as a tool for creation of societal and economic value. Our chapter therefore aims to show how codes of conduct can be developed to effectively work as instruments for embedding sustainability into the business models of firms operating in the global supply chain.

The remainder of this chapter is organised as follows. First, we review the relevant literature on SBMs. We then integrate key perspectives and issues surrounding the development and implementation of the codes of conduct into the SBM literature. Second, the methodology that was used in the study is introduced. Third, this chapter reports on how EPM Limited developed and is implementing the code of conduct in its effort to create sustainable value. I also assess the potential of the code in institutionalization of ethical practices within EPM and across its supply chain. Finally, some implications for the development and implementation of SBMs are identified, and make recommendations for further research.

13.2 Theoretical Perspectives

13.2.1 Defining Sustainable Business Models

The notion of SBM has become popular in recent years largely due to the growing need to replace the traditional business models that are inherently and solely based on the creation and delivery of economic value to the shareholders. Evans et al. (2017) consider the traditional business model as the description of actions

performed by firms to create, deliver and capture value. Similarly, Teece (2010) views business models as a tool for restructuring of firm's capabilities to respond to changing business environment in order to create economic value. Conceived in this way, business models may be regarded as fundamental towards enhancing firm's ability to innovate and exploit the opportunities in the business environment (Evans et al. 2017). Business models conceived in this way may not explicitly take into considerations other actions beyond those that are important for creating economic value. Thus, an overly focus on the economic bottom line means that firms may not be able to adequately address the social and environmental concerns associated with their operations.

In recognition of the limitations of traditional business models in addressing such concerns, several scholars have contributed to the development of an understanding of how firms can integrate sustainability driven innovations into business models (Bocken et al. 2014; Boons and Lüdeke-Freund 2013; Melissen and Moratis 2016; Roome and Louche 2016; Stubbs and Cocklin 2008). The resultant models are referred to as SBMs (Schaltegger et al. 2012). Embracing SBMs calls for transformation in the way business was previously done. Stubbs and Cocklin (2008) argue that adopting SBMs makes it imperative for firms to transform or develop their structures, systems, cultural capabilities that can allow them to create partnerships with key stakeholders. Such capabilities, they note, can enhance firms' ability to achieve sustainability not only within organizational boundaries, but also within the wider organizational environment in which they operate. While the theoretical proposition by Stubbs and Cocklin (2008) pioneered the debate about sustainability in earnest, it can be argued that the proposition may somewhat be limited. The proposition's strong orientation towards the ecological modernization, and its cursory focus on the social dimension of sustainability (Upward and Jones 2016) runs the risk of having sustainability being seen as strongly biased towards a technological and greening agenda (Boons and Lüdeke-Freund 2013).

Extending the conceptualization of SBMs, Boons and Lüdeke-Freund (2013) show how sustainability driven innovations can be integrated into traditional models to create sustainable value. They provide what they consider as four normative requirements central to the function of SBMs. These requirements include: (a) the *value proposition* which considers what the firm intends to achieve that will simultaneously create measurable economic and societal value; (b) *sustainable supply chain management* which involves taking into consideration firms' social responsibility towards its suppliers. Thus, firms are not expected to put undue pressure on its suppliers in order to meet their sustainability goals, but engage in a mutual relationship with them. In a similar vein, in order to create sustainable value in the supply chain, firms are required to pursue sustainable supply chain management which is based on the combined liability and shared responsibility approach with a network of its direct suppliers (Schrempf et al. 2013); (c) *customer relationships* which recognize and help to meet customer demands for ethical production processes of the commodities and services they are required to consume; (d) *financial proposition* which shows the firm's ability to share economic benefits and internalize their social and environmental externalities within their society.

While an emerging body of literature provides an understanding about the mechanisms and conditions under which firms can design effective SBMs, understanding the various categories of SBMs may be equally fundamental. Bocken et al. (2014) contribute to the increased understanding about SBMs by providing eight archetypes of SBMs grounded on the three major groups of innovations: organizational, technological and social innovations (see Boons and Lüdeke-Freund 2013). These archetypes include those which allow the firm to: (a) maximize material productivity and energy efficiency; (b) create value from wastes; (c) substitute non-renewable sources with renewables and natural processes; (d) meet customer needs without necessarily engaging themselves in the production of the physical products; (e) play a stewardship role by proactively engaging its stakeholders so that their well-being is guaranteed; (f) be reduce consumption and eventually production of commodities; (g) put more emphasis on the delivery of social and environmental benefits than creating economic value; and (h) scale-up solutions that can maximize social and environmental benefits.

In general terms, these models suggest that embedding sustainability requires a much more integrated perspective: the perspective that not only focus on the internal organisational issues, but also take into consideration the wider issues in the organisational environment. Such an orientation calls for the firms interested in experimenting with SBMs to, apart from developing unique capabilities to meaningfully engage with stakeholders, effectively manage knowledge and develop leadership and culture that can exploit opportunities that come with social and environmental challenges (Bocken et al. 2014; Boons and Lüdeke-Freund 2013; Høvring 2017; Lueg et al. 2015; Melissen and Moratis 2016; Roome and Louche 2016; Stubbs and Cocklin 2008).

13.2.2 Codes of Conduct as an Antecedent of Sustainable Value Co-creation in the Global Supply Chain

Developing and implementing a code of conduct represent a major transformation in a firm's business model (Andersen and Skjoett-Larsen 2009). However, the dynamics and processes of change associated with code development and implementation and how they may be connected to some of the key elements of SBMs are less understood. This chapter focuses on codes of conduct development and implementation as a process towards sustainable value creation rather than the content side of sustainable value creation Lepak and Smith (2007). In order to understand the dynamics involved, we draw insights from Lepak and Smith's (2007) contingency approach to consider them at three levels: individual, society, and organizational level. These scholars suggest that at an individual level, value creation can be achieved when individuals in the firms have superior knowledge base for creating innovative solutions that can lead to their firms achieving competitive advantage. At societal level, value can be created through creation of an enabling environment for

organizations and individuals to develop innovations that can create both economic and societal value. The notion of value creation at this level underscores the significance of public policy interventions in the wider business environment. The final level of value creation within the contingency approach deals with the organizational level dynamics that may be responsible for value creation. For the purposes of this chapter, our focus is on these organizational level dynamics which are examined below.

To understand these dynamics better, we examine two major strands of literature: the first stand primarily highlights the importance of knowledge sharing within an organization; the second strand deals with the dynamic capabilities that an organization can exploit to create value. The first strand of organizational dynamics literature addresses the notion of knowledge sharing in the creation of value. In relation to sustainable value creation using codes of conduct, knowledge enhancing mechanisms can involve actions that a lead firm deliberately can undertake to sensitise its suppliers and employees on what it considers as the acceptable ethical and sustainable behaviour (Andersen and Skjoett-Larsen 2009; Trevino et al. 1998; Webley and Werner 2008). This could also involve the development and communication of shared goals the code intends to achieve (Trevino et al. 1998; Webley and Werner 2008). To reinforce, lead firms can implement training and capacity building programmes specifically targeting suppliers and employees regarding the importance of the code of conduct in creating sustainable value and the content of the code (Lund-Thomsen and Lindgreen 2014; Welford and Frost 2006). Thus, knowledge sharing may particularly be considered a critical element in the transformation of employers and suppliers' capabilities and performance when issues of sustainable value creation are concerned (Bai and Sarkis 2016). For suppliers, provision of on-site technical support may also be vital for ensuring that they are empowered to address social and environmental risks in their operations (Andersen and Skjoett-Larsen 2009). With respect to employees as a source of sustainable value creation, scholars have highlighted the importance of implementing employees' skills development programmes (Andersen and Skjoett-Larsen 2009; Mamic 2005). These initiatives may be implemented to empower employees in addressing social, environmental as well as business integrity risks, but also in helping the institutionalization of sustainability agenda in the suppliers' operations. The expectation may often be that when such knowledge is effectively shared, then superior shared value would be created. Furthermore, exposure to the code content can help employees and suppliers develop a positive perception about ethical and sustainability issues (Trevino et al. 1998). Thus, such actors may much more be willing to implement the principles of the code of conduct in their operations (Pedersen and Andersen 2006; Sarkis 2003; Sethi 2002).

The second stream of literature shows how firms can use their dynamic capabilities to create sustainable value (Roome and Louche 2016; Stubbs and Cocklin 2008). In order to create sustainable value, firms may be required to establish and reconfigure internal structures, systems and processes to respond to sustainability opportunities and risks, but also to effectively work with various stakeholders in the pursuant of the sustainability agenda beyond their own boundaries (Stubbs and

Cocklin 2008). For embedding sustainability, firms may require unique but dynamic capabilities. These capabilities may include: top management capacities and commitment and resource endowment—physical, human and financial resources. For example, top management, using their discretion, can allocate resources towards actions that can lead to the creation of sustainable value. To effectively utilize the allocated resources, management can spearhead the development of systems, processes and structures that are fundamental to the institutionalization of the code (Mamic 2005; Trevino et al. 1998). Similarly, Roome and Louche (2016) show the processes businesses can move from a traditional business model to different kinds of SBMs. These processes may include: the development of a new vision for the company; adoption and development of new principles; structural development and reconfiguration. The actions are to a large extent similar to those processes involved in the development and implementation of codes of conduct.

As codes of conduct are typically statements of ethical principles that a firm ought to follow in their business conduct, developing implementation mechanisms in form of structures and systems for translating those principles into tangible ethical behaviour may be considered fundamental (Frostenson et al. 2012; Sethi 2002). Companies need to work towards mainstreaming the code into the organisational structures and systems. With respect to structures, firms can establish new functional departments and create positions that can take a leading role in the implementation of the codes of conduct (Mamic 2005). Andersen and Skjoett-Larsen (2009) have suggested that code of conduct can have a long lasting impact on corporate ethical behaviour when the position of ethics officers are established and well-resourced to coordinate and ensure compliance with the codes within the company and across its suppliers. Establishing and empowering the ethics officers' position may send out a strong signal to employees and suppliers of the firm's commitment towards institutionalization of sustainability agenda.

Another fundamental capability that firm can use to institutionalize the codes but also respond to social, environmental and business integrity risks is the development of robust systems. These systems can be internally focused but also externally looking. For example, evidence shows that codes of conduct are likely to be effective in creating sustainable value when their implementation is closely tied to a performance measurement system (Egels-Zandén 2013; Lund-Thomsen and Lindgreen 2014; Lund-Thomsen 2013; Lund-Thomsen and Nadvi 2010). Thus, integrating monitoring of the codes of conduct into company's performance management systems such as employees' performance appraisals, internal and external sustainability audits and suppliers' focused audits can enhance the effectiveness of the codes in changing the behaviour of employees and suppliers (Jenkins 2001; Sethi 2002). Externally, through these mechanisms, the lead firms and suppliers can jointly identify and solve problems. Through performance management systems, suppliers' performance targets can be monitored and evaluated (Krause et al. 2007). Thus, best performing employees and suppliers can be rewarded and recognized. These actions can be crucial in motivating employees and suppliers (Bai and Sarkis 2016) in working towards of creation of sustainable value (Bocken et al. 2014).

13.3 Methodology

13.3.1 Case Selection

A qualitative case study approach was adopted. EPM was purposively chosen as a case study because it provided an excellent opportunity to understand how a developing country' subsidiary of western based multinational company can create sustainable value through the use of codes of conduct. EPM has taken a step further in developing and implementing a two tier code of conduct for its internal stakeholders as well as that of its suppliers against a backdrop of its parent company Camellia plc in the United Kingdom having no written code of conduct. Camellia plc solely depends on a written CSR policy which guides its business practices.

13.3.2 Data Collection

We conducted 37 semi-structured interviews over the period of two and a half months in Malawi and the United Kingdom. EPM management team, employees, and external stakeholders, including representatives from tea packers, suppliers, certification organizations, government, industrial bodies, smallholder farmers,[1] and communities were interviewed (see Table 13.1). The interviews lasted between 20 minutes and 2 hours and were recorded, with the consent of the respondents.

The questions primarily focused on understanding the reasons for developing the codes of conduct for the EPM internal stakeholders and suppliers, the code development processes and implementation. The interviews began by providing a brief background and aims of the study, then asked open-ended questions that allowed the respondents to express their views freely. For example, to obtain a broad sense of EPM's motivations, we asked the managing director to provide information about the genesis and implementation of its codes and sustainability agenda. Thus, information was gathered about internal organizational dynamics, as well as the various relationships EPM has with its stakeholders. In addition, we conducted four separate 2-hour focus groups, involving two host communities and two groups of workers, to obtain an in-depth understanding of how specific issues in the codes affect each group. We also visited company sites to observe employees at work and various business practices. Publicly available documents were reviewed, which were vital in developing a better understanding of EPM's operations, but also in supplementing insights obtained from the interviews.

To facilitate the data analysis, we transcribed the recorded interviews and field notes, and subjected these transcriptions to thematic analysis. Both open and axial coding were employed, to obtain a deeper understanding of the motives for

[1]Eastern Produce Malawi purchases tea from these farmers who are organized in cooperatives or associations.

Table 13.1 Interviewed respondents and organizations

Organization	Respondent's position	Reason for inclusion	Number of interviews and length(s)
Eastern produce Malawi	Managing director	Key decision maker in corporate affairs	Two interviews: one for 2 hours and one for 40 minutes
Tea association of Malawi limited	Chief executive	The association sets industry standards	One interview: 70 minutes
Government of Malawi	Former deputy minister of trade and industry Principal secretary of ministry of labour Deputy labour commissioner District labour officer Deputy director, environmental affairs department Legal officer—environmental affairs Principal anti-corruption officer Chief executive, Malawi bureau of standards	These actors formulate regulations for corporate practices and monitor corporate compliance	Eight interviews; durations varied from 60 to 90 minutes
Suppliers	Sales executive Chief executive	They are affected by Eastern Produce Malawi's purchasing policies, and their actions can create significant reputational risks for Eastern Produce Malawi	Two interviews: one for 30 minutes and one for 35 minutes
Professional associations	Executive director—Society of accountants in Malawi Program officer, institute of directors	They set ethical and business integrity standards for members, most of which influence Eastern Produce Malawi's ethical policies	Two interviews, each for 45 minutes
Tea buyers	Typhoo technical manager for producer relations	Purchasing practices influence Eastern Produce Malawi's CSR agenda	One interview: 45 minutes
International certification and standards organization	Ethical tea partnership program manager for Africa and Latin America	Develop standards and codes, and monitor producers' compliance	One interview: 2 hours
Smallholder outgrowers' organization	Chairperson Committee member Three smallholder farmers	Smallholder tea producers are affected by the actions of Eastern Produce Malawi	Five interviews: one for 40 minutes, one for 60 minutes, and three for 30 minutes

(continued)

Table 13.1 (continued)

Organization	Respondent's position	Reason for inclusion	Number of interviews and length(s)
Community (traditional) leaders and members	Two traditional leaders Nine community members	Provide social legitimacy to eastern produce Malawi	Two interviews: one for 60 minutes and one for 90 minutes
African Institute of corporate citizenship	Project coordinator—Sustainable agriculture business initiative Technical advisor	Provides advisory services to eastern produce Malawi in the implementation of ethical practices	Two interviews: one for 60 and one for 75 minutes
International labor organization	Program officer	Its conventions and capacity building programs influence corporate practices in Malawi	One interview: 1 hours

developing and implementing codes and implementation modalities. For the major themes, we developed a primary list of codes from our theoretical framework and literature on codes of conduct and sustainable supply chain management (Miles and Huberman 1994). After identifying the themes a priori, we developed categories for each of the codes. This step allowed open coding in which we carefully examined the transcribed data and sorted them according to their differences and similarities. By way of axial coding, we organized the data into subcategories and sub-themes with some resemblance to the a priori themes (Lindgreen et al. 2012).

13.4 The Case Study

13.4.1 An Overview of Eastern Produce Malawi

EPM Limited is a subsidiary of Camellia International Group based in the United Kingdom. It has been operating in Malawi since the early 1950s. It is the largest tea producing company accounting for over 38% of the total Malawian tea output, and primarily exporting tea to six major packers which are based in the United Kingdom. EPM is one of the largest employers in Malawi employing about 18,000 people. Its CSR philosophy is as follows: 'putting a human face to the business by caring about the environment, our workforce and the community around us in order to ensure sustainability'. EPM's philosophy is derived from its parent company's core values[2] which are as follows:

(a) To act honestly, fairly and with integrity and respect in all business dealings.
(b) To respect the dignity and wellbeing of all those people who work for us.

[2]http://www.camellia.plc.uk/sustainability/corporate-social-responsibility

(c) To support environmental sustainability and biodiversity.
(d) To respect and contribute to the communities that are affected by our core business.

13.4.2 Motivations for Developing the Code: Value Proposition

EPM has been experiencing strong external stakeholder pressures to develop strategies for mitigating the social and environmental risks associated with its operations. In particular, western based packers have shown keen interest not only in seeing EPM being committed to improvement of the unskilled labourers' working conditions, internalisation of its negative environmental impacts, but also in seeing its commitment towards addressing social and environmental risks in the upstream part of its supply chain. Apart from the external stakeholder pressure to embrace social and environmental concerns, the scale of business integrity risks in form of corruption and fraud prompted to develop a two-tier code of conduct: a code of conduct for internal stakeholders such as employees and the code of conduct for its suppliers. In order to effectively address the sustainability challenges in Malawi, EPM became a pioneer member of the United Nations Global Compact in Malawi. The United Nations Global Compact demands that businesses subscribe to the four core values: human rights, labour, environment and anti-corruption which member companies (United Nations Global Compact 2013). EPM management viewed that developing and implementing a two tiered code of conduct provides it with an opportunity to contribute towards the institutionalization of the sustainability agenda in Malawi.

By 2005, EPM management started the process of developing and implementing an SBM by aligning its practices with the various stakeholders' demands, but also with the parent company's CSR policy. Developing two inter-linked sets of codes to address some of the ethical issues related to its operations was seen as a significant step towards its engagement with a new SBM. The first set of the code primarily focuses on internal stakeholders' compliance with certain government regulations and professional standards. The code basically deals with fraud, corruption and the measures internal stakeholders could take when they are faced with conflict of interests in dealing with external stakeholders. Apart from addressing business integrity risks, this set of code serves as a guide for EPM in internalizing social and environmental risks associated with its operations. In short, the code guides employees as well as the Board not only in their conduct with EPM's external stakeholders, but also in their day to day internal operations. The second set of code broadly deals with suppliers' compliance with environmental and social related regulations. It is also intended to promote suppliers' integrity in daily business undertakings. Having this code in place helps EPM minimize the risks of exposure to unethical scandals within its own supply chain. The guidelines within the code were drawn largely from EPM's own code of conduct, but they also reflect some of the guidelines of the many multi-stakeholder codes EPM is expected to comply with.

It is worth pointing out that the guidelines of the codes for its suppliers takes into account some of the local norms. Overall, the development of the code reflects a significant shift towards institutionalisation of ethical business practices in a joined-up manner across all of its organisational functions, but also suggests EPM's increased awareness and response to the changing nature of ethical issues in its operating environment.

13.4.3 Code Development

Top management commitment is critical to the development of the code (Pedersen and Andersen 2006; Sethi 2002; Svensson et al. 2010; Webley and Werner 2008). For EPM, the starting point was that the Managing Director assembled a team comprising senior managers from across all the departments to develop a vision, determination of the content of the code as well as the resources needed for implementation of the code. However, given the complexity of ethical issues EPM faces, the development of a shared vision across all the departments was considered challenging. Consequently, EPM management team sought the support of an external consultant from the *Ethics Institute of* South Africa as well as the technical assistance from the African Institute of Corporate Citizenship. The consultant, after through consultations with management and certain stakeholders, developed the two sets of codes. An important consideration in the development of this code was the alignment of its corporate values with the expectations of crucial stakeholders. Particularly important for this process was the inclusion of some of the guidelines and core issues in the United Nations Global Compact and the Business Action Against Corruption (BAAC) in Malawi, the values of which EPM fully subscribes to as a founding member of both the UN Global Compact Malawi Chapter and the BAAC Malawi. The codes were also designed to comply with the guidelines of international standards and codes such as the Ethical Tea Partnership, Rainforest Alliance and the Institute of Directors South Africa Kings Code.

However, merely developing a code that is responsive to external stakeholders' expectation was not thought as an end in itself. It was therefore fundamental to obtain a buy-in from the headquarters. In order to achieve this, EPM management ensured that the code, in part, reflected the core values and CSR policy of the Camellia group. While top management understood the significance of aligning the code with the parent company's core values and those of the influential stakeholders such as the buyers and UN Global Compact, there seemed to be a strong realisation by management of the need to make the code relevant to suppliers:

> For our suppliers, we ask them to have a very similar approach to the way we conduct our business in line with our Code of Conduct. We developed a separate code for these suppliers derived from our own. We ask periodically: do you have a minimum wage? Do you do CSR? (EPM Managing Director)

Interestingly though, EPM did not engage its suppliers and employees in the development of their codes despite the fact that these stakeholders are the ones to be affected by code prescriptions:

> EPM invited us to the meeting where we were only informed that we will have to do our business in line with their thinking. They informed us that we will have to put in place measures for treating our employees well; make an undertaking that we will not in any way participate in corrupt practices and bribes. Although most of the things they ask us to do are good for the society, I am of the view that they could also have sought our opinions on some things we also feel are important for our future business relationship (Executive Director, Local Supplier).

Such a lack of consultations with these stakeholders may perhaps be explained by the desire to expedite the code development. EPM had to urgently show influential stakeholders such as the western packers that it is strongly committed to ethical principles in order to ensure continued access to western tea markets. Nonetheless, codes that are formulated with employees' inputs are much more likely to consider the various ethical dilemmas employees may be confronted with in their daily work or activities (Pedersen and Andersen 2006). As such, employees may be more inclined to offer the much needed support required for their effectiveness than when they are not consulted (Sethi 2002; Svensson et al. 2010; Webley and Werner 2008).

13.4.4 Code Implementation: Structures and Systems

The significance of structures and systems crucial for implementation of codes of conduct in an organisation has been previously emphasised in the business ethics literature (Mamic 2005; Sethi 2002; Webley and Werner 2008) and to a limited extent in the SBM literature (Svensson et al. 2010). EPM reconfigured its systems and structures and created new ones for the institutionalisation of its code of conduct. These include: (a) communication and training; (b) mainstreaming the code into corporate functions; (c) transparency and accountability.

13.4.4.1 Communication and Training

Several studies have highlighted the significance of communication and training in embedding ethical values and change within an organisation (Webley and Werner 2008). Following the development of the code, EPM's top managers engaged in raising awareness to employees and suppliers about the contents of its code of conduct:

> The company organised a meeting where we were all informed about the code of conduct in our various duties. We were also told how to relate with the external clients including desisting from accepting bribes when conducting our business. (Accounts Clerk)

The awareness of the code content was followed by a series of training and capacity building programmes. Training was considered as an important aspect in institutionalisation of ethical values in an organisation. Mamic (2005) suggests that ethics training programme can be effective when top management makes decisions regarding the focus of the training programme and the levels at which the training should be conducted. The focal areas for EPM's training programme were: the business integrity issues such as corruption and fraud prevention practices, social and environmental guidelines, roles and responsibilities of all parties (EPM, employees and its suppliers) in the implementation of the code, auditing mechanisms and remediation. The training programme targeted all employees as well as suppliers. These trainings were implemented by the Ethics officer. For new employees, the personnel section of the finance and administration department of EPM provides induction programmes in which core issues related to the new employee's jobs are clearly discussed. For employees whose job functions involves facing ethical dilemmas, their respective Heads of Department collaborate with an Ethics Officer to provide on the job specific support and training necessary for solving some ethical challenges. Periodically, EPM management organises meetings to refresh employees' understanding about ethical issues and current ethical issues in the marketplace.

Equally, EPM educates its suppliers in corruption prevention and good labour conditions as well as ecosystem preservation. Training suppliers is usually conducted as soon as a due diligence and business contract is signed, and as when new developments in the marketplace arise. Just like the employees' training, suppliers' training is often conducted by the EPM's ethics officer. The target participants in these sessions are usually the suppliers' employees who are directly involved in the implementation of EPM's code of conduct. These trainings provided an opportunity by which EPM and suppliers could share potential and real challenges faced or could face in the implementation of the code. Investing in such training is indeed vital in an environment like Malawi where business ethical values are not embedded in education curricula and daily business transactions.

Frequent communication between those implementing the code and those that are affected by it is central to the effectiveness of the code in helping firms to achieve sustainable value creation (Andersen and Skjoett-Larsen 2009; Bai and Sarkis 2016; Krause et al. 2007; Pedersen and Andersen 2006). EPM disseminates information about the code of conduct and the compliance requirements to suppliers through brochures and regular meetings it holds with them. During meetings, for example, suppliers are provided with the opportunity to raise pertinent issues related to the operationalisation of the code within their business operations. Suppliers are encouraged to speak about their expectations from EPM in terms of support they need to implement the code as well as the challenges they face in meeting their code obligations. Thus, such an approach to stakeholder communication also serves EPM with the purpose of fostering a close integration and relationship with its suppliers (Pedersen and Andersen 2006). Apart from communicating the code content, EPM management ensured that information passed on t clearly included a statement of the business case or the rewards associated with compliance with the

guidelines that are stipulated in the code. For example, EPM clearly states to its suppliers that an ethical reputation they can establish with EPM can help them benefit from potential business dealings with other members in the BAAC coalition.

13.4.4.2 Mainstreaming the Code into Corporate Functions (Structures)

Mainstreaming a code of conduct within a company and throughout its supply chains requires the development of viable systems and structures (Sethi 2002; Svensson et al. 2010). For EPM, the fundamental issue was to decide which department would take on an oversight role in the implementation process. The Managing Director, assisted by the Operations and Finance and Administration Directors, assumed a significant role in providing directions over the mainstreaming of the code into the various corporate functions and across its network of suppliers. The finance and administration department oversaw the procurement function. The finance and administration department developed a preferred suppliers' initiative with the support from the Ethics Officer who also holds the position of the Operations Director. Through this initiative, a checklist of ethical criteria is used to assess and select preferred suppliers. Such suppliers are also often recommended to other BAAC coalition member companies should there be any need. The Ethics Officer who reports directly to the Managing Director's office provides technical support to the finance and administration department on matters related to sustainable procurement practices. Apart from working with the finance and administration department, the Ethics Officer, who also holds the position of Operations Director, is responsible for translating some of the principles of the code—in particular those that focus on environmentally sustainable practices into field operations. Thus, the Ethics Officer does not only undertake an internal role of advising employees on the ethical issue, but he equally plays an instrumental outward facing role of working with EPM's suppliers. The strong relationship between the finance and administration department and the Ethics Officer has a strong bearing on the degree to which EPM's outward looking ethical issues may be integrated into suppliers' systems and structures. For example, the finance and administration department's close relationship with the Ethics Officer allows the Ethics officer to take on the responsibility of monitoring a network of EPM suppliers' actions for compliance with code requirements.

13.4.4.3 Transparency and Accountability

Establishing systems for monitoring compliance with the requirements of the code of conduct represents one of the fundamental mechanisms by which a firm can co-create sustainable value with its suppliers (Frenkel and Scott 2002; Locke et al. 2007; Sethi 2002). In monitoring compliance with its code, the Ethics Officer in collaboration with members of the procurement section undertakes periodic audits of their preferred suppliers' business practices. In cases where are failures to comply

with the code' guidelines, auditing exercises also involve identification of the perceived and actual constraints that may have prevented the suppliers' compliance. Thus, in the event that the auditing process or exercise uncovers some issues that suggests non-compliance with its code, EPM initially engages its suppliers in a continuous improvement programme as a cost-effective way of ensuring compliance with its code:

> We want all our suppliers to show ethical behaviour. We do this by educating them first about ethical issues they have to address when they want to do business with us... and if after getting this kind of knowledge we discover that they engage in unethical practices, then we usually get to the bottom of the issue. Depending on the magnitude of the problem, we can either put them on a programme to address those issues or completely delist them. (Middle Manager, EPM)

When dealing with the smallholder farmers who supply additional tea and small-scale businesses, such an approach serves to avoid the moral dilemma of causing loss of livelihoods for farmers and workers employed by such businesses as a result of termination of the contracts. However, when a supplier continues to fail to meet the agreed standards or terms during the continuous improvement programme, EPM terminates the business contract or relationship. The supplier is then automatically struck off the list of preferred suppliers, and EPM informs fellow members in the BAAC coalition. Such actions send to suppliers a signal that EPM is strongly committed to promotion of ethical behaviour amongst suppliers (Krause et al. 2007). For many of such suppliers, their business relationship with EPM may be a vital for their survival. As such, many of these suppliers are much more likely to show strong commitment towards terms of their contracts and code (Krause et al. 2007). However, as these audits are internally commissioned, EPM management is increasingly recognizing the need for having such exercises verified by independent assurance companies to achieve objectivity. It appears that the need for objective is outweighed by an understanding of significant investment implications on their part as well as on the part of their suppliers.

13.5 Implications for Sustainable Business Models

EPM in the initial years of operation in Malawi considered themselves as an economic unit solely existing to create shareholder value. In the latter years, it became clear to managers that EPM needed to create shareholder value differently. As noted elsewhere in this chapter, EPM reflected on the dominant business model and the various actions they pursued to achieve shareholder value. This led EPM to develop a broader understanding of the business value, and consequently developed a business model that addressed the pressing social issues within their host communities. However, changes in the supply governance mechanisms and increasing consumer pressure for sustainable business practices in the global supply chains compelled EPM to develop new ways of working with other actors in the supply chain in identifying new actions for addressing social and environmental issues. This involved

seeking assistance from a limited number of stakeholders such as external consultants and NGOs which provided support in development of the code. For EPM, the development of the codes demonstrated its commitment to not only create its economic value, but also to creation of societal value. However, experimenting with 'radical' forms of SBMs—that go beyond the 'simplistic' societal and economic value creation—may generally be restricted by the competitive nature of the global tea market at the downstream as well as upstream levels. We argue that EPM and other businesses may need to identify new ways of working with a network of stakeholders. A multi-stakeholder oriented collaboration is one such kind of mechanism through which EPM and other firms operating in the same industry can work towards the development of the 'strong' SBMs (Bocken et al. 2014; Upward and Jones 2016). EPM will require to establish close relationships with stakeholders who are equally focusing on changing the current rigid socio-economic system towards a more sustainable system (Stubbs and Cocklin 2008). The current relationship EPM has with its suppliers and buyers is fundamentally transactional predicated on risk management and compliance with codes. Various opportunities for EPM to develop and implement a 'strong' SBM exist given that some of their local competitors—large tea estates—equally face similar market requirements. These competitors, however, do not have good access to some resources as EPM does. It makes much economic sense to collaborate and share costs associated with embarking on new SBMs with competitors. Instead of being seen as a central node in their network or collaboration with their suppliers and other actors, EPM may have to aim at being seen as one of the many actors in the network. Although it can be risky to move away from a 'dominant player' position at the time when many actors in the network may just be beginning to engage with sustainability agenda, EPM will initially need to strengthen its knowledge enhancing mechanism and engage in new forms of learning to empower some stakeholders who may not have capacities to integrate sustainability into their operations (Andersen and Skjoett-Larsen 2009; Bocken et al. 2014). Melissen and Moratis (2016) even acknowledged the risks that may be involved when businesses break away from the traditional ways of dealing with exigencies the current socio-economic systems may throw at them. They also call for increased collaboration amongst businesses as well as other stakeholders based on mutual trust, honesty, integrity and fairness. To achieve this, EPM may, more than ever, have to reconfigure its structures and systems capable of achieving shared goals with all actors involved (Stubbs and Cocklin 2008; Svensson et al. 2010).

Implementing a two tier- code of conduct—a code that targets employees alongside suppliers—can be a challenging task for many southern based suppliers because of the need to reconfigure structures and systems. Yet EPM's approach demonstrates that progress can still be made when there is top management commitment towards sustainability agenda. In this chapter, we have shown the steps taken by EPM in implementing their two tier code of conduct: creation of a shared vision, development and implementation of communication and training systems, mainstreaming of the code into corporate functions, and development of monitoring and transparency systems. Highlighting the role of leadership in the development of SBMs (Melissen and Moratis 2016), EPM's Managing Director initiated the sustainability drive

which he successfully sold to some of the stakeholders such as the Board of Directors and employees. It is possible that in the course of promoting this agenda to employees and suppliers, the Managing Director may, just like change agents in many organizations, have struggled to convince their stakeholders to embrace the agenda. This may stem from the fact that there are many businesses in Malawi that are yet to experiment with SBMs of some kind. To create sustainability change within their firm's boundaries and beyond, such leaders would require establishing a critical mass of fellow minded leaders but also explicitly demonstrate that economic value can be achieved alongside societal value (see also, Melissen and Moratis 2016; Roome and Louche 2016; Stubbs and Cocklin 2008).

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Chapter 14
Social Capital as Value Creation and Delivery of a Sustainable Business Model: A Case Study from Indonesia

Risa Bhinekawati and Banguning Asgha

Abstract This chapter clarifies the linkages between value proposition, value creation and delivery, and value capture through integration of social capital concept into a sustainable business model. Using an exploratory qualitative case study, it investigates why and how a corporation translates its sustainability strategy (value proposition) into corporate foundations that generate social capital (value creation and delivery), and sustainability performance (value capture) from 1980 to 2011. Two corporate foundations dealing with small enterprise and skilled labour development within one of Indonesia's largest public listed companies were chosen for cross-case analysis. Primary and secondary data from company documents, archival records, interviews and observations were analysed to develop a theoretical model.

The study finds the importance for companies to play 'hybrid' roles as profit and non-profit institution in building sustainable business model. The corporate foundations, which are the non-profit arm of the corporations, deal with social issues that intersect with business needs. Stakeholder relations and resource allocations through the foundations have developed social capital, which enable the company and its stakeholders to co-create value to achieve triple bottom line performance for both. This research contributes to the management literature as it integrates the concept of social capital, and clarifies the actual linkages between value proposition, value creation and delivery, and value capture in a sustainable business model. The theoretical model from the research can be replicated by other companies, especially for the ones operating in emerging economies. However, further research is needed to test its applications to other context.

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14.1 Introduction

In recent years, there have been needs for research on sustainable business models (SBMs) development and their implementation in practice. An SBM is defined as a continuous long-term process which is mutually driven by economic, social, and environmental aspects in delivering business purposes (Høgevold and Svensson 2012); by considering value for a broader range of stakeholders in order to create competitive advantage and contribute to sustainable development (Lüdeke-Freund 2010). The literatures have shown several examples on how companies initiate and create value in SBM. However, Bocken et al. (2014) suggest that further investigation is needed to clarify specific ways in which a company deliver social and economic value and transform it into economic benefits and competitive advantage. In other words, there is a need for a research on the process under which sustainability is integrated into SBM elements, that is, value proposition, value creation and delivery, and value capture. Furthermore, Bocken et al. (2014) also suggest an investigation on the role of collaboration, education, and awareness to the successful sustainable business.

Drawing on experience of PT Astra International Tbk (Astra), an Indonesian indigenous company which started as a family business in 1957 then became one of the largest public listed companies with over 200,000 employees in Indonesia (Astra International 2015), this chapter answers the research question on why and how a company implement SBM by integrating social capital and sustainability principles into its value proposition, value delivery and creation, as well as value capture. This chapter demonstrates that the company should play both profit and non-profit roles in dealing with social and environmental issues. The non-profit roles, which have been conducted through two corporate foundations since 1980 and 1995 respectively, have generated social capital that contributes to sustainability performance of the company. A theoretical model is developed by comparing the theoretical framework from the literature review with field evidence. It is expected that the model can be replicated by other companies, especially the ones operating in developing countries.

14.2 Integrating Social Capital into Sustainable Business Model: A Theoretical Framework

Academic enquiry on SBMs has been driven by the need to understand the nexus between value proposition, value creation and delivery as well as value capture when a corporation integrate sustainability into its business model (Bocken et al. 2014; Schaltegger et al. 2011). The following literature review reveals potential theoretical linkages between the concepts of SBM, social capital, and sustainability performance that can explain the relationships between value proposition, value creation and delivery, and value capture of SBM.

14.2.1 Sustainable Business Models

Until recently, the concept of the business model has been discussed extensively among academicians and practitioners (Zott et al. 2011). The business model is a concept that is used by the company in achieving competitive advantage, including design of product or service, process of delivery, cost to produce, differentiation, and structure of value chain (Rasmussen 2007). Osterwalder and Pigneur (2010) posit that a business model is a basis of how a company creates, delivers, and captures a value. They argue that the business model should have three main elements. First, value proposition which covers the product and services offering, customer segments, as well as customer relationships; second, value creation and delivery, such as corporate activities, resources, partners, and distribution channels; and third, value capture, consisting of cost structure and revenue model.

To create sustainability in a business model, the firm has to integrate a triple bottom line approach and put attention on all stakeholders' concerns including environmental and social issues (Bocken et al. 2014). SBM is frequently seen as a continuous long-term process which is mutually driven by economic, social, and environmental aspects in delivering business purposes (Høgevold and Svensson 2012); by considering value for a broader range of stakeholders in order to create competitive advantage and contribute to sustainable development (Lüdeke-Freund 2010). Consequently, firms that care about sustainable business, would apply SBM into its corporate strategy and practice.

14.2.2 Social Capital

Social capital is defined as the resources or capabilities that are generated through a 'durable network or relationships of mutual recognition' (Bourdieu 1986) or 'trust' (Fukuyama 1995) that facilitate cooperation and collective action (Coleman 1990; Putnam 1995; Uphoff 2000), which generate positive outcomes (Uphoff 2000). Social capital can be categorized into three main components, including social relationships, resources embedded in network ties, and collective actions (Bhinekawati 2017: 46). According to Szreter and Woolcock (2004), the social relationship component of social capital can be defined as bonding which is 'the ties between individuals within a social group or between members of a network who see themselves as similar', and bridging, which is 'the ties between or across social groups' (p. 654). Social capital also has a component of 'resources embedded in network ties ' that is 'the valued resources such as economic, political, cultural, or social, as in social connections that are expected to be beneficial to both the collective and the individuals in the collectives' (Lin 1999: 33). Finally, the collective actions component of social capital can be achieved when there is 'exchange and combination of resources to achieve common goals' (Nahapiet and Ghoshal 1998: 249).

With regard to SBM, social capital as a whole has a positive relationship and significant influence on sustainability of small medium enterprises (Akhtar et al. 2014). Companies that invest in social capital will produce a 'well-structured network' (Burt 1992: 61) where players will obtain higher profit from their social relations, a good access to resources including finance and market, and facilitate better economic and organizational outcomes (Lin 1999; Leana and Van Buren 1999). Therefore, investment in social capital can contribute to corporate sustainability and the improvement of social structure and prosperity of society, while at the same time bringing benefits to the actors who invest in social capital development (Bhinekawati 2017).

14.2.3 Value Proposition: Sustainability Goals

To achieve SBMs, the value proposition of a sustainable business usually concerns about products and service offering that would yield economic benefits while preserving the environment and developing the society (Boons and Ludeke-Freund 2013). Therefore, value proposition becomes the driving force for companies in integrating social and environmental elements in the business process, aiming to achieve sustainability performance as the company's strategic goals (Bocken et al. 2014; Schaltegger et al. 2011). When a company aims to achieve sustainability goals as its priority, its value proposition would be to prioritize delivery of environmental and social benefits before the economic profit by integrating the firm with communities and other stakeholders (Bocken et al. 2014: 53).

14.2.4 Value Creation and Delivery: Institutionalizing Sustainability and Social Capital

Value creation and delivery of a business model includes the activities, resources, partners, and distribution channels (Osterwalder and Pigneur 2010). In a business model where the company aims to achieve sustainability performance, its value creation and delivery would be to create societal and environmental benefits through activities, channels, and partners. It would also integrate business with stakeholders through participatory business approaches (Bocken et al. 2014: 43). One example of value creation of a sustainable business model is the implementation of supplier development for sustainability (SDS), which is a very powerful instrument where buyers can empower their suppliers in mitigating the risks of sustainability (Foerstl et al. 2010). SDS focus on development of suppliers' performance and capabilities not only related to quality, cost, and delivery, but it also integrates the social and environmental goals (Busse et al. 2016). Companies can create value through SDS by giving on-site technical support, technical training, joint projects, knowledge and

resource transfers to improve the performance of suppliers (Busse et al. 2016). The value creation of a sustainable business model would require the company to build its internal structure and culture to enable them integrate with their key stakeholders towards the achievement of sustainability performance for the whole organization (Stubbs and Cocklin 2008: 103). Because the development of SDS will require firm to invest its resources and capabilities towards other companies within the supply chain, the firm needs to establish a dedicated entity to perform this 'not-for-profit' function. To do so, the firm can allocate part of its profit to finance the dedicated entity so it can achieve both short-term goals of profitability and long-term goals of sustainability. In this case, the company has a 'hybrid' role with both profit and non-profit motives (Bocken et al. 2014: 53).

By institutionalizing sustainability into the business model, the activities and resources invested by the company would generate mutual partnerships with relevant stakeholders, so called social capital. Social capital is defined as the resources or capabilities that are generated through a durable network or relationships of mutual recognition (Bourdieu 1986) that facilitate cooperation and collective action (Coleman 1990; Putnam 1995; Uphoff 2000) towards positive outcomes (Uphoff 2000). When a company invest in social capital, it will generate a "well-structured network" where players will obtain benefits from their social relations (Burt 1992: 61) as they have access to the resources (e.g., economic and cultural capital) owned by themselves and other members (Bourdieu 1986: 249). Members of the network will also benefit from information flows within the social network. The social capital investment will enhance social relationships in terms of bonding among members of community (Szreter and Woolcock 2004: 654); bridging between people who [are] otherwise not connected in horizontal relationship' (Szreter and Woolcock 2004: 655); and improvements in capabilities as the company dedicate necessary resources such as finance and social connections (Lin 1999). The improvement of social relationship and capabilities will enable the company and its stakeholders to exchange and combine their resources or act collectively to achieve common goals (Nahapiet and Ghoshal 1998: 249). Hence, the enhanced social capital enables the company and its stakeholders to co-create value in delivering their economic, social and environmental performance simultaneously (London and Hart 2004).

14.2.5 Value Capture: Sustainability Performance

Corporate sustainability is "the simultaneous achievement of the company's economic, social and environmental performance" (Elkington 1997: 397). Further, Hart et al. (2003) define a sustainable enterprise as an enterprise that "contributes to sustainable development by delivering simultaneously economic, social, and environmental benefits—the so-called triple bottom line" (p. 56). A sustainable business model would generate a firm-level sustainability or capture value when a company develops internal structural and cultural capabilities and collaborates with key stakeholders to achieve sustainability performance (Bocken et al. 2014: 53; Stubbs

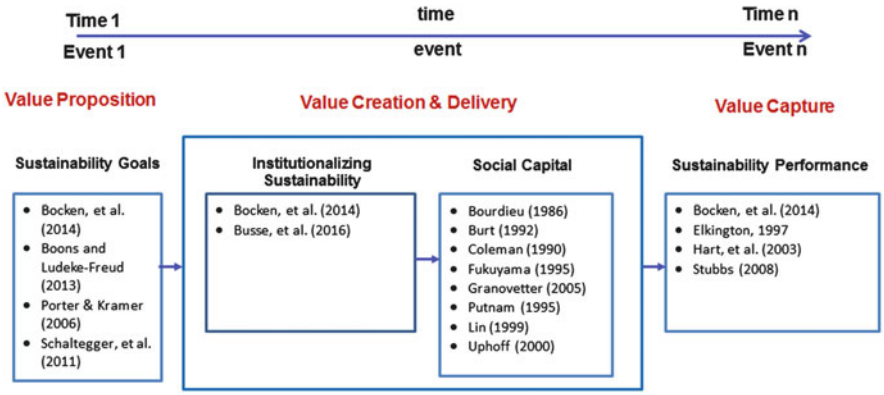

Fig. 14.1 Theoretical linkages between sustainability goals, social capital and sustainability performance in a sustainable business model

and Cocklin 2008: 103). Corporate sustainability finally can be captured if the company simultaneously delivers its economic, social, and environmental performance (Elkington 1997: 297). Sustainable performance of the company will provide resilience for the company in supporting its stakeholders during economic volatility (Bocken et al. 2014: 53).

Based on the above discussion, a theoretical linkages between sustainability goals (value proposition), institutionalizing sustainability and social capital development (value creation and delivery), and sustainability performance (value capture) can be established as depicted in Fig. 14.1.

The above theoretical framework would help answer the research questions on why and how a company implement an SBM by integrating social capital concept and sustainability principles into its value proposition, value delivery and creation, as well as value capture. Hence, this chapter would fill in the research gap on the process under which a firm can implement an SBM. To fill in the research gaps and answer the research questions, the theoretical framework in Fig. 14.1 should be tested with empirical evidence to develop a theoretical model of SBM that can be replicated by others.

14.3 Research Approach

The data presented here are drawn from a Ph.D. study on social capital and corporate sustainability at the Australian National University. An exploratory qualitative case study (Yin 2003, 2009) is the most suitable method to apply as this study aims to explore why and how the concepts of corporate sustainability and social capital are linked to each other within a sustainable business model. A case study has been known as an appropriate strategy to illuminate how the process evolves over time under certain phenomena (Yin 2009). A single embedded case study (ibid.) of PT

Astra International Tbk, one of Indonesia's largest public listed companies, was chosen for theoretical or purposive sampling to achieve the research objective (Eisenhardt and Graebner 2007: 27; Miles and Huberman 1994; Stake 2000).

Two of the company's social enterprises (corporate foundations) addressing different social issues in Indonesia were chosen as embedded cases within the case study. The first case was Dharma Bhakti Astra Foundation (YDBA) that addressed the issue of the poor capacity of Indonesia's micro, small and medium enterprises (MSMEs). The second case was Astra Education Development Foundation (YABI), the corporate foundation that runs the company's Manufacturing Polytechnic (POLMAN) to deal with the scarcity of skilled labour in the country.

Three sources of evidence were used: documents, archival records, and semi-structured interviews. Interview participants were selected from the corporate management, the management of corporate foundations (corporate social enterprises), and beneficiaries of the corporate foundations. A total of 51 respondents were interviewed individually or as a group in 36 interview sessions, with durations between 15 minutes and 2 hours per interview. Respondents consisted of 25 beneficiaries of corporate foundations (MSME owners and graduates of POLMAN); management of the company (7 respondents); management of subsidiary companies (6 respondents); and management of the company's corporate foundations (9 respondents).

Chronology and pattern-matching techniques (Yin 2009) were combined to understand the pathways by which corporate foundations programs build the social capital that contributes to corporate sustainability.

Atlas.ti and EndNote software were used for data management. The stages of data analysis included making sense of the data by conducting coding and memoing; tracing the history of events; categorizing the CSR actions into episodes; developing a relationship matrix between CSR programs, social capital and corporate sustainability; and conducting analysis by noting the pattern of processes and connecting them with the context and the concepts under study. Each case was analyzed individually; and the two cases were then compared in the cross-case analysis. The conclusions were drawn by comparing the empirical findings with the theoretical framework (Eisenhardt 1989; Eisenhardt and Graebner 2007; Yin 2009).

14.4 Research Findings

14.4.1 Within-Case Analysis

Having traced the business model of Astra and triangulated it with sources of evidence, this study find that the company has started to integrate sustainability into its business model and applied the archetype of "re-purpose the business for society/environment" (Bocken et al. 2014: 43) for over 35 years. To achieve its aim "to prosper with the nation", in 1980 the company established Dharma Bhakti Astra Foundation (YDBA) to build the capacity of micro and small enterprises so they can

participate in the company supply chain. Subsequently, in 1995, the company has also established Astra Education Development Foundation (YABI) to overcome skilled labor scarcity in the country. Over time, the two corporate foundations have been able to function as hubs that facilitate the cooperations among internal and external stakeholders and provide access to knowledge, finance and market to the public. The investment in YDBA and YABI have developed the company's social capital in terms of social relationship and enhanced capabilities that make it possible for internal and external stakeholders to co-create value in achieving the company's economic, social and environmental performance simultaneously. The within case analysis of YDBA is depicted in Fig. 14.2.

As suggested by Zott et al. (2011: 1020), sustainable business models seek to explain how value is created, not just how it is captured. Figure 14.2 shows the evolution on how value is created since 1980. The following Table 14.1 shows that YDBA has created value to the society by improving the capacity of 8106 MSMEs, employing 55,191 workers by 2013 in both related and unrelated to Astra's business across Indonesia (Widjaja 2014). Those MSMEs become the company's partners in production, service delivery, even the captive market for the company products, which is the value that can be captured by the company from investment in MSMEs.

As for the company's investments in securing skilled labor scarcity, the evolution of sustainable business model of Astra though the establishment of YABI to operate Astra manufacturing polytechnic (POLMAN) since 1995 is depicted in Fig. 14.3.

Figure 14.3 shows how Astra's investment in manufacturing polytechnic has been evolving since 1995. The following Fig. 14.4 shows that POLMAN has produced 2505 graduates since 1998. Human capital and social capital become the value creation and delivery of Astra's business model through its investment in manufacturing polytechnic. By investing in POLMAN, Astra captures its economic, social and environmental performance simultaneously.

The following section discusses similarities and differences among the two cases that clarifies the linkages between value proposition, value creation and delivery, as well as value capture within sustainable business model of the company.

14.4.2 Cross-Case Analysis

14.4.2.1 Value Proposition: Socially and Environmentally Responsible Company

In an SBM, the value proposition would embrace the balance between economic, social and ecological value. As posited by Schaltegger et al. (2011), the corporate sustainability strategy should be the reference point for the company to develop a business model that address social and environmental issues that intersect with corporate needs systematically. This is the case for Astra. Since its inception, the aim of the company is "to prosper with the nation", which is then been translated into its vision and strategic objectives, and the establishment of YDBA and YABI. The

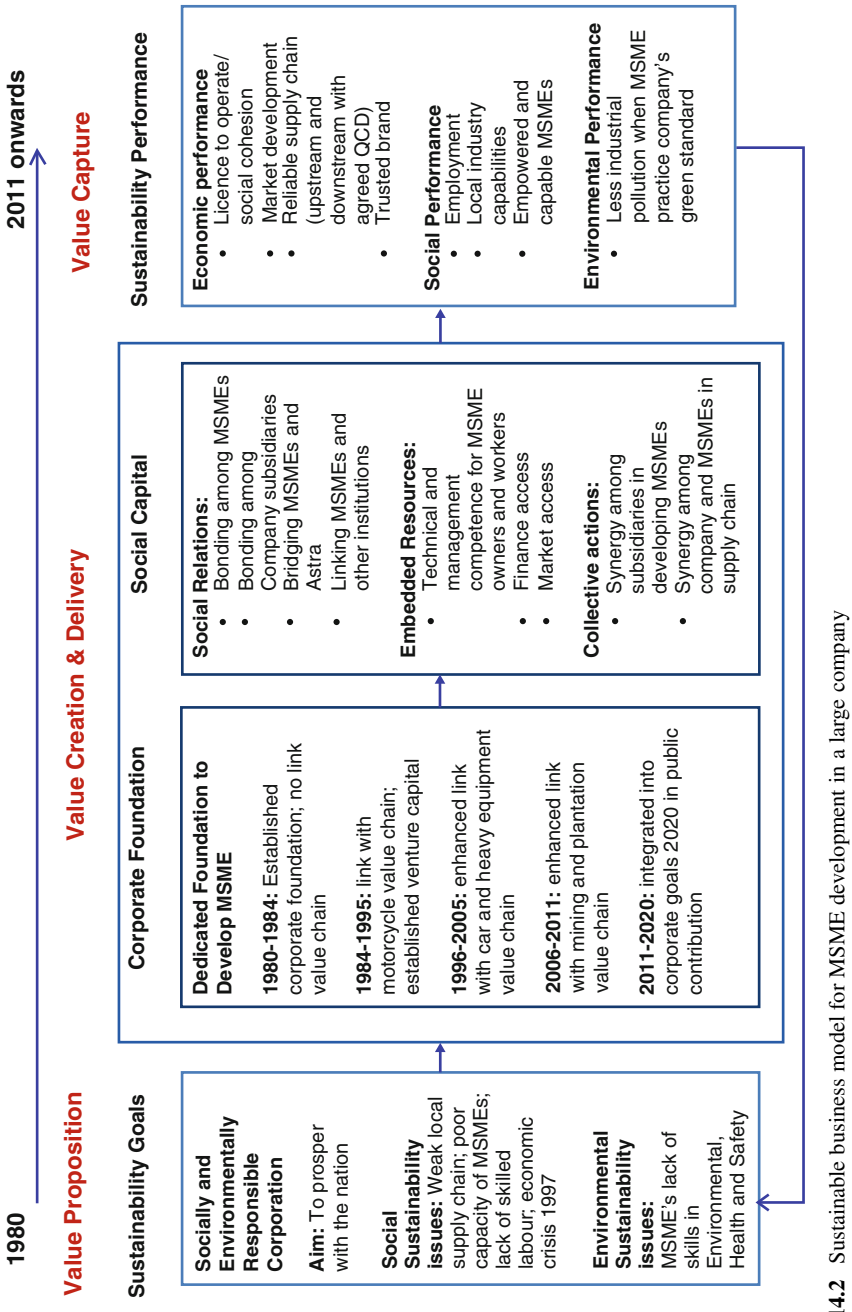

Fig. 14.2 Sustainable business model for MSME development in a large company

Table 14.1 MSMEs developed by YDBA 2011–2013 (source: Widjaja 2014)

No.	Areas of MSMEs	2011	2012	2013
1	Subcontractors related to value chain of Astra business	184	223	231
2	Manufacturers unrelated to Astra business	51	51	51
3	Service stations—partners of Honda	60	60	60
4	AHASS (Astra Honda Authorized Service Station)	607	628	628
5	General service stations, two-wheelers	135	180	180
6	General service stations, four-wheelers	241	262	271
7	Members of YDBA's LPBs	1503	1660	2267
8	Member of YDBA's LKMs	4313	4255	4255
9	Handicraft makers	144	163	163
163	Total MSMEs (cumulative)	7238	7482	8106

Note: *AHASS* Astra Honda Authorized Service Station, *MSME* micro, small and medium enterprise, *LKM* Lembaga Keuangan Mikro (Micro Finance Institutions), *LPB* Lembaga Pengembangan Bisnis (Business Development Agencies), *YDBA* Yayasan Dharma Bhakti Astra

Intersection between Corporate Aim, Social and Environmental Issues, and Corporate Sustainability Initiatives (Corporate Foundations) can be summarized in Table 14.2.

The above findings are consistent with Stubbs and Cocklin (2008) research on sustainable business model conceptualization in two Australian companies, that sustainable companies define their corporate purpose by drawing on economic, social and environmental issues simultaneously. In the case of Astra, the corporate aim embeds sustainable development goals that the company is the "asset of the nation" that wants "to prosper with the nation". The aim and philosophy of the company become the aim and the philosophy of its corporate foundations in tackling the environmental and social issues relevant to the company that is relevant to its business needs. For example, the company would not be sustainable if the suppliers do not have the capabilities to meet the company's quality, cost, delivery and innovation (QCDI). To overcome this issue, Astra decided to conduct the supplier development for sustainability (SDS) programs for Indonesian micro, small, and medium enterprises (MSMEs) so they can participate in the company's supply chain. As posited by Busse et al. (2016), SDS would embrace both economic interest as well as environmental and social "enlightened self interest" of buyers (p. 443). To do so, corporate leadership plays important roles to drive the necessary cultural and structural changes within the company (Busse et al. 2016). In the case of SDS of Astra, the founder of Astra established the corporate foundation (YDBA) using his own personal fund in 1980, and institutionalize corporate aim and philosophy into corporate culture and ways of working since 1984. As the result, the company has continued the founder's virtue although the founder was no longer with the company since 1992. The establishment of Astra Education Development Foundation (YABI) in 1995 is the evidence of leader's commitment in solving the universal issue of skilled labour scarcity. Ever since, Astra has fully financed one of the best manufacturing polytechnic in the country. What Astra has done is consistent with

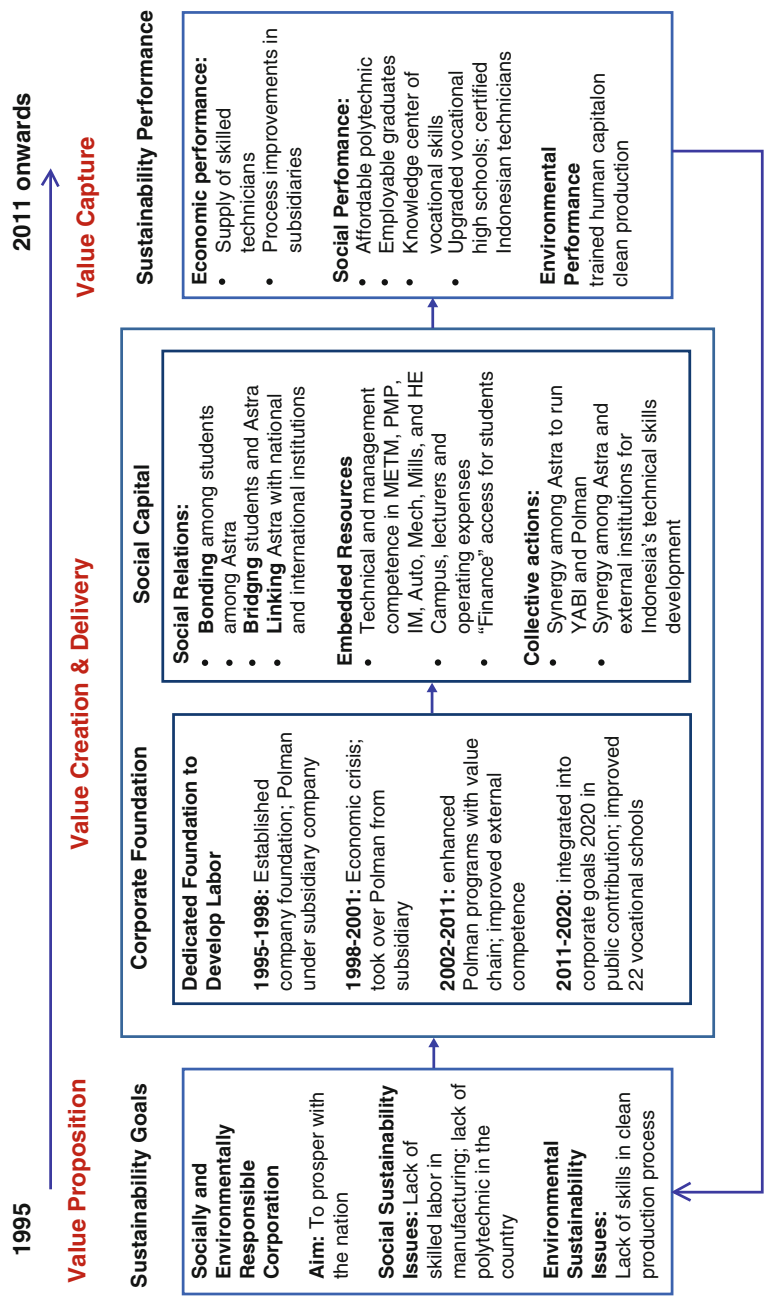

Fig. 14.3 Sustainable business model for skilled labour development in a large company

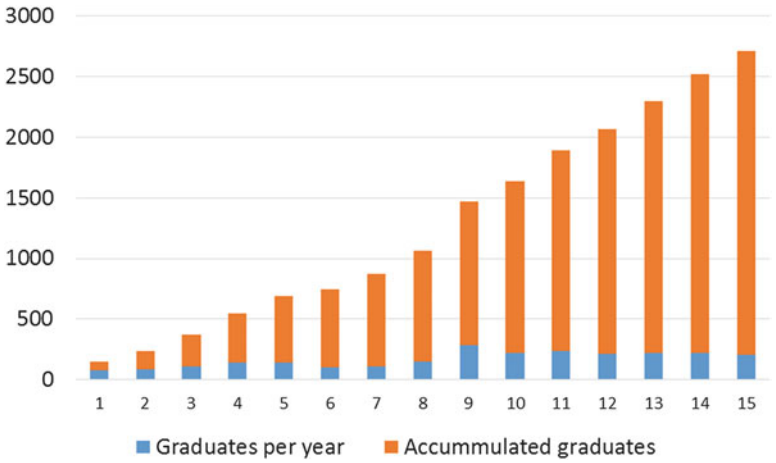

Fig. 14.4 POLMAN graduates from 2001 to 2015 (source: Larosa 2016)

the findings of Stubbs and Cocklin (2008) that corporate leaders are champions in designing and implementing sustainable business model. Overall, the value proposition of sustainable business model of Astra can be categorized as the "re-purpose the business for society/environment" business model archetype (Bocken et al. 2014: 53). The value creation and delivery of such archetype is discussed in the following section.

14.4.2.2 Value Creation and Delivery: Institutionalizing Value Proposition and Developing Social Capital

Institutionalizing Value Proposition: Establishing Corporate Foundations

Bocken et al. (2014) suggest that value proposition of SBM can be created and delivered through close integration between the company and other stakeholder groups (p. 53). The findings from cross-case analysis of Astra's sustainable business model shows that the company has empowered its internal and external stakeholders in solving issues of weak MSMEs and skilled labour scarcity by establishing YDBA and YABI. As shown in Table 14.3, Astra's actions in creating and delivering value for stakeholders have evolved in four phases: the initial phase; the inclusion in corporate value chain; corporate commitment when in crisis; and the integration into corporate strategy 2020.

Table 14.3 shows that at the initial phase, there are differences in the process under which YDBA and YABI dealt with the issues. YDBA started the supplier development program as a pure donation. This approach was not successful as most of the funds became bad debt with no improvement on the capabilities of the supplier to supply the company's supply chain. Unlike YDBA, YABI directly integrated to

Table 14.2 Intersection between corporate aim, social and environmental issues, and corporate sustainability initiatives (corporate foundations)

Corporate aim and social/ environmental issues	YDBA for supplier development for sustainability (SDS)	YABI/POLMAN for skilled labour development
Corporate aim/philosophy: 'To prosper with the nation'/to be an asset for the nation *Corporate Vision:* • to be one of the best managed corporations in the Asia Pacific by building competence through people development, solid financial structure, customer satisfaction and efficiency; • to be a socially responsible corporation and to be environmentally friendly.	*Astra's aim and philosophy* are adopted and translated in YDBA's vision and mission: • *YDBA Vision:* to be the best institution in the field of MSME development in Indonesia • *YDBA Mission:* to be the value chain of the Astra Group with an emphasis on strengthening MSMEs and communities	Astra's aim and Philosophy are adopted translated into YABI's and POLMAN's visions: • *YABI's vision:* to provide professional education in the field of technology, especially as related to automotive and natural resources, producing 'ready-to-work' graduates with the best competencies in Indonesia • *POLMAN's vision:* to be the best polytechnic in Indonesia
Social/environmental issues • Poverty (UNDP 2014) • Weak regulatory system (Mourougane 2012) • Lack of skilled labour (McKinsey Global Institute 2012; World Bank 2010) • Environmental degradation (Edwards 2005) • Unreliable legal system (Crawford 2011) • Lack of capital of MSMEs (Tambunan 2008) • Lack of access to business information for MSMEs (Tambunan 2008) • Lack of access to market for MSMEs (Tambunan 2008) • Lack of management and technical competence for MSMEs (Tambunan 2008, 2009)	*Social/environmental issues* • Poverty • Unemployment • Security surrounding company locations • Regional disparities • Economic crisis (1997) • Lack of suppliers' capacity and access to technology and management, including Environmental Management. • Lack of supplier's access to finance • Lack of supplier's access to market • Lack of supplier's access to skilled labour	*Social/environmental issues* • Lack of manufacturing polytechnic • Scarcity of skilled technicians in manufacturing • Economic crisis (1997) • Lack of accreditation body on manufacturing • Poor quality of technical vocational schools and training centres
	Business Needs • Social cohesion/licence to operate • Reliable supplier of local components • Reliable network of car and motorcycle service stations • Environmentally friendly supply chain	*Business Needs* • Supply of skilled technicians in manufacturing • Competence development and certifications for Astra employees

(continued)

Table 14.2 (continued)

Corporate aim and social/ environmental issues	YDBA for supplier development for sustainability (SDS)	YABI/POLMAN for skilled labour development
	• Supply of skilled labour to suppliers	

Note: *MSME* micro, small and medium enterprise, *POLMAN* Astra Manufacturing Polytechnic; *SDS* supplier development for sustainability, *UNDP* United Nations Development Programme, *YABI* Yayasan Astra Bina Ilmu (Astra Education Development Foundation), *YDBA* Yayasan Dharma Bhakti Astra (Dharma Bhakti Astra Foundation)

Table 14.3 Value creation and delivery: evolution of corporation foundations in solving social issues

Evolution of SBM	YDBA for supplier development for sustainability (SDS)	YABI/POLMAN for skilled labour development
Initial phase	Pure donations: YDBA provided machinery and loans without interest (1980–1984)	Directly included into corporate value chain of Federal Motor (1995–1999)
Inclusion in corporate value chain	YDBA as Astra's (Federal Motor's) arm to develop MSMEs to supply motorcycle components (1984–1994) YDBA as Astra Group's arm to develop suppliers of automotive components; and owners and workers of service stations (1995–2005) YDBA as Astra Group's arm for the Astra Group to develop MSMEs in automotive and communities surrounding Astra plantations and mining (2005–2010)	POLMAN under Astra; YABI operated POLMAN Astra and enhanced the program, providing D3s in seven subjects (1999–2010) – Automotive – Heavy Equipment – Information Management – Mechatronics – Mechanical Engineering and Tool Manufacturing – Post-Harvest Technology – Production and Manufacturing Process
Corporate commitment while in crisis	YDBA was maintained and strengthened during 1997/1998 economic crisis	YFBI was transferred to Astra Group (became YABI) and strengthened during 1997/1998 economic crisis
Integration into corporate strategy 2020	YDBA as Astra's arm for MSME development and community income generation towards 2020	YABI/POLMAN as Astra's arm to be the centre of excellence for vocational school development and knowledge management

Note: MSME micro, small and medium enterprise, *POLMAN* Astra Manufacturing Polytechnic, *SDS* supplier development for sustainability, *YABI* Yayasan Astra Bina Ilmu (Astra Bina Ilmu Foundation), *YDBA* Yayasan Dharma Bhakti Astra, *YFBI* Yayasan Federal Bina Ilmu

actions in producing skilled labour into its supply chain since it was established, so the manufacturing polytechnic (POLMAN) could generate the first batch of graduates for its subsidiary company as scheduled.

On the second phase, the supplier development program of Astra was included into the corporate value chain. The MSMEs were developed into capable suppliers

through its sustainable development program for sustainability (SDS) program (Busse et al. 2016) where YABI become the hub of Astra's resources to build the suppliers technical and management competence so they can supply the company according to its quality, cost and delivery standards. Furthermore, YDBA provides the suppliers with finance and market access so they can be the company's reliable partners. Similarly, in the area of skilled labour development, YABI becomes the focal point of Astra's actions in overcoming skilled labour scarcity program. POLMAN program has evolved from one into seven program studies to cater Astra's and the industry's business needs.

The third phase shows how the leadership commitment to maintain SBM was tested when Astra underwent economic crisis in 1997/1998 where the company was considered bankrupt. Instead of reducing its support, Astra kept its commitment to develop both YDBA and YABI because leaders of Astra believed that the crisis was temporary, and the company would bounce back. When the economic condition recovered, the company would need reliable supplier and supply of skilled labour.

Lastly, since 2010, Astra has decided that both YDBA and YABI to be integrated part of its sustainability strategy to be "the pride of the nation" by 2020. It shows that Astra has relied on both corporate foundations to achieve its sustainable performance, in line with Schaltegger et al.'s (2011) assertion that the company's sustainable business model has to be managed properly to create economic, social and environmental value to sustain the company's triple bottom line performance. This study finds that the two corporate foundations are integrated into corporate policy, organizational structure, resource allocation, Astra core competence and management cycle. By aligning corporate investment with specific social and environmental issues, the company can utilize its resources and expertise to improve social conditions of the society (Davis 1973).

Developing Social Capital

Stubbs and Cocklin (2008) argues that companies adopting sustainable business model should develop organizational capabilities and collaborations with stakeholders so that sustainability performance can be achieved. The findings of cross-case analysis of YDBA and YABI show that organization capabilities have been developed with YDBA and YABI become the hubs for internal stakeholders and resources, enabling Astra to develop social capital, which is the value delivery of Astra's sustainable business model. According to Bourdieu (1986), social capital are resources and capabilities that are generated through durable network or relationships of mutual recognition (Bourdieu 1986) or trust (Fukuyama 1995) that facilitates cooperation and collective action (Coleman 1990; Putnam 1995) which generate positive outcomes (Uphoff 2000). The social capital generated from Astra's investment in YDBA and YABI is summarized in Table 14.4.

Table 14.4 shows that YDBA and YABI become the focal points or hubs that bond and bridge internal and external stakeholders. Among the beneficiaries of YDBA, bonding is strengthened because MSME owners and workers meet in

Table 14.4 Value creation and delivery: social capital (social relations, embedded resources, collective actions)

Social capital	YDBA for supplier development for sustainability (SDS)	YABI/POLMAN for skilled labour development
Social relations: bonding and bridging	• Bonding among MSMEs • Bonding among companies within Astra Group • Bridging among MSMEs and Astra • Bridging between MSMEs, Astra and other organisations	• Bonding among POLMAN students • Bonding among Astra's subsidiaries • Bridging between students and Astra • Bridging between Astra, and national and international institutions
Embedded resources (access to knowledge, access to finance, access to market)	• Technical and management competence for owners and workers of MSMEs in component manufacturing, after-sales services; mechanic training for youth • Availability of finance access for MSMEs • Availability of market access for MSMEs	• Technical and Management Competence in METM, PMP, IM, Auto, Mech, Mills and HE • Campus, lecturers and operating expenses • Subsidised tuitions and scholarships • Astra factories and premises • Access for graduates to work for Astra
Collective actions	• Co-production between Astra and MSMEs in component manufacturing • Collective actions among Astra subsidiaries in MSME development • Collective actions between YDBA, AMV and state-owned companies for MSME financing	• Collective actions among subsidiary companies in providing resources for POLMAN • Collective actions among subsidiary companies in curriculum development, student recruitment and placement • Collective actions with external stakeholders in developing vocational schools and manufacturing competence in Indonesia

Note: AMV Astra Mitra Ventura, *Auto* automotive, *HE* heavy equipment, *IM* information management, *Mech* mechatronics, *METM* mechanical engineering and tool manufacturing, *Mills* post-harvest technology, *MSME* micro, small and medium enterprise, *PMP* production and manufacturing process, *POLMAN* Astra Manufacturing Polytechnic, *SDS* supplier development for sustainability, *YABI* Yayasan Astra Bina Ilmu (Astra Bina Ilmu Foundation), *YDBA* Yayasan Dharma Bhakti Astra

events, trainings, and owners so they know each other. Besides, they also meet frequently during visits to each other's facilities, attend exhibitions, and exchange knowledge and information informally. Hence, they can build relations and collaborate in handling market opportunities. Similarly, in the case of YABI, bonding among POLMAN students has improved as they are tasked to solve case studies or do projects with mixed groups consisting of students from different backgrounds.

Through bonding, the knowledge and competence can be maintained and expanded within the stakeholders in the network (Coleman 1990).

In terms of bridging, YDBA and YABI become the focal points and hubs for MSME and skilled labour development for Astra and the industry. The two corporate foundations bridges MSMEs and students with people and institutions outside their network, such as subsidiary companies of Astra, banks, and other large companies that entrusted YDBA with their corporate social responsibility (CSR) funds. Through bridging, people in the network can get access to resources that they do not currently possess (Lin 1999).

Furthermore, one of the most important component of social capital is the resources embedded in the social relations such as economic, political, cultural and social connections (Lin 1999: 33). Such individual resources become collective as people become part of the network. Through YDBA and YABI, Astra has made its resources available to relevant stakeholders. There are three main resources transferred through the establishment of YDBA and YABI: management and technical competence, finance access, and market access.

Overall, through the transfer of management and technical competence, Astra has improved the 'professional norms' or standards or codes of behaviors (Fukuyama 1995) of MSME owners and workers, as well as POLMAN students. POLMAN students are educated with Astra's virtues, values, and standard so they become a ready to work graduates who have grown with Astra culture. As for the MSMEs, the SDS program has enhanced the disciplines of the owners and workers of MSMEs in running their business, through the adaption of Astra's norms such as health, environmental and safety standards (Astra Green Company) as well as quality, cost, and delivery standards. In addition, MSMEs are accustomed to good governance and good management practices by having regular meetings and audits.

In terms of access to finance, Astra established a venture capital called Astra Mitra Ventura in its headquarters, and micro finances in 12 locations all over Indonesia to deal with MSME demand for finance. As for POLMAN students, finance access are given through full scholarships (35% of intake) and subsidized tuitions with special considerations given to students from remote areas of Indonesia.

As for the access to market, Astra buys the MSME products by having the most capable suppliers as the first layer supplier supplying directly to Astra; second layer supplying the first layer; and the third layer supplying the second layer. YDBA facilitates the meetings among supplier and become the hubs for suppliers intending to supply the company. Likewise, for POLMAN graduates, Astra and its subsidiary companies become the captive employers, employing 60% of graduates, while the remaining 40% work for other companies or open their own business.

Finally, when there are improvements in the social relationships and capabilities of people in the network, the collective action will occur (Uphoff 2000). The finding shows that both corporate foundations have been able to improve collective actions among people in the network in terms of co-productions between Astra and its suppliers, cooperations among subsidiaries of Astra in supporting YDBA and YABI, as well as collaborations among students and Astra. Beyond that, collective actions also occur between YDBA, YABI and institutions outside Astra like other large

companies that entrust YDBA with their CSR funds for MSME financing; or international bodies cooperate with YABI to provide certifications for Indonesian human capital in manufacturing.

Based on the above discussion, it can be concluded Astra's SBM would create and deliver social capital through the company's investment in two corporate foundations to handle social issues while fulfilling its business. According to Lin (1999), the volume of social capital of organizations is equal to the amount of network and resources that can be accessed by individuals in the network (p. 37). The company's social capital is one of key capital that the company should possess besides financial capital, human capital, natural capital, and infrastructure (Porrit 2007). Therefore, the increase in social capital has contributed to the company's total capital.

14.4.2.3 Value Capture: Simultaneous Achievement of Economic, Social and Environmental Performances

Bocken et al. (2014) suggest that one of the value captures of sustainable business model under "re-purpose the business for society/environment" archetype are social and environmental benefits rather than economic profit (p. 53). This is in line with Hart et al. (2003) definition of sustainable enterprise as "an enterprise that contributes to sustainable development by delivering simultaneously economic, social, and environmental benefits—the so-called triple bottom line" (p. 56). Those assertions are confirmed by the findings of the cross-case analyse of YDBA and YABI. Both corporate foundations deliver the economic, social and environmental performance for Astra as summarized in Table 14.5.

Table 14.5 shows similarities in the economic performance of YDBA and YABI. The economic performances of YDBA and YDBA are not the actual products or services, they are actually the enabler of Astra to produce products and services, such as stronger supply chains for automotive components, reputation as a caring company, and trusted brands because of the availability of car and motorcycle service stations in remote areas of Indonesia (value capture of YDBA); sustainable supply of skilled technicians and process improvements in factories (value capture of YAtpdBI).

With regards to social performance, YDBA and YABI also have similarities in contributing to sustainable development of Indonesia. YDBA has improved the capabilities of owners and workers of MSMEs, thereby contributing to the capabilities of Indonesian manufacturing industry in producing "local content" of motorcycle and car spare parts. Overall, by 2013, the supplier development program of Astra has generated over 50,000 jobs along the supply chain (Widjaja 2014). Meanwhile, YABI through POLMAN has emerged into one of the best manufacturing polytechnic in Indonesia, producing 2505 highly skilled technicians from 1998 to 2015. POLMAN also upgrades the quality of 22 vocational schools and become the certification institution for Indonesian professionals in manufacturing.

Table 14.5 Value capture: sustainability performance

Sustainability performance	YDBA for supplier development for sustainability (SDS)	YABI/POLMAN for skilled labour development
Economic performance	• Network of strong supply chain of automotive components • Nationwide network of reliable car service stations • Nationwide network of reliable motorcycle service stations • New markets for Astra products and services • Reputation as a caring company • Social cohesion/licence to operate • Trusted brand/consumer satisfaction • Employee satisfaction	• Supply to skilled technicians • Process improvements • Competence development for employees and foremen of Astra
Social performance	• Capable owners and workers of MSMEs • Improvement of capabilities of Indonesian manufacturing industry to produce local content • Employment creation through MSME network • Better working conditions for MSME employees • Availability of higher-skilled technicians • Availability of service stations for lower-income customers • Availability of financing which suits the character of MSMEs	• Availability of high-quality, affordable higher vocational education for public • Availability of higher quality work-force for industry • Employment opportunities for graduates • Availability of knowledge management centre for Astra competence for Indonesian industry
Environmental performance	Direct outcome: MSMEs that produce less waste/industrial pollution due to adherence to Astra standards	Indirect outcome: graduates who are capable of managing green process of production

Note: MSME micro, small and medium enterprise, *POLMAN* Astra Manufacturing Polytechnic, *SDS* supplier development for sustainability, *YABI* Yayasan Astra Bina Ilmu (Astra Bina Ilmu Foundation), *YDBA* Yayasan Dharma Bhakti Astra

Finally, both YDBA and YABI have also contributed to environmental performance directly and indirectly. YDBA is more direct in contributing to the economic performance when the MSMEs applied Astra's environmental standard called Astra Green Company (AGC) in their operations. The AGC standard is also embedded into POLMAN curriculum, hence, POLMAN graduates are capable in managing green process when they are employed by companies. Therefore, the environmental performance of YABI is more indirect compared to YDBA.

In sum, the cross-case analysis of YDBA and YABI has shown that the value capture of a sustainable business model is different from a the value capture of a business model. While the value capture of a business model usually come in the form of cost structure and revenue model (Osterwalder and Pigneur 2010) the value

capture of a sustainable business model comes in the form of economic, social and environmental performance of a company. The cross-case analysis also shows that to be sustainable, a company could apply a hybrid business model (Bocken et al. 2014) where the parent company establish social enterprises in the form of corporate foundations to deal with social and environmental issues strategically to support the company's economic, social, and environmental performance simultaneously.

14.5 Conclusions and Implications

This study fills in the research gap of the need to clarify the linkages between value proposition, value creation/delivery, and value capture of a sustainable business model. This also study expands the work of Bocken et al. (2014) and Schaltegger et al. (2011) by integrating the concept of social enterprise and social capital into the sustainable business model.

The findings from cross-case analysis of YDBA and YABI support the theoretical framework on the linkages between corporate sustainability as the value proposition; social enterprise and social capital as the value creation and delivery; and sustainability performance as the value capture of the company's sustainable business model (Fig. 14.1). The empirical evidence shows a feedback loop when the company's sustainability performance serve the purpose of corporate sustainability strategy. Such a virtuous cycle is depicted in Fig. 14.5.

The theoretical model in Fig. 14.5 shows that a sustainable company applies a "hybrid" or "re-purpose the business model for society/environment" (Bocken et al. 2014: 43) as its sustainable business model. It started with sustainability strategy as the value proposition, where the company aims to be a socially and environmentally responsible corporation. By having sustainability goals in mind, leaders of the company seek the intersection between social/environmental issues and business needs to develop organization capabilities to create and deliver value (Porter and Kramer 2006; Schaltegger et al. 2011). Once the strategic fit is found, then the company invest in dedicated organizations so called social enterprises or corporate foundations as the focal points for stakeholder management and resources dedicated to solve social and environmental issues. Intensive communications and interactions among relevant stakeholders will then enhance the social capital of the company in terms of social relations (bonding and bridging), embedded resources (improved capabilities, access to market, and access to finance), as well as collective actions between the company and its stakeholders. Subsequently, the enhanced social capital will contribute to the company's simultaneous achievements of economic, social and environmental performance. Finally, the sustainability performance of the company will loop back to serve the corporate goals to be an environmentally and socially responsible corporation.

This paper contributes to existing theory by providing evidence on the linkages between value proposition, value creation/delivery, and value capture of a sustainable business model which is still lacking in the literature (Bocken et al. 2014;

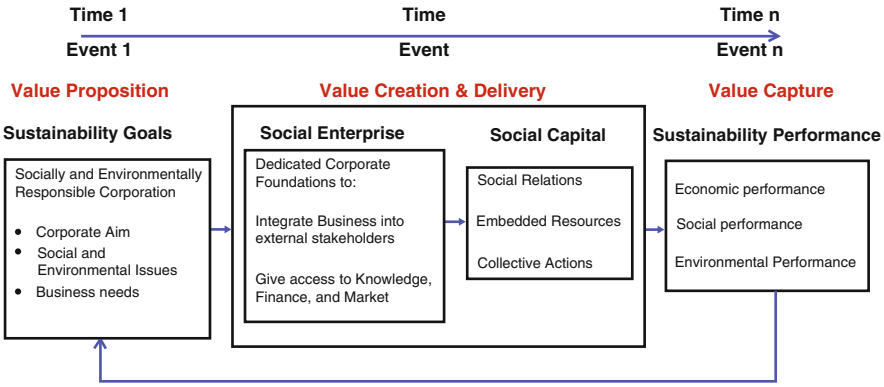

Fig. 14.5 Sustainable business model: sustainability goals, social enterprise, social capital, and sustainability performance

Schaltegger et al. 2011). Furthermore, this paper integrates the concept of social capital into sustainable business model, which has not been explicitly discussed in current literature. In terms of practical contribution, managers in can replicate the theoretical model as it illuminates the process under which the corporate sustainability becomes the driving forces (value proposition); social enterprise or corporate foundation as corporate investment in solving social and environmental issues (value creation); social capital as the output of corporate investment (value delivery); and triple bottom line as the outcome of corporate investment in achieving sustainability strategy (value capture).

Despite its theoretical and practical contributions, this paper is not without limitations. The theoretical model is constructed based on empirical findings from a large company in Indonesia. Therefore, the lessons can be applied to other corporations in developing countries, but further research is needed to test its application to other context.

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Chapter 15
Sustainable Business Practices of Turkish Companies Listed on the Borsa Istanbul Sustainability Index

Ayca Kubra Hizarci-Payne and Berna Kirkulak-Uludag

Abstract Turkey as an emerging market is a member of G20 and in accordance with the rapid economic growth, Turkey is facing with pressing energy and environmental problems including air pollution, water quality, food quality, land and forest degradation. When these problems are accompanied with the recent wave of immigrants from Syria and Iraq, Turkey needs sustainable business models more than ever. In recent years, Turkey has taken important steps about sustainability practices. Among them, BIST Sustainability Index, the first such index in Turkey, was launched in 2014. The index aims to encourage Turkish companies and investors to give careful consideration to the environmental, social and governance (ESG) issues for sustainable wealth creation. The sustainability index is an important tool to improve ESG disclosure, sustainability reporting and reputation. More importantly, the index plays a crucial role to provide access to international investors and promote more responsible investment. The purpose of this chapter is to investigate sustainable business models of the leading sustainability-driven companies that take place in the BIST Sustainability Index. In this context, we are particularly interested in exploring the relationship between the index and the sustainable business models of the companies listed in the index. A review of the BIST Sustainability Index can help us to understand how Turkish companies with different backgrounds adopt sustainable business models in such a way that enable them to capture economic value through delivering social and environmental benefits. A further discussion on sustainable business models can provide support that enables Turkish companies to focus on resource efficiency, environmental issues, tightening regulations and shifting social pressure.

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15.1 Introduction

In today's world, citizens of many subsequent societies track the decisions and operations of the companies in order to know how those particular companies affect their own daily lives in terms of both environmental and social aspects. Due to the dissemination of information in today's world via, among other things, social media outlets, as a whole, consumers' environmental awareness is steadily increasing. People put more importance not only on the product's features but also on how it is produced and delivered with the developing technology (Mulani 2009). Especially, given the notion that the carbon foot print amount has become an increasingly important factor that affects consumers' buying decisions (Mainieri et al. 1997; Vanclay et al. 2011; Mulani 2009; Banyte et al. 2010; Young et al. 2010; Laroche et al. 2001). Thus, sustainability oriented companies' mission is to decrease the carbon foot print (Høgevold 2011) which can be achieved through several different ways: recycling of the raw materials, extending the product life cycle by making recycled parts that can be used in new production processes, reduction in energy consumption, maximizing material efficiency, and etc. (Lydenberg and Wood 2010). In addition to environmental problems, companies are also expected to make contributions to socio-economic issues such as human rights, equality, and education. Therefore, organizations are expected to find solutions for economic crises, social inequalities, environmental problems, scarce natural resources and other sustainability problems. While some companies view this situation as a risk, some of them see it as an opportunity (Paterson 2001; Adams et al. 2016). As a result of those increasing sustainability pressures, organizations innovate their business models through engaging in sustainable business practices in order to meet the demands of economic, social and environmental stakeholders (Lowitt 2013; Sharma and Henriques 2005).

A business model reflects how a company works, creates and delivers value to its stakeholders (Beattie and Smith 2013; DaSilva and Trkman 2014). Companies that have sustainable business models (SBMs) do their business with the integration of societal and environmental issues into their business practices (Schaltegger and Wagner 2011). SBMs are considered as the key drivers of the corporate innovations that put sustainability into the companies' core business practices (Bocken et al. 2014). SBMs include business practices such as maximizing material or energy efficiency, supporting employee welfare and social development, encouraging sufficiency and etc. (Joyce and Paquin 2016; Boons and Lüdeke-Freund 2013). In other terms, SBMs seek to maximize benefits of the environmental and social stakeholders. Those sustainable business practices build the image of a company as it is hold accountable for their economic, social and environmental impacts. In order to maintain this accountability and have a competitive advantage, communication with stakeholders is of importance (Herzig and Schaltegger 2011). In addition, communication is also important for collaboration with the stakeholders which is crucial for an SBM (Lowitt 2013).

Firms can communicate with their stakeholders via their websites, media, or corporate reports such as corporate social responsibility reports, sustainability reports, health and safety reports, and annual reports (Roca and Searcy 2012). All of those efforts are made for an essential purpose that is to manifest the relationship between a company and society (Willis 2003; Cerin 2002; Fernandez-Feijoo et al. 2014). The information provided in those reports is of interest beyond the investors including customers, researchers, employees and employee candidates, suppliers, society and other stakeholders. As reporting on sustainability affects the perceptions of stakeholders towards a company, it has a triggering effect on companies to be engaged in more sustainable operations. In addition, governments are also interested in this information as they exercise a strict control over the companies through the information provided in those reports. There has been much research conducted supporting the notion that sustainability reports are strongly associated with a company's reputation and are considered as the ability to attract suppliers, employees, investors, and governments (Moon and De Leon 2007; Lourenço et al. 2014; Cheung 2011). There are numerous governments and stock exchanges that encourage sustainability reports for companies interested in conducting business in their country. Through these reports, companies announce their efforts and business practices to find solutions for social, environmental and economic issues. Having an environmentally and socially oriented profile among the competitors can make the company stand out against the others in the market, which in turn, can create a competitive advantage over the others (Lourenço et al. 2014; López et al. 2007; Adams and Zutshi 2004). In particular, creating those kind of images are important for brand and positioning strategies (Høgevold 2011). Companies that provide a safe and healthy working environment which supports employees' rights, equality, trust and justice, and can increase the employee involvement, and satisfaction which in turn, boosts the productivity and the overall firm performance (Cheema et al. 2015; Mandip 2012; Lydenberg and Wood 2010). Furthermore, companies can become *"the best companies to work for"* with their excellent working conditions and attract the most qualified employees (Mandip 2012). As companies realize the importance of providing information about their operations to stakeholders, providing sustainability reports by companies gains momentum (Aras and Crowther 2009; Herzig and Schaltegger 2011; Berthelot et al. 2012). Companies can attract investors as long as they promise to create a long-term shareholder value through utilizing the opportunities and managing the risks with their economic, environmental and social developments (Cheung 2011; López et al. 2007; Cheney 2004). The more professional the investor is, the more the environmental, social and economic impact of companies is taken into account, this behavior pattern drove Dow Jones Indexes to launch the first global sustainability equity index in 1999 (Knoepfel 2001). The trend of reporting gained a momentum throughout the world and became as a norm for international companies to announce their operations with transparency, which also has an influence on the ability of countries to attract more investors around the world (Joyce and Paquin 2016). There are numerous guidelines that provide structures for companies to prepare sustainability reports; however, the Global Reporting Initiative is the worldwide known guideline among the others (Roca and Searcy

2012; GRI 2006). The GRI aims to mainstream "disclosure on environmental, social and governance performance" (GRI 2011).

The purpose of this chapter is to investigate SBMs of the leading sustainability-driven companies in an emerging market, namely Turkey. Indeed, what makes Turkey interesting to study sustainability business models lies in its demographic characteristics and its location. Turkey is a rapidly growing emerging market and it takes place in G20 as one of the largest middle-income countries. Rapid urbanization and industrialization in Turkey puts pressure on energy and environmental issues including air pollution, water quality, food quality, land and forest degradation. In addition to these, Turkey is coping with new social, economic, and political demands due to influx of 3 million Syrian refugees. All these conditions make it imperative for Turkey to implement sustainable policies quickly. This study is interested in the sustainable practices that build the SBMs of Turkish companies listed on BIST Sustainability Index, which is a platform for Borsa Istanbul companies to show their commitments regarding environmental, social and governance (ESG) issues with high performance. In this context, the current paper examines the sustainability reports of the six companies, which operate in different industries including banking, defense, aviation, food, manufacturing and energy industry. In order to achieve this task, the content analysis method is used and categories are developed according to economic, social and environmental layers of the triple bottom line through the Nvivo research program which was utilized to code the data.

The findings show that sustainability plays a crucial role for the Turkish companies. It is important to note that each industry investigated has different approaches toward sustainability policies. The companies' sustainability policies and activities may change according to their nature of business. In particular, the investigated companies pay the most attention to social indicators followed by environmental and economic indicators. The high number of social layer references suggests that stakeholders are in the foreground. The companies put emphasis on their engagements with their stakeholders including suppliers, customers, employees, and local communities. The importance of the social layer can be attributed to the Turkish cultural characteristics. As a collectivist culture, the Turkish companies try to have strong relationship with their stakeholders and they care to be in harmony with them. It is important to note that communication with stakeholders and their feedbacks are one of the most mentioned topics under the social dimension.

Moreover, the findings reveal that although environmental issues are not the primary concerns of the investigated companies, the numbers of environmental references are higher than economic references. The findings further suggest that the Turkish companies are experiencing transformation in terms of priorities of their sustainability policies and practices. While the early studies argue that the Turkish companies give the most attention to social indicators followed by economic and environmental ones (Mumcu and Ufacık 2016), the current study shows that environmental issues attract more attention than the economic issues in the investigated companies' sustainability policies.

The remainder of this chapter is organized as follows. The next section provides a literature review, followed by an account of data and methodology. Findings are presented afterwards and the chapter closes with several conclusions.

15.2 Literature Review

Industries drive the flows of every kind of material and energy in the nature (Azapagic 2003). Although industries are considered as the main source of environmental and social problems, they are viewed as the source of wealth of nations and a sustainable future as well (Azapagic and Perdan 2000). In sustainable development, it is emphasized that companies should improve the life quality of today while making contributions the life quality of the future generations (Sustainability Framework 2011). In order to achieve this mission, companies engage in continuous improvement of the triple bottom line which is comprised of "social, environmental, and economic performance" (Elkington 1998). Those efforts made by companies are known as corporate social responsibility or corporate sustainability (Lydenberg and Wood 2010). Sustainability approach is a driving force for companies to shape their mission through prioritizing social and environmental issues while increasing the shareholder value.

In the literature, there is no consensus on the definition of sustainability yet. The most cited definition of the term is made by the World Commission on Environment and Development (1987), which addresses sustainability as a business approach that is viewed as an umbrella under which a business defines economic, social and environmental developments. Economic developments are considered as the facilitators of sustainable development as it is the main source for contributions to both social and environmental developments. The whole impact of a supply chain is associated with the environmental impacts of a company whereas social impacts reflect the contributions of the company to the communities and societies (i.e., employee trainings, human rights, funding communities, projects, and etc.). As can be understood, sustainability entailed a new approach to business models which "address how firms propose, create, deliver and capture value in their operations, which reflects their competitive strategy" (Teece 2010). The dominant business models in the literature which were derived from the neoclassical theory prioritize creating economic value for the company rather than the company's social and environmental impacts (Freeman and Gilbert 1992; Stormer 2003). However, in recent business models, an organization is viewed as more than an "economic entity" that creates a link between financial, environmental and social layers (Griffiths and Petrick 2001; Doppelt 2003; see also Stubbs and Cocklin 2008). The environmental performance is concerned with the environmental impacts (such as gas emissions) and environmental benefits of a company over the full life cycle of a product or service whereas the social layer covers the relationships of the company with its stakeholders. There is still no exact management framework that indicates the best approach for engaging corporate sustainability since each business has its own sustainability management approach (Azapagic 2003; Høgevold 2011). However,

in general, SBMs are determined to protect the environment and contribute to society while providing a better life for next generations.

An SBM is considered as a tool to engage in technological and social innovations within a sustainability framework (Bocken et al. 2014). Some authors assert that through sustainable innovations firms can transform their business models (Carrillo-Hermosilla et al. 2010). Boons and Lüdeke-Freund (2013) claim that those innovations can be at organizational, inter-organizational, and societal level. At the organizational level, the focal point is the firm itself and its dynamic capabilities which reflect firm capacities to learn, adopt or develop new technologies and provide its diffusion within the company. The organization culture is one of the biggest factors that can affect this capability of the company, for which the top management approach towards sustainability is crucial. At the inter-organizational level, individuals can trigger the adoption and diffusion of sustainable innovations (Kemp and Volpi 2008; Montalvo 2008). Stubbs and Cocklin (2008) proposed an "ideal type" of an SBM through by analyzing the cases of two sustainability-oriented companies. Their ideal type of SBM includes structural and cultural roots of an organization with an interaction to socioeconomic environment and the organization's capabilities. Their study revealed that companies need to develop strong cultural and structural organizational capabilities to achieve and maintain a sustainability, and also build strong relationships with its stakeholders.

In the literature, another SBM is proposed by Joyce and Paquin (2016) who added environmental and social canvas to the original economic business canvas through adoption of sustainable innovations. They proposed a holistic view of corporate sustainability to the business models. They claim that the Triple Layer Business Model Canvas is a practical model which supports sustainable innovations through which firms can engage in their sustainability oriented business practices. The environmental layer points out how the company creates more environmental benefits while reducing the environmental impacts. In this sense, it is crucial for the company to track the environmental impact and focus on creating innovations to reduce the level of those impacts caused by the company's actions. The components that the environmental layer includes are the functional value (the output itself), key resources required for creating the functional value, production which include the actions required, supplies and outsourcing (non-core activities required for creating the output), distribution (transportation of goods), use phase (resources required through the use of output), end phase (end consumption of the functional value), environmental impacts (ecological costs of all the actions of the organization), environmental benefits (the contributions to the ecology made by reducing the impacts). The social layer focuses on the social value (benefits of the organization to its stakeholders), employees, governance (the organizational structure), communities (relationships with suppliers and communities), societal culture (the impact of the organization on the society), scale of outreach, end users, social impacts (social costs of the organization's actions), social benefits. Joyce and Paquin (2016) claim that there are vertical and horizontal connections among those layers. While each layer has a strong integration with its own components, the vertical connection between the layers provides to explore how components of the each layer affects

each other. This systematic view of the business model provides companies to explore opportunities that can be the key drivers of sustainable innovations.

In addition, Bocken et al. (2014: 13) argue that firms can use a selection of business models in order to engage in more sustainable operations, instead of operating in only one business model. They claim that through technological, organizational and social innovations companies can create more SBMs. They revealed several SBM archetypes which are to Maximise material and energy efficiency; Create value from 'waste'; Substitute with renewables and natural processes; Deliver functionality rather than ownership; Adopt a stewardship role; Encourage sufficiency; Re-purpose the business for society/environment; and Develop scale-up solutions (Bocken et al. 2014). In the Maximize material and energy efficiency archetype, the focal point is to achieve resource efficiency so that the company can reduce waste. This archetype puts great importance on reduction of environmental impact. However, the cleaner production approaches eliminates human workforce, which in turn, creates an unemployment problem that is negatively associated with the social sustainability. The Create value from waste archetype, as can be understood from the name, seek to create value from waste. As value is generated from waste, the consumption of resources will be reduced so that the environmental impact can be reduced. The archetype Substitute with renewables and natural processes is based on substitution of renewable resources with the scarce resources so that the environmental impact is reduced. In the Deliver functionality, rather than ownership archetype, the company satisfies the consumer by providing a service rather than selling a physical product so that resource efficiency can be achieved, as one product can be reused. This business model archetype can motivate the company to produce more durable products in order to serve for a long time for reduction in resource consumption, however, the company needs more waste innovations for efficiency and also customer satisfaction is important. Another business model is "Adopt a stewardship role" in which the relationship with stakeholders is crucial. This model seek to build strong relationships with its stakeholder through societal and environmental benefits. A company operating with an Adopt stewardship role business model archetype, tries to enhance the wellbeing of its stakeholders such as providing a healthy and safe working environment for its employees, generating technologies for resource efficiency, providing education for the societal development. The archetype Encourage sufficiency focuses on sustainable consumption through consuming less, increasing the product durability and longevity, and waste reduction. This business model tries to educate and motivate the consumer for sustainable consumption so that some both environmental and societal benefits can be generated. The "Re-purpose the business for society/environment" business model archetype seek to maximize the benefits for the environment and society rather than financial performance. Social enterprises or micro-finance enterprises that serve the extreme poor regions can be an example for this business model. The last archetype is "Develop scale-up solutions", which seeks to maximize the environmental and social benefits through a sustainable approaches. The most outstanding difference between this business model and the others aforementioned is that this model is appropriate for large multinational companies while the others are appropriate for small or medium-sized companies. The most common features of the business model archetypes is that they focus on developing new

capabilities or paths to innovate which can be in terms of a social, organizational or technological. According to Bocken et al. (2014), firms can engage in hybrid business models and can focus on different sustainability practices simultaneously.

Sustainability business practices of firms build their SBM. Sustainability Indexes are mediums for companies to reveal their sustainability practices. Sustainability Index is the key instrument to achieve the Turkey's biggest goal of positioning Istanbul as the financial center of the region. Particularly, the index serves as a platform for Turkish companies in order to demonstrate their best practices by drawing sustainable practices to improve their reputations, which in turn, will prompt the inflow of domestic and international investments to Turkey. The companies taking place in the Sustainability Index are the agents who drive the private sector to adopt or/and improve more sustainable business will trigger the emergence of a sustainable economy in Turkey.

In the literature, the concept of The Sustainability Index as a means of sustainability reporting has been the focal point of the researchers. There are some studies analyzing sustainability practices of companies in Turkey (Aktas et al. 2013; Mumcu and Ufacık 2016; Erol et al. 2009; Özçelik and Öztürk 2014), however, studies that scrutinize the sustainability practices under a business model framework are scarce. Therefore, this chapter aims to fulfill this gap.

15.3 Data and Methodology

The BIST Sustainability Index was launched in November in 2014. There are currently 43 companies listed on BIST Sustainability Index. Since the investigation of all listed companies on BIST Sustainability Index takes substantial time, six companies from different industries were chosen randomly for detailed investigation. It is important to note that one cannot have general conclusions by investigating single company from each industry. Nevertheless, some conclusions about the Turkish companies' sustainable business practices can be drawn.

The industries for the analysis are banking, defense, manufacturing, food, energy, and aviation industry. The sustainability reports reflect the practices undertaken in 2015. The reports are available in Turkish and English, however, we use the English version of the reports for the analysis.

The content analysis method is used and categories are developed under the three major groups, which are economic, social and environmental layers of the triple bottom line. The analysis is carried out through the Nvivo software program. The indicators that were previously identified by Roca and Searcy (2012) are utilized during the coding process. The indicators are coded into the main categories. Sustainability reports were reviewed through the application of content analysis (Krippendorff 2004). The validity in qualitative analysis is heavily based on the objective analysis of the researchers (Yıldırım and Şimşek 2008). Two researchers coded the reports objectively and simultaneously, compared their codes in the end. The mean length of the reports is 64 pages while the longest report is 84 pages, the shortest is 41 pages.

The main categories are as follows:

- *Economic Layer* is comprised of the indicators like financial statistics on company profile, shareholder value, costs and expenses, and capital, assets and debts, category, sales, net profit, total shareholder return, earnings before interest and etc.
- *Environmental Layer* includes indicators such as waste generation, landfill, hazardous waste, tree planting, energy consumption and reduction, carbon footprint, energy efficiency, water consumption, greenhouse emissions and effluents, air quality and etc.
- *Social Layer* deals with the interaction of community such as community investment, funding, sponsorships, employee satisfaction, working environment, governance, management systems, diversity, equality, human rights, training for employees and also local communities such as suppliers, health and safety, child labor, accidents, injuries, projects carried out with schools, and universities.

15.4 Findings

Total number of references that include the indicators of one the main categories is 1267. As can be seen from the Table 15.1, 55% of the indicators were classified as social indicators; almost 32% of the indicators were classified under environmental dimension whereas only 13% of the indicators were classified as economic indicators. The highest rate of environmental and social dimension can be an indicator that companies chosen engage in upward stewardship business model archetype. All the companies mention about ethics, equality, transparency, anti-corruption, employees' trainings, rights, working conditions, societies' education and health, sustainable consumption of the resources, and reduction in use of raw materials, trainings given for suppliers. However, the company in the defense industry shows the lowest weight of those mentioned issues. In addition, all the companies emphasize the importance of continuous improvement, employee engagement, internal and external communication and learning which are the key drivers of innovation.

Table 15.1 Comparison of three layers among different industries

Industry	Number of economic references	Number of environmental references	Number of social references	Number of total references
Banking	21	55	124	200
Defense	22	40	69	131
Aviation	45	58	148	251
Food	19	55	113	187
Manufacturing	41	149	171	361
Energy	24	50	83	157
Total	172	407	708	1287

All of the reports reviewed put great importance on the relationships with the stakeholders. Especially communication with stakeholders and their feedbacks from suppliers and employees are one of the most mentioned topics under the social dimension. In addition, trainings provided for suppliers and employees are thought to be crucial for the sustainable operations of the companies. In particular in defense, manufacturing, and energy industry safety in working environment becomes prominent. Funding, projects with schools and universities are another common points of the reports. In addition, although the kind of external issuers such as ISO can change according to the industry, it can be understood that companies view those certificates or awards as a driver to engage in more sustainable operations also as indicator of a responsible company for their stakeholders. Legal requirements are also mentioned in each report however, is it is used in Aviation and Manufacturing companies more than the others. In all reports, the challenges that companies face during their sustainable operations were not mentioned. Moreover, it is stated in all the reports that the sustainability is important for economic performance of the company (resource efficiency means cost reduction) and economic layer is supporter of environmental and social performances of the company, which means the existence of the interconnectedness between each layer. Those results are parallel with the triple bottom line canvas approach made by Joyce and Paquin (2016).

In the food industry, recycled materials used for packaging is one of the most mentioned points. The results of the analysis indicate that under the environmental dimension one of the most mentioned point is the usage of recycled materials for packaging. In addition, the company gives trainings to the farmers to improve the agricultural practices. The company applies Environmental Management System, Operational Sustainability and ensures and also supports suppliers to adopt the environment policies. It organizes Sustainability trainings for their employees. Furthermore, it employs a cradle to cradle approach with efforts to adopt a "no waste" strategy. In the report, the role of stakeholders are emphasized with the statement that they need to increase the environmental awareness of their stakeholders. In the environmental dimension, the most used word is water, carbon emissions, recycling and climate change. Another issue that the company is focusing on is to produce healthy products. The company emphasizes the importance of employee welfare, education of the society and carries out projects with universities and schools. According to those insights, this company practices two business models simultaneously which are both upstream and downstream stewardship business models.

The company in manufacturing industry employs upstream stewardship and maximizes material and energy efficiency, since the company is applying the approach of cradle to grave which covers the all process from raw materials the use phase and after the end phase of the product. The company is focusing on product durability and energy saving features of the products during the use phase. Products are produced by fewer resources, and have technologies in order to consume less energy. Through its own recycling plants for the durable products, the company decreases it environmental impacts and costs. In the environmental dimension, the mostly used words are energy efficiency, climate change, waste, and

recycling. There are a number of ongoing research and development projects on to achieve better energy efficiency results for both production processes, use phase end phase of the products. In addition, there are a lot of projects carried out for the society to increase environmental awareness. The company stressed its recycling plants that collect the durable product wastes and use them for production of new durables, which reflects "create value from waste" business model archetype.

The company operating in energy industry is focusing on water and energy efficiency, emissions and waste. As the negative impacts of the company are high, it puts great importance on the R&D projects to decrease those high impacts. In addition, occupational health and safety trainings for employees become prominent in the company sustainability activities. It is organizing a number social development projects in order to improve the quality of social life and social wealth. The environmental trainings given and the social norms that the business partners should possess are stressed often as well. As can be understood, the company engages in an upstream stewardship role.

The company in aviation industry is the one that highlighted the safety for customers and also employees. In addition, fuel efficiency and carbon emissions are the company's priority of issues in terms of environmental impacts. Investing in new aircrafts that consume less fuel and also generate less emission is one of the focal points of the company. The main projects are based on the energy efficiency and the investments on the researches for sustainable biofuel which is considered to have a direct impact on reduction in carbon emissions. The most frequently used words under the environmental dimension is fuel consumption, carbon emissions, waste and efficiency. The company is also giving trainings for employees to increase their environmental awareness and encourage them to use the materials efficiently. The humanitarian aids, sponsorships including sports and education are the main social contributions of the company to the society. The company has tight control over its suppliers for complying with the environmental and social requirements. Beside the stewardship role, this company is also engaging in a business model which aims to maximize energy efficiency.

The company in banking industry overemphasizes its international collaborations with financial institutions. The bank provides loans for companies and householders to renewable energy and energy efficiency projects, for instance the company attempts to increase demand in green buildings, therefore encourage environmentally friendly buildings in the construction service. Through the paperless banking approach due to technological developments, the company increasingly improves its waste problem. The all paper used within the company is recycled and donated. In addition, all the machinery used in the company are environmentally friendly. The company encourages the development, adoption and diffusion of better technologies for the environment. Under the social layer, the mostly used words are society, employee rights and training. The company makes a lot of efforts to promote trainings for employees, suppliers, customers, education for society and also projects for increasing environmental awareness. The sustainability efforts of the company show that the company is employing an upstream stewardship role.

The company in defense industry focuses on the social layer of the triple bottom line, as more than the 60% of the report was based on the social layer. The most used word in the whole report is "employee". As can be understood the company puts great importance on its employees through trainings, their working conditions, loyalty, justice and engagement. The company supports a number for scientific projects with schools and universities, sponsorships some projects including projects for disabled people. It provides a number of internship programs for university and vocational school students. In their data centers, they follow the Green IT systems which enable reduction in energy consumption. They place technologies for energy efficiency within the company. They put great importance on the information security of their customers. This company focused on heavily the social layer of its business model.

The results of this study can be supported by the statement of Bocken et al. (2014: 13) who assert that instead of operating in only one business model, firms can use a selection of business models in order to engage in more sustainable operations. All the business model archetypes mentioned in the study are cited from the study of Bocken et al. (2014). In addition, according to the industry, the business models can differentiate, which is parallel with the statements in the literature (Azapagic 2003; Høgevold 2011). In this study companies are chosen from different industries that engage in different sustainability practices into their operations. One of the implications of this study is to have one case from each industry. Therefore, this study fails to provide generalization to a population (Blaikie 2000) since each country has its own environmental, economic and social regulations which may change the results obtained in this study. However, this is not the aim of the study. The first aim of the study is to portray the differences in which companies from different industries engage in their sustainability practices. Although, there are some common issues, their priority can change depending on the company.

15.5 Conclusion

The population of the world is continuously increasing and is expected to reach 8.6 billion by the year 2030 (UN 2017). This demographic issue will be followed by trade activities and increasing demands on the earth's scarce resources, which in turn, will prompt the environmental problems. Consequently, those environmental issues are associated with the globalization of the markets. Researchers claim that multinational companies from developed countries view international free trade as a tool to put their environmental cost of production on the shoulders of companies in developing countries, who despair of capital investment and are exposed to accept high environmental impacts in order to achieve their goals (Faber 1992; Daly 1993). Free trade created a business environment in which firms in emerging economies are exposed to compete with giant multinational firms in developed countries, that creates external pressures for reduction of the production costs. In order to survive

in this competitive global arena, firms in developing countries overlook the environmental investments (Husted 2005).

The findings suggest that the investigated companies on BIST view sustainability as a solution to maintain their existence. However, each industry has different approaches toward sustainability policies. The companies' sustainability policies change according to their nature of business. The investigated companies pay the most attention to social indicators followed by environmental and economic indicators. The high number of social layer references indicates the strong stakeholder view of the companies as they all emphasize their engagements with their stakeholders including suppliers, customers, employees, and local communities. Indeed, what is lying behind putting great importance on the social layer can be attributed to the Turkish cultural characteristics? Turkey has a collectivistic culture and this can be seen as one of the drivers of the companies to build strong relationships with their stakeholders and to build harmony with the society. In general, the Turkish companies strive to have strong, close, and beneficial relationships with their stakeholders. The closer and stronger those relationships are, the more they are accepted by the society.

Turkey as a developing country has been experiencing a rapid growth in the recent decade with the 17th biggest economy and it prioritized the economic growth for decades (World Bank 2016). The environmental issues have not been the primary issues for Turkey for long time. The findings indicate relatively low number of references for the environmental layer. The numbers of environmental references are quite lower than the social references except for the manufacturing company. However, this finding cannot be interpreted as "no effort". The companies make efforts to prioritize their stakeholders and they believe that stakeholders help them to have strong, sustainable and profitable business. In addition, the investigated companies have a mindset of sustainability, which became a part of the corporate culture and also they have a sustainability department or a sustainability committee. While some organizations emphasize the environmental issues only in production process, some of them adopt the cradle to grave approach. From those aspects, it can be deduced that the Turkish companies are experiencing a transformation into more sustainable enterprises. This transformation can be understood from the study of Mumcu and Ufacık (2016). In their study they analyzed the mission and vision of the companies took place in the Sustainability Index. They found that the social layer has been taken the highest attention from the companies; this indicator was followed by the economic layer. The environmental layer has the lowest weight in terms of number of references. Those reports were launched in 2014. However, the results of this study show that there is a significant change in the attention of the Turkish companies given to the each layer. While the social layer still has the highest number of references, the economic layer has the lowest attention. This may be an indicator of the transformation of the Turkish business practices into more environmentally sustainable practices.

Future studies can focus on the other industries as this study failed to cover all industry types in terms of business models. Since each industry can focus on different practices of sustainability, business models can differ as well. In addition, as each country has its own socioeconomic environment, sustainability practices can

vary according to countries as well. Therefore, another study can focus on a comparison between the same industries in different countries.

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Chapter 16
Case Studies of Pioneer Sustainable Business Models in Poland

Justyna Szumniak-Samolej

Abstract This chapter addresses conclusions from interviews conducted by the author with young Polish entrepreneurs who built their business models based on a social and/or environmental mission. These are businesses that operate on the edge of commercial and social activities. They hereby are voluntary and actively involved in bringing real change in social and/or environmental issues. The interviewees are inspirational leaders who believe that their activities have deeper than just a commercial sense. It is important to note that all the companies examined are startups pioneering sustainable business models in Poland. Despite being in the minority, their activities are crucial since they are the ones upon whom to pattern the future development of similar business models on the Polish market. Their role is to educate consumers and other stakeholders by showing that it is possible to run a company, where both a human aspect and social mission are vital. The interviews were conducted between July and September 2015. Interviewees were creators of Asante Bamboo Bikes, Migam, NotJustShop, Plan Planeta and Wisłaki. The objective of the chapter is an attempt to identify, describe and compare the basic assumptions and most important elements of the surveyed companies' business models which categorize them as sustainable business models. Moreover, the study analyzes methods of engaging stakeholders by the surveyed companies, the role of social media in their development, as well as the motivations of their leaders and experiences related to setting up projects based on a social or environmental mission. Finally, a conceptual framework on the researched topic is provided.

16.1 Introduction

The modern world's situation is unprecedented. On the one hand, mankind needs to face extremely important, global challenges, for example, ecological devastation, wealth disparity, and poverty or modern slavery. On the other hand, it is the first time

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in history, that people have incredible tools at their disposal giving them possibilities not previously known. The development and diffusion of new, disruptive technologies (especially regarding networks and communication) bring radical and continuous transmuting of conditions of functioning modern economies and societies (Benkler 2006). The available and popular modern technologies enable communication and cooperation in new ways and on a huge scale (Li and Bernoff 2008; Powell 2009; Qualman 2009; Shirky 2008; Tapscott and Williams 2010). As an effect, for the first time in history emerging countries, small companies, start-ups and billions of individuals can actively participate in the digital globalization (Manyika et al. 2016).

From the above perspective the role of companies (mostly those newly established), which deeply believe in their social and environmental mission, and which, already at the stage of building their business model, besides the business goals, set up social and/or environmental goals can be very promising for social-economic development. These firms introduce a new insight and a fresh view of business opportunities for gaining not only financial profits. As Honeyman claims, these companies are a part of a dynamic and exciting movement, which may re-define the understanding of business success, using innovation, pace and the potential of development not only for earning money, but also for reducing poverty, building stronger communities, renovating the natural environment as well as for inspiring other people to enter the workforce in favor of bigger ideas (Honeyman 2014: 1). The aim of this movement is to create positive, innovative and practical solutions of global issues, based on the assumption that problems despite their difficulties, also bring business challenges, inspiring creation of new, revolutionary solutions.

Therefore, the focus of these firms is not only the pursuit of profit, but also positive and significant influence on people and the planet. Their operations are motivated by the search for the meaning of life by the people working for them. While creating value, they focus on enabling the employees, consumers and all stakeholders to achieve important goals (Hurst 2014a: 250; 2014b).

Such companies are the subject of research reported in this chapter. The leaders of Polish social business who believe that their activities have a deeper meaning than just economical. Although they run firms concentrated on profit they also concomitantly focus on additional social and environmental goals, which they subsequently execute in their efforts. Such companies still exist as a minority, a kind of market niche. Nonetheless they build a market of sustainable business models in Poland. They "educate" the market and consumers. They also show the economy can be based on human values.

The objective of this chapter is an attempt to identify, describe and compare the basic assumptions and most important elements of the surveyed companies' business models which categorize them as sustainable business models (SBMs) and to provide a conceptual framework on the researched topic.

16.2 Research Method

This chapter presents the results of a study conducted between July and September, 2015, based on interviews with creators of five Polish companies: Igor Pielas, the founder of Asante Bamboo Bikes; Przemek Kuśmierek and Sławek Łuczywek, the Migam originators; Łukasz Kaliciński, NotJustShop; Rafał Hechmann, Plan Planeta portal as well as Dominika Naziębły and Łukasz Gosławski, Wisłaki brand's creators.

The choice of a probe was intentional since these firms belong to the sustainable business model category. Taking the following criteria into account, the firm needs to pursue its societal/environmental purpose parallel to its business aims and also needs to engage its managers/owners in running the business of that type. Finally, it has to be legally registered and in operation starting from 2010 or later.

The method used was individual, in depth and semi-structured interviews. The first stage of the interview was a list of questions. It was acceptable to skip some of them and generate new ones emanating from the dynamics of the interview.

The research goals were as follows:

- Collecting the basic data regarding the organization (the date it was established, size, structure, business model, business aim, societal/environmental purpose, target characteristics).
- Recognizing the motivation for establishing enterprises based on a social or environmental mission.
- Learning whether such operations are profitable.
- Exploring the stakeholders' engagement in business processes.
- Exploring the social media's role in growing the researched firms.
- Examining the leader's/establisher's role in implementing the societal/environmental mission.
- Examining experiences regarding running the companies of that kind in Poland (chances, threats, market trends, stakeholders' response, future perspectives).

The following questions were asked respondents in order to attain the research goals:

1. When was the company established?
2. What is the number of employees?
3. What is the mission/goal of the company?
4. What is its business model?
5. Where has this idea come from?
6. Why have you decided to choose this business model?
7. Is it profitable?
8. How the effects can be measured?

9. How easily your environment (family/friends, consumers, vendors, business partners, competitors, donees, potential investors, etc.) accepted this business model?
10. Who are your clients? How do they appraise this business attitude? What is important for them—(quality, price, and added value, anything else)?
11. Do you engage your stakeholders in production/promotion/other business processes?
12. What is the social media (and other network technologies) role in the company growth, and the promotion of products and projects?
13. What, in your opinion, is a key factor for being successful in growing a firm based on the social/environmental mission?
14. What is the founder's/leader's role in growing a business of such a kind?
15. Will the environmental/social mission remain the same and significant with the firm's growth?
16. Do you think the Polish market fosters establishing and running such kind of business? What are the main obstacles?
17. Is it a real, long term change of attitude towards business operations or is it maybe just a small niche or temporary trend?
18. Will new enterprises appear in this field, and if so, how often?
19. Is there any company (Polish or foreign) you can say was an inspiration, a model for you? Or you just admire it?

In view of the assumed research aims, while developing the research questions and interpreting the answers, the author took the perspective of emotionalism, therefore the main issue was not only collecting facts, but also an insight into the experience and emotions of the respondents (Silverman 2009: 115).[1]

In order to identify the most important elements of the surveyed companies' business models which categorize them as sustainable business models, to show the relations between the elements, as well as compare these models a conceptual framework was created. In the latter part of this chapter are presented case studies based on conclusions from the interviews, organized according to the areas distinguished in the conceptual framework.

16.3 Sustainable Business Model Interpretation

There are no clear definitions or models for companies described in this chapter, neither in theory nor in practice (Schaltegger et al. 2012; Boons and Lüdeke-Freund 2013; Bocken et al. 2014). Consequently, they have different names or definitions, i.e. sustainable business models (Bocken et al. 2014), firms for sustainability (Rok 2014), impact business models (B Lab 2013), B Corps (Honeyman 2014), or for-

[1]The full, authorized interviews have been published in a book (Szumniak-Samolej 2016).

benefit enterprises (Sabeti 2011). What appears to be common for enterprises of this kind, and what differentiates them are goals of operations. In addition, the business aims and the social/ecological purpose are extremely important. According to Sabeti et al. (2009) such organizations "pursue social purposes while engaging in business activities" (p. 10). Core attributes of such for-benefit organizations are: social purpose ("the organization has a core commitment to social purpose embedded in its organizational structure") and business method ("the organization can conduct any lawful business activity that is consistent with its social purpose and stakeholder responsibilities") (ibid.). Beyond these two, for-benefit enterprises have other attributes (e.g., inclusive ownership, stakeholder governance, fair compensation, reasonable returns, social and environmental responsibility, transparency, protected assets), but they may not appear wholly within each organization (ibid.).

Similarly, Schaltegger et al., calling SBM "business case for sustainability", believe they can be distinguished by having a purpose and achieving economic success "through (not just with) an intelligent design of voluntary environmental and social activities" (Schaltegger et al. 2012: 97–98). The authors believe the business case for sustainability must be based on three elements: voluntary activity with the intention to contribute to the solution of societal or environmental problems, positive business effect created by this activity, certain management actions that lead to both, the intended societal or environmental purpose, and the economic effect (ibid.). In other words, Schaltegger et al., alike Sabeti et al., specify as basic distinguishing features of sustainable business models: societal/environmental purpose, business method and effects and, in addition, intentional managerial operations and motivation to accomplish business and societal/environmental aims.

Based on the sources and research analysis, I believe SBMs have their social and environmental mission deep in their DNA, as they set their social and/or environmental goals parallel to their business goals already at the stage of establishing their business model (Szumniak-Samolej 2015: 612). They can be differentiated from the social enterprises or social businesses (Yunus 2011) since they are commercial companies in the first place and may focus on enhancing profits, committing them for more than just growth.

16.4 Conceptual Framework

In this chapter, Osterwalder and Pigneur's definition of a business model is followed: "A business model describes the rationale of how an organization creates, delivers, and captures value" (Osterwalder and Pigneur 2010: 14).

The conceptual framework (Fig. 16.1) presented below is an original project, based on Osterwalder and Pigneur (2012) as well as MacMillan and Thompson (2013). Osterwalder and Pigneur's model is the most prominent and popular tool (De Reuver et al. 2013), thus their business model elements (i.e., customer segments, value propositions, channels, customer relationships, revenue streams, key

<table>
<tr><td colspan="4">Basic assumptions of the model (business and social/ecological) and mission statement
• Short company's characteristic
• The most important and distinguishing elements of business model
• Fundamental goals</td></tr>
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• Basic information (year the company was established, legal form, size)
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</table>

Fig. 16.1 A sustainable business model conceptual framework

resources, cost structure, key activities and key partners) were used in the conceptual framework below.

However, it is necessary to emphasize the social and environmental perspective when describing and analyzing SBMs, as these are not visible in the scheme of Osterwalder and Pigneur. Thus the proposal of the Concept Statement Template MacMillan and Thompson (2013: 78) was used, taking into consideration the following indicators: proposed solutions to targeted problems. The model was also extended with issues regarding market and stakeholders.

The introduction to the proposed conceptual model is a short, basic business model assumption (in the business and social area) as well as the company's mission. The aim is to create a company's characteristic and show the most important as well as distinguishing elements of its business model. The broadening of the basic business model assumption is a clear definition and differentiation of business and social/ecological aspects of operations. The proposal is to place them next to each other at the same level to show that they are equivalent and both are at the core of the business model. The bracket called "business and social/ecological aspects—overview" includes proposals of value for clients, key operations, resources and information regarding key partners, which summarize, but also broaden the previous descriptions of the business and social-ecological part, as well as show their common elements.

As mentioned above, referring to the Concept Statement Template (MacMillan and Thompson 2013), there are important elements of the enterprise environment included in the conceptual model presented in this chapter. They are analyzed in the areas: "market relations" and "perspectives for future".

Relationships with the market also refer to sales and communication channels used by surveyed companies. Taking this aspect into consideration, I specifically focused on social media since their development, diffusion and availability definitely help to find and establish the market place and grow social businesses which is what all interviewed leaders confirmed (Szumniak-Samolej 2016: 98). It was also decided to emphasize the issue of engaging stakeholders in actions run by surveyed firms, since it is essential for the idea of corporate social responsibility as well as SBMs (Laszlo 2005; Morsing and Schultz 2006; Zadek et al. 2003).

The final aspect analyzed in the area of market relationships is the market situation in the context of any obstacles the surveyed firms following an SBM face as well as the surroundings response for their actions. These issues are important for this research, since social businesses face market challenges more complex than those faced by the "traditional" commercial companies. They often operate on the border between free market and charitable work, being a kind of hybrid of a firm working for profits and a foundation fulfilling its social/ecological mission. Also, since these companies occupy a market niche and offer innovative products and services, as well as standing for their mission, they are a new kind of businesses on the market. They can be positively perceived on one hand, yet also with some suspicion on the other.

"Perspectives for future" refers to subjective leaders' prognosis as to potential opportunities and possible threats to their firms, as well as their plans for their companies' growth. In addition, the prognosis considers the immediate future for social businesses in general.

The two final fields shown in the conceptual model are "finance" and "the company story". The field "finance" refers to income sources, cost sources and potential outside financing sources. The focus here is on whether the enterprise is profitable at all.

The last crucial factor from the research point of view is the analysis of the company history and its leadership. The following proposition was developed: the

role of the leader, especially at the beginning, is crucial in the companies following the sustainable business model. He/she is an originator and drives the whole enterprise forward. His/her ideas, engagement, passion, belief in success and sense of such a business model are fundamental. How the stakeholders view him/her, whether the leader is charismatic as well as reliable are also aspects of great importance. The company history cannot be omitted either (why has it been established or what was the inspiration?). Together with the social-ecological assumptions it can be a pivot of the "company story" to be told (also on social media), and which will be the communication of the brand of the main products and services being sold.

The founders' motivation was also a very important research issue. I planned to identify the founders' motivation to put their efforts in enterprises not yet generating profits and not seeking attractive job alternatives. This motivation in fact makes the social businesses credible and distinguishes them in comparison to corporate social responsibility programs run by many companies motivated only by profits (Szumniak-Samolej 2013: 45–53). It is also worthwhile to recognize the keys to success of the interviewed leaders—as it can be a benchmark for other businessmen wanting to run social businesses.

It should be noted that the conceptual model presented in this chapter is merely a kind of a template. Its objective was to provide the SBM detailed analysis with a tool to identify the fields and issues important for describing and comparing such models. This proposal is not a roadmap for building a business model based on a social or ecological mission. Its task is rather to help to present the existing SBMs. It was also an instrument to organize the structure of the case studies that will be presented in this chapter.

16.5 Case Studies

16.5.1 Asante Bamboo Bikes

16.5.1.1 Basic Assumptions of the Model (Business and Social) and Mission

The basic assumption of this business model is the production and selling of bikes with a bamboo frame as well as a social mission according to "buy one, give one" model. It means that there is a school grant in Asante in Ghana for one sold bike. The company's mission: "We want to create bikes, which will change the world".

16.5.1.2 Business Proposition

Asante Bamboo Bikes is a sole proprietorship, established in 2015 by Igor Pielas.

The Asante Bamboo Bikes products are unique. The bamboo frame is very attractive, unique and ecological—bamboo is a fast growing renewable material.

Regarding usability—the most important factor is that this frame is fine, anti-vibrant and as durable as a metal frame. The product is positioned as top of the line although rather expensive (approx. 4000 PLN).

The prospects are upper middle class young people, who like unique, attractive products, made of natural materials. These people are "frivolous" on the one hand, yet ecologically and socially responsible on the other.

16.5.1.3 Social/Ecological Issues

The social problem identified by the company, to which it is attempting to respond, is poverty and unemployment of young people in Asante, Ghana, as well as the lack of educational funds. Thus, the company supports the Asante regions in two ways—it cooperates with the NGO Yonso Project in Ghana, offering work and a decent salary to people producing bamboo frames as well as providing a school grant in Asante, Ghana together with a local foundation for one sold bike. Ecological material (bamboo) and locally based production (the frames are made in Ghana, with all bikes being assembled in Poland) are additional aspects.

16.5.1.4 Business and Social/Ecological Aspects: Overview

The value proposition, in the first place, is a high quality product (a top of the line bike). In addition, the bike is stylish, original (with wooden elements), and a niche product helping the consumers differentiate from others. The social and ecological aspects are an added value, and a further incentive for purchase.

The key activities of this project are design, production, promotion and selling bicycles, at the same time supporting the business partners in Asante by providing them with high production standards and technologies, as well as overcoming cultural differences while running the business in Europe.

The most important key resources are the leader and his intellectual capabilities which include ingenuity, passion and knowledge. In addition, collaboration with partners, the brand and online shopping are of extreme importance.

As to key partners—they include the NGO Yonso Project in Ghana, the assembling team in Poland and the interactive agency taking care of the internet site.

16.5.1.5 Market Relations

The basic communication and sales channel is the company internet site. The most active promotion is based on the social media (Facebook), the cheapest way to communicate the company story, which for firms based on the social/ecological mission is essential. It also provides an opportunity to interact with customers. Asante Bamboo Bikes uses Facebook for *customer development*—engaging prospects in testing prototypes.

The main weaknesses currently are the high price, limited group of wealthy prospects and the fact, that a market for the product is a niche. Low consumer awareness in Poland and reluctance to pay for the social aspect are major challenges. Furthermore there is no supporting infrastructure, i.e. impact hub or funds for impact investing. Last but not least are the difficulties in collaborating with the African partner, who seems to lack full awareness of the business standards and the expectations of European customers.

On the other hand, the market response for the idea is very positive—the people like the product. Supported by stakeholders, Igor opened sales earlier than he planned—2 months after he established his firm. In addition, media relations appeared very quickly, even the TV stations were interested in the subject, which the company had not anticipated.

16.5.1.6 Finance

The main income source is selling bicycles. Cost includes parts, an expensive production cycle, transportation and tax charges, as well as business trips to Ghana. The grants are also very important. For the time being there are no profits. To generate profits, production and sales must expand.

16.5.1.7 Perspectives for Future

Regarding opportunities, the growth of a modern, social business environment in Poland is slow, yet significant. Educating the market and consumer awareness must grow.

A potential threat comes from the possible production of a competitive product, similar yet cheaper, without a social mission, and being made in China, for instance.

Yet one of the planned growth perspectives is entering markets abroad (which may support sales in Poland), that is, broadening the product portfolio with new bicycle models (i.e. for women, city bike), as well as introducing an option for customization. Over a longer perspective—it is also possible to introduce new products made of bamboo, or to use other materials from Ghana for fashion projects; all for growing a modern business and local communities in Ghana.

16.5.1.8 The Company History and the Leadership

The Asante Bamboo Bikes originator, founder and leader is Igor Pielas—a recent graduate of Warsaw School of Economics and Vienna University of Economics and Business. Even as a student he was an activist, initiator and coordinator of many student's projects, i.e. he was a president of the first university social enterprise—GoodWill. He gained his experience in firms like P&G, Augeo Ventures, PwC and Google. His passions are social enterprises, emerging countries and bicycles. Integrating these passions he founded Asante Bamboo Bikes. His motivation to

establish a social firm was the desire to run business with a mission that creates a good product which provides support to others, following the claim "do well, do good".

The key issues to be successful in such a business are, according to the leader, appropriate fundamentals—the business model must be well-thought-out and wisely engineered. A proper integration of the social benefit and economic profit is crucial since both should positively influence each other. Nonetheless a good product is fundamental to convince consumers about the social aspect. Consequently, the communication of that aspect should be a well told, interesting story that encourages the client to join the community.

16.5.2 Migam

16.5.2.1 Basic Assumptions of the Model (Business and Social) and Mission

The main assumption and the company mission focus on using technology to eliminate the communication barriers between deaf and the hearing worldwide.

16.5.2.2 Business Proposition

Migam is an enterprise established by Przemek Kuśmierek and Sławek Łuczywek in 2011. The current model was introduced in 2014. Its legal form is a limited joint-stock partnership with a share of private limited company as the only general partner. Currently the company has 18 employees.

The Migam translator is a worldwide innovation—it is an online translator of sign language. It enables the immediate video connection between a deaf person, the sign language translator and a third person on the level of the internet browser, mobile application and any device with a camera all connected to internet. It helps the deaf manage any errands from home, on the street or in any office. It is a tool enabling any client support employee, not knowing sign language, to communicate with the deaf.

In addition, the company also works on the first automatic sign language translator—KinecTranslator, which analyses data in real time, recognizes the gestures of the sign language, shows their meaning in words, as well as converts words into gestures. The translator uses the technology of recognizing the movement which is based on neuronal networks.

The company currently offers access to the Migam translator as a subscription to firms and institutions; an access "on demand" (free of charge and payable); translating texts and video materials into the Polish Sign Language as well as training and consulting services. Furthermore, Migam created a sign language dictionary and records educational materials (i.e., sign language handbook).

The current customers and prospects are both firms and institutions purchasing subscriptions as well as the deaf. Migam was created in Poland where it mainly functions, but it is also present in the UK, France, Sweden, Germany and Pakistan.

16.5.2.3 Social Issues

The social problem Migam addresses is exclusion of the deaf from social-economical life. The deaf and the hearing live, in a sense, in two separate worlds, each using a distinct language. Not many people know the sign language, which is not the biggest problem, but rather the difficulty of the deaf to remotely manage many aspects of their life.

The proposed solution is the Migam service. The deaf can use it free of charge with some payable options. The first option is available daily during specific hours, mainly in the morning and afternoon. Access on demand is payable, yet still cheaper than hiring a translator. Moreover, it is free of charge for the deaf in the firms and institutions which subscribe to the service.

As an additional activity the company educates the market regarding the problems the deaf face and encourages others to help them in communication. Migam also employs the deaf, creates and gives free of charge access to materials for learning Polish and American Sign Language. It also translates educational materials available via Khan Academy into sign language.

16.5.2.4 Business and Social Aspects: Overview

The value proposition for institutions is a promise of broadening their clients' portfolio through making the firms aware that the deaf are their prospects and offering the institutions a professional tool to reach them. In addition, these companies by purchasing the translator may strengthen their "CSR image". For individual clients (the deaf)—it is the possibility of remote connection with any place at any time due to the use of a sign language translator. It also means opening a totally new communication channel for the deaf since they could not previously use telephones.

The key activities therefore are servicing and improving IT tools (sign language translators), translating (the firm has its own specialists), supporting and advising companies implementing the service as well as creating educational materials.

Key resources are advanced IT solutions, sign language specialists and intellectual resources: knowledge, copyright and brand.

Migam interacts with partners in different fields. The main partner is Altar—a provider of its own technology, systems and IT solutions. The Migam Translator has been created in collaboration with this company. The others are Microsoft—with BizSpark, Google—with Tango project, T-Mobile (joint CSR project) and Samsung (joint technical solutions enabling the deaf using Migam services).

16.5.2.5 Market Relations

Since the deaf constitute the main group of stakeholders, market relationships are mostly based on research of their needs. Moreover—the deaf form the biggest part of

the company's staff. The firm also conducted a very interesting crowdfunding project on the Beesfund portal—76% of the needed amount was raised, and 147 shareholders were enlisted. Moreover, besides the financial benefits, the project gave the company tremendous media publicity. Much dialogue resulted which encouraged even the people, who did not believe in the enterprise at the beginning, to join the project. The shareholders are now eager ambassadors of the company as well as the deaf. The firm also uses social media (Facebook, Instagram, Twitter, YouTube). According to its owners, the start-ups cannot afford any other way of reaching the clients. Besides that, social media is also a successful channel to enhance credibility.

Regarding ongoing challenges, according to the leaders, legal and tax regulations do not favor such companies. Also, the mentality endemic in Poland leads people to treating entrepreneurs with a jaundiced view.

The market response is very positive though. As Sławek declares: "the application awareness and recognition is very high among the deaf, and the market response is very positive" (Szumniak-Samolej 2016: 38). Migam is the first application opening new communication channels for the deaf. Moreover, they can use the translator free of charge, which has made it very popular. The idea also won prestigious international and Polish prizes (finals of the ONZ World Summit Award, winner of the Polish Edition of Virgin Academy 2014).

The application's potential has also been noticed by big corporations (i.e. Samsung or T-Mobile, subscribing Migam translator) and educational institutions (like universities, cooperating with Migam). The company often receives invitations to a variety of conferences, where it can seek patronage or sponsorship. The founders can feel comfortable that Migam is becoming well known and respected.

16.5.2.6 Finance

The basic source of income are subscriptions from institutional clients. Regarding expenses—these are mainly employment payroll (including translators) as well as the costs of servicing and developing IT infrastructure.

The firm has also raised outside funds on few occasions, including equity crowdfunding. Migam is currently looking for an investor.

The company's financial situation is close to the break-even point. Anytime the profitability line is crossed, new employees are hired.

16.5.2.7 Perspectives for Future

Regarding opportunities, the fact such a business model is unique in all Europe and worldwide is of high importance. In Europe, usually the money "is following" the deaf person. Sometimes it is the deaf person who pays for the translator, at other times it is the state. There are also many organizations supporting the deaf, yet they operate in a traditional way—the translator is visiting the deaf helping them to

manage their problems. The Migam model is different. The companies pay for the subscription and the deaf person can use the service free of charge via mobile phone.

The main challenge can often be from a competitor, but for the time being the Migam's business advantage is a good business model.

As to future, in Europe alone there are almost half a million deaf. In 5–7 years Migam would like to have 10% of this group as its clients. Yet the firms also plans to enter new markets like the Ukraine and the United States.

16.5.2.8 The Company History and the Leadership

The program originator is Przemek Kuśmierek, an engineer, who conducts research on technologies recognizing the gestures and sign language. His partner is Sławek Łuczywek, himself deaf, who is key account manager responsible for sales and business strategy. He also helped to develop the product and the current business model.

The idea was the result of serendipity. Talking to his friends Przemek realized that in Poland there are no processes helping the deaf communicate with those who don't need nor know sign language. It inspired him to create such a system.

Migam's product provides support for disabled persons which highly motivates Migam's managers. The business model is also important. Since the company is not subsidized, the leaders want the business model in and of itself to generate profits—as only such a model guarantees the growth.

Regarding success keys, according to Migam's founders proper timing is crucial—not to appear too early or too late. Also—nothing can be done without the right people. The third factor is the right idea, and the fourth—a wise business model, as it is vital to know, what is profitable and what needs support.

16.5.3 NotJustShop

16.5.3.1 Basic Assumptions of the Model (Business and Social) and Mission

The basic assumption is designing, producing and selling clothing and accessories made in Poland as well as supporting children needing assistance. A very important element of the model is the fact that beneficiaries are collaborating in creating products. The company's mission stands as follows: "We change the ones who need help into ones who help the others".

16.5.3.2 Business Proposition

The firm was established in 2011 by Łukasz Kaliciński as a co-partnership. Its scope of activities has changed somewhat since then. It was created as an umbrella for

different projects run by its founder. Currently it operates in a lean start-up model with only two employees. Consequently, it collaborates with a big group of people for support.

Its goal is to offer high quality clothing (mainly T-shirts) and accessories with original graphics. Moreover, the firm also collaborates with other companies in two areas, one commercial, CSR services and the other, running joint projects with well-known brands. This kind of collaboration does not necessarily bring profit, but helps build the brand awareness based on partner media relationships. NotJustShop operates on the Polish market, but also markets the products abroad.

The company's clients are open minded people, looking for interesting, different products; empathetic towards others, yet also prosperous, who are not driven by price alone, nor foreign customers. Regarding CSR services—the firm's clients are other companies and foundations.

16.5.3.3 Social Issues

The difficult financial situation of children (i.e. blind, orphans, hospitals or hospices) and their families are the primary focus. This involves poor self-esteem among children as well as the feeling of "exclusion from social life".

The proposed solution is executed in three ways:

- Financial support—based on the sales income (min. 15%).
- Offering job for mothers, who can help in sewing clothing.
- The most important and extended form is engaging children who were previously being supported financially in creative projects. NotJustShop is conducting workshops, where the children are creating graphics which later will be used for clothing. The workshops themselves are important since they are very attractive to children. They help inspire creativity and stimulate teamwork. NotJustShop together with the children decide how to allocate the income from the sale of the clothing produced together. Such a platform demonstrates to the children that they can create something of substantial value and also influence their surrounding as well as help others which is very important since they were formerly the beneficiaries. Supporting local production is an additional social aspect.

16.5.3.4 Business and Social Aspects: Overview

The value proposition for clients is a product of high quality, which is original, distinguishes the user and exhibits a social value. Moreover, it offers the possibility of taking part in NotJustShop activities on social media.

The key activities are broad: design, production, promotion, sale of clothing, client services as well CSR services. Conducting workshops for children is also a significant part of NotJustShop operations.

Key resources are human and intellectual resources—the founder himself as well the brand.

Key partners are people collaborating with the firm and the companies taking care of advanced graphic design, creating applications and photo sessions.

16.5.3.5 Market Relations

The main sales channel is a company website integrated with a shop. The firm communicates with the market mostly via internet. It also has good publicity in other media due to collaboration with other companies. Łukasz Kaliciński also takes an active part in different conferences.

Social media plays the biggest role in NotJustShop communication. It enables communication about the firm in the first person, as well as building direct relationships or telling the company story.

The stakeholders can participate in the firm's activities in different ways. As previously described, it may be children and their mothers needing assistance. In addition, the customers are involved in helping, since they know, how much income will be dedicated to a specific purpose. NotJustShop is additionally engaging the clients in different campaigns on social media—building awareness as well as gathering more and more people to help others.

Moreover, the company collaborates with other firms on joint projects, with different foundations, celebrities and artists.

Poor social capital in Poland should be mentioned as the main obstacle, making running a business based on trust and good relationships difficult. Social businesses in Poland are new (according to its founder, NotJustShop is the first here of this kind), which means low consumer awareness and thus consumers are difficult to attract.

Nevertheless, the market response is very positive—naturally the most positive reactions are coming from beneficiary children since the opportunity to be involved in projects is a kind of "energy booster" for them. NotJustShop is also a brand well known among the people interested in CSR.

16.5.3.6 Finance

The income sources are T-shirt sales as well as fees generated from marketing and CSR campaigns the firm prepares for different companies.

Regarding the costs—as in all businesses of this type, besides production, promotion and sales management costs, there are the costs of the social aspects of operations—in this case these are costs of workshops. Last but not least, big donations should be also mentioned here.

The company's operations are not profitable yet, nevertheless it is just the first stage.

16.5.3.7 Perspectives for Future

The opportunity to enlarge its position in the market comes mostly from the fact of being the first in the field of social business. Another opportunity arises from constantly growing social awareness and interest in socially responsible products and companies, as well as the fact, that such businesses are already in "fashion" in some countries. Perhaps the same will happen the case in Poland.

A possible issue may be an inveterate unwillingness among Polish customers to pay more for socially responsible products.

Łukasz Kaliciński has not revealed in detail what the company's growth perspectives are. Yet it can be assumed, based on the foregoing activities, that the company stands for organic development not only in Poland, but also abroad—just to grow the scale of support. The entrepreneur claims there is only one number important to him, that is, the number of children he has helped which is an indicator of his success. The bigger the number, the bigger must be sales and production.

16.5.3.8 The Company History and the Leadership

NotJustShop originator, Łukasz Kaliciński, is an entrepreneur with 11 years of experience in building businesses. He is an everlasting optimist, with a passion for doing "something good".

The company was established as an internet shop selling owner's graphic designs. The founder himself was supporting different charitable initiatives, but he found many of them lacking transparency. Consequently, he decided to raise funds by himself and directly support the needy. It was the source of merging the existing business—internet shop with social activity; merging passion with help which soon became a passion in and of itself.

The leader's motivation to establish a company with such a model was therefore the desire to be altruistic, that is, having real influence on the lives of children from dysfunctional families. He wanted to give them a "fishing pole", not just the "fish" which would show them that they also could do something for the world despite all their difficulties.

Regarding the aspects important to be successful in social business—according to the leader it is, firstly, a good product. A product of intrinsic value with the social part as an added value, not the main reason for purchase. Unlike Igor Pielas from Asante Bamboo Bikes, Łukasz Kaliciński does not believe in business plans and analytics. He declares hard work, trials as well as testing the ideas on the market as essential. Other critical aspects are consequence, stubbornness and persistence. Last but not least, the founder himself, who he/she is and whether he/she is trustworthy will earn the company credibility.

16.5.4 Plan Planeta

16.5.4.1 Basic Assumptions of the Model (Business and Social) and Mission Statement

Plan Planeta is an internet shop selling clothing, bags, jewelry and photographs. The business model is based on the idea of "double help", clarified by the mission statement, "Promoting the responsible fashion, ethical consumption and supporting charitable projects".

16.5.4.2 Business Proposition

The company was established in 2015 by Rafał Hechmann as a sole proprietorship. The owner is responsible for all operations, nevertheless there are other people supporting him.

The products Plan Planeta sells are ecological clothing for adults and children (T-shirts, sweatshirts, socks), bags, jewelry and photographs. Plan Planeta sells products made by both Polish and foreign companies (i.e. No Nasties) and also has its own brand. The shop operates on the Polish market.

Plan Planeta's clients are mostly women (more than 70%), 25–45 years old. Usually they are well educated, live responsible lives and have a world view. They have broad interests, proclaim an ecological way of life and believe in civil society. Frequently, they are already involved in different initiatives or social projects. They are price driven. They represent the lower middle class, and believe their money should be spent in a judicious way.

16.5.4.3 Social/Ecological Issues

Severe social inequality, poverty, a disadvantaged workforce, as well as devastation to the environment are targeted social/ecological issues. Rafał Hechmann believes innovative production, consumption, distribution and running the business models are needed to address these problems. Plan Planeta follows the assumption that consumption is a superpower, which consumers may use to change the world. They can do it by supporting firms that do not practice exploitation of its workforce and the environment, respecting people's rights and the planet.

Plan Planeta supports a social-ecological aspect involving two basic dimensions—the products it sells are ecological or they were made in a socially responsible process. Depending on the product, the important issues are ecological materials, certified cotton—GOTS or cloth with the Fairtrade certificate.

The second social-ecological aspect's dimension is committing a percentage (25–50%) of the profit from each product sold to support projects which are run as a temporary partnership (1–2 months) together with charitable organizations (i.e.,

Polska Akcja Humanitarna). Choosing from among the projects the owner decided to support women and children suffering from poverty and a humanitarian crisis (i.e. supporting Ukrainian women and children, food for Nepal and Syria, Dom Aniołów Stróżów/The house of Guard Angels/in Katowice). The objectives of the projects supported are described on the company website, and after the action is completed, the funds raised (a part of sales income) are transferred to the partnership organizations. The donations are usually in cash, as Rafał is aware, which is the most flexible and effective form. Then the information which delineates what will be done with the funds raised is published. In 2015 donations from Plan Planeta via partnership organizations supported over 4000 beneficiaries.

Due to partnership with various organizations and project flexibility, the firm can react to new problems and needs. With the ability to transfer cash the company gives the organization an opportunity to make a quick decision regarding the specific need to be supported.

In addition, Rafał Hechmann is trying to be personally involved in different projects as a volunteer since he wants to help in many ways, not just financially. Moreover, it gives him a chance to become acquainted with partnership organizations and beneficiaries, as well as to share his knowledge and experience. Supporting Polish, local producers and artists is an additional social aspect.

16.5.4.4 Business and Social/Ecological Aspects: Overview

The Value proposition for the customers is mainly high quality and the look of the products. The value proposition includes ecology and ethics, as well as supporting charitable projects.

Key activities include: relationships with vendors, client services, collaboration with supporting partners, and IT service of the sales platform, promotion, cloths design, and engagement in volunteering.

Key resources are the owner, the sales platform, the brand and know-how regarding charitable projects.

Key partners are charitable organizations, firms producing clothing under own brand, people preparing photo sessions.

16.5.4.5 Market Relations

The internet is the main sales channel; and almost all communication with prospects is based on social media. Facebook is the focal medium, yet Plan Planeta is trying to be active also on other platforms—like Instagram or Pinterest. Sometimes the partnership organizations support Plan Planeta's promotion on their channels, but it is not required as a part of the partnership.

In addition, customers are indirectly involved in production. Answering their requests (i.e., regarding clothing with a particular design), Plan Planeta is searching for requested items. Many products were designed by Rafał Hechmann himself, and

the design was based on the clients' interests. With regard to charitable organizations, this kind of project is always discussed with the foundation and tailored to real needs existing on location.

Among market challenges, Poles generally distrust purely charitable initiatives or enterprises. Involvement in social issues is still relatively small. The real civil society is also very weak in Poland. Therefore, altruistic initiatives are not seen as worthy actions, but rather something suspicious; perhaps an attempt to take an advantage of another person's difficult situation.

Yet the response is becoming more positive. Many people send supportive messages, praise the initiative, ask how they can help or be involved. Plan Planeta placed seventh in the Polish edition of Chivas the Venture contest.

16.5.4.6 Finance

The company revenue is driven by the internet shop. The biggest expense are charitable programs since Plan Planeta is not adding these costs to the products' prices. What is interesting, since Rafał Hechmann is personally engaged in charity, is that he sometimes contributes even more money to these projects than he declares on the company website. The other costs include promotion and sales management, as well as IT service. Although sales are improving, the firm is currently not profitable (Szumniak-Samolej 2016: 65).

16.5.4.7 Perspectives for Future

The potential change in social mentality, especially among young people, may be viewed as an opportunity. Change in consumption patterns is very desirable—more and more people should realize this need and start "voting with their wallets". In addition, change followed by reciprocal trust as well as building the civil society will facilitate the development of socially involved businesses, including Plan Planeta. However, although there are many people who hold in high regard and support such initiatives, there is still a long way to go to make such an attitude popular on a massive scale.

Regarding the development perspectives—the firm is still new and it may even be called "a toddler". It is still not the kind of company its founder wanted it to be. There is a plan to change it to a marketing platform, gathering ecological and responsible producers and distributors who, besides running responsible business, would also like to support others in need. Such a model is called "collective CSR"—some of the funds will still be committed to charitable projects. The sellers offering their products on this platform will be project partners and they will be able to advertise about engagement in a big charitable initiatives as well as encourage customers to support these initiatives by purchasing their products.

16.5.4.8 The Company History and the Leadership

Rafał Hechmann has been involved in humanitarian aid since 2004. For many years he managed charitable projects in the Polish Humanitarian Action in the Gaza Strip, Libya, Lebanon, Somalia, South Sudan, Haiti, as well as in Poland. He also came to know the Fair Trade idea and working conditions of people sewing clothing, i.e. in Asia. The plan to establish Plan Planeta was a result of the need to continue humanitarian aid, as well as the need to build a more stabilized life and involvement in family life. Thus, his motivation was his need to own an enterprise supporting humanitarian aid as well as promoting an ethical production and consumption model. The aspect motivating Rafał the most is raising and committing funds to help others. In addition, the joy emanating from doing things he wants to do and meeting wonderful people—customers, vendors, partners and beneficiaries are also vitally important.

The most important key to success according to Rafał is brand credibility. Another important aspect is the quality of product which the clients find extremely attractive. This is also the reason they continue to buy from the company.

Regarding the role of a leader, it can be noted that any social business may grow only with a leader who has vision, determination and who is the face of the enterprise.

16.5.5 Wisłaki

16.5.5.1 Basic Assumptions of the Model (Business and Social) and Mission

Wisłaki is a socially responsible clothing brand. The products are made from organic cotton with original graphics showing local animals. The brand collaborates with Ogólnopolskie Towarzystwo Ochrony Ptaków (The Polish National Bird Conservation Society) to support protected species of animals. The brand mission is as follows: "We want to make eco fashion more accessible and we want to increase consumer awareness".

16.5.5.2 Business Proposition

The brand was established at the end of 2014 by Dominika Naziębły and Łukasz Gosławski. The clothing is designed for adults and children. The collection is compiled of basic models—simple, universal design (T-shirts, long sleeves blouses, sweatshirts) with original animal graphics in black and white.

The product is marketed in Poland and in Germany. Clients are mainly parents, grandparents and young adults purchasing clothing for children. Usually they are

conscious of ecology, believing it is an important issue. There are some clients who simply find the aesthetics of the brand attractive and others who think such a local product should be purchased as an heirloom.

16.5.5.3 Social/Ecological Issues

The social/ecological problem targeted is poor ecological awareness among consumers regarding fashion, as well as knowledge of local fauna. Another issue is the fact that many local animal species are at risk of extinction.

The Wisłaki solutions consist of several dimensions. The starting point is understanding the essence of clothing. Following the brand philosophy, clothing is not just something to purchase, but rather something exhibiting a specific message, an added value.

The next aspect is the material from which the clothing is made. It is a cotton with the GOTS certificate—the best in the industry, holistic, rigorously certified and covering the entire production process of products made from natural material.

The graphics on the clothing are created with safe water paints and picture the protected animal species. In addition, these species are local, living around the Vistula river. Therefore, they make people aware than nearby, in a big city, are living many animals, not a few are species at risk of extinction.

Moreover, 5 PLN from each item sold are pledged to Ogólnopolskie Towarzystwo Ochrony Ptaków (The Polish National Bird Conservation Society) to support protected species. Anytime the next tranche of money is sent, there is information on the brand's website regarding the supported program.

Wisłaki founders, besides offering ecological clothing, wanted to promote the ecological way of life. Therefore, their project includes diffusion of ecology in fashion and sharing knowledge regarding crowdfunding and the Vistula ecosystem. They organize crowdfunding workshops, meetings promoting animals living at the Vistula river and excursions following their tracks.

The additional aspects are: supporting local production (the clothing is made in Poland), promoting eco fashion and responsible consumption by showing the consumers an alternative for the mass production of clothing.

16.5.5.4 Business and Social/Ecological Aspects: Overview

The value proposition for clients is therefore very high quality, original clothing, aesthetics (graphics), ecological, certified cotton GOTS, basic, universal look, ecological message, Polish production.

Key activities are the design of clothing, ordering graphic designs, sewing and printing, as well as promotion, managing the site, shop, communication channels (social media); managing sales and client services.

Key resources are people—the brand founders and intellectual resources: clothing design, know-how, creativity, brand, alliances with partners, and regarding material resources—the site and the shop.

Key partners are the sewing room, graphic designers, Ogólnopolskie Towarzystwo Ochrony Ptaków (The Polish National Bird Conservation Society).

16.5.5.5 Market Relations

The sales channels are their own internet site and other sales platforms, like DaWanda.

Involving the stakeholders is a very important aspect of Wisłaki operations, as the whole process of building this brand is an effect of a broad collaboration. Initially it was a collaboration between the authors of a project. However, the next stage was opening the crowdfunding project (Wisłaki was the first crowdfunding fashion project in Poland). In the second stage collaboration was broadened with the employees of the mintu.me portal. They helped in raising funds and preparing the whole campaign in terms of merit. The following stage was collaboration with partners like Ogólnopolskie Towarzystwo Ochrony Ptaków, as well as restaurants, various media and institutions managing culture, which offered prizes for internet users supporting crowdfunding project or who were involved in raising funds. Finally, the project, which was a real success, was supported by 145 crowdfunding backers. It was also an occasion for self-promotion of the brand. Later collaboration with a group supporting the brand on Facebook was started. The crowdsourcing mechanism was used for this purpose. Also, there was a contest for graphic designs held (these designs have been used for the clothing). What is interesting is that three graphics found the most attractive by the community are the best sellers (the firm sometimes discusses new looks with the community). The discussions were also held publicly—one of the crowdfunding elements was an exhibition at the Wawa Design Festival where everybody could display his/her comment on the board where the specific graphic was presented. Consumer response was very positive.

It is clear then, that the brand eagerly involves stakeholders. In addition, the company is a very active social media user, trying to merge different social tools and use their functionality. Actually social media—Facebook and Instagram, as well as crowdfunding built the company's client portfolio. Without these tools the whole enterprise would have to be built on different assumptions.

The Wisłaki brand owners call themselves optimists. They would rather not focus on obstacles. Yet the main problem, as they say, is time. It is a long process, as much as 3 years, to introduce a fashion brand and build brand awareness in Poland. Moreover, consumer awareness of responsible fashion and consumption is still very low. The consumers are sometimes doubtful regarding the credibility of the ecological aspect. Furthermore, raising funds for such enterprises can be challenging in Poland since investors often do not believe in new start-ups of that kind. However, the consumer response is positive and consumers find the graphics attractive. They

are also interested in the history of the brand and the importance of the message regarding animals. Also, the stakeholders' response (partners, sponsors, and media) has been very positive.

16.5.5.6 Finance

The main income source is sales. On the cost side there is firstly expensive material—GOTS cotton. In addition, production (Polish sewing house), promotion and sales as well as internet site management are an expense. The main source of income at the starting point was the crowdfunding project mentioned before, run in September 2014. The expected sum was 20,000 PLN with over 20,935 PLN being raised.

The operations are only now beginning to show profit. Opening wholesale sales in the German market was a very important move.

16.5.5.7 Perspectives for Future

The biggest opportunity is improving consumer awareness. It can be a slow and problematic process when the prospects do not understand the brand mission. Nevertheless, eco fashion and a healthy way of life are becoming more and more popular in Poland.

A possible challenge is strong competition in the fashion market. In fact, everybody may create her/his own brand, which can dilute the market since such brands are usually very cheap, or their owners accept bad commission contracts. However, the owners think these brands will fail to sell and will eventually disappear.

Regarding future perspectives—a new idea has appeared and it was called "Travelling Wisłaki". The plan is to support animals from different parts of the world, i.e. living at The Thames river. The company is also thinking about using crowdfunding abroad. The potential is unlimited! However, for the time being funds are a big challenge—as well as the fact, that preparing and running such an action is time consuming.

16.5.5.8 The Company History and the Leadership

Dominika Naziębły is a graduate of the Strzemiński Academy of Art in Łódź. In 2012 she won the "Black Sheep" title—a prize for the most promising designers worldwide. She also published many articles in Polish and in foreign magazines. She is interested in deliberate design and she follows this idea while creating her collections. Her tools are upcycling and recycling and she mostly uses ecological materials. Her aesthetics are very modern and sometimes beyond the normal standards.

Łukasz Gosławski is an actor. He is a graduate of The National Academy of Theatre in Wrocław, as well as the School Film Production Unit in Łódź. He is constantly broadening his know-how. He is a passionate about new technologies in art and theatre, interested in history and is a Warsaw activist and Wisłaki manager.

Dominika was interested in fashion even as a student. She aspired to be independent and consequently decided to create her own brand. Together with Łukasz she was looking for the ideal business that would provide her a livelihood yet give her the opportunity to be a designer at a business that both would enjoy. She was also eager to involve the ecological aspect in their operations. Step by step they were working on their idea. There was also a period of meetings and discussions with different people, which allowed them time to create a final schematic for their organization.

According to the founders, the key to success is firstly transparency. Such a business should be real to avoid suspicions of greenwashing. Hence, detailed and clear information regarding all actions is crucial. The owners also mentioned patience, consequence and simple and an easy to understand marketing of the brand. The brand idea itself is important, but aesthetics should be a top priority.

16.6 Discussion and Conclusions

The main conclusions resulting from the above presented case studies are as follows: all these enterprises are very new on the market and two of them—Asante Bamboo Bikes and Plan Planeta were established a few months before the interviews. Regarding the legal form and the size of the researched enterprises—they are sole proprietorships managed by the founders, collaborating with outside partners when needed. The only exception is Migam, which currently has 18 employees and plans increasing the workforce. Three of the researched firms (Migam, NotJustShop, and Wisłaki) have already entered foreign markets, and Asante Bamboo Bikes plans the same step.

All the researched companies actively use network technologies and social media since they are the main (and the cheapest) channels for brand and sales promotion. In fact, start-ups cannot afford any other avenues to reach the clients. Also regarding firms based on a social/ecological mission it is obvious that social media is the best way of communicating the brand history in the first person and building direct relationships and credibility. Moreover, the researched companies esteem the opportunity of interacting with social media users. In addition, the specific processes—crowdfunding enabling raising additional funds and crowdsourcing supporting the customer development—should be emphasized. According to Wisłaki owners, the whole enterprise would be built on a totally different basis without these tools.

All the companies clearly claim that the response to their ideas has been very positive. Igor (Asante) even asserts, that his environment believes in his success even more than himself. The positive response to his product was the reason for

starting production half a year earlier than he planned. Wisłaki had incidental cases of internet „hate", as some people were suspecting them of greenwashing.

All the companies have objections regarding the conditions of running business, especially social business, in Poland. They mentioned the following obstacles:

- Relatively small awareness among clients and investors.
- Very poor awareness of the social entrepreneurship sector or the "social business" among consumers.
- A low level of affluence in the Polish society.
- The lack of social trust for the successful companies or charity organizations and overall reciprocal trust due to Polish culture and mentality.
- The lack of trust for new things among Polish consumers.
- More prospects abroad than in Poland.
- The lack of social/green investment funds.
- Difficulties in raising funds, limited access to any capital.
- The lack of infrastructure.
- The lack of functional state support.
- Bad legislation ("investors are being fined for investing").
- Unprofitable and risky commission internet sales system.
- Time consuming building brand awareness.

The common challenge for all these enterprises, not only on the Polish market, are the relatively high costs of running the business, higher than in "standard" companies. The reason is the socially responsible production process and running charitable activities.

However, there were few positive opinions regarding Polish market. Łukasz Kaliciński from NotJustShop thinks, that one of the obstacles is really an opportunity. If there are no enterprises of this kind on the market, it is a competitive advantage to be new and the first. The Migam founders emphasize the creativity of Polish employees and high level of IT know-how among IT engineers. Nevertheless, the general opinion, as Przemek and Sławek from Migam said, is that "Poland is not a friendly place for entrepreneurs" (Szumniak-Samolej 2016: 42).

All the respondents however, look forward to the future in a positive way regarding the enterprises based on the social and/or ecological mission, although Poland is not yet the mature market for such initiatives. They believe in long term change as to the ecological or social aspects. They hope these factors will be among the main criteria of choosing the specific product or vendor, as it is observed abroad—in Western Europe.

All the researched companies are barely profitable. The founders of three of them openly claim that there are no profits currently (Asante Bamboo Bikes, NotJustShop, Plan Planeta). However, Igor Pielas from Asante says, his business may become profitable if he creates a bigger scale of production and sales. Yet he needs to face the main challenge—high prices and relatively low average income in Poland as well as the fact, his market is a niche. Wisłaki found a solution by entering the German market on a wholesale basis. The founders of Migam say they invest all profits in growing the company.

All the respondents are relatively young—25–39 years old. All of them already had some professional experience in different fields. Regarding the role of the founder, leader, they all emphasize it is extremely important since it is the main asset. They also point out the most important duties and abilities of the leader: hard work, responsibility for the whole company and its image; vision, a strong belief in success. The leader needs to be determined to develop the enterprise and build consumer trust by his/her behavior and values; to devote time and savings to the firm at its infancy. He/she must have a proper understanding of the business, an ability to structure it and needs to encourage others to be involved in company operations.

It should be emphasized that leaders are aware of the importance of the brand stories they represent. Stories are the most traditional forms of communication. The audience response to stories is more effective than even logical arguments (Osterwalder and Pigneur 2012: 177). It is particularly important since the companies based on sustainable business models are selling a very special product. The story of its social and ecological aspects gives it "the soul" and highlights the value proposition to the client. It is essential, since people making decisions do not just take the facts into account, but mainly their interpretation, their understanding and meaning (Mycoskie 2011: 27). As Blake Mycoskie claims (the founder of TOMS, one of the pioneers and leaders of SBMs): "A good story transcends boundaries, breaks barriers, and opens doors. It is a key not only to starting a business but also to clarifying your own personal identity and choices." (Mycoskie 2011: 25).

An important conclusion of this paper is an attempt to answer the question what motivates these leaders to establish the companies which are not currently profitable. Taking the respondents' declarations into account, the profit is not the most important aspect. However, in all cases there is an assumption that the company should be self-sufficient due to current operations and it would be desirable to make the company the main source of income for the owners. Nevertheless, the main reasons motivating the leaders to operate in these fields are their passion and interests, and the desire to earn money with an altruistic goal.

It will be very interesting to analyze the above companies in a few years. Research will verify the experience and opinions presented above, as well as find further conclusions regarding assumptions and conditions of running companies on the Polish market based on a social or ecological mission.

The same conceptual framework used in this paper can be used in future research since it is a tool enabling the presenting and structuring of the elements of a sustainable business model, analyzing their connections as well as comparing with other models. Therefore, the conceptual framework will probably be broadened with the dimension showing changes, pointing out the most important ones and their roots.

It should be also emphasized, that the proposed conceptual framework, its possible extensions or changes are the authorial proposals, which need further discussions and or research.

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Part IV
Frameworks and Toolkits for Sustainable Business Models

Chapter 17
Sustainable Business Model Design: A Review of Tools for Developing Responsible Business Models

Alex Hope

Abstract Sustainable and Responsible Business has become a mainstream concept as organisations seek to adapt to a changing business environment and address social, environmental and economic challenges. However many academics and practitioners suggest that such efforts are prone to inevitable failure as they are peripheral, uneconomic, and incremental. It is common for businesses to innovate at the level of their products and services yet to be truly sustainable and responsible, activities should be linked with the core business of the firm and requires more radical innovation. There is then a need to that innovate at the level of a firm's value creation process, at the level of the business model. Whilst there is much research which present case studies of companies who utilise sustainable business model designs, only recently has attention turned to the development and application of tools and techniques which can assist business leaders in developing models to apply to their own organisations. This chapter discusses sustainable business model design before reviewing a range of toolkits designed to integrate sustainability principles into business strategic planning and assessing their applicability to sustainable and responsible business model design. The aim is to identify and review some of the key tools available for firms to utilise when developing new sustainable business model pathways.

17.1 Introduction

Sustainability is increasingly recognised as one of the most important challenges of our time. Issues such as global climate change, poverty and inequity, and the unsustainable use of resources are becoming more commonly understood amongst the public, governments and organisations. As a result the pressure on businesses to incorporate the principles of sustainable development into policies and activities is mounting, as is the pressure to broaden reporting and accountability from economic

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performance for shareholders to sustainability performance for all stakeholders. This, coupled with the challenging economic times that follow the 2008 global financial crisis and more recent geopolitical shocks such as the withdrawal of the UK from the European Union, austerity measures and retrograde policies from the US administration, have driven business to seek to identify new sources of innovation which may be exploited as a means to renew competitive advantage. Whilst it can be difficult to convince business leaders that their business models need to change based on threats and opportunities that my not have yet fully materialised, global environmental, social, economic and political trends conspire to challenge existing paradigms and suggest a need to develop fundamentally different approaches to value creation.

The need for innovation that can enhance organization's competitive advantage has to be mediated by the need to consider social, environmental and economic sustainability. These often competing drivers have led to the notion of 'responsible innovation' which demands the consideration of ethical and social aspects during innovation processes as a means to lead not only to technological innovations which are socially acceptable, but also socially desirable (von Schomberg 2013). Here the aim is to consider a wider set of stakeholders and environmental externalities when innovative products or services to ensure that the dual aim of business performance and sustainability are met. Traditionally innovation has taken place through the development of new products, services, efficiency measures, supply chain or marketing initiatives, however increasingly companies are attempting to address this within the framework of existing business models and exploring business model innovations (Chesbrough 2013). Changing business model can provide one method by which an organisation may implement a sustainability strategy either in response to a changing business environment such as shifts in competition, declining customer base or critical economic situations. As such, business model innovation is an increasing area of focus both for academics and practitioners alike (Schaltegger et al. 2015).

Business models can be understood as structured management tools which are essential for an organisations' success (Baden-Fuller and Morgan 2010; Magretta 2002). Improved understanding of the role of the business model has developed into a more integrated picture of organisation's strategy and operations and increasingly business models can be seen as a representation of a company in general (Amit and Zott 2001; Eriksson and Penker 2000). On one hand business model innovation can be understood as the incremental evolution of parts of an organisations strategy over time in over to meet the changing demands of the market or exploit new technologies (De Reuver et al. 2009; Voelpel et al. 2004). Another view of business model innovation considers the complete re-invention of an existing organisations business model in order to achieve similar ends (Johnson et al. 2008). Existing business models are often based on creating, delivering and capturing economic value with limited or no consideration of social or environmental value (Evans et al. 2014), yet sustainability is increasingly essential for the long term success of organisations (Nidumolu and Prahalad 2009). Many authors have asserted that business model innovation is key to business success (Henry Chesbrough 2010; see for example H. Chesbrough and Rosenbloom 2002; Zott et al. 2011) and that business model

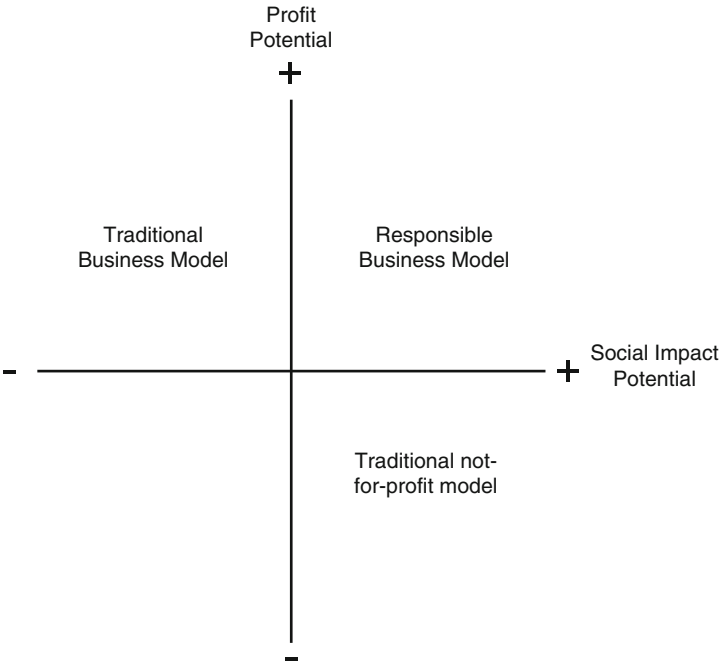

Fig. 17.1 The responsible business model domain (Hope and Moehler 2015)

innovation and redesign is essential in generating real long term sustainable value (Lüdeke-Freund 2010; Porter and Kramer 2011; Schaltegger et al. 2012; Stubbs and Cocklin 2008). Those organisations that do not rethink their business models around sustainability will be more limited in their ability to create competitive advantage than those which do (Rana et al. 2017).

Accordingly attention has turned to the development and deployment of sustainable and responsible business models that seek to improve the performance of organisations to create greater environmental and social value while delivering economic sustainability (Bessant 2013; Porter and Kramer 2011). Stubbs and Cocklin (2008) conceptualize a 'sustainability business model' as one which includes a combination of sustainability practices; features attributes and characteristics; sufficient conditions; business processes; and firm or system level descriptions. With this in mind, a sustainable business model seeks to deliver value to all stakeholders both now and in the future by minimising any impact on the environment, improving social outcomes in the communities through which the business operates and providing economic value both to shareholders and wider stakeholder groups. In this respect, the sustainable and responsible business model sits at the intersection of for profit business motivations and social impact potential as illustrated in Fig. 17.1.

One of the key difficulties faced by business seeking to incorporate responsible and sustainability principles into their business model and operational strategy is the

tension between value as profit and social value. Birkin et al. (2009) suggest that it is very likely that new sustainable business models will have to address issues that appear to be counter to business interest. For this reason responsible business model innovation requires the inclusion of stakeholders values in the process of design in the same way that a responsible technical innovation does (Breuer and Lüdeke-Freund 2016a; Taebi et al. 2014). In summary sustainable and responsible business model innovations must address the following challenges (Hope and Moehler 2015).

- Incorporation of the principles of sustainable development, social responsibility and ethics into the business model;
- Reconciliation of the often conflicting interests of profit and social value;
- Flexibility to incorporate local needs and markets;
- Scalability across a wide range of business sizes;
- Replicable both within and across a range of business sectors;
- Inclusion of all relevant stakeholders in the design of new responsible business models;
- Be operationalizable in practice.

Innovating more sustainable business models requires the development of new and revised business models that go beyond a profit oriented economic focus to one which can integrate environmental, social and economic value throughout the strategy and operations of an organisation (Bocken et al. 2013; Willard 2012). Sustainable business models must be economically sustainable as a prerequisite. The overall objective in sustainable business modelling is to identify solution that allow firms to capture economic value whilst also generating environmental and social value (Schaltegger and Wagner 2011). Whilst business models that align with the principles of sustainable development are increasingly popular both within industry and within the academic literature, tools that assist in sustainable business modelling are little known (Bocken et al. 2013) especially within academic literature.

For businesses seeking to develop new or revised business models that incorporate sustainability principles, there is a need to understand the range of supportive tools available to facilitate the process of sustainable business modelling. The aim of this chapter is to identify some of the key tools available for business leaders to utilise when developing new or revised business models.

17.2 Tools for Sustainable and Responsible Business Model Innovation

Tools for responsible sustainable and responsible business model design may be split into two different categories. The first typifies generic strategic management tools which may be used to develop new and revised business processes in general and not necessarily developed specifically for business model design. Such tools can be used to assist organisations in developing new business models and assesses their

Table 17.1 Sustainable business model design tools

Toolkit	Authors
Business Innovation Kit	Breuer (2013)
Sustainability Innovation Pack	Breuer and Lüdeke-Freund (2016a)
Flourishing Business Canvas	Upward and Jones (2016)
Sustainable Value Analysis Tool	Yang et al. (2014)
The Cambridge Value Mapping Tool	Bocken et al. (2013)
Triple Layered Business Model Canvas	Joyce and Paquin (2016)
Sustainable Business Transformation (SBT) roadmap	Ahmed and Sundaram (2012)
Framework for Strategic Sustainable Development	Broman and Robèrt (2017)

applicability to sustainable and responsible business model design. There are several tools that can be used at different stages including Visioning, Metrics and charts, SWOT analysis, PESTLE analysis, Affinity Diagrams, Portfolio Analysis and Interrelationship diagrams. The aim is to identify where the business wants to be in the future and identify new sustainable business model pathways before quantifying impacts, understanding macro level external factors that impact the organisation, assess the health of organisation by examining its strengths, weaknesses, opportunities and threats, set out tasks and projects required to implement strategy and determine which are more important or significant.

A second category of tools that are becoming increasingly important in business model design and are currently attracting a lot of interest from academics and practitioners alike are those which have been developed specifically for business model design. Some of these tools deal simply with business model design in general, whilst others set out to specifically incorporate sustainability considerations into business model design from the outset. Table 17.1 sets out a number of these tools which are presented in the academic and practitioner literature.

The next section sets out these business model tools reviews their potential for application in the development of sustainable and responsible business models.

17.2.1 The Business Model Canvas

The Business Model Canvas (BMC) proposed by Osterwalder and Pigneur (2010) is a tool popular with practitioners when formulating business models. It can be useful in helping business model designers understand an organization's existing business model though a visual representation of the elements of the model and potential interconnections and impacts on value creation (Joyce and Paquin 2016). The BMC is broken down into nine interrelated building blocks—customer segment, customer relationships, value propositions, channels, key activities, key resources, key partners, cost structure and revenue streams. Whist the BMC may assist organisations in aligning profit and purpose and therefore support sustainability principles on its own, in practice it is suggested that environmental and social value is in fact

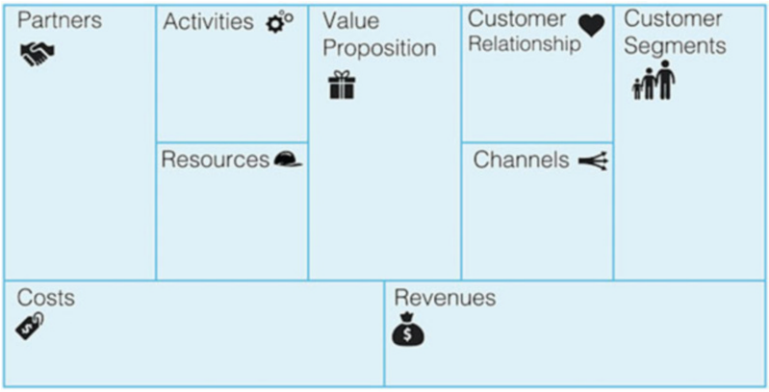

Fig. 17.2 The Business Model Canvas (BMC)

de-emphasised due the models more explicit profit or economic value creation orientation (Coes 2014; Upward 2013) (Fig. 17.2).

The key strength of the BMC is its ability to generate a visual representation of the structure of a business model. This is perhaps the main reason that the BMC has become popular amongst practitioners as a strategic management tool. The canvas can be printed out so that groups of people can start discussion, sketching and debating business model elements with the result that the hands on nature of the tool fosters increased understanding, discussion, creativity and analysis. There are however some limitations to the tool in practice. Despite its popularity as a framework to support the generic business modelling process, it has a narrow view of the value proposition focussing as it does on the customer (Bocken et al. 2013). As a result the BMC has been adapted to suit specific business applications and scenarios such as product to market fit, examining the supply chain, cash flow, internal communications and as the 'Lean Canvas' (Maurya 2012) developed specifically for startup businesses. Another critique of the tool is its absence of a strategic approach toward competition. It is primarily an internally focussed tool which focusses on what an organisation delivers, how it does so and the process required to bring products and services to market. As a result of these critiques, a range of sustainable business model tools have been developed, many of which build on the BMC adding sustainability principles into the original model.

17.2.1.1 Triple Layered Business Model Canvas

The Triple Layered Business Model Canvas (TLBMC) is a tool for exploring sustainability oriented business model innovation. It extends Osterwalder and Pigneur's (2010) original Business Model Canvas (BMC) by adding two additional layers: an environmental layer which introduces a product lifecycle perspective and a social layer which is based on a stakeholder perspective (Joyce and Paquin 2016).

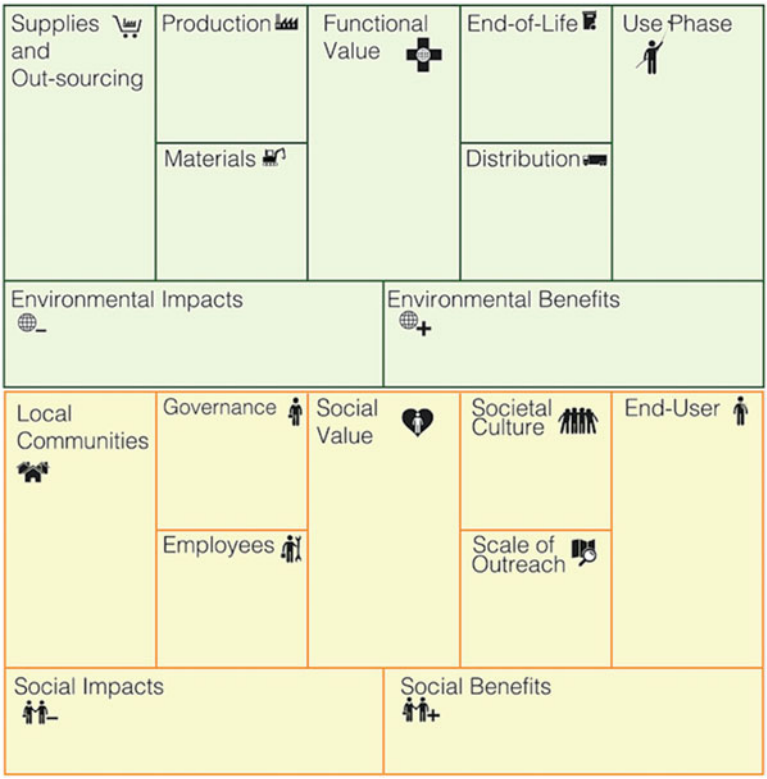

Fig. 17.3 The environmental and social layers of the TLBMC (Joyce and Paquin 2016)

This approach is designed to allow sustainability issues to be structured into business model design and innovation in a more holistic manner. The TLBMC adopts a triple bottom line (TBL) perspective to provide the opportunity for business leaders to explicitly integrate economic, environmental and social value into a holistic view of sustainability. The TBL advocates that organisations formally account for their environmental and social impacts alongside their economic goals. The environmental layer of the TLMBC introduces a lifecycle perspective of environmental impact. It integrates a Life Cycle Assessment (LCA) approach to measuring a product or services environmental impact at each stage of its life (Rebitzer et al. 2004/7). The social layer of the TLMBC extends the original business model canvas through a stakeholder approach to capture the mutual interactions between an organisation and its stakeholders (Joyce and Paquin 2016). Both layers are depicted in Fig. 17.3.

In use the TLBMC can support business model analysis, innovation and design towards more sustainable business models by highlighting the intangible and tacit connections internal and external to an organisation. Here it may be used to provide a visual representation of an organization's existing business model. It may also be used as a business model creation tool by demonstrating the consequences of

changing the individual elements of a business model through the aggregated impacts across all three levels. Finally it can be used as a validation tool to balance the costs and benefits of their business model idea with consideration of the environmental, social and economic perspective.

17.2.1.2 Business Innovation Kit and Sustainability Innovation Pack

The Business Innovation Kit (BIK) was developed by UXBerlin, a management consultancy led by Breuer and Lüdeke-Freund (2015, 2016a). The toolkit aims to enable entrepreneurial teams to explore, dispute, and co-define business models for new or existing organisations through a structured and focussed process (Lüdeke-Freund 2015). It provides practical exercises which enable business leaders to specify revenue models, walk through the customer journey and pursue specific orientations such as sustainability or values based responsible business (Breuer 2012). The toolkit consists of a number of sets of cards which contain exercises for use in a workshop setting that enable business leaders to unfold a range of alternatives when modelling a new business. The original BIK has recently been supplemented with the 'Sustainability Innovation Pack' developed by Lüdeke-Freund (2015), two additional card sets that focus on the creation of sustainability-oriented business models and the improvement of sustainability performance in existing businesses. The cards enable uses to reflect on current innovation maturity within their business and define one of five levels of sustainability innovation maturity. They then work through eight business case drivers to integrate social, economic and ecological sustainability issues into their business models.

The Business Innovation Kit and Sustainability Innovation Kit incorporate ideas and concepts first developed by Osterwalder and Pigneur's business model canvas (2010). Success when using the tool depends on the workshops where business leaders and participants are led through the process of sustainable business model design by appropriately trained facilitators (Breuer and Lüdeke-Freund 2016b). The tool has been tested within a range of organisations to validate is effectiveness in use and has proved useful in assisting organisations in adding a corporate sustainability perspective to their business model innovations.

17.2.1.3 Flourishing Enterprise Innovation Toolkit and Flourishing Business Canvas

The Flourishing Enterprise Innovation Toolkit has been designed to assist businesses in improving their social, environmental and economic performance in collaboration will all stakeholders. Developed by Upward and Jones (2016) at York University Toronto's Faculty of Environmental Studies and Schulich School of Business, the toolkit assists organisations across a range of goals from financial viability to how to do good by doing well. This is achieved by enabling the identification of risks and opportunities relevant to a businesses chosen objectives (Flourishing Enterprise

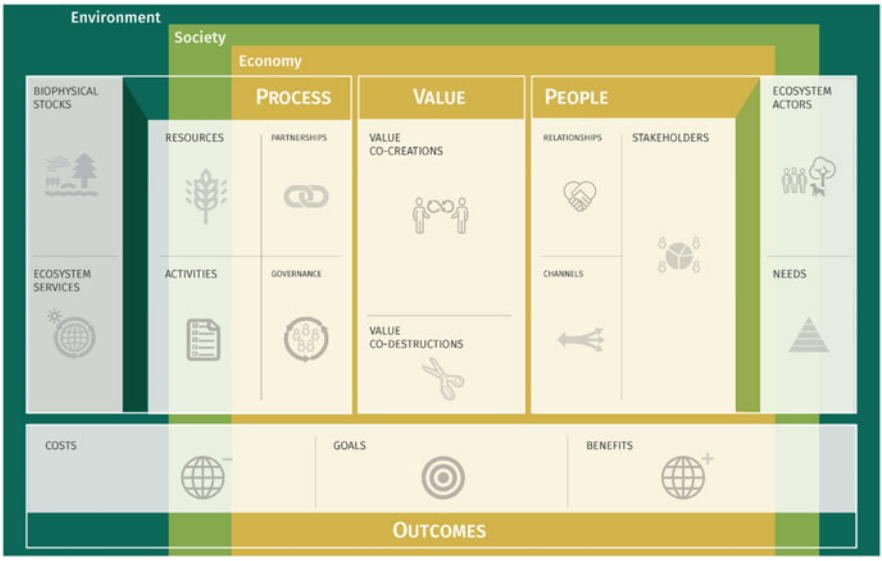

Fig. 17.4 The Flourishing Business Canvas (Flourishing Enterprise Innovation 2017). © Antony Upward/Edward James Consulting Ltd., 2014. All Rights Reserved. www.FlourishingBusiness.org. Used with Permission

Innovation 2017). The Flourishing Business Canvas at the heart of the toolkit is a visual design tool that embeds a common language to enable more effective collaboration by any group of stakeholders that participants deem relevant to designing the social, economic and environmental aspects of an organization's business model. The canvas uses common language to enable a business to work with a broad range of stakeholders to sketch, prototype, design, communicate, measure and create stories about the sustainability aspects of their business model (Flourishing Enterprise Innovation 2017).

The Flourishing Business canvas supports sustainable business model design through its participatory approach to business modelling. The result is an approach that increases an organisation's ability to learn and reflect on sustainability and increase their ability to take practical action (Fig. 17.4).

17.2.1.4 Sustainable Value Analysis Tool

The Sustainable Value Analysis Tool (SVAT) was developed out of a PhD thesis at the Institute for Manufacturing, University of Cambridge (Yang et al. 2014). The tool was designed to assist companies in identifying opportunities to capture value through sustainability by analysing captured and uncaptured value for key stakeholders across a product lifecycle. Uncaptured value may be typified by waste streams in production, under-utilised resources, reusable components, labour

capacity issues and the insufficient use of expertise and knowledge (Yang et al. 2017a). In a similar manner to other tools described here, the tool is used in a facilitated workshop environment with the facilitator playing a pivotal role in guiding the process. The SVAT tool was developed with the intention to support business model ideation rather than implementation, however it may be used in conjunction with other tools to create actionable plans and opportunities (Miying Yang et al. 2017b).

When considering sustainable business model design, the SVAT tool recognises the fact that 'value' is commonly understood predominantly as monetary value and that sustainability requires a more comprehensive view of value that incorporates social and environmental benefits (Evans et al. 2014). The premise of the tool is that in order to effectively integrate sustainability into their business models, companies should consider the environment and society as valuable and integrate these with the other sources of value that they consider. In this respect the tool provides a useful conceptual framework (Fig. 17.5).

17.2.1.5 The Cambridge Value Mapping Tool

Another business model specific tool developed out of the University of Cambridge's Institute of Manufacturing, the Cambridge Value Mapping Tool also aims to enhance value creation through business model design. It was conceived to help companies create value propositions that support sustainable business goals (Bocken et al. 2013). The tool adopts a qualitative approach to value analysis as a means to understand positive and negative aspects of a business's value proposition; identify conflicting values such as those between differing stakeholder groups; and identifying opportunities for business model redesign to align economic, environmental and society sustainability goals (Bocken et al. 2013). The tool is deployed in a workshop model which utilises a facilitated brainstorming process to populate the tool and explore stakeholders perceptions of value assisting in prioritising, exploring potential transformation paths and planning the evolution of a business model (Bocken et al. 2012/1).

The tool aids organisations in developing sustainable business models by incorporating a wide array of stakeholders and perspectives. It is also deployed in a participatory manner to gather a wide range of thoughts and opinions from stakeholder representatives. It encourages the elimination of wastes and generation of new products and services in a similar fashion to the model of a circular economy.

17.2.2 Business Model Roadmapping for Sustainable Business Model Development

When developing sustainable and responsible business models, organisations seek to integrate their systems, structures, people and technology to achieve sustainability

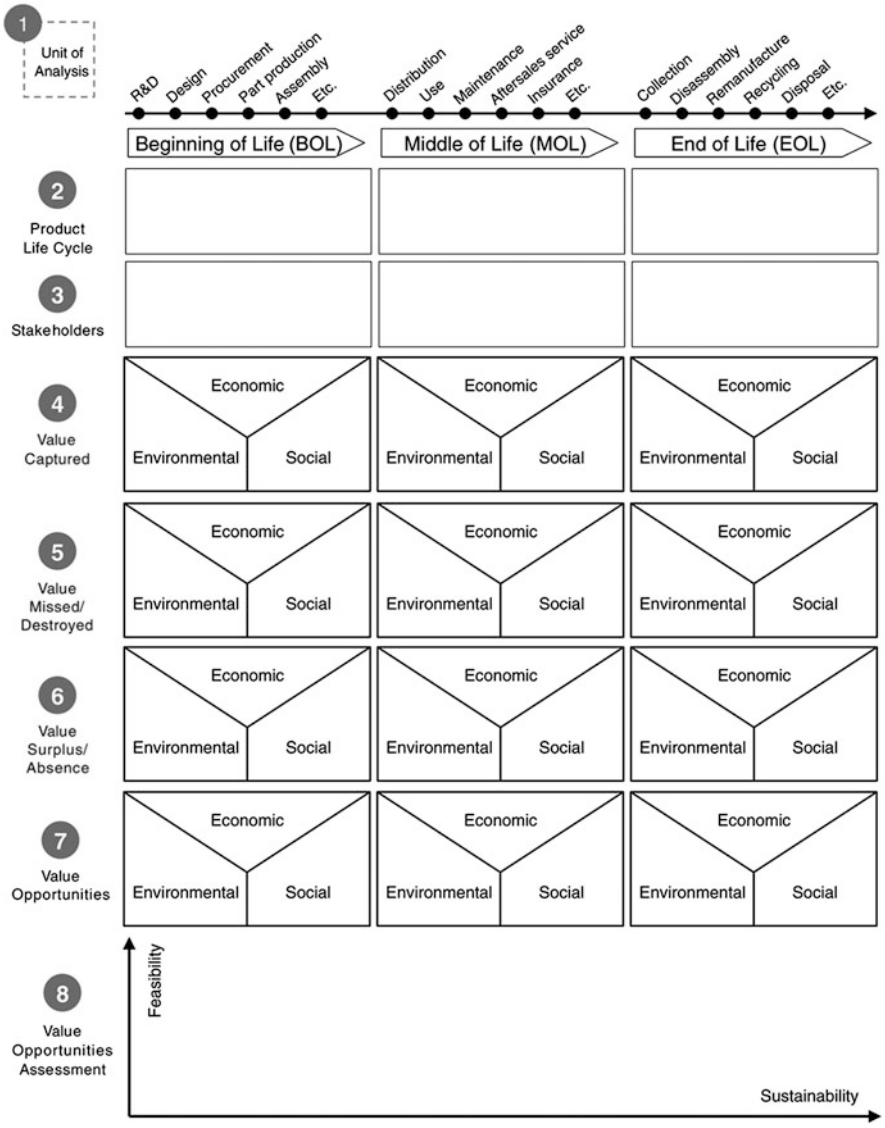

Fig. 17.5 The Sustainable Value Analysis Tool (Miying Yang et al. 2017)

(Ahmed and Sundaram 2012). It is in this endeavour that business model roadmapping can act as a useful tool by providing a common format from which to develop clear objectives, defined action plans and analyse critical decision points. Ahmed and Sundaram (2012) have developed the Sustainable Business Transformation (SBT) roadmap as a procedural tool to assist businesses in developing a new sustainable business model. The idea of the roadmap is to articulate a cyclic journey through the stages indicated in Fig. 17.6. The aim is to aid decision makers in the

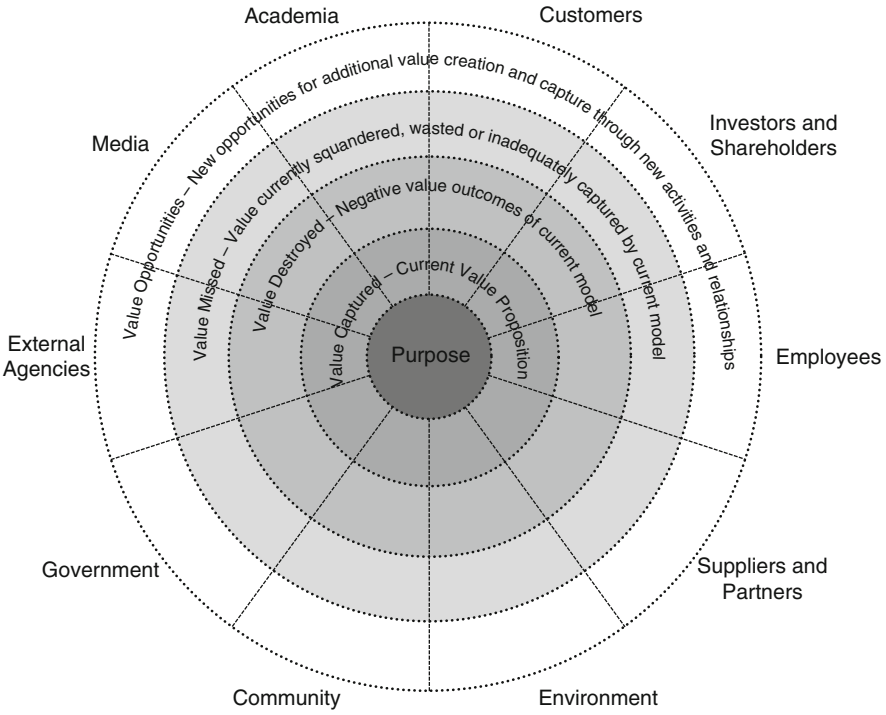

Fig. 17.6 The Cambridge Value Mapping Tool (Bocken et al. 2013)

development of sustainable business models by encouraging them to understand the initial sustainability challenges the business potentially faces, envisaging strategies to deal with these challenges before designing new models, transforming existing ones and monitoring their success. The SBT roadmap is supported by framework and architecture for integrated sustainability modelling and reporting (Daud Ahmed and Sundaram 2012) (Fig. 17.7).

The benefits of the tool reside in its ability to provide a procedural framework which prescribes the use of modelling paradigms and methodologies which business can use to develop their strategy and business models. Essentially the SBT roadmap integrates generic business tools such as a Sustainability Modelling and Reporting (SMART) framework (Ahmed and Sundaram 2008), balanced scorecard, data and document modelling and business process modelling. The SBT roadmap identifies the models and tools required at each stage of the business model development process in order to enable decision makers to consider the full range of social, economic and environmental sustainability issues. The SBT roadmap is not without its limitations however. Whist the roadmap itself is relatively simple to understand and apply, the methodologies, tools and decision support systems that underpin the approach are complex and difficult for non-expert practitioners to use. As with the TLBMC, the tool relies on users understanding of business model strategies to

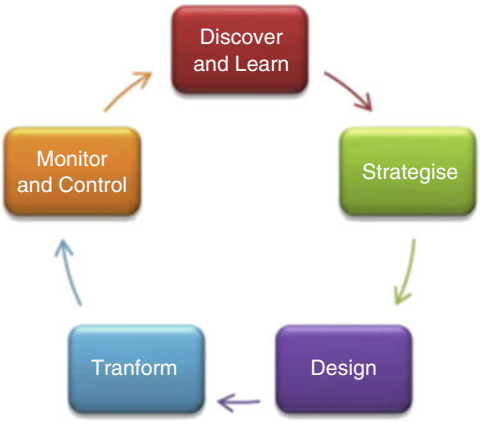

Fig. 17.7 Sustainable business transformation roadmap (Ahmed and Sundaram 2012)

unlock the benefits of the tool so again may require further testing with businesses specifically at the level of business model design.

17.2.3 Framework for Strategic Sustainable Development (FSSD)

The Framework for Strategic Sustainable Development (FSSD), also known as the Natural Step Framework is a tool developed by Karl-Henrik Robert in the late 1980's as a means to set out the system conditions required for sustainability (Robèrt and Anderson 2002). The FSSD pioneered a backcasting from principles' approach as opposed to forecasting current situations and trends. Backcasting is a methodology which can be used to examine complex issues (Holmberg and Robert 2000). The FSSD involves a funnel metaphor to facilitate an understanding of sustainability challenges and the benefit of a proactive approach to dealing with the issues (França et al. 2017) and is designed to provide guidance on how to develop a project, organisation or region towards socially and environmental sustainability in an economic fashion. The funnel metaphor depicts the gradual loss of social and environmental systems capacity as the system moves through the funnel. The narrower circumference represents increasingly harsher constraints suggesting that the risk of being hit financially by the narrowing wall of the funnel are relatively higher for those organisations whose contribution to global sustainability issues are large and that business risk is accelerating down the funnel (Broman and Robèrt 2017; Holmberg and Robert 2000). The framework can assist business organisations identify the opportunities to develop new services, products and business models that align with the changing conditions in the global market which can already be foreseen in principle (Basile et al. 2011; Willard 2012).

The FSSD uses an operational procedure with four steps as indicated in Fig. 17.8. In step A participants learn about the FSSD and apply the model to discuss a topic,

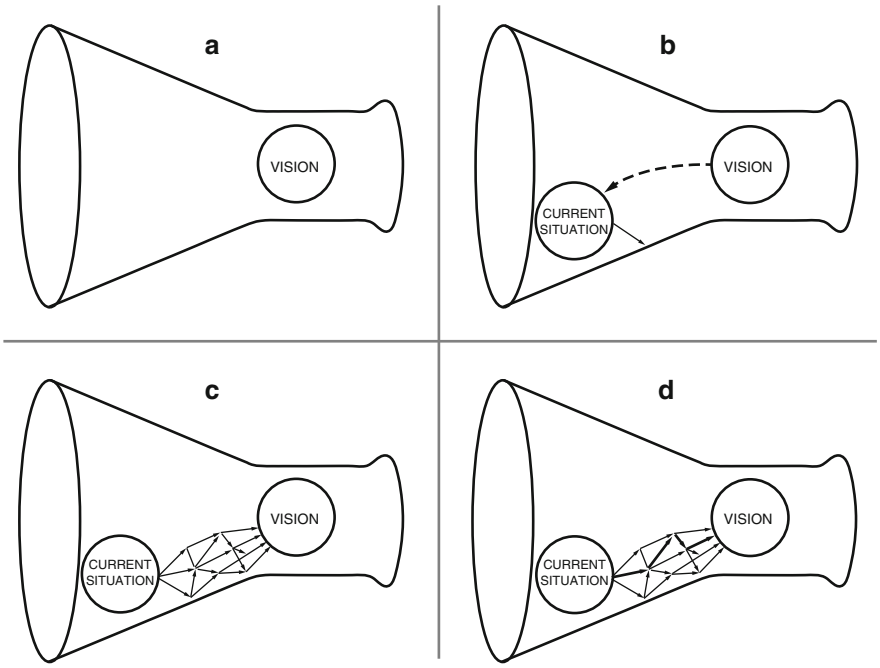

Fig. 17.8 The FSSD and ABCD procedures (Broman and Robèrt 2017)

project or business model design and agree on the vision of success framed against sustainability principles. When the business case for sustainability is understood participants move onto step B and explore the current situation in the context of the sustainability orientated success of the A step. The result is a list of challenges of current activities in relation to the objective to be reached. In step C participants brainstorm solutions to the challenges listed under step B and set out future possible solutions. These solutions are scrutinised against the goal with disregard to the constraints of the current situation. The question is 'what is theoretically possible within the constraints provided by the integrated goal' (França 2017). In step D participants prioritise the brain-stormed solutions from step C and set out a business plan to implement the identified solutions. When considering sustainable business model design the FSSD framework offers a participatory approach to understanding sustainability issues.

17.2.3.1 FSSD for Sustainable Business Model Development

The FSSD helps support business leaders in overcoming trade-offs and provides assistance to enable them in gaining competitive advantage in sustainability-driven markets (Baumgartner and Rauter 2017). When considering the use of the FSSD for business model development, its strength is its ability to provide a robust, generic

and comprehensive principles for sustainability and a method for integrating these into strategic planning (Baumgartner and Rauter 2017). Whilst the FSSD used alone can facilitate greater understanding of the social, environmental and economic challenges facing businesses seeking to develop sustainable and responsible business models, its real strength comes from its ability to be combined with other tools. The FSSD can then inform the development of sustainable and responsible business models in a similar way to business model roadmapping by integrating visioning techniques with other tools and methods such as value mapping, lifecycle assessment and the Business Model Canvas (França et al. 2017). It is here that the limitation of the FSSD become apparent. It should be recognised the FSSD is a generic tool for examining sustainable development. Whilst it provides critical information and guidance for sustainable development in a broad range of institutional contexts, it does not provide the full range of information a business would require to develop its business model (França et al. 2017). As a result the FSSD does need to be used in conjunction with a more business specific too such as the BMC to facilitate sustainable business model innovation.

17.3 Conclusion

Many organisations are seeking to incorporate the principles of sustainability and responsibility into their core business through the development of sustainable and responsible business models. In doing so they are seeking tools and methods to assist them in identifying new or improved business model pathways. This chapter has examined the concept of sustainable and responsible business models and business model innovation as a means to integrate social, environmental and economic sustainability into the core of a business. In order to do so business leaders can employ tools and methods designed to assist them in developing sustainable responsible business models. The tools reviewed here approach the design of sustainable business models from different perspectives, however they do share some common elements.

Firstly all of the tools reviewed here incorporate the visioning stage of business model design in some way in that they seek to envisage how the business may move forward by adopting a motivational and emotive process. Second in contrast to the majority of strategic management tools used by business the ones reviewed here utilise the concept of backcasting from future scenarios and prioritise steps towards their realisation. Thirdly they build on, or integrate, existing business model creation tools that are proven in practice and reasonable well established. Finally they all seek to develop a holistic understanding of sustainability from environmental, social and economic perspectives.

Tools such as those outlined in this chapter can prove useful in the design of sustainable and responsible business models, but as Chesbrough (2010) points out, they cannot by themselves promote experimentation and innovation within the models. In other words, business leaders can design, innovate and develop new

models, but implementing them is a difficult and risky endeavor. Businesses need to develop and change organisational processes as well as encouraging and empowering leaders to experiment with new sustainable and responsible business models. Despite this, strategic planning tools which aid the development of sustainable business models represent an important first step in the process of developing sustainable, responsible business models that create value for the business and society at large.

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Chapter 18
Values-Based Business Model Innovation: A Toolkit

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Abstract Post-heroic management and research on innovation culture suggest bottom-up strategies to enhance innovation capabilities in organisations. Meanwhile, the open innovation paradigm suggests complementing inside-out activities by outside-in sourcing of ideas, knowledge, and capabilities. Observing an increasing demand for orientation in these activities, we argue that the re-consideration of values—such as ecological sustainability or social justice—may provide the required sense of direction and offer a widely untapped source of innovation. Our framework for values-based innovation management offers a re-foundation of management in general and innovation in particular in that it emphasises the importance of values for normative, strategic, and operational innovation and its management. A methodology and toolkit were developed to realise values-based and sustainability-oriented business model innovation in practice, the so called Business Innovation Kit and Sustainability Innovation Pack. This toolkit builds on a didactic approach that supports self-guided ideation and innovation processes in mixed teams through the definition of values providing a "common ground", exemplification through cases and business model patterns, ideation for single business model components, and modelling relations across components and models. The methodology underlying this tool supports values-based and thus also sustainability-oriented modelling in collaborative settings. It accounts for the participants' varying and potentially conflicting values and normative orientations. This chapter describes the concept of values-based innovation, the underlying methodology of values-based and sustainability-oriented business modelling, the toolkit itself, as well as a reflection of practical experience gained with the toolkit.

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18.1 Introduction

Innovation capability has become an essential competitive factor in the so-called knowledge-based economy. New technologies and services, growing international competition and changing demands, as well as workforce expectations require continuous renewal of nearly all business domains. At the same time, companies are increasingly expected to align their activities with the present and future needs of society. These go beyond economic value added, job creation, provision of products and services, and includes a variety of environmental and social concerns (e.g., Carroll and Shabana 2010). Issues of corporate social responsibility (CSR) and corporate sustainability are increasingly influencing the core businesses of firms worldwide (Schaltegger and Burritt 2018; Schaltegger and Lüdeke-Freund 2013a, b). Against this backdrop, we see two trends converge: the need for continuous corporate renewal, and growing concern about the environmental and social impact of business—innovation meets CSR and corporate sustainability (Kiron et al. 2013).

These trends have far-reaching effects on how new processes, products and services, business models and networks are developed (Breuer and Lüdeke-Freund 2017a, b). But innovation is not only important to secure firm's competitive advantages. Researchers and practitioners alike are becoming increasingly aware that "creative destruction" through innovation (Schumpeter 1942/2006) can realign entrepreneurial activity with broader societal needs (Schaltegger and Wagner 2011). Innovation becomes an essential lever to provide a meaning to business that exceeds the satisfaction of current market demand. Research on sustainable entrepreneurship (e.g., Hockerts and Wüstenhagen 2010; Schaltegger and Wagner 2011) showcases examples of entrepreneurs, managers, and founders who promote the energy revolution without waiting for political and legal support (e.g., Peder Hansen and Vestas, or Michael and Ursula Sladek and Elektrizitätswerke Schönau). Others care about the particular needs and abilities of disadvantaged people (e.g., Andreas Heinecke and "Dialogue in the Dark", or Govindappa Venkataswamy and Aravind Eye Care System; Gerckens et al., 2018) or pursue ambitious visions to renew rigid patterns of production and consumption (e.g., Shai Agassi and Better Place, or Elon Musk and Tesla). These innovators recognise opportunities to foster environmental and social sustainability and to proactively avoid or solve societal problems. They are—both consciously and unconsciously—taking notions of the desirable as their normative orientations and levers to drive innovation in processes, products and services, business models and networks (Breuer and Lüdeke-Freund 2017a, b), thereby going beyond marketing instruments and strategic considerations and integrating value creation and normative management. As we have shown theoretically and through various historical cases (Breuer and Lüdeke-Freund 2017a), even mainstream business works on normative foundations and pursues distinct values.

The need for sustainability-oriented—or broader speaking explicitly values-based—entrepreneurship has been widely recognised, and even mainstream business developers look for substantially new ways to grow their businesses. However, they are often missing appropriate means to explore their own and their stakeholders'

values and to implement corresponding corporate visions, missions, or purposes without compromising the economic necessities and potentials of their organisations (Freeman and Auster 2015). This chapter therefore shows how to develop values-based business models. We discuss how to link dedication to values and normative orientations on the one hand and the strategic issue of business modelling on the other hand. Established methods and instruments for the development of business models, especially the so-called 'Business Model Canvas' (Osterwalder and Pigneur 2010), do not take into account issues of social responsibility and sustainability, or the normative foundations of business in general. However, our goal is not to integrate CSR and sustainability considerations into existing methods and practices in a retroactive manner, but to systematically frame and define innovation as a values-based activity and to provide supporting tools, methods, and practices. To this end, we introduce a values-based approach to modelling new or existing business, and a sustainability-oriented approach as a specific form of values-based business modelling.

We start this chapter by discussing different methods, tools, and didactic aspects of business modelling. However, most of the currently available approaches do not explicitly address the subjective values and normative orientations underlying business and innovation. Therefore, we subsequently address this gap by pointing out how to consider values in business modelling and presents the 'Business Innovation Kit' (based on Breuer 2013) and the 'Sustainability Innovation Pack' (Breuer and Lüdeke-Freund 2015, 2017a, b). Together they provide a powerful and practically proven toolbox with consecutive modules to design values-based and sustainability-oriented business models. Finally, we exemplify fields of application and discuss future research and development.

18.2 Purpose of Modelling and Existing Methods

Unlike research and development, innovation is difficult to plan. At the beginning, it is unclear who comes into the game and which rules prevail. One challenge is to involve stakeholders from different knowledge cultures and with different interests and values regarding the design process and its intended outcomes. Here, methods of values-based business modelling apply. These include approaches to clarify fundamental stakeholder values, tools for exploring alternative value propositions and viable business models, as well as methods of iterative elaboration and examination of assumptions.

18.2.1 Two Scenarios

Consider the following two scenarios. Both are based on, but also go well beyond, actual experiences of the authors to demonstrate the added value of working with these tools in an idealised form.

Scenario A
Team A has been working with 20 people for 12 months on a 'smart home' product to be offered by a telecommunication provider for an elderly target group. The two project managers for technology and business prioritise different values and associate a different purpose and value proposition with the product, but they never discuss these differences. Following the technical project lead, the programmers develop a security solution for old people while the business developers target the 'silver market', wealthy elderly customers who appreciate comfort and luxury, and mandate an according marketing campaign. In several iterations the initial technical safety product is optimised in order to create a superficial impression of a comfort solution. In spite of high investments in advertising, customer demand in the test markets underscores minimal expectations. After 24 months of work the project is terminated. A competitor has taken over large market shares with a new business and revenue model based on strategic partnerships and subsidization of its smart home product.

Scenario B
Team B also works on a smart home solution with 20 people and starts with a series of business modelling workshops. Vividly they discuss the purpose of such an innovation and the overarching vision and mission of their endeavour. They derive suitable value propositions, analyse needs and interests of customer and stakeholder groups, and explore the touchpoints, distribution channels, revenue streams, and pricing mechanisms, as well as the capabilities, the strategic partners and assumed resulting cost structure. Everyone knows the model and contributes to the elaboration of a new revenue model. After some weeks, the first prototypes are available, and after some months they have been redesigned and refined based on feedback from customers, stakeholders, and experts. After less than a year the offering is out on the market with a convincing and consistent value proposition and a powerful network of partners. In addition to the elderly beneficiaries the offer targets their children and grandchildren who are willing to invest in taking care for their parents and grandparents. Team B also investigated potential business cases for sustainability, and recognised that both for themselves as well as for this secondary target group sustainability is a relevant sales argument. 'Costs' and 'efficiency' were adopted with an accompanying service offering, including energy saving and consulting for inhabitants of smart homes. 'Reputation' and 'workforce' were also integrated as potential drivers. In addition to the smart home service centres a peer-to-peer network of inhabitants is set up. It provides further opportunities for contact and sharing of care services, and thus complements and informs the regional care services.

18.2.2 The Purpose of the Modelling

Business models are, first and foremost, models. As a means of strategic and innovation management and for the development of organisational and IT structures, they are useful simplifications and filters of complex issues of corporate reality (e.g.,

Wirtz 2011; Seelos 2014). Strategic issues can be reconstructed, negotiated and designed using modelling languages, visual concepts and design patterns, even across various disciplines and stakeholder groups. According to Osterwalder et al. (2005), business models allow capturing, sharing, understanding, analysing and managing a company's logic of value creation. Functions also include the development of scenarios and patenting of business models, which is important particularly in the context of Internet marketing and digital business. All these functions are based on the principles of abstraction, reconstruction and design.

According to Baden-Fuller and Morgan (2010: 156) business models "act as recipes". These authors highlight the possibility of supporting the creativity of entrepreneurs and managers through switching and transferring the logic of value creation and business rules between different industries, sectors or companies. These logics and rules become "ingredients" for innovation projects. Doganova and Eyquem-Renault (2009) focus on the model as a "mediating device", supporting communication and sense-making among actors. Narratives, which are particularly essential in the founding phase, are supported. Various market actors are brought together and motivated to negotiate a common interpretation for example of company purpose and potential strengths and weaknesses.

Business models, as descriptions of value creation rationales, can be considered at different levels of abstraction (Schallmo 2013): at the level of abstract types (e.g. two-sided online platforms), at the level of industries (e.g., online retail), at the level of companies (e.g. Amazons business model), at the level of a business entity (e.g., Amazon's cloud business) and lastly at the level of individual products or services (e.g., Amazon Prime Music). Svejenova et al. (2010) look at business models at the level of individual entrepreneurs and Clark et al. (2012) even provide guidance for how to develop one's own personal business model based on one's individual abilities and preferences. In addition to defining the value creation approaches of companies and entrepreneurs at these different levels and scales, hybrid and non-economic organisations can be described (Dahan et al. 2010).

Different applications of methods and tools of business modelling arise from the various functions, reference levels and contexts for value creation. However, it is important to clarify their supporting functions, reference objects and contexts to identify and tailor appropriate methods and instruments. This applies particularly to the development of values-based and sustainability-oriented business models (Breuer and Lüdeke-Freund 2017a, b).

Six currently available tools for sustainability-oriented business modelling (also see Chap. 17) that could help with the alignment of sustainability (and other values-based) purposes with the task of developing or innovating new business models have been described systematically and analysed elsewhere (Breuer et al., 2018).

- *Value Mapping Tool*: A tool for developing value propositions (Bocken et al. 2013) that supports the identification and reflection upon value created, destroyed and ignored for stakeholders of a network.
- *Triple-Layered Business Model Canvas*: This instrument uses the original Business Model Canvas directly and supplements it by two levels, each with nine new components (Joyce and Paquin 2016). One is the stakeholder level for

considering social aspects, and one is the environmental level, referring to concepts of the lifecycle analysis of products and services.

- *Sustainable Business Canvas*: A canvas tool developed for the start-up initiative 'StartUp4Climate' (Fichter and Tiemann 2015) to support sustainability orientation.
- *Flourishing Business Canvas*: An instrument based on a "strongly sustainable business model ontology" (Upward and Jones 2016). Environment, society and economy are integrated into the business model.
- *Business Model Canvas Extended for Infrastructure*: An instrument that enables the development of business models for infrastructure projects (Foxon et al. 2015). Private and public decision makers are supported to model other and their environmental and social concerns regarding infrastructure projects.
- *Business Innovation Kit* and *Sustainability Innovation Pack*: Based on a review and clarification of stakeholder values, moderation cards didactically guide users through a self-explanatory process (Breuer 2013; Breuer and Lüdeke-Freund 2015, 2017a). The supplementary Sustainability Innovation Pack facilitates modelling of sustainability-oriented business models and "business cases for sustainability".

These and further tools could be used to reconcile the different interests and needs of the various actors, read stakeholders, with the purpose of conducting business.

18.2.3 Reconciliation of Interests and Understanding of Values

While a fair balance between the interests of different internal and external stakeholders is a regularly observed topic of sustainability-oriented corporate development (e.g., Hörisch et al. 2014), the underlying values of the participants are rarely considered. Unlike other modelling tools, the values-based approach of the Business Innovation Kit starts from a discussion of values at the beginning of the modelling process. Before presenting the tool, we briefly clarify the difference between interests and values and consider alternative methods for reviewing values.

Interests can be weighted up and negotiated in the manner of a simple or complex exchange transaction. Values, on the other hand, define to some extent who we are. Divergence between different stakeholder values can at most be understood and accepted in their differences, before the parties can explore superordinate, connecting values. The nominal clearance, differentiated description and potential synthesis of values at the beginning of the modelling process facilitate cooperation and indicate good prospects for effective implementation of the jointly developed goals and ideas into viable business models. For this, the corresponding ideas of what is desirable for the parties must first be clarified and elaborated upon before they can be further developed and specified for the joint project.

When individuals or a group are, for example, concerned about the values of freedom or privacy, it is first necessary to understand what it means to each party. To prepare, it may help to study what the respective terms and associated values mean in different cultures, and why the corresponding norms and legal systems differ (e.g., the European understanding of privacy as informational self-determination versus the US-American right to be left alone). Once similarities and differences become evident, shared and overarching values may be defined and used to inform the specification of business model components.

To identify relevant notions of the desirable (i.e., values), different tools and methods can be applied, for example:

- Individual customer surveys, anonymous or open interviews with employees and other stakeholders;
- Ethnographical studies based on participant observation in natural settings and an interpretation of stories;
- Collaborative elaboration of the values of the participating groups, for example with the help of creative workshops, techniques like 'Attribute-Value Mapping' (SIT 2007) or traveling exhibitions with billboards, on which participants outline what they consider important today and in the future (also see vision or future workshops).

18.3 The Business Innovation Kit: A Toolbox for Values-Based Business Modelling

Innovation managers and founders are confronted with recurring challenges in the modelling of new, or the optimisation of, existing businesses, business units or market segments they address:

- The strengths and weaknesses of all business model components (such as customer groups and stakeholders, value propositions, customer touchpoint, distribution channels, revenue models, corporate capabilities, strategic partnerships and cost structure) must be recognised early on.
- The width and depth of the various design options for each component must be recognised to combine options and develop alternatives of business models.
- The potential for alternative business ideas (e.g., use-cases of a new technology) and viable business models for each must be compared.
- A shared understanding of the project is to be developed between stakeholders to facilitate efficient cooperation.

The Business Innovation Kit [based on the Business Modeling Starter Kit by Breuer (2013, 2017)] helps meet these requirements and supports moderators, start-up teams, innovators and learners in the development of values-based business models. It helps in exploring viable revenue models, walking through the customer journey, elaborating upon each customer touchpoint, and pursuing normative

orientations like dedication to sustainability or values of privacy. Participants interact in a playful manner and without external assistance. The toolkit is provided as a tangible deck of cards supporting direct face-to-face interaction. Therefore, it allows for immediate creative exchange and ensures commitment among participants. In addition, to reduce language barriers, the toolbox was translated into several languages (German, Polish, Spanish and English).

18.3.1 Didactics, Gamification and Orientation Towards Values-Based Statements

The Business Innovation Kit combines a didactic concept for the implementation of workshops with playful elements (gamification) and a dedicated orientation towards the values of customers, companies, and employees, with an orientation towards sustainability.

First, the basic knowledge about business models and business model components is rendered in a didactical and consecutive manner. Participants proceed in a self-directed manner—'learning by doing'—as they discuss alternative business model designs and trade-offs. This learner-centred design (Quintana et al. 2000) of the toolkit provides a basic structure that can be adapted to the knowledge and needs of particular teams. The initial idea was to support everyone trying to find or expand his or her own business. Both, the didactic treatment of content and the process-oriented design go beyond what simple projection or mapping tools like the 'Business Model Canvas' offer. Mapping exercises based on these templates usually depend on professional moderation or require at least in-depth examination of related literature.

Secondly, the Business Innovation Kit was developed from the outset as a means of collaboration, with playful elements (such as puzzles, challenges and competitions) that promote cooperation. Participants gather around a playing field and follow shared rules while they pursue a joint course of actions and perform exercises described on the cards. Selection of ideas from ideation provides anchor points to refine ideas and combine them into viable business models. The so-called 'challenger cards' at the end of a session present short scenarios to consider and prepare for, and not only challenge assumptions but also trigger entertaining comments and reflections.

Of particular importance is the third feature of the toolkit: the value-based approach to the development of business models. Here the toolkit supports the broader approach of values-based innovation management (Breuer and Lüdeke-Freund 2017a), which theoretically and empirically reveals the issues people really care about as a widely untapped source of ideas, and a reliable guideline for decisions throughout innovation projects. Accordingly the clarification of shared values and visions with the project team creates the common starting and reference

point for the development of new business models. However, overarching values such as accountability, equity or sustainability-orientation need to be further differentiated and specified before viable business models can be defined to work towards these values. Founding myths and stories, formal statements on vision, mission, and internally communicated organisational values contribute to defining the vision, mission, or purpose of an innovation project.

These principles are implemented by means of a series of design elements and successive exercises, which are described in a handbook and on facilitation cards:

- Facilitation cards guide even inexperienced business model developers and workshop moderators through a self-explanatory process. It leads through five steps to alternative values-based business models. Strengths and weaknesses within the team and the project are revealed through the process. Each step can be run in simpler or more sophisticated variants.
- At the beginning, a discussion and clarification of shared values and the purpose of the project prepare the common ground for subsequent activities. These normative orientations can be formulated as a pictographic vision or as a mission statement.
- Case cards present exemplary business model patterns (also see Gassmann et al. 2013) and allow the participants to familiarise with the minimal set of eight business model components: These are the value proposition, stakeholders, touchpoints, distribution, revenues, capabilities, partners and cost structure (see for details: Breuer 2013).
- Structured brain-writing exercises are triggered through generative questions. First individually, then as a group, participants answer questions like "Who is affected positively or negatively by your business?" All ideas are collected in an idea pool. Elaboration cards for creating a revenue model or detailed descriptions of touchpoints support advanced differentiation of selected components.
- Within a refinement exercise the best ideas are selected, and some are used as an anchor for creating alternative business model ideas. Typically, two to five alternative models are created.
- At the end, a set of scenarios and challenges that entrepreneurs are typically facing is presented. Workshop participants are asked to react to and prepare for these scenarios, and to challenge their often implicit assumptions. For instance, responding to a potential omission of their most important distribution channel or to an open-source offering of a competitor may foster reasoning about dependencies of the developed business models and their embeddedness in ecosystems. Deciding which photo and which headline about their business to give to the yellow press may encourage vivid imagination of activities founders need to commit to.
- On a playing field, the consecutive steps and suitable moderation cards for each exercise are arranged sequentially for each exercise (Fig. 18.1). For the brain-writing section, walls may be marked with icons of each component to collect ideas.

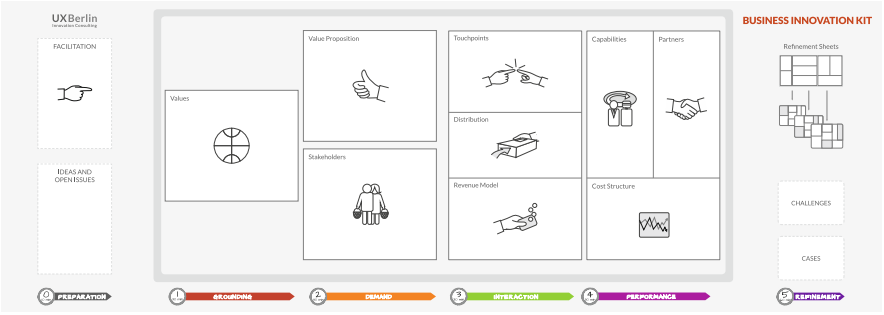

Fig. 18.1 Playground with exercises for values-based modelling of business ideas

18.3.2 Iterative Development and Validation

Business modelling with the Business Innovation Kit (BIK) is only the first of five steps for the implementation of new business models. The 'Five E Model' (Breuer 2013) describes the development and implementation of new business models as a collaborative learning process that start-ups and new business units engage in. The details of this process are beyond the scope of this chapter. Decisive are the five phases of the process in the preparation and examination of the business model assumptions:

- **Exploration:** The basic version of the BIK is primarily used to explore a variety of potential business models. It can be used with different participants to obtain a wide range of viable models and at different times to acknowledge changing circumstances.
- **Elaboration:** Follow-up research and creative exercises help to identify the full range of options for each business model component, and to select and (qualitatively and quantitatively) specify the most suitable options.
- **Evaluation:** Resulting business model designs are to be understood as assumptions. Each success-critical assumption needs to be evaluated through stakeholder and expert interviews, risk analysis and follow-up investigation (for instance from a legal perspective).
- **Experiments:** Some critical issues can only be tested with empirical data, such as whether a pricing model is attractive for a sufficiently large number to customers. Experiments must be designed to reveal the reasons for success or failure.
- **Evolution:** Mid-term evolution of the business is sketched out in line with the normative foundations underlying the business modelling exercise. A roadmap acknowledges different future scenarios and options for upcoming releases of the offering.

18.3.3 Maturity of Sustainability Orientation

The Business Innovation Kit is complemented by the Sustainability Innovation Pack (SIP) (Breuer and Lüdeke-Freund 2015, 2017a, b). The SIP consists of two decks of cards that have been designed to support modelling sustainability-oriented business models (see e.g., Breuer et al., 2018; Lüdeke-Freund and Dembek 2017; Schaltegger et al. 2016). The first deck of cards represents a maturity model for sustainability-oriented innovations ('Sustainability Innovation Maturity Model'), which allows for the assignment of an innovation project to different levels of sustainability maturity. The second deck of cards defines key drivers for business success and makes suggestions on how business models can be optimised or redesigned to consider sustainability aspects. This deck of cards helps to identify and explore different success drivers ('business case drivers'; Schaltegger et al. 2012) such as costs, risks, brand value or reputation as an employer. This exercise is guided by the question how a business model can be developed or modified such that it supports these success drivers *through* considering sustainability aspects. These aspects must be defined as a fundamental part of the vision, mission or purpose in the grounding exercise at the beginning of the business modelling process (see above). Particularly where desires and ideals play a crucial role, values and norms come into play and can serve as anchors for business model development (Breuer and Lüdeke-Freund 2017a, b).

The maturity model of the SIP can be used to classify a project into five possible levels of sustainability innovation. Maturity models are a well-established tool in research and practice to assess the status quo against the desired target level of, for example, specific business activities or organisational characteristics. Depending on their design, they can be used both for evaluation purposes and for the planning of future steps of development (see e.g., Müller and Pfleger 2014). In the context of sustainability management, maturity models are often used to assess the state of integration of environmental and social aspects into corporate activities and organisational structures (activity and organisational perspective) or the sustainability of a company's performance (performance perspective). Such models define a low initial level and a path forward to higher levels.

Cagnin et al. (2011), for example, define main activity areas of management (including strategy, operations, core competencies and partnerships) and propose five steps along which a company can develop its sustainability orientation within these activity areas. The five stages are "ad hoc management", "isolated planning", "integrated management", "excellence at the company level" and "high performance network-level". The rationale of this model is to start from rather unplanned and unsystematic sustainability activities and aim for a level of development on which the company and its network can contribute systematically to sustainable development. In a similar way, but with varying emphasis on activities or strategies, further maturity models can be found in the academic and practical literature (e.g., Deloitte 2012; Müller and Pfleger 2014; Srai et al. 2013).

Following the model of Cagnin et al. (2011), and considering the qualitative development levels of other models (e.g., Deloitte 2012; Müller and Pfleger 2014), the SIP defines the five maturity levels to assess the sustainability orientation of innovation projects. The following table defines these five levels, which are described regarding the underlying motivation (why are sustainability issues addressed?), focus (what is to be assessed?) and degree of integration (is dealing with the focused sustainability issues institutionalised in the organisation?). Similar to Cagnin et al. (2011), but with a focus on innovation, the sustainability innovation maturity model defines a simple starting level on which sustainability innovation takes place on an ad hoc basis and rather unsystematically, limited to individual business model components only. The model proposes a logical path to systematic sustainability innovations at the level of networks. Two normative development goals guide the model's path: firstly, the systematization and integration of sustainability innovation into business models (from ad hoc and isolated to systematic and cooperative), and secondly, an extension of the innovator's scope (from single business model components to whole networks; Breuer and Lüdeke-Freund 2017b) (Table 18.1).

The maturity model is typically used at the beginning of a business modelling workshop to clarify a company's positioning and future perspective. Once the desired future maturity level for a business modelling project has been defined, examples of successful companies can be used as reference points [a large number of case studies, e.g., IBM or carpet manufacturer Interface, can be found in Breuer and Lüdeke-Freund (2017a)].

18.3.4 Business Case Drivers for Sustainability

The second deck of cards contained in the SIP defines key drivers for business success (so-called 'business case' drivers, Schaltegger et al. 2012). These cards can be used to define both guidelines as well as targets for sustainability-oriented business modelling. For this purpose, success drivers such as costs, risks or brand value are proposed (Table 18.2). The main question that these cards ask business modellers to think about is: *How do business model innovations or adaptations influence the key drivers of our organisation's success?* Depending on the individual motivations of entrepreneurs and organisations (e.g., profit-driven or primarily motivated by the creation of social value), these drivers and corresponding measures confront business modellers with critical trade-offs. For example, the costs of a socially-driven project may absorb the profit margin of a company. This might be acceptable or even desired for one type of entrepreneur, while for another this poses a difficult trade-off that must be solved. These and similar tensions between success drivers, both positive and negative, should be anticipated as far as possible in advance by using the SIP's driver cards.

The success drivers represent variables with a direct influence on a company's business success. But in the case of sustainability-oriented business modelling it is

Table 18.1 Levels of the SIP's 'Sustainability Innovation Maturity Model' (Breuer and Lüdeke-Freund 2017a)

Maturity level	Definition	Characterization
(1) Sustainability-oriented Innovation within components	Ad hoc sustainability innovation within single components (e.g. replacing a conventional product with a green alternative)	*Motivation:* Externally driven by market or regulatory pressure and opportunities to raise market share in "green premiums" *Focus:* SI focus is on a single product or feature, a single market segment, or a single process *Integration:* Organisational structures and routines do not support SI; ad hoc management without organisational learning
(2) Sustainability-oriented innovation throughout components	Sustainability is being pursued throughout business model components (e.g. renewal of a whole product category and its distribution logistics)	*Motivation:* Rather externally driven, but with a systematic view on product lines and overarching processes; consequences of regulations, opportunities, and lessons learned from first initiatives *Focus:* SI goes beyond single components and may also combine different components as a precondition for business model innovation *Integration:* Basic structures and routines for SI are established, such as systematic data management and cross-functional communication; still, the most important resource is personal experience with successful projects
(3) Sustainability-oriented innovation process	Sustainability innovation as a basis for corporate renewal and a core element of strategy (e.g. bundling of CSR activities, product and process innovations, and overall corporate environmental performance)	*Motivation:* Internally and externally driven approach to drive innovation and initiate learning from solving sustainability issues; goal is a systematic and continuous balance of risks and opportunities in all major business areas and processes *Focus:* SI, as a legitimate business function, is systematically integrated into core structures and routines; the focus is on repeatable and continuously improved SI activities *Integration:* Management structures and routines, data management, and internal communication support SI in core business; self-sustaining organisational learning, independent from personal experience becomes possible

(continued)

Table 18.1 (continued)

Maturity level	Definition	Characterization
(4) Sustainability-oriented business model innovation	New value creation approaches through sustainable business model innovation (e.g. around an ecologically superior product-service-system)	*Motivation:* Strategy focuses on value creation for the organisation and its ecosystem; innovation and learning are pursued on all levels; the business model is seen as a key level for radically new value creation rationales *Focus:* SI, as a strategic business goal, is pursued on the levels of business models and organisation-society interfaces *Integration:* Management structures and routines, data management, and internal communication support SI in core business; self-sustaining organisational learning becomes possible
(5) Sustainability-oriented value network innovation	Networks to achieve net positive value and visionary change based on normative values (e.g. mutual and complementary development of new energy supply, storage, and ICT business models to enable smart decentralisation)	*Motivation:* The normative orientation behind any form of value creation taken as starting point; shared visions and the potential for symbiosis motivate joint problem solving and value creation, and network development even between uncommon partners *Focus:* Normative values are used as motivators for collaborative SI beyond single business models and organisations; collaborations and networks are used as level for SI activities which integrate all preceding SI levels *Integration:* Management structures and routines partly aligned across multiple actors/the network; development of self-organising capabilities on the network level; joint, mutual, and continuous learning

about improving these drivers, and thus business success, *through* voluntary and involuntary environmental and social measures (Schaltegger et al. 2012). Whenever this is possible, so-called 'business cases for corporate social responsibility' or 'business cases for sustainability' can be realised (e.g., Carroll and Shabana 2010). Since the relationships between environmental and social measures and success drivers can differ largely from traditional measures, such as simple product upgrades or the optimisation of production processes, the connections between sustainability-oriented business models and success drivers deserve special attention.

Table 18.2 Success drivers that can be improved through sustainability-oriented business modelling

Business case driver	Description
Costs	Reduce the costs of your own business operations, or the costs incurred for your partners, customers, and other stakeholders
Risks	Proactively anticipate, control, and reduce ecological and/or social risks. This includes financial risks associated to costs of potential proxy wars or prosecution
Revenues	Increase sales volumes and tap new revenue sources with more sustainable products and services
Efficiency	Increase your operational efficiency by harvesting 'low hanging fruits' and substantial improvements of your core processes
Reputation	Improve your reputation and brand value and improve the positioning of your products and services through ecological and social business practices and offerings
Workforce	Increase your attractiveness as an ecologically and socially responsible employer. Motivate employees to engage in real customer relationships
Innovation	Take sustainability-related goals and metrics as a foundation and evaluation criteria to initiate and manage innovation
Ecosystem	Contribute to, and profit from, your wider business ecosystem, for instance by exploring new forms of cooperation based on shared values

The literature shows that a variety of direct and indirect success drivers exist. The most significant directly acting drivers are costs, risks, revenues and profit margins, corporate reputation and brand value, attractiveness as employer and the innovative capacity of a company (e.g., Schaltegger and Burritt 2018; Schaltegger et al. 2012). For the development of sustainability-oriented business models it is crucial to gain an understanding of the impact on these drivers and to make sure that sustainability measures have a positive effect on them. A frequently cited example is the US-based company Interface, a specialist in environmentally sustainable flooring. Interface changed its core business and the associated processes, products and services fundamentally to follow the principles of closed material cycles, the replacement of products by services and maximum eco-efficiency and eco-effectiveness. Further objectives of Interface are moving to 100% renewable energy as well as the complete elimination of waste throughout the company's supply chains. With annual sales of around 900 million dollars and tens of millions of profits, Interface seems to have developed a model that can combine quite radical and environmentally driven changes in the company with financial success. The underlying business model innovation—from product manufacturer to service provider—has some positive effects on several success drivers: steady sales growth, pioneer and role model reputation in ecologically sound production. This makes the company extremely attractive for a young, motivated and talented workforce, which in turn has a positive effect on the company's ability to innovate and compete in the market.

Table 18.2 defines major success drivers which are regularly discussed in the literature (see e.g., Hockerts 2015; Schaltegger et al. 2012). These eight drivers are

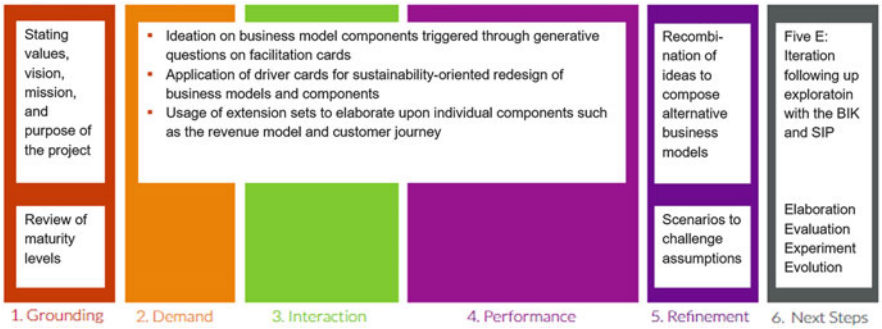

Fig. 18.2 Overview of exercises to model values-based business ideas

described in detail and illustrated with examples in the second deck of SIP cards. These drivers are not final and can be supplemented according to the users' contexts and specific needs.

These driver cards can be combined with the Business Innovation Kit in different ways. The three basic modes are:

1. Consideration of selected drivers when specifying single business model components (e.g., considering the contribution of a new production process to reduce risks);
2. Consideration of selected drivers when composing and refining entire business models (e.g., considering the whole model's exposure to risks based on market positioning and legal regulation);
3. Development of a business model and subsequent critical analyses of its assumptions based on selected drivers (e.g., the flexibility of a model to adapt to changing values in society).

The selection of suitable drivers and their combination with the Business Innovation Kit depend on the specific project and its context, and on the innovation team's individual development approach from (e.g., applying a sustainability orientation from scratch or conducting a supplementary evaluation of sustainability-related aspects). Figure 18.2 provides an overview of the most important steps and methods of working with the introduced toolkits.

18.4 Main Fields of Application

In more than 100 workshops with innovation managers, start-ups, corporate ventures, sales staff, students and interested laymen we tested different applications for modelling new business with the toolkits described in the preceding sections.

18.4.1 Developing Business Models for New Business Ideas or New Technologies

Originally, the toolkits were developed to explore alternative business models for an already well-defined business idea or technology. Although these ideas always come with initial ideas of a suitable business model, the workshop format proved to be successful in revealing entirely new and/or sustainability-oriented business model alternatives. In one case, the workshop participants started with the initial idea to offer a new open source phone for price-sensitive young people. Through the workshop they realised that a more powerful model in line with their capabilities was to offer a B2B white label phone to business customers who pass on customised and branded devices to their clients.

18.4.2 Optimisation of Existing Business Models and Consolidation of Diversified Business Models

Often, not all those responsible in a company share a clear understanding of their own business model. Some companies and their ways of creating and capturing value develop in a situated manner, i.e. they tend to respond to market requirements and opportunities rather than pursuing their own clearly defined visions, missions, values and strategies. The described tools allow for reconstructing one's own business model to identify and to explore the alternatives to optimise it, for instance simplifying highly diversified models. In one case, a catering service that had grown rapidly and maintained several unprofitable activity streams over the years needed to redefine its core business and to identify options for outsourcing.

18.4.3 Selection of Promising Applications

New technological developments usually allow for a variety of different applications. Designing business models for different applications generates valuable clues to opt for a specific application and a model for a first market approach. In another example, we worked with an engineering team that had developed a virtual router and identified eight different use cases to bring to the market. For some of these cases no powerful business model could be identified, whereas for others further elaboration of revenue models was required. For the time being only one use case, out of eight, actually translated into a viable and promising model for commercialisation.

18.4.4 Win-Win Modelling

Potentials for strategic partnerships or sales and distribution can be found if business models of different companies are combined. An example is a large IT and telecommunications company offering telematics solutions for the transition to the so called 'industry 4.0'. It offered a business modelling workshop for one of its business clients, which manufactures and distributes machines for agriculture. Reconstructing the clients' business models provided the stepping stone to identify business model components (such as IT capabilities or distribution facilities) that would expand the client's business model with support from the IT and telecommunications provider, enabling 'digitised agriculture'.

18.4.5 Sustainability-Oriented Development of New Business

Ecologically and socially motivated founders entering new or existing markets face multiple challenges. For instance, they may deliberately decide for a less harmful production process or design supply chains in an inclusive and socially acceptable manner, which may increase costs and reduce room for manoeuvring. (The Fair Phone initiative from The Netherlands, for instance, uses its supply chain to optimise usage of rare earth metals and make their extraction transparent.) Young and values-driven companies such as Viva con Agua, a German bottled-water supplier, need to iteratively review their business model options along their growth paths. On the one hand, they try to avoid certain traditional business model elements (e.g., cooperation with wholesalers or traditional supermarkets), which reduces design options; on the other hand the normative foundation of their business suggests considering new alliances and collaborative efforts; in the case of Viva con Agua for instance with trendy restaurants or local dealers. The toolkits support this exploration of values-based options and limits. Established companies use the driver cards to stimulate ideation on how to adapt and expand their business model.

18.4.6 Addressing Wicked Problems

Intricate problems—in the context of sustainability also referred to as unsolvable or 'wicked problems' (Rittel and Webber 1973; Waddock 2013)—can usually only be adequately addressed in a network of cooperative actors, and require changes to the business models of different stakeholders. In a project to establish sustainable energy in a Northern German region, we first reviewed and reframed the values and normative orientations of the participating stakeholders. Based on this common ground, new sustainability-oriented business models were sketched for different

stakeholders and individual companies (such as energy producers, network operators, storage providers and prosumers).

18.4.7 Studying the Management and Marketing of Innovation and Sustainability

Both BIK and SIP offer an easy access to academic discussions on (sustainability-oriented) business model development. Complexity is slowly increasing: starting from a simple assignment of cases, through moderated ideation on business model components and their relations to the prioritization of options and models and their confrontation with scenarios. Advanced knowledge is conveyed through the analysis of sustainability-oriented business case drivers and the differentiation of revenue models and customer journeys. Playful exercises and diverse fields of application in different industries encourage self-directed, cooperative learning. Sustainable entrepreneurs and sustainability managers of the future are trained to think and work in a networked and cooperative manner.

18.5 Implications and Outlook

Insights and understanding on the side of participants are the essential value of working with the Business Innovation Kit (BIK) and Sustainability Innovation Pack (SIP) described in this chapter. We illustrated potential implications for companies and benefits of working with these tools through two scenarios. The two scenarios outlined above are only rough sketches in one application domain. Comparative and longitudinal empirical case studies are still missing. Evaluations of the workshops moderated with the toolkits are currently being conducted. The added value of working with the BIK and SIP are regularly witnessed in these evaluations by those who have worked with them and came up with new business models and socially and environmentally sustainable ideas for new businesses. Correspondingly, we have received quite positive feedback from those who participated in the workshops we moderated ourselves, and from many toolkit users who worked without external moderation. For practitioners, students and ourselves the ongoing development and formative evaluation of these tools are a means to integrate and substantiate knowledge and experiences in (sustainability-oriented) business model innovation. They not only represent and condense such knowledge but also make it actionable, providing proven tools for everyone ready to tackle business models in an active manner. For founders, innovators and responsible managers they especially support defining, pursuing and succeeding in socially and environmentally responsible innovation projects that are worth the effort.

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