Sustainable Value Creation for Advancing Sustainability Transition: An Approach to Integrate Company- and System-Level Sustainability

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DOI: 10.1007/978-3-030-77580-3_4

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Final draft

Please cite the publication as follows:

Laukkanen, M., Manninen, K., Huiskonen, J., & Kinnunen, N. (2021). Sustainable Value Creation for Advancing Sustainability Transition: An Approach to Integrate Company- and System-level Sustainability. In A. Aagaard, F. Lüdeke-Freund, & P. Wells (Eds.), *Business Models for Sustainability Transitions: How Organisations Contribute to Societal Transformation* (pp. 89-121). Palgrave Macmillan. DOI: 10.1007/978-3-030-77580-3

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1 Introduction

Companies can act as important agents in sustainability transitions (Farla et al., 2012; Markard et al., 2012) if they successfully implement ambitious sustainability strategies through new sustainable business models (SBMs) (Bolton and Hannon, 2016). Business models are part of and interact with established socio-technical systems, being a bridge between the company and the economic and social systems (Lüdeke-Freund and Dembek, 2017; Roome and Louche, 2016). Further, SBMs are recognised as a key to the creation of sustainable business and to leverage wider sustainability transition, i.e., a process through which established socio-technical systems shift to more sustainable modes of production and consumption (Loorbach et al., 2017; Markard et al., 2012). However, the interaction between companies and the larger socio-technical system in which they operate and impact on is still a less-researched area (Bidmon and Knab, 2018; Bocken et al., 2019). Company-level actions only make a marginal contribution to sustainability transition if the link between the micro-level concept of corporate sustainability and the global macro-level concept of sustainable development is not comprehensively understood (Dyllick and Muff, 2016). In this chapter, the terms “system” and “macro” level or the “societal” level of society are used interchangeably.

Sustainable business models incorporate the three pillars of sustainability: economic, environmental, and social, as an integral part of the company’s value proposition and value creation logic (Stubbs and Cocklin, 2008). SBMs are seen as vehicles for responding to the world’s increasing ecological and social problems, and to assist all types of companies to make their business sustainable (Lüdeke-Freund and Dembek, 2017). For example, many traditional manufacturing companies have changed their business models from selling products to selling services, which have the potential to increase sustainability, e.g., by improving utilisation of resources and products or extending product life (Yang and Evans,

2019). Today, there is great interest in SBMs based on circularity, saving resources, and eliminating waste (Pieroni et al., 2019), and interest in new forms of consumption, for example, through sharing economy business models (Laukkanen and Tura, 2020). These represent radical changes in the existing business logics and wholly new ways of doing business, leveraging sustainability transition.

Thus far, only a few studies have integrated business and management research with system transition research (Köhler et al., 2019). The business model literature remains largely dominated by company-, industry-, or business network-level analyses and examples, and only few studies have considered the link with macro developments at the systemic level (Abdelkafi and Täuscher, 2016; Bidmon and Knab, 2018). Transition research, which considers systems (e.g., energy transition), has neglected the micro-level dynamics and the role of single companies (Köhler et al., 2019; Markard et al., 2012). Consequently, further research is needed on how sustainability strategies of companies impact the outcome of sustainability transitions (Farla et al., 2012), and the rationale of how individual companies can enhance sustainability transitions through their SBMs (Iñigo and Albareda, 2016). In conclusion, there is a strong call for an integration of business research with transition research to better understand the interrelations between SBMs and sustainability transitions (Bocken et al., 2019; Köhler et al., 2019; Sarasini and Linder, 2018).

The main objective of this study is to bridge the research gap between the company level SBMs and system level sustainability transitions. The research question guiding the research is: How can individual companies contribute to and enable wider sustainability transition through their business models?

This study presents a company-driven approach by proposing sustainable value creation (SVC) as an approach to integrate company level sustainability into broader system

level sustainability transition. Sustainable value creation is a central part of any SBM, and it can be understood as a core process that mediates the impacts of an individual SBM to different system levels by contributing to wider value networks (Hellström et al., 2015) and creating value with and for various stakeholders (Freudenreich et al., 2020). The proposed approach is based on an extensive literature review and analysis of SBMs and sustainability transitions, and the empirical case example of Europe's leading horticultural company, Kekkilä-BVB.

This study offers initial guidelines for business managers aiming to adopt SBMs that contribute to sustainability transition through SVC. Contributing conceptually to the existing SBM and sustainability transition literatures, this study explains how the concept of SVC can be interpreted as a bridge between a company and economic and social systems, and further as a component of the larger system-level transition to sustainability. As the emerging SBM research field has its roots in multiple disciplines – the natural sciences (e.g., sustainability), management sciences (e.g., business models, corporate sustainability), and social sciences (e.g., transition) – this study summarises the key concepts (related to SBMs and SVC as contributing to sustainability transition) aiming to narrow the gap between different disciplines.

The chapter is structured as follows. The second section presents the theoretical background and builds an integration between company- and system-level sustainability by integrating views from the corporate sustainability, traditional business model, and sustainability transition literature. The third section presents the research design. The fourth section discusses the concept of SVC for advancing sustainability transition and uses the case study company to present the key steps in adopting an SVC approach. The chapter concludes with a discussion of implications and avenues for future research.

2 Theoretical Foundation

2.1 Integrating Company- and System-level Sustainability Through Sustainable Business Model Research

Sustainable business model research is an emerging research field that integrates different disciplines (Lüdeke-Freund and Dembek, 2017). This study adopts such an integrative approach to SBMs by combining views of corporate sustainability, traditional business model, and system transition from their respective literatures (Figure 1).

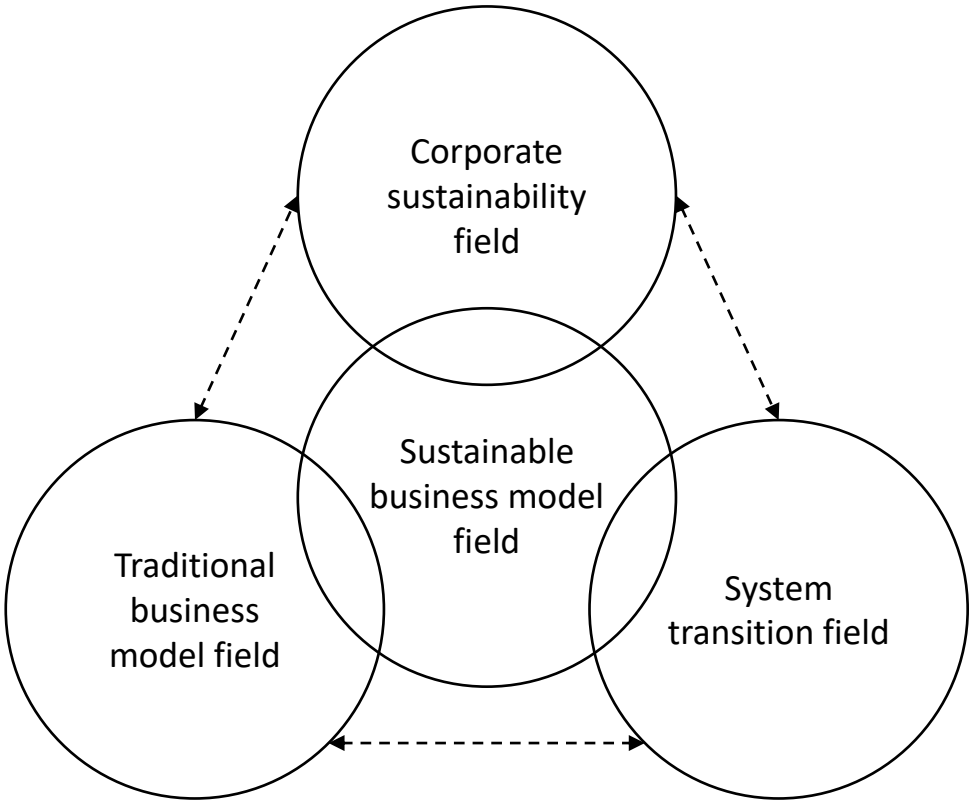

Figure 1. Sustainable business model research as an integrative field (adapted from Lüdeke-Freund and Dembek, 2017)

A corporate sustainability literature has emerged in the twenty-first century that considers how the macro-level concept of sustainable development can be applied to the company level (Baumgartner and Ebner, 2010). Corporate sustainability refers to translating the general principles of system-level sustainability (Robèrt et al. 2012) and sustainable

development into a corporate context, referring to activities to incorporate environmental and social concerns in company's strategy and business operations (Montiel, 2008). The concept of sustainable development, which is formally defined as the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987), was introduced about thirty years ago, and the consideration of sustainability in the management literature has grown quickly since the 1990s (Zemigala, 2019). Although the terms "sustainable development" and "sustainability" are often used interchangeably (Williams and Millington, 2004), sustainability can be understood as the target goal and sustainable development as a holistic process for achieving sustainability over time (Shaker, 2015). The concept of sustainable business has also been adopted to emphasise a business-centred approach to sustainability. "Sustainable business" refers to translating macro level sustainability challenges into business opportunities that make "business sense" of societal and environmental issues and creating a significant positive impact in critical and relevant areas for society and the planet while easing conflicts between financial demands and societal needs. Moreover, it refers to engaging on a sectorial or cross-sectorial level aiming to change the common practices, rules, and standards shared by all members in an industry and along supply chains toward approaches that advance system-level sustainability. Changing current approaches requires collaboration with all stakeholders involved, as big sustainability challenges like climate change, availability of fresh water, and loss of biodiversity cannot be solved by business alone (Dyllick and Muff, 2016).

Likewise, traditional business model research has flourished in the management literature since the end of the 1990s, especially with the emergence of the Internet and rapid advances in information and communication technologies (Demil and Lecocq, 2010). The term "business model" has been used in various ways over the years. For example, it is confused with other popular terms in the management literature such as "strategy," "business

concept," "revenue model," and "economic model" (DaSilva and Trkman, 2014). Today, the common understanding of the business model is that it describes the rationale of how an organisation creates, delivers, and captures value (Biloslavo et al., 2018; Osterwalder and Pigneur, 2010; Teece, 2010). Such a value-based approach provides a broader definition of a business model. As a business model is applied to various purposes, business model research covers various themes at a general level, including the static approach, which describes the core business model components and their coherence, and a more transformational approach, using the concept as a tool for addressing change and innovation (Demil and Lecocq, 2010). In this study, the business model is adopted to provide a link between an individual company and the larger production and consumption system to which it belongs (Boons et al., 2013).

The system transition literature studies systemic change (i.e., transition), a concept applied in many scientific disciplines that refers to a non-linear shift from one dynamic equilibrium to another. Transition is the result of actions and an interplay of a variety of changes, at different levels and in different domains, which somehow interact with and reinforce each other to produce a fundamental change in a societal system (Clarke and Crane, 2018; Loorbach et al., 2017). In the system transition literature, businesses are typically perceived as agents that can challenge the status quo of the current economy by contributing to it through radical and holistic changes in the existing business logics and business models (Köhler et al., 2019). The literature on sustainability transitions has been developed to address the large-scale societal changes aimed at solving the global challenge of sustainability (Loorbach et al., 2017; Smith et al., 2010). Sustainability transition is a long-term, multidimensional, and fundamental transformation process through which established socio-technical systems shift to more sustainable modes of production and consumption (Markard et al., 2012). Transitions are coevolutionary processes entailing multiple interdependent developments and involving changes in a range of elements: technologies,

markets, user practices, cultural meanings, infrastructures, policies, industry structures, business models, and supply chains (Köhler et al., 2019; Markard et al., 2012). Companies act as important agents in sustainability transition by developing novel technologies, products, services, and business models; creating new value networks; lobbying for specific policies; influencing customer behaviour; and shaping entire industries (Köhler et al., 2019).

Sustainable business model research has emerged from flaws in existing research fields (Lüdeke-Freund and Dembek, 2017). The corporate sustainability literature has traditionally focused on business level activities such as sustainable supply chain management (Wolf, 2014), sustainability performance measurement (Goyal et al., 2013), or sustainability strategies (Baumgartner and Ebner, 2010), but omitted the strategic link between the company and economic and societal system levels. The traditional business model literature has focused on how companies create value for customers, capture value itself, and enhance competitiveness (Zott et al., 2011) lacking sustainability and multi-stakeholder perspectives. On the other hand, transition research has traditionally focused on single systems, e.g., energy transition, but not the rationale of how individual companies can enhance sustainability transitions. Recently, the first studies focusing on the interplay between business models and sustainability transitions have emerged in both the management and transition literature (Bidmon and Knab, 2018; Sarasini and Linder, 2018). Through integrating the views from the research fields of corporate sustainability, traditional business models, and system transitions, SBM research considers the role of individual companies contributing and enabling wider sustainability transitions. Sustainable business models provide a link between company and system level sustainability, leveraging wider sustainability transition by integrating science-based sustainability principles (Robèrt et al., 2012) into the company's value proposition and value creation logic, and providing value to

the various stakeholders and to the natural environment and/or society (Abdelkafi and Täuscher, 2016; Lüdeke-Freund and Dembek, 2017).

2.2 Key Concepts in Sustainable Business Model Research

In the following, company- and system-level sustainability are integrated through the key concepts discussed in the previous section: system level sustainability, sustainability transition, sustainable business, and sustainable business model. Figure 2 provides the link from company level SBM to system level sustainability: Through SBM, an individual company integrates sustainability principles into its core business, delivers the shift towards sustainable business, and accelerates the broader transition towards system level sustainability (Bidmon and Knab, 2018). Further, Table 1 summarises the key concepts in the SBM literature, reflecting that SBM research has its roots in multiple disciplines: the natural sciences (e.g., sustainability), management sciences (e.g., business model, corporate sustainability), and social sciences and technology studies (e.g. transition).

Figure 2. Key concepts as integrating company- and system-level sustainability

Integrating macro level sustainability targets with the company level strategy and the business model requires that companies clearly understand the meaning and relevance of the sustainability concept (Rauter et al., 2017). Increasing environmental, social, and economic problems require systemic solutions through which companies create sustainability benefits and solve macro level sustainability challenges, not just minimise negative impacts at the company level. The term “system-level sustainability” is therefore used in this study to describe the final goal of a company. Following the definition of strong sustainability

(Neumayer, 2013), system-level sustainability refers to conditions that enable a good quality of life and welfare of current and future generations within ecological limits. Companies aiming to advance system-level sustainability create economic and social value while protecting the natural environment and reducing environmental pollution.

To contribute to system-level sustainability, businesses need to implement new business models or make changes to existing business models (i.e., SBM innovations). SBM innovations vary with the scope and degree of change and with the level of innovation (Adams et al., 2016). The innovations required for leveraging sustainability transition and for contributing to system-level sustainability are linked to higher levels of business model innovation and more radical business model changes (Boons et al., 2013). The focus has recently shifted to more systemic, non-technological, and people-centred innovations in which sustainability is treated as a socio-technical challenge (Adams et al., 2016). From this perspective, SBM's role is important, but is not an end in itself. Therefore, the proposed approach considers sustainable value creation (SVC), which can be understood as a core SBM process that mediates the impact of individual SBMs.

Table 1. Key concepts

Concept	**Definition**
System-level sustainability	System-level sustainability refers to conditions that enable a good quality of life and welfare of current and future generations within ecological limits.
Sustainable development	Sustainable development refers to a process for advancing system-level sustainability over time.
Corporate sustainability	Corporate sustainability is about translating the general principles of system-level sustainability and sustainable development to the company level, referring to activities to incorporate environmental and social concerns in company's strategy and business operations (Montiel, 2008).
Sustainable business	Sustainable business refers to translating macro-level sustainability challenges into business opportunities making "business sense" of societal and environmental issues and creating a significant positive impact in critical and relevant areas for society and the planet, while easing conflicts between financial demands and societal needs. It also refers to engaging on a sectorial or cross-sectorial level aiming to change the common practices, rules, and standards shared by all members in an

	industry and along supply-chains toward approaches that advance system-level sustainability. (Dyllick and Muff, 2016)
Transition	Transition (i.e., systemic change) refers to a non-linear shift from one dynamic equilibrium to another; it is the result of actions and an interplay of a variety of changes, at different levels and in different domains, that somehow interact with and reinforce each other to produce a fundamental change in a societal system (Clarke and Crane, 2018; Loorbach et al., 2017).
Sustainability transition	Sustainability transition is a long-term, multidimensional, and fundamental transformation process through which established socio-technical systems shift to more sustainable modes of production and consumption (Markard et al., 2012).
Business model	A business model describes the rationale of how a company creates, delivers, and captures value (Osterwalder and Pigneur, 2010), and provides a link between an individual company and the larger production and consumption system to which it belongs (Boons et al., 2013).
Sustainable business model	A sustainable business model provides a link between company- and system-level sustainability, leveraging wider sustainability transition by integrating sustainability principles (Robèrt et al., 2012) into the company's value proposition and value creation logic, and providing value to the various stakeholders and to the natural environment and/or society (Abdelkafi and Täuscher, 2016; Lüdeke-Freund and Dembek, 2017).
Sustainable business model innovation	Sustainable business model innovation refers to the conceptualisation and implementation of new business models, or changes in existing business models aiming to advance system-level sustainability.
Value creation	Value creation consists of value creation processes, which refer to expected value or a company's attempt to increase value (including the activities and resources involved in the value creation process), and value outcomes, which consider how value is actually perceived by the beneficiaries.
Sustainable value creation	Sustainable value creation refers to positive environmental, social, and economic impacts (co)created by a company and its value network and perceived by a company and different stakeholders.

2.3 Sustainable Value Creation for Advancing Sustainability Transition

Sustainable business models are commonly considered combinations of the general value concepts of value proposition, value creation and delivery, and value capture (e.g. Abdelkafi and Täuscher, 2016; Evans et al., 2017) (Figure 3). Besides new business models, sustainability calls for a redefinition of value concepts (Roome and Louche, 2016). While a traditional business model aims mainly to create value for customers, an SBM aims to align

business goals with the needs of an ecosystem and society translated into multiple value concepts (Kristensen and Remmen, 2019) such as increased happiness for customers, increased eco-effectiveness for supply chain partners, and increased prosperity and wellbeing at the societal level (den Ouden, 2012). The focus has recently shifted increasingly towards larger systems of stakeholders and various economic, environmental, social, and psychological perspectives of value building on an integrated view of sustainable value (Evans et al., 2017; Freudenreich et al., 2020; den Ouden, 2012), which refers to positive environmental, social, and economic impacts. Economic value relates to factors such as increased profit and financial resilience. Social value includes elements that individuals or society in general consider valuable, such as health and safety and happiness and belonging, which are often also linked to psychological value elements. Environmental value refers to businesses' positive impacts on the natural environment and environmental capital (Stubbs and Cocklin, 2008), for example through increased biodiversity. In sum, the multi-stakeholder perspective on value is central to an SBM, where the aim is to create value for a larger group of stakeholders, including the natural environment and human beings with whom the company will probably never engage (Upward and Jones, 2016).

In this study, SVC refers to positive environmental, social, and economic impacts (co)created by a company and its value network and perceived by a company and different stakeholders. SBMs propose sustainable value, although in practice such value can be either created and captured or destroyed (Roome and Louche, 2016; Yang et al., 2017). What is profitable for one company, benefits one stakeholder, or increases value in one dimension of sustainability may not be profitable for another company or may destroy value from another stakeholder's perspective or in another dimension of sustainability (Van Bommel, 2018; Yang et al., 2017). Therefore, eliminating or reducing the negative consequences of value creation (Van Bommel, 2018; Roome and Louche, Yang et al., 2017) is a prerequisite for

advancing system-level sustainability. Value destruction includes the negative outcomes of the business, i.e., damage to the planet, people, and profits, such as rebound effects, greenhouse gas emissions, resource scarcity, biodiversity loss, unemployment, neglect of health and safety, unfair competition, and inequality and job losses (Bocken et al., 2019; Yang et al., 2017). Thus far, most research on SBM innovations and SVC has focused on designing sustainable value propositions (Kristensen and Remmen 2019) and how business models create ecological and social benefits, but much less attention has been paid to the possible negative consequences and conflicts that business models may cause among multiple stakeholders and perceived value outcomes (Biloslavo et al., 2018). In the corporate sustainability literature, there has been growing interest in tensions in sustainability (Van der Byl and Slawinski, 2015), in which economic, environmental, and social values cannot be achieved simultaneously and increased value in one dimension of sustainability can cause decreased value in another. Thus, the success of SBMs depends on a company's ability to consider, resolve, and manage tensions and conflicting sustainability values (Van Bommel, 2018).

Research on SVC can be divided into two streams: 1) SVC processes that consider the activities, resources, and value network involved; and 2) sustainable value outcomes that consider how the value is perceived by the beneficiaries and what the actual impacts on the environment and society are (Bocken et al., 2014; Upward and Jones, 2016). SVC is concerned with value co-creation, in which multiple value forms are created for but also with multiple stakeholders (Freudenreich et al., 2020). As SVC incorporates a multi-stakeholder perspective, companies play a broader strategic role in affecting system-level sustainability (Sulkowski et al. 2018). Furthermore, value creation and value capture should be viewed as distinct processes. Value capture represents the value that the company generates for itself from its value proposition and value creation activities (Abdelkafi and Täuscher, 2016), such

as decreased costs or increased profits, brand value, and social and environmental responsibility (Schaltegger et al., 2012). If the value creation process does not lead to desired outcomes (related to system-level sustainability and value captured by the company), changes in the business model will be necessary. No company is able to achieve system-level goals (such as system-level sustainability) on its own, but it is possible within a wider ecosystem in which companies operate (Hellström et al., 2015). An individual company's business model can reflect only part of the overall value creation, but it can be seen as a unit that serves a certain function in the broader system, thereby enabling system-level value creation (Koistinen et al., 2018).

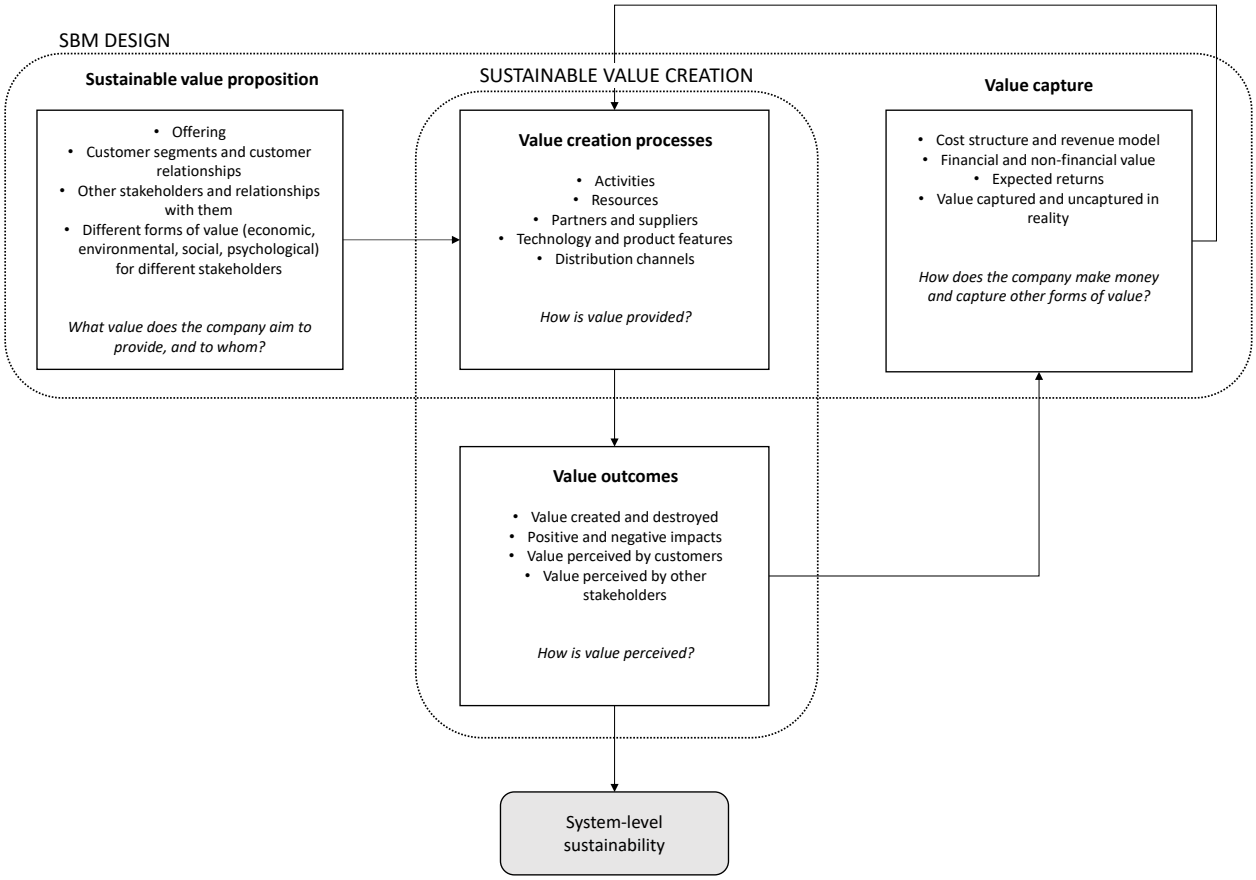

Figure 3. Different value concepts related to SBM

3 Research Design

This paper considers how companies can contribute to and enable sustainability transition through their business models. To address the research objective, this study combined the previous literature and findings from a case company, Kekkilä-BVB. The single in-depth case study approach (Eriksson and Kovalainen, 2016) was applied, and the case was used for both inspirational and illustrative purposes (Siggelkow, 2007).

The selected case company, Kekkilä-BVB, is a Finnish-Dutch horticultural company that provides products and services for professional growers and home gardeners, landscapers, horticultural raw material customers, and bedding peat customers to over 100 countries worldwide. Kekkilä-BVB is the European leader in growing media (materials in which plants are grown) and offers high-quality substrates, peat products, fertilisers, garden products, and landscaping soils and mulches.

Kekkilä-BVB was chosen because it represents a company that has already taken considerable steps towards sustainability, and sustainable growth has always been at the core of Kekkilä-BVB's business. The company has an ambitious goal of moving from being a market-driven company to one that shapes the future by being part of a larger food system and solving the global food challenge. They focus on sustainability challenges and possibilities such as CO_2 reduction, water management, and well-being through greener homes and cities, as well as enabling plant-based food for the growing population of the world.

Both secondary data collection, i.e., the broad range of written material related to Kekkilä-BVB's sustainability strategy development process, and semi-structured interviews were applied in empirical data collection. Data was collected between 2018 and 2020. Overall, data collection and analysis were iterative and circular processes in which literature

reviews on corporate sustainability, business models and system transitions, and empirical data collection considering Kekkilä-BVB, as well as data collection and qualitative data analysis, were alternated (Eriksson and Kovalainen, 2016).

Data collection and analysis were conducted through the following main steps. First, to gain an initial understanding of the topic, written material concerning the case company's sustainability focus areas, strategic goals, indicators, stakeholder maps, and action plans, etc., was reviewed and analysed. The analysis was based on the inductive reasoning and grounded theory method (Silverman, 2014). Second, to obtain answers to open questions, the case company's sustainability manager and the sustainability, brand, and communications director were interviewed. The semi-structured interview covered the motivation to create sustainable value, sustainable value creation for multiple stakeholders, the value destruction perspective, and net positive impacts. Third, to deepen understanding and build an initial framework, a review of the scientific literature was conducted. The findings were analysed using the thematic content analysis method (Myers, 2013), resulting in the initial framework of an SVC approach for advancing sustainability transition and system-level sustainability. Fourth, the initial framework was illustrated and developed further, based on the semi-structured interviews and open discussions with company representatives.

4 Adopting a Sustainable Value Creation Approach

In the following, we offer an SVC approach (Figure 4) for business managers coping with the designing, developing, and implementing of SBMs. The approach describes how individual companies make their business sustainable, leverage wider sustainability transition, and advance system-level sustainability through SVC. The SVC approach is explained below in the form of key recommendations and illustrated through the case company, Kekkilä-BVB.

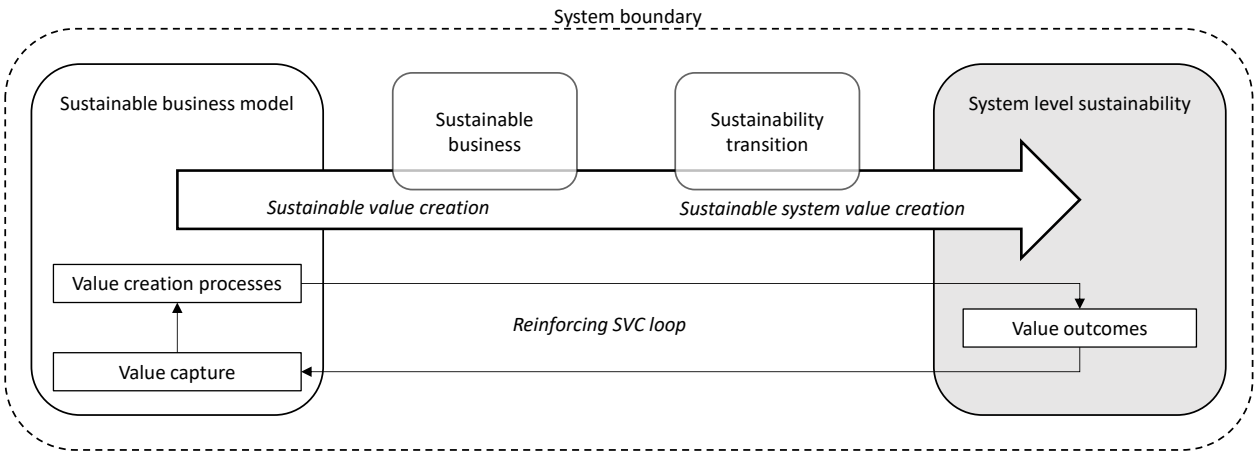

Figure 4. The SVC approach for advancing sustainability transition and system-level sustainability

4.1 Place your business into a system-level context, and define system boundaries.

First, for contributing to broader sustainability transition, individual businesses should be considered as part of the larger macro-level system. According to a boundary setting, if there are no frames or an understanding of the overall system where the business model operates, it is extremely difficult to assess the sustainable value created (Bocken et al., 2019). The direct and indirect impacts resulting from a business model vary depending on how boundaries are traced around the system of analysis. In practice, Kekkilä-BVB has used the Framework for Strategic Sustainable Development (FSSD) (Broman and Robèrt, 2017), which aids organizations in putting themselves in the context of global sustainability challenges in their sustainability strategy development process. Kekkilä-BVB started to build their sustainability strategy by creating an understanding of several megatrends that have an impact on their business, but also global socio-economic and Earth system trends or challenges that Kekkilä-BVB could have an impact on through their business model and SVC, such as population growth, urbanisation, climate change mitigation, and food safety. Through its horticultural business, Kekkilä-BVB sees its broader strategic role as being a part

of a macro-level food production system and solving a global food challenge, e.g., relating to reducing food production's environmental impact and feeding an exploding population.

Although growing media has not been a central topic within discussions about sustainable food production, Kekkilä-BVB sees itself as having an important role in the food production value chain. Kekkilä-BVB enables both food production globally and wellbeing in homes and cities, for example by producing specialised, high-quality substrates and fertilizers for professional growers and the global horticultural industry, and by creating opportunity for local gardening and offering information about sustainable food production and giving growing tips for home gardeners. The COVID-19 crisis increased people's enthusiasm for gardening and private food production. The crisis also affected the self-sufficiency of countries. These trends forced Kekkilä-BVB to reconsider its system boundaries and how to operate globally when the international movement of products becomes difficult, as well as locally and near consumers.

4.2 Define what system-level sustainability means to your business, and set a final goal.

The second recommendation highlights the need to internalise the concept of system-level sustainability, which refers to operate within planetary and social boundaries, and conditions that enable a good quality of life (Raworth, 2017; Whiteman et al., 2013), and set the final goal. Defining a goal requires the internalising of the concept of sustainability, and further goal-setting is a requirement for the assessment of SVC. If sustainability goals are based on the benchmarks, such as comparisons relative to a baseline year, relative to current best practice or relative to a company's own short-term targets, there is a risk that incremental and, in absolute terms, even ineffective improvements are seen as progress towards sustainability (Dyllick and Rost, 2017). Recent studies on SVC have proposed that the

assessment should be scientifically based, using, for example, the four sustainability principles related to natural cycles and the root causes of unsustainability (Broman and Robért, 2017), planetary boundaries, or laws of thermodynamics. A scientifically defined final sustainability goal that operates within ecological and social boundaries that are expressed in terms of company-specific thresholds and allocations (McElroy and Thomas, 2016) is the best way to ensure a company's journey towards system level sustainability. However, these currently represent a paradigm shift rather than established practice.

Kekkilä-BVB has an ambition to develop their business based on research. Before undertaking concrete actions, they built a common understanding about the most important sustainability areas to which they contribute and can advance with their business. The strategic planning procedures of the FSSD, science-based sustainability principles, and the Sustainable Development Goals (United Nations, 2020), such as zero hunger, reduced inequalities, and sustainable cities and communities, have guided its strategy development process and further SBM development and SVC towards system-level sustainability. Kekkilä-BVB have identified four key focus areas where they consider they can truly make a difference: helping people to flourish, sustainable food and living, green growth and recycling, and biodiversity and restoration. These four strategic focus areas aim at covering the whole scope of nature's cycles, from sourcing raw materials to nature's restoration, society's operations, and food production. They also meet several UN Sustainable Development Goals, helping Kekkilä-BVB achieve their main goal: becoming a net positive company (putting back more into the global economy, society, and the environment than taking out). Today, global responsibility is fully integrated into Kekkilä-BVB's business strategy, which has replaced the separate sustainability strategy. Kekkilä-BVB's commitment is not just about causing as little harm as possible, but is about being a change agent, a proactive player, and a significant force in improving system-level sustainability by creating

sustainable value with and for multiple stakeholders. Kekkilä-BVB entitles its own existence by giving more than taking. However, this only represents goal-setting and ensures that Kekkilä-BVB focuses on essential actions, which are prerequisites for further actions and defining the KPIs (key performance indicators).

4.3 Create a common understanding of a sustainable future through the concrete targets, and build your own value creation processes sustainably.

Sustainable value creation begins with outlining the big picture through organisational values (Manninen and Huiskonen, 2018), mission, vision, and final sustainability goals as described above, and creating a common understanding of a sustainable future within a company. This is followed by building a company's own value creation processes, i.e., concrete actions toward the goals, sustainably. In Kekkilä-BVB, all employees were involved in the strategy development process, as the implementation of SVC initiatives require a lot of effort and expertise and collaboration between different departments. All employees are committed to work toward common goals that are agreed on together, and employees are trained continuously to take sustainability into consideration in their work.

Kekkilä-BVB's business is guided by a sustainability roadmap including eight concrete targets aiming to ensure SVC in the whole value chain during the coming years. Table 2 presents these eight targets and links them to the SVC processes. In general, collaboration and co-creation with value chain partners and other stakeholders, innovativeness, and a systemic perspective are prerequisites to achieve the sustainability targets. For example, replacing a packaging system that uses virgin plastics with one that uses recycled plastic or alternative packaging methods is not possible without chain partners' co-operation. Although sustainability is integrated into Kekkilä-BVB's strategy, it is not yet fully integrated into its value creation processes and daily operations. Therefore, separate

sustainability projects, in which people at different positions work together, were needed. The aim of these projects is, for example, to ensure that new products or solutions designed to launch truly improve sustainability.

Table 2: Kekkilä-BVB's main targets related to SVC processes

Target	**Examples of SVC processes**
1. We enhance the wellbeing of our employees, customers and partners in the value chain.	- Improving the wellbeing of personnel through concrete actions with bi-lateral communication defined in a wellbeing year clock. - Introducing a supplier code of conduct where suppliers commit to the highest social and environmental standards according to local, Finnish or UN law, whichever is stricter.
2. In 2020, our sustainability impact is understood and transparent and we have set up measurement to ensure that we reach our main goal: net positivity.	- Providing an E-learning platform for employees, customers, partners, and other stakeholders, and offering training on the sustainability targets. - Participating in sector organisation to establish a common way of measuring and communicating the sustainability impact. - Creating transparency through the set-up of a sustainability dashboard.
3. We will co-create and pilot 3 new smart service concepts per year related to food and living, which significantly increase our own and our partners' positive sustainability impact.	- Reducing environmental impacts of inbound logistics by changing from trucks to trains. - Introducing concepts in various segments working with high tech equipment enabling a shift to measured, controlled actions based on data.
4. By 2022, we will have innovative new products and services that optimize water management.	- Providing soil products in urban environments that reduce the unwanted impacts from excess rainfall. - Providing covering mulch materials that reduce evaporation of water to consumers as well as professional growers.
5. From 2020, all of our innovations promote sustainability.	- Providing new sustainable raw materials, e.g. Accretio, which has high water retention rates and ensures a quick absorption of water.
6. By 2024, we will replace 80% of single use plastics in our packaging with recycled plastic or alternative packaging methods. 100% of our packaging will be	- 80% recycled content in 50% of the packaging used for retail sector in the Netherlands and Germany. - 97% of packaging is recyclable and

recyclable.	3% is biodegradable.
7. Together with stakeholders, we will develop sustainable harvesting and an afterlife concept for peat bogs.	- Focusing on new ways of harvesting peat that reduce the harvesting cycle. - Increasing the amount of RPP (Responsibly Produced Peat) certified peat used.
8. Our actions will significantly increase biodiversity in urban areas.	- Providing urban roof and balcony gardens, parks, and green parking spots to help to purify the air, reduce the concentration of fine particles, reduce heat build-up, and create water buffers in the city.

4.4 Focus on sustainable value outcomes, and pay attention to the negative consequences of value creation.

Once value creation processes are sustainable, it is time to focus on value outcomes, i.e., how value is perceived by customers and other stakeholders. As sustainable value is a multifaceted concept, including, e.g., economic, social, and environmental dimensions of sustainability and perspectives of multiple stakeholders, various indicators are needed. Further, considering the negative consequences of value creation is at least as important as considering positive value outcomes; it is a prerequisite for advancing system-level sustainability. Assessing net positivity, which is the main target of Kekkilä-BVB, requires considering how much sustainable value is created and refers to the total contribution, which is the difference between positive and negative impacts. While a business model can never have a zero footprint (negative impacts), a company can still create net positive impacts if its handprint (positive impacts) is bigger than its footprint (Dyllick and Rost, 2017). The goal of being a net positive company forces Kekkilä-BVB to determine what their business model gives to and what it takes from society and the environment. The net positivity approach also forces Kekkilä-BVB to see their role in society from a systemic perspective, as they cannot concentrate only on internal processes and improvements.

Kekkilä-BVB aims to make their sustainability work as measurably as possible and assesses the sustainability impact that their work has on a regular basis. According to the literature (Dyllick and Rost, 2017) and Kekkilä-BVB's knowledge, there are no simple methods available yet for measuring net positive (or net negative) impacts. As an example, consider the matter of how to measure the impacts of growing media offered by Kekkilä-BVB when it gives life to new trees that absorb carbon that is further harvested and utilized somewhere else. The development of specific guidelines and measures takes time. So far, different one-dimensional indicators can be useful for making overall quantifications or comparisons, but Kekkilä-BVB already has preliminary proofs of their net positive sustainability impacts. The estimations are based on the Upright Project's Upright net impact model (Upright Project, 2020), which is an automated way to quantify companies' net impact. The main idea of the artificial intelligence-based model is to show what resources companies use and what they achieve by using them. The Upright net impact model utilises scientific papers and machine learning to summarise how companies impact the environment, the health of people, and society at large, and further to create a net impact profile of the company. Although based on Upright's model Kekkilä-BVB is already a net positive company, they do not trust the results literally, as the model is still developing. Based on the results, Kekkilä-BVB trusts that it is doing good things, but that its net positivity can always be higher.

Kekkilä-BVB is aware of negative impacts that their sustainability actions might cause. For example, the use of peat causes negative impacts even if peat is produced as sustainably as possible. One main concern related to peat is its categorization as a fossil resource. So far, Kekkilä-BVB has identified different concepts that represent both positive and negative impacts, such as eco-effectiveness or ecological damages, and the actions that lead to those impacts, such as carbon sinks and compensation models or the heavy use of

fossil fuels in road transportation. Further, Kekkilä-BVB has started to do Strategic LCAs (Life Cycle Assessments) on its products to define, assess, and communicate products' sustainability. In addition to insights from the Upright Project and LCA calculation, Kekkilä-BVB assesses how their sustainability initiatives advance SDGs. Through a materiality analysis Kekkilä-BVB ensures that it prioritises the economic, social, and environmental issues that matter most to its stakeholders. Further, by utilising consumer surveys, Kekkilä-BVB ensures that its goals are aligned with consumers' and stakeholders' needs. Finally, Kekkilä-BVB is building a monthly-updated dashboard that assesses progress toward their eight sustainability targets through KPIs.

4.5 Commit to system-level sustainability targets, and identify the value capturing potential to enhancing virtuous circles.

Identifying value-capturing potential drives companies to commit to SVC, and captured value motivates companies to create even more sustainable value, leading to virtuous circles (Casadesus-Masanell and Ricart, 2011). Companies are primarily interested in creating sustainable value if it brings economic benefit (Yang and Evans, 2019), i.e., increased profit or decreased costs, so it is not truly realistic to expect commercially-oriented businesses to wholly refocus on sustainability challenges and value creation for the common good (Dyllick and Muff, 2016). Previous studies have identified several direct and indirect links between SVC activities and a company's economic performance, for example, through increased resource efficiency, reputation, or customer satisfaction (Saeidi et al., 2015; Schaltegger et al., 2012). Further, a broader perspective on SVC raises the value capture potential of companies (Laukkanen, 2019). However, the value capture of SVC activities is a multidimensional and complex process. It explains how companies can translate sustainable value created for multiple stakeholders into monetary terms and other intangible benefits for a company. Additionally, a company has to be aware of the facts that value capturing might

require a long time period to be realized, that some actions have more certain value capturing potential than others, and that with some actions value capturing depends on factors that a company cannot influence beforehand.

Although the value capture potential of planned SVC activities is unclear, Kekkilä-BVB is committed to their sustainability targets. They trust that sustainability investments will pay back in the long-term. Kekkilä-BVB identifies the value capture potential through different methods, such as input-output analysis, where the required resources and expected impacts are listed, or ROI-template, where expected financial, social, and environmental returns on investments in both the short- and long-term are evaluated. As Kekkilä-BVB has an ambitious sustainability strategy, most of their SVC activities are not linked to direct financial value capture potential, but to benefits such as increased attractiveness as an employer or value chain partner, increased innovation capabilities, increased reputation and brand value, better risk management, or simply increased social and environmental responsibility for its own sake. Kekkilä-BVB aims to create positive reinforcement loops between SVC and value capture through transparent communication and continuous collaboration with customers and stakeholders. Further, the increasing trend has been that investors invest in sustainability projects, which is another driver for Kekkilä-BVB to act increasingly responsibly.

5 Discussion and Conclusion

In this study, the aim was to understand how individual companies can contribute to broader sustainability transition through their SBMs. By combining views of corporate sustainability, traditional business model, and system transition from their respective literatures, the study proposed the SVC approach to advance sustainability transition and system-level sustainability.

First, it addresses the need to place individual businesses within their system-level contexts, which is a prerequisite for SVC, as the terms “sustainable development” and “sustainability” are macro-level concepts and the SBM of an individual company may reflect only part of the overall SVC. Second, it highlights the need to set sustainability goals and business objectives based on science-based sustainability principles to ensure progress towards system-level sustainability and enable sustainability transition through SVC. Third, it instructs on how to build up value creation processes (i.e., the company’s and its value network’s activities and resources for creating value outcomes) sustainably, for example through close collaboration or value co-creation with employees and other stakeholders. Fourth, the approach guides one to consider sustainable value outcomes (i.e., how the value is perceived by various stakeholders), and especially to pay attention to negative consequences of value creation, such as rebound effects or conflicting interests between different stakeholders, which is a prerequisite for advancing system-level sustainability. Fifth, it emphasises the identification of value capturing potential of SVC, which motivates individual companies to commit to system-level sustainability targets and contribute to system level SVC, and create even more sustainable value.

The SVC approach is proposed to narrow the current research gap between the SBM literature and sustainability transition literature, and integrate company-level sustainability into wider socio-technical transition to sustainability. In the previous literature, SBMs are noted as vehicles for advancing sustainability (Lüdeke-Freund and Dembek, 2017). This study specifies that SVC is a core SBM process that mediates the impact of individual SBMs. Through SVC, companies have the potential to advance sustainable business towards system-level sustainability, therefore acting as agents of sustainability transitions. The SVC links the concepts of SBM, sustainable business, sustainability transition, and system-level

sustainability, building the bridge between micro-level corporate sustainability and macro-level sustainable development, as well as between different disciplines.

From a business model perspective, the SVC approach broadens the company-centred perspective and the traditional view of value creation, considering wider system-level sustainability targets and an integrative view on value. From a system transition perspective, SVC represents the concept through which the coevolutionary processes entailing multiple actions and changes in a range of elements (e.g., technologies, user practices, infrastructures, policies, industry structures, supply chains, and business models) can be approached. Through SVC, companies can play multiple roles in advancing system-level sustainability. First, by adopting an integrative view of value companies contribute to sustainability by creating economic, environmental, and/or social value for multiple stakeholders. Second, by placing individual businesses into a broader system-level context and setting business targets based on system-level sustainability goals, companies enable system-level SVC, which refers to overall value creation executed by multiple companies and other societal actors. Third, by adopting an SVC approach companies challenge the current regime and act as agents in sustainability transitions.

5.1 Managerial and Policy Implications

From a managerial perspective, this study proposes five key recommendations for adopting an SVC approach. These recommendations highlight the most crucial points to be considered, and serve as a starting point for implementing SVC. Although the key recommendations presented in this study are directly aimed at managerial audiences, contributing to sustainability transitions and advancing system-level sustainability through SVC requires the involvement of and collaboration between all societal actors (including government representatives, policymakers, interest groups, educators, and consumers).

For example, the public sector can provide businesses with a favourable environment and regulatory framework to encourage SBM innovations and SVC. Effective regulations guide companies to adopt SVC by creating limits to and costs of negative environmental and social impacts, related to, for example, waste charges or environmental protection taxes. However, as the main target – sustainability – is a macro-level concept, and individual companies reflect only part of the overall SVC, regulations cannot be too specific. Further, as the wider sustainability transition calls comprehensive transformations of business models and value creation logics, structural changes in policy are also needed. Finding a balance between different policies and creating a favourable environment for system-level SVC is not an easy task. It may require the integration of national and international regulation and courage to lead the way (e.g., Germany's Energiewende) guided by system-level sustainability targets. Favourable regulation is flexible and it supports different options for solving sustainability issues through SVC.

5.2 Limitations and Future Research

Naturally, this study has several limitations, which point to interesting avenues for future research. First, there are limitations related to methodological choices as the study followed the single case study approach, which sets some limitations for generalising results. However, the aim of this study was not to test or build theory, but to explore a relatively new research area and provide a basis for its further development. Future research might explore the proposed SVC approach across other companies and contexts.

The focus of this study is both a strength and a limitation. The focus was broad: The aim was to explore how to integrate company-level sustainability into wider socio-technical transitions to sustainability through SBMs. The proposed SVC approach covers five general recommendations, and hence each of them should be studied more in depth. For example,

more research is needed on how to assess SVC, including negative consequences of value creation and how to translate created sustainable value into economic value for the company, and further, how sustainable value created for stakeholders and value captured by the company can reinforce each other. Further, closer integration with the natural sciences is also needed to advance system-level sustainability within the limits of planetary boundaries and to understand the roots of (un)sustainability and ecological resilience. Systems thinking offers a more holistic lens through which to examine the role of SVC by companies within socio-ecological systems (Williams et al., 2017).

At the same time, the focus of this study was narrow: It represents only one aspect of sustainability transition by integrating company-level sustainability into system-level sustainability transition through SVC. The literature on sustainability transitions covers multiple themes that are connected with others (Köhler et al., 2019); for example, research on individual businesses in sustainability transitions is connected with industries, politics, or social movements. From the company perspective, understanding system transitions covers, for example, the companies' and other actors' actions that lead to system transition, the system transition and the role of companies and other actors in that transition, or the institutional environment and how it relates to the companies' and other actors' actions as well as the roles in that transition (Clarke and Crane, 2018). These highlight the bidirectional interaction between company and system levels (Geels, 2014). Therefore, more interaction and synergies between the company and system level are required. For example, since the current regime strongly pressurises companies' operations, for example, via legislation, a sustainable regime would assist companies in adopting SVC. Studies focusing on both business models and system transitions for increasing sustainability are just emerging. Thus, there are plenty of research opportunities to develop more comprehensive and formal models of the interaction between the company and system levels. More knowledge is needed on

companies' key barriers and drivers in adopting SVC, for example, how different actors enhance the adoption of SVC. More research is also needed on how individual business models contribute to the overall system level SVC. It is fruitful to apply the theories and frameworks used in system transition studies, for example a technological innovation system approach or a multi-level perspective, to management research. In contrast, management frameworks and design research, which are adopted quite widely in business model research but not in transition research, can build the bridge between these fields.

References

Abdelkafi, N., & Täuscher, K. (2016). Business models for sustainability from a system dynamics perspective. Organization and Environment, 29(1), 74-96.

Adams, R., Jeanrenaud, S., Bessant, J., Denyer, D., & Overy, P. (2016). Sustainability-oriented Innovation: A Systematic Review. International Journal of Management Reviews, 18(2), 180-205.

Baumgartner, R.J., & Ebner, D. (2010). Corporate sustainability strategies: Sustainability profiles and maturity levels. Sustainable Development, 18(2), 76-89.

Bidmon, C.M., & Knab, S.F. (2018). The three roles of business models in societal transitions: New linkages between business model and transition research. Journal of Cleaner Production, 178, 903-916.

Biloslavo, R., Bagnoli, C., & Edgar, D. (2018). An eco-critical perspective on business models: The value triangle as an approach to closing the sustainability gap. Journal of Cleaner Production, 174, 746-762.

Bocken, N., Boons, F., & Baldassarre, B. (2019). Sustainable business model experimentation by understanding ecologies of business models. Journal of Cleaner Production, 208, 1498-1512.

Bocken, N.M.P., Short, S.W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. Journal of Cleaner Production, 65, 42-56.

Bolton, R., & Hannon, M. (2016). Governing sustainability transitions through business model innovation: Towards a systems understanding. Research Policy, 45(9), 1731-17.

Boons, F., Montalvo, C., Quist, J., & Wagner, M. (2013). Sustainable innovation, business models and economic performance: An overview. Journal of Cleaner Production, 45, 1-8.

Broman, G.I., & Robèrt, K. (2017). A framework for strategic sustainable development. Journal of Cleaner Production, 140, 17-31.

Casadesus-Masanell, R., & Ricart, J.E. (2011). How to design a winning business model. Harvard Business Review, 89(1/2), 100-107.

Clarke, A., & Crane, A. (2018). Cross-sector partnerships for systemic change: Systematized literature review and agenda for further research. Journal of Business Ethics, 150(2), 303-313.

DaSilva, C.M., & Trkman, P. (2014). Business model: What it is and what it is not. Long Range Planning, 47(6), 379-389.

Demil, B., & Lecocq, X. (2010). Business model evolution: In search of dynamic consistency. Long Range Planning, 43(2-3), 227-246.

Den Ouden, E. (2012). Innovation design: Creating value for people, organizations and society. Springer.

Dyllick, T., & Muff, K. (2016). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. Organization and Environment, 29, 156-174.

Dyllick, T., & Rost, Z. (2017). Towards true product sustainability. Journal of Cleaner Production, 162, 346-360.

Eriksson, P., & Kovalainen, A. (2016). Qualitative methods in business research (2nd ed.). Sage.

Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E.A., & Barlow, C.Y. (2017). Business model innovation for sustainability: Towards a unified perspective for creation of sustainable business models. Business Strategy and the Environment, 26, 597-608.

Farla, J., Markard, J., Raven, R., & Coenen, L. (2012). Sustainability transitions in the making: A closer look at actors, strategies and resources. Technological Forecasting and Social Change, 79(6), 991-998.

Freudenreich, B., Lüdeke-Freund, F., & Schaltegger, S. (2020). A stakeholder theory perspective on business models: Value creation for sustainability. Journal of Business Ethics, 166(1), 3-18.

Geels, F. (2014). Reconceptualising the co-evolution of firms-in-industries and their environments: Developing an inter-disciplinary Triple Embeddedness Framework. Research Policy, 43, 261-277.

Goyal, P., Rahman, Z., & Kazmi, A.A. (2013). Corporate sustainability performance and firm performance research: Literature review and future research agenda. Management Decision, 51(2), 361-379.

Hellström, M., Tsvetkova, A., Gustafsson, M., & Wikström, K. (2015). Collaboration mechanisms for business models in distributed energy ecosystems. Journal of Cleaner Production, 102, 226-236.

Iñigo, E.A., & Albareda, L. (2016). Understanding sustainable innovation as a complex adaptive system: A systemic approach to the firm. Journal of Cleaner Production, 126, 1-20.

Koistinen, K., Laukkanen, M., Mikkilä, M., Huiskonen, J., & Linnanen, L. (2018). Sustainable system value creation: Development of preliminary frameworks for a business model change within a systemic transition process. In: L., Moratis, F., Melissen, & S., Idowu

(Eds). Sustainable business models: Principles, promise, and practice (pp. 105-127). Springer International Publishing.

Kristensen, H.S., & Remmen, A. (2019). A framework for sustainable value propositions in product-service systems. Journal of Cleaner Production, 223, 25-35.

Köhler, J., Geels, F.W., Kern, F., Markard, J., Onsongo, E., Wieczorek, A., Alkemade, F., Avelino, F., Bergek, A., Boons, F., Fünfschilling, L., Hess, D., Holtz, G., Hyysalo, S., Jenkins, K., Kivimaa, P., Martiskainen, M., McMeekin, A., Mühlemeier, M.S., (…), Wells, P. (2019). An agenda for sustainability transitions research: State of the art and future directions. Environmental Innovation and Societal Transitions, 31, pp. 1-32.

Koistinen, K., Laukkanen, M., Mikkilä, M., Huiskonen, J., & Linnanen, L. (2018). Sustainable system value creation: Development of preliminary frameworks for a business model change within a systemic transition process. In L. Moratis, F. Melissen, & S. Idowu (Eds.), Sustainable business models: Principles, promise, and practice (pp. 105-127). Springer International Publishing.

Laukkanen, M. (2019). Sustainable business models for advancing system-level sustainability. Retrieved from https://lutpub.lut.fi/handle/10024/160340.

Laukkanen, M. and Tura, N. (2020). The potential of sharing economy business models for sustainable value creation. Journal of Cleaner Production, 253. DOI 10.1016/j.jclepro.2020.120004

Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability transitions research: Transforming science and practice for societal change. Annual Review of Environment and Resources, 42, 599-626.

Lüdeke-Freund, F., & Dembek, K. (2017). Research and practice on sustainable business models: Emerging field or passing fancy?. Journal of Cleaner Production, 168, 1668-1678.

Manninen, K., & Huiskonen, J. (2019). Sustainability goal setting with a value-focused thinking approach. In: A., Aagaard (Ed.). Sustainable business models: Innovation, implementation and success (pp. 89-118). Palgrave Macmillan.

Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. Research Policy, 41(6), 955-967.

McElroy, M.W., & Thomas, M.P. (2016). The multicapital scorecard. Chelsea Green Publishing.

Montiel, I. (2008). Corporate social responsibility and corporate sustainability: Separate pasts, common futures. Organization and Environment, 21(3), 245-269.

Myers, M.D. (2013). Qualitative research in business & management (2nd ed.). Sage.

Neumayer, E. (2013). Weak versus strong sustainability: Exploring the limits of two opposing paradigms (4th ed.). Edward Elgar.

Osterwalder, A., & Pigneur, Y. (2010). Business model generation. A handbook for visionaries, game changers, and challengers. John Wiley & Sons.

Pieroni, M.P.P., McAloone, T.C., & Pigosso, D.C.A. (2019). Business model innovation for circular economy and sustainability: A review of approaches. Journal of Cleaner Production, 215, 198-216.

Rauter, R., Jonker, J., & Baumgartner, R.J. (2017). Going one's own way: Drivers in developing business models for sustainability. Journal of Cleaner Production, 140, 144-154.

Raworth, K. (2017). Doughnut economics: Seven ways to think like a 21st-century economist. Chelsea Green Publishing.

Robèrt, K., Broman, G., Waldron, D., Ny, H., Byggeth, S., Cook, D., Johansson, L., Oldmark, J., Basile, G., Haraldsson, H., MacDonald, J., Moore, B., Connell, T., & Missimer, M. (2012). Sustainability handbook. Planning strategically towards sustainability. Studentlitteratur AB.

Roome, N., & Louche, C. (2016). Journeying toward business models for sustainability. Organization and Environment, 29, 11-35.

Saeidi, S.P., Sofian, S., Saeidi, P., Saeidi, S.P., & Saaeidi, S.A. (2015). How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. Journal of Business Research, 68(2), 341-350.

Sarasini, S., & Linder, M. (2018). Integrating a business model perspective into transition theory: The example of new mobility services. Environmental Innovation and Societal Transitions, 27, 16-31.

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E.G. (2012). Business cases for sustainability: The role of business model innovation for corporate sustainability. International Journal of Innovation and Sustainable Development, 6(2), 95-119.

Shaker, R.R. (2015). The spatial distribution of development in Europe and its underlying sustainability correlations. Applied Geography, 63, 304-314.

Siggelkow, N. (2007). Persuasion with case studies. Academy of Management Journal, 50(1), 20-24.

Silverman, D. (2014). Interpreting Qualitative Data (5th ed.). Sage.

Smith, A., Voß, J.-P., & Grin, J. (2010). Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. Research Policy, 39(4), 435-448.

Stubbs, W., & Cocklin, C. (2008). Conceptualizing a “sustainability business model”. Organization and Environment, 21, 103-127.

Sulkowski, A.J., Edwards, M., & Freeman, R.E. (2018). Shake your stakeholder: Firms leading engagement to cocreate sustainable value. Organization and Environment, 31, 223-241.

Teece, D. J. (2010). Business models, business strategy and innovation. Long range planning, 43, 172-194.

United Nations. (2020). About the sustainable development goals. Retrieved from https://www.un.org/sustainabledevelopment/sustainable-development-goals/.

Upright Project. (2020). Upright model. Retrieved from https://www.uprightproject.com/.

Upward, A., & Jones, P. (2016). An Ontology for Strongly Sustainable Business Models: Defining an Enterprise Framework Compatible with Natural and Social Science. Organization and Environment, 29(1), 97-123.

Van Bommel, K. (2018). Managing tensions in sustainable business models: Exploring instrumental and integrative strategies. Journal of Cleaner Production, 196, 829-841.

Van der Byl, C.A., & Slawinski, N. (2015). Embrasing tensions in corporate sustainability: A review of research from win-wins and trade-offs to paradoxes and beyond. Organization and Environment, 28, 54-79.

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

Whiteman, G., Walker, B., & Perego, P. (2013). Planetary boundaries: Ecological foundations for corporate sustainability. Journal of Management Studies, 50(2), 307-336.

Williams, A., Kennedy, S., Philipp, F., & Whiteman, G. (2017). Systems thinking: A review of sustainability management research. Journal of Cleaner Production, 148, 866-881.

Williams, C., & Millington, A. (2004). The diverse and contested meanings of sustainable development. The Geographical Journal, 170(2), 99-104.

Wolf, J. (2014). The relationship between sustainable supply chain management, stakeholder pressure and corporate sustainability performance. Journal of Business Ethics, 119(3), 317-328.

Yang, M., & Evans, S. (2019). Product-service system business model archetypes and sustainability. Journal of Cleaner Production, 220, 1156-1166.

Yang, M., Evans, S., Vladimirova, D., & Rana, P. (2017). Value uncaptured perspective for sustainable business model innovation. Journal of Cleaner Production, 140, 1794-1804.

Zemigala, M. (2019). Tendencies in research on sustainable development in management sciences. Journal of Cleaner Production, 218, 796-809.

Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. Journal of Management, 37(4), 1019-1042.