

Introduction

Abstract This chapter presents the book structure and aims. It outlines that the focus of this book is business model innovation in the context of the circular economy. This chapter also sketches points of difference from other publications on the circular economy.

Keywords Sustainable development · Corporate sustainability
Circular economy

1.1 BOOK AIMS

We live in an economy that is exhausting natural capital: ‘by 2012, the bio-capacity equivalent of 1.6 earths was needed to provide the natural resources and services humanity consumed in that year’ (WWF 2016, p. 2). Surely humanity be better off in a capital restoring, and regenerative circular economy (EMF and McKinsey 2012). But what does such an economy look like, and exactly why do we need it? Who are the key players in creating and maintaining a circular economy, and what changes will they need to adopt for such an economy to flourish?

In 2000, Nobel Prize-winning scientists Paul Crutzen and Eugene F. Stoermer anticipated the emergence of ‘the Anthropocene’, a new geological epoch in which the scale of the human impact on planet Earth had reached unprecedented levels causing significant alteration of many of the Earth’s ecosystems (Crutzen and Stoermer 2000). Over the years,

concordant scientific evidence has supported their claim. Four planetary boundaries (biophysical thresholds): climate change, rate of biodiversity loss, land system change and biogeochemical cycles (phosphorus and nitrogen) have been already exceeded putting future prosperity of humanity under serious threat (Steffen et al. 2015, p. 7). Clearly, significant changes to redirect human activities towards a more harmonious relationship with the natural environment are necessary. There has been significant debate on this for several decades, with much discussion emanating from the concept of sustainable development, defined by the *Brundtland Report* as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WECD 1987, *Our Common Future*, Chapter 2). The role of business in sustainable development has been discussed in the management literature under the nomenclature of corporate sustainability. While there are many definitions of precisely what this amounts to, encouragingly attention to social and environmental sustainability has grown significantly within the business community over time (Dillick and Muff 2015), moving away from it being positioned as ‘heresy’ to mainstream ‘dogma’ (Haigh and Hoffman 2014, p. 224). Yet at the same time, ecological sustainability and social equality continue to deteriorate (Gladwin 2012; Haigh and Hoffman 2014; Laszlo 2015).

Given the preamble to this chapter, the reader may be wondering about the nature of this book, maybe concluding that this is just one of the many attempts that fall within the ‘doom and gloom’ approach that has characterised many environmental publications and debates so far. This would not be surprising since a negative environmental rhetoric often prevails advanced by environmentalists and amplified by the media with the consequence of often creating confusion and inaction about environmental issues rather than generating an empowering attitude (Hollander 2003; Meyer and Kersten 2016). As Princen as said there is a danger that ‘sinks of hope convert the resourcefulness of hope to the despair of hopelessness’ (Princen 2010, p. 184). But let me assure you here: this book has no intention to fall in the ‘doom and gloom’ category. Instead it concurs with Princen in believing that we need ‘a better metaphor (...) a better language (...) that enables living with nature’ (p. 12) to more adequately address environmental problems. *What exactly is this book about, then? And which is the ‘better metaphor’ it connects with?*

This book is neither about macro, system-level approaches, nor about micro, individual responsibilities in relation to how to address

environmental problems more effectively. Rather it is focussed on corporations and the role they might perform in the transition towards a more environmentally friendly economy. This level of investigation can be justified on the following grounds. Firstly, corporations are the most influential organisations within the market, which in turn, is the most dominant coordinating institution on Earth (Hoffman and Ehrenfeld 2015). Consequently, any strategy aiming at increasing ecological or social sustainability cannot be pursued without the involvement of businesses (ibid.). Secondly, our market-based economy and corporations, that dominate economic activity, are accused of contributing to the current ecological crisis (Porter and Kramer 2011; Schaltegger et al. 2016; Schaltegger and Wagner 2011) and thus the proactive involvement of the business community is necessary in the transition towards a more sustainable economy (Hahn and Figge 2011; Schaltegger et al. 2016; Wells 2016). Thirdly, corporations are endowed with resources and capabilities and thus they have the potential to drive the change towards a more sustainable economy (Shrivastava et al. 2013; Winn and Pogutz 2013). A failure to do so can risk greater tensions arising from societal expectations, thereby ultimately affecting their legitimacy to operate (Hart 2010; Naughton et al. 2010; Wells 2013; Winn and Pogutz 2013). Playing an active role in addressing environmental and societal concerns as a matter that is central to doing business rather than as a marginal activity, would contribute to overcoming the separation between businesses and society that the prevalent instrumental logic to sustainability, with a lack of a system perspective, has produced (Gao and Bansal 2013; Porter and Kramer 2011). Corporations are demanded to do ‘more’ given that corporate efforts have mostly reduced negative impact (Gorissen et al. 2016; Hawken et al. 2010; Laszlo 2015), but what exactly is ‘more’? Has it to be grounded in the concepts of sustainable development and corporate sustainability? For reasons that will become clearer in its subsequent parts and particularly in Chapter 2, this book believes that the answer to these questions is not within these existing concepts.

On the contrary, maybe our economy can thrive by learning from the cyclical functioning of ecosystems where not only are resources used more efficiently but where the concept of waste does not exist (EMF and McKinsey 2013). These principles are at the heart of the circular economy thinking, which aims at reintegrating economy within ecological limits (EMF et al. 2015), and it is the circular economy the

‘better metaphor’ this book engages with. EMF and McKinsey (2012) describe it well as ‘an industrial system that is restorative or regenerative by intention and design [that] replaces the end-of life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impairs reuse and aims for the elimination of waste through the superior design of materials, products, systems, and within this, business models’ (p. 7). The implementation of the circular economy could have significant positive impact on production and consumption systems. Notably, it is ‘an economy that provides multiple value creation mechanisms which are decoupled from the consumption of finite resources’ (EMF et al. 2015, p. 23). Pioneering innovators from across the globe have already been motivated to fundamentally rethink their business practices. Business model innovation is a crucial constituent for achieving a circular economy (EMF 2015; EMF and McKinsey 2012; Hopkinson et al. 2016; Lacy and Rutqvist 2015; Scheepens et al. 2016). Therefore, the role of business leaders in guiding the transition is central. Although a relatively new concept, circular economy thinking is attracting the interest of business leaders, policymakers and increasingly the academic community. Consequently, a book on the circular economy is timely and pertinent. But what has this book to offer that it is not already written?

The system-wide changes required in a transition towards the circular economy have been sketched in a number of academic and practitioner publications (e.g. Ex’tax Project 2016; Green Alliance 2013; Lacy and Rutqvist 2015; Moreau et al. 2017). By contrast, little has been said about the business angle of the circular economy (Franco 2017) and it is here that this book focusses. It concentrates on the role of companies in the transition and the transformation, in the form of business model innovation, they need to undertake to reap its benefits. This is a significant area of enquiry because more clarity is needed in the business community to enable business leaders to fully grasp what circular business models mean for their business practices. It is also relevant, since in the academic literature, multiple and divergent constructs are emerging around terms relating to both the circular economy and circular business models. The absence of a common ground elucidating first what a circular business model exactly is means that theory building is constrained. This book elaborates a set of propositions that are conducive to a preliminary, more systematic conceptualisation of the circular business model. It also investigates the theoretical foundations of

business model innovation in the context of the circular economy. Both currently appear almost missing from the relevant literature. The conceptualisation offered in this book is built from existing examples in the academic and practitioner literature on both business models and the circular economy. Business models are ‘many and varied and contextualised’ (Wells 2013, pp. 134–135) and, therefore, this book does not aim to provide a definite answer in relation to how circular business models can be conceptualised. The systematic conceptualisation presented here can be considered as a stepping stone towards greater clarity and theory building. In so doing it provides some direction for future research and elucidates and makes the circular economy language more amenable to the business community. The perspective adopted is rooted in management studies and contributes to the rather limited discussion on the circular economy that has come from the business disciplines to date (Moreno et al. 2016). This book also bridges the academic and practitioner literature on the circular economy which has developed rather in silos so far with scant cross-fertilisation. Some studies have traced the origins of the circular economy concept and in some cases, they have highlighted the similarities between the circular economy thinking and its originators (e.g. Bocken et al. 2016; EMF and McKinsey 2012; Lacy and Rutqvist 2015; Weetman 2017). This book acknowledges the foundations of the concept while underlining the differences from the related schools of thought. Furthermore, whereas some literature has dealt with the relationship between the concept of sustainable development and the circular economy noting differences and similarities, concluding they are consistent and incompatible (e.g. Geissdoerfer et al. 2017; Ghisellini et al. 2016; Korhonen et al. 2018; Murray et al. 2015; Sauvé et al. 2016), this study does not place these two concepts in relation to each other for reasons that will be elucidated in Chapter 2.

1.2 BOOK STRUCTURE

Following this introductory chapter, the remaining parts of this book are organised in the following way.

Chapter 2 sets the level of the research context of this book. The aspect of which concepts and models are more effective and can inspire business leaders towards the development of industrial systems that are more respectful of the natural world is addressed. This chapter focusses on the concept of the circular economy. Nonetheless, to engage

the reader with a more inclusive narrative of the models that have been proposed to move towards a more environmentally and socially sustainable economy, this chapter briefly reviews some critical perspectives of ‘sustainable development’, ‘corporate sustainability’ and other proposals that have been discussed in the literature in the recent years. This discursive section contributes to clarify the perspective taken in this book in relation to why it is believed that the circular economy is a more powerful model that brings the hope of transforming our current economy to one that is ecologically strong. The context within which the circular economy thinking has emerged and its characteristics are discussed alongside its relationship with ‘sustainable development’, ‘corporate sustainability’ and its originators. Some critical reviews of the concept are also sketched.

Chapter 3 responds to the need for more clarity in the lexicon in use in the circular economy field. From 2010 on, the visibility of the circular economy thinking has increased at the academic, policy and business levels. However, confusion on the meaning of the words circular economy and divergence in the circular economy terminology in use exist (Bocken et al. 2016; Gallaud and Laperche 2016; Murray et al. 2015). This chapter first presents a review of the business model literature and provides more definition to the term of business model and its main characteristics. Secondly, it reviews the academic, practitioner and grey literature on circular business models to identify the current state of the research in the field. Thirdly, it presents a set of propositions leading to a preliminary conceptualisation of the circular business model merging themes from the business model literature with the implications for business models deriving from the application of the circular economy thinking inferred from practical examples and the literature. The chapter concludes with a summary and recommendations for future work on circular business models. Recommendations relate to the type of the industry and company to investigate and appropriate research method.

Chapter 4 starts laying the theoretical foundations of business model innovation in the context of the circular economy. This is a pertinent area of enquiry since the theoretical understanding of the rationale for adopting innovative circular business models or transforming existing ones is currently overlooked. To contribute to address this limitation, Chapter 4 seeks to understand how the rationale for adopting circular business models can be explained. The integrated theoretical framework used combines the natural-resource-based-view of the firm (Hart 1995)

and the neo-institutional theory (Di Maggio and Powell 1983) from the strategic management and institutional theory literature, respectively, to coalesce factors relating to the internal workings of the firm, with the external environment. This chapter also discusses (a) the potential through which circular business models advance the theoretical framework, and (b) the extent to which the implications of circular business models are source of tensions for the theoretical framework used. The concluding section summarises the contribution of this chapter in addition to identifying opportunities for future research.

Chapter 5 provides a final reflection, which highlights the specific contribution that this enquiry brings to the academic literature, its limitations and implications for practitioners wishing to implement circular economy-driven business model innovation.

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