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## Summary and Concluding Remarks: The Next Step for Sustainable Business Models

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Global sustainability challenges and requirements present unique, new business opportunities, but at the same time they also challenge the existing structures of companies and the way value is created, captured and measured in businesses today. These changes influence (or force) organizations to change their ways of organizing, managing, collaborating, and engaging with all types of stakeholders and ecosystems, presenting a need for new theoretical models and empirical understandings of business modeling in today's interconnected society across institutional boundaries and international borders.

The aim of Sustainable Business Models: Innovation, Implementation, and Success is to contribute to the knowledge of the concept, value creation (VC), implementation, management, and evaluation of sustainable business models (SBMs). In bridging the theoretical understanding of SBMs to empirical findings and case examples, the book explores how

A. Aagaard (⋈) Aarhus University, Herning, Denmark e-mail: aaa@btech.au.dk the concept of SBM is applied and integrated in practice, as stressed as an insufficiently researched area by several authors. Through the chapters of the book, different aspects of SBMs are explained and discussed in further elaboration and exploration of the concept and of how SBMs are developed, integrated, and actively managed in creating sustainable value.

In the introductory Chap. 1, the concept of SBM is identified by bridging the existing theory of (traditional) business models and business model innovation with central theories and frameworks of SBM. In assessment of business models, the chapter presents a framework for theorists and practitioners to determine the sustainability of a business model. This framework can be applied in identification of new and SBM opportunities and in comparing the sustainability of business models within individual or across different companies. The elaboration of the concept, new patterns, and typologies of SBMs are further explored in Chap. 2, which also consolidates the currently available knowledge about so-called business model patterns that have the potential to support solutions to ecological and social problems, such as greener products, new mobility systems, or social enterprises. This consolidation leads to a new pattern taxonomy that can be used to support SBM innovation and sustainability innovation. In empirical exploration of the concept, a database of 45 patterns is developed, and these are evaluated and classified by international experts, resulting in a typology of 11 groups. This typology is further refined and prepared to serve as a SBM innovation tool and classification for both theorists and practitioners to apply.

The growing trends of digitalization and use of data and Internet of Things (IoT) in driving digital transformation of new and existing businesses emphasize the research gap of using digitalization in sustainable business development and SBM. Thus, the focus of Chap. 3 is on how to design SBMs while exploring IoT-enabled strategies to drive sustainable consumption. Over the years, SBMs, and in particular product service systems (PSS), have been positioned as a way to achieve greater levels of sustainability. In this chapter, the focus is on PSS in the consumer market with high environmental impact attributed to the use phase of the life cycle. For such systems, total life cycle sustainability performance is highly dependent on the behavior of the user. The research analyzes examples from practice to explore the possibility of using IoT technology

to enable sustainable behavior through user interactions built into the PSS design. A framework for business model assessment is developed based on design for sustainable behavior strategies and IoT capabilities. This framework is applied to existing case companies to identify gaps and opportunities. The study finds that the application of IoT to drive sustainable consumption in PSS is currently limited. Several underexplored strategies are identified with the potential to boost sustainability performance of PSS in the use phase. Thus, future research could explore the actual implementation of such strategies, including the value proposition offered to consumers.

Developing the strategic and tactical processes of implementing SBM is a key research area and presents a number of research gaps for further research to pursue. Thus, the focus of Chap. 4 is on sustainability goal setting with a value-focused thinking (VFT) approach. As stressed in the chapter, firms are increasingly setting themselves business goals, which are more and more sustainability-oriented. The rationale behind setting these goals, however, is unclear. Is the improvement in sustainability the fundamental purpose of the firm's business, or is sustainability just an opportunity to improve some of the firm's competitive factors, such as reputation and image—that is, is it just a means to achieve economic success? An approach called VFT is helpful in clarifying the strategic goalsetting process and the role of sustainability goals in it, and in connecting values to firms' strategic decision-making. This chapter explores the process of how a VFT approach can be applied in making the sustainabilityrelated goal setting more transparent so that decisions are based on the values a firm wants to follow. The approach supports the early phases of SBM innovation, and it facilitates developing value propositions that are in line with the fundamental values of the firm.

For companies to continuously develop their business in a sustainable fashion, new mechanisms and processes have to be adopted to ensure a steady stream and portfolio of ideas for SBM. Therefore, Chap. 5 explores SBM ideation and development of early ideas for SBM. The chapter stresses that the development of early ideas into sustainable business ideas and models that have a positive impact in society and on the environment is a challenge. It may, however, be facilitated by the use of tools, although many well-known tools used for business modeling (e.g., the

Business Model Canvas) do not examine the challenges that exist in the very early phases of development of ideas that aim at rendering research or innovative ideas into business ideas and also consider sustainability aspects from societal and environmental perspectives. Therefore, this chapter discusses an ideation tool that enables the involvement of many stakeholders and takes into account various perspectives already in the very early stages of the development of a business model. The Impact Canvas (IC) tool is targeted for early ideation, testing, and development of business ideas. The focus lies on the impact of the business solution in society and on the environment while also addressing customer needs in detail. It is suitable for existing businesses as well as pre-start-ups and research teams. The IC tool was created by a diverse group of practitioners supporting spin-offs and start-ups in the university environment and has since been introduced and deployed in other business communities.

The conceptualization of VC lies at the heart of business models. However, as business model innovation and business model ecosystems are more and more influenced by various stakeholders, emphasis has to be put on multiple VC through SBMs, as is the focus of Chap. 6. In conventional business models, this concept of VC is limited to a onedimensional value, namely finance, for a limited scope of actors—mostly nominated as stakeholders or shareholders. These models are constructed from an organization-centric perspective. The rise of so-called SBMs has initiated a debate on broadening the dimensionality of VC, leading to an emerging perspective of multiple VC. This necessitates the design of business models that enable the creation of more than one value for a broad range of constituents simultaneously. Underpinning this development, three archetypes of business models appear: asset-based, communitybased, and material-based. In comparison to conventional business modthe perspective here is multi-actor. Changing from organization-centric to a multi-actor perspective also gives rise to a broadening connotation of VC, leading to a spectrum of different types of value. This spectrum goes from value destruction to forms of value preservation and creation to value restoration. This line of thought is elaborated upon in our forthcoming contribution.

With the United Nation's Sustainable Development Goals comes a global request for greener and more environment-friendly business

development that stress effective use, recycling and reuse of resources as well as minimization of waste and pollution. These goals, together with the environmental development of the world, have given rise to the concept of circular economy (CE), which has emerged as an attractive concept for both industry and society. Thus, Chap. 7 emphasizes CE as a lever for SBMs as CE holds promises of reducing the negative impacts from our natural resource usage, while allowing or even supporting economic growth of firms. Still, it is a vague and highly challenging model for organizations to adopt, and empirical research hardly exists regarding actions in industry. Chapter 7 outlines the model of CE and describes how the model is applied in different settings as in policy-making, changes in society, and in industry. An emphasis will be put on how it challenges current business models in industry. Specifically, the chapter focuses on the challenges that occur due to CE and due to the required business model innovation based on recent research in industry.

Collaborations, networks, and partners are key in developing sustainable businesses and business models, as the main company may not possess the knowledge, skills, or resources to fully leverage, develop, and implement SBM on their own. Thus, the use of collaborative innovation and partnerships in developing the proper foundation for SBMs is the focus of Chap. 8. The specific emphasis of the chapter is on the effective identification and integration of non-governmental organizations (NGOs) in creating the necessary knowledge transfer, trust, and legitimacy when building new SBM innovations. Through case examples from international companies and their collaborations with NGOs, the drivers and challenges, archetypes of SBMs, and the managerial implications of these business-NGO collaborations are mapped and discussed theoretically and empirically. As a result, the chapter presents four archetypes of SBMs through business-NGO collaborations for companies to apply in determining which type of collaboration to engage in and which challenges to be aware of in managing these collaborations successfully.

A majority of the extant literature emphasizes SBM in established companies. However, social entrepreneurship is a central research field in the area of sustainable business and SBM. Therefore, the objective of Chap. 9 is to explore the concept of SBM in an entrepreneurial environment. The dichotomy between corporations and start-ups has led to the

creation of new tools and frameworks designed specifically for the latter. This trend has also been echoed in academic literature on business model innovation focusing on high-tech entrepreneurial ventures and how this form of innovation creates entrepreneurial opportunities. At the same time, while there has been a remarkable progress in the research around SBMs, we have not seen yet similar attempts to create tools and frameworks that cater specifically to the needs of entrepreneurs looking to create sustainable start-ups. With the new breed of entrepreneurs who seek to address sustainability challenges at the start of their venture formation, this chapter clarifies the specific needs of this environment, exploring the elements of lean start-up tools that potentially can be considered for sustainable entrepreneurship, while presenting successful examples that can be used to prototype new tools and frameworks, and finally suggesting new directions on the ways SBMs should be considered in an entrepreneurial context.

The corporate implementation of SBM requires strategic management, and the focus of Chap. 10 is therefore on managing the strategic dualities to enable SBM. The chapter adds a new lens and richness to the paradoxical nature of SBMs by building on the need for more interdisciplinary approaches and greater appreciation of strategic paradoxes and dualities. In doing so, the authors of the chapter apply a paradoxical lens to the most frequently cited business model frameworks and explore the conventional understanding of the business models based on the assumption that conflict exists between profit and business responsibility. Consequently, the chapter proposes a new SBM framework named "Value Triangle." It includes, as core elements, society incorporating the natural environment and future generations and three types of co-created and co-delivered value: public, partner, and customer. To explain the framework, a range of different sustainable case studies are presented, offering a new perspective on designing SBMs and navigating the dualities that exist in sustainable business.

In determining successful implementation, VC, and strategic management of SBM, we need to talk evaluation and measurement of performance and excellence. Chapter 11 therefore discusses performance management and enterprise excellence through SBMs. Skilled use of enterprise excellence systems has been shown to significantly boost

performance across an array of key domains, including financial, human capital, operations and supply chain, and other areas. Notably absent are social and environmental performance, with their absence attributable to the inadequate emphasis on enterprise excellence of these domains. Similarly, although the triple bottom line is core to the sustainability movement, many adherents of sustainability approach its people and planet domains with ardor, yet virtually neglect its profit domain. A simple model of sustainable enterprise excellence and accompanying maturity assessment regimen are introduced and advanced as a means of merging these movements to drive an equity, ecology, and economy triple top line strategy to produce triple bottom line people, planet, and profit performance with innovation and organizational design playing pivotal roles in both the model and its assessment.

Through the chapters of *Sustainable Business Models: Innovation, Implementation, and Success*, the book elaborates upon the concept of SBMs as well as widens the scope and the understanding of what SBMs are and can become—how they can be innovated and implemented in different ways and through various collaborations in ensuring a successful and sustainable performance and impact.

One clear conclusion from this publication is that this concept is still evolving, as what is considered sustainable in the mindsets of society changes over time, continuously raising the bar for SBM. With the growing power of consumers, end-users, social media, and NGOs, these and other stakeholders play an increasing role in setting the standards and boundaries for what is considered sustainable business and what is not. Thus, SBMs will only be sustainable if the stakeholders of the ecosystems consider them as such. This also implies the necessity of open innovation and open business models in pursuing the full potential of what sustainable business can become. The inclusion of the stakeholders and the ecosystem in business model innovation is crucial in providing more interconnected SBMs that support the sustainability of the entire value chain and across ecosystems. With the growing need and request for SBM comes the strategic, tactical, and operational challenges of ideation, implementation, adoption, VC, and collaborations in ensuring the successful performance and impact of SBMs. Consequently, the majority of the chapters of the books have emphasized these issues by presenting case examples of or frameworks for how to overcome some of these managerial and strategic challenges. However, more research is needed in exploring successful integration and ensuring sustainable impact across companies and sectors.

The majority of existing literature has addressed the use and development of SBM in established companies. However, the research field and empirical cases of successful social entrepreneurs and start-ups are growing and underline the potentials of this area, now and in the future. With more companies starting up with fundamentally sustainable mindsets, business models, and strategies, new frameworks and models will have to emerge too, and new ways of differentiating products, services, and business models will be established.

One very timely and relevant research area is the use of data and digitalization in the further development of sustainable business and SBM innovation. Through the use of big data, businesses can optimize their business processes, portfolios, and functions (e.g., production, logistics, sales) in making smarter, more efficient, less resource-consuming and polluting business choices. In addition, through the interconnectivity between users, businesses, society, and other stakeholders, entire ecosystems can start making more sustainable, socially and environmentally friendly decisions and developments that cross sectors and boarders. For the reader who seeks more knowledge on the use of data and digitalization for sustainability, we suggest another Palgrave Macmillan publication, *Digital Business Models—Driving Transformation and Innovation* (2018).

So how do we expect the field of SBM to develop in the next coming years—theoretically and empirically? As more and more companies are forced by society and stakeholders to pursue sustainability in their businesses, strategies, and VC, sustainability will become more and more mainstream over time. This challenges companies to be more radical in their sustainability approaches and in their SBM innovation to be able to differentiate and compete globally. Thus, new frameworks and models may have to be invented in exploring, developing, and deploying more radical SBM. Also, the growing trends of social entre/intrapreneurs provide new venues for entrepreneurial research and processes as well as for the development of frameworks and models in managing, facilitating, and assessing these social

entre/intrapreneurs and social enterprises. The new trends of sustainable/ social intra/entrepreneurship also open up the SBMs and innovation processes of companies and networks allowing for new types and forms of collaboration across new and multiple stakeholders to be explored both theoretically and in practice. This widens our interest in the unique ecosystems of SBM.

From a global perspective, the optimal sustainable and circular developments in businesses would require a higher level of interconnectivity, as ecosystems are dependent and influence each other and the use of resources across the national and global value chains. Data can be the leverage in attaining the optimum sustainability through interconnectivity across the ecosystems and value chains of businesses and society. However, digital technologies should not be applied for the sake of technology, but from a human-centric perspective and for the sake of transparency while building the proper strategy and decision platforms for effective development and adoption of SBMs in businesses and society. And in doing so, companies as well as governments will need to consider the issues of General Data Protection Rights (GDPR) and the social consequences of increased digital transformation. Particularly in determining how to avoid the possibility of digitalization creating an A-team and a B-team of citizens and employees—those with or without (the right) digital skills. New venues for sustainability research and SBMs may therefore address and provide answers to how to ensure sustainable, digital transformation that incorporates the longitudinal, human, social and environmental effects of digitalization. Thus, new venues for research and practices in sustainable (digital) business development, performance, and growth are present and will keep evolving. However, in any case multiple stakeholders across global societies will have to come together to legislate, motivate, educate, facilitate, and move businesses and organizations across sectors and borders in a sustainable direction now and in the times to come.