

Business Models in the Circular Economy

Roberta De Angelis

Business Models in the Circular Economy

Concepts, Examples and Theory

palgrave
macmillan

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ISBN 978-3-319-75126-9 ISBN 978-3-319-75127-6 (eBook)
<https://doi.org/10.1007/978-3-319-75127-6>

Library of Congress Control Number: 2018930345

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To my father and my grandmother.

I feel that they have never ceased to be on my side. With their lives they taught me generosity, determination and spirit of sacrifice: three precious gifts that have assisted me during my life.

FOREWORD

We have no long-term future unless we can reorganise ourselves to live within our ecological boundaries, and this necessitates a conversion of our economic system from one based on a linear pattern of materials use to another that is cyclical. Fortuitously, in the last decade, the concept of the circular economy has become more mainstream, with the UK Government including it as an objective in its new industrial strategy published at the end of 2017. Accordingly, this requires the debate to move on from *what* needs to be done to *how* it can be achieved. Reconfiguring materials use towards a cyclic system is a convoluted challenge. It is likely to be achieved through an evolutionary progression, with people, policies and organisations who explore circular potential changing the economic landscape and thus offering new challenges and opportunities to others.

The involvement of businesses in finding a path through is crucial because of their immense influence on resource use. Nevertheless, while many firms recognise the ecological boundaries of our existing system, they can find it difficult to work out how to develop new ways of doing business that encourage a shift towards a circular economy. They need new business models that let them create value in a manner which encourages the regeneration of resources.

Very little has been written yet in the academic literature on business strategy for advancing the circular economy. Consequently, this book has significant worth in making a start in occupying this big space. It creatively takes ideas from the practitioner literature on the circular

economy and explores how these can be effectively affiliated with the academic literature on business models and business strategy. Thereby, it begins to lay down foundations for a more effective theoretical discourse, as well as playing a part in bringing clarity to the business community on how circular business models can bring prosperity to both them and the planet.

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PREFACE

Nowadays, the scale of the ecological and social crises has reached unprecedented levels and multiples are the voices demanding significant, societal-wide investments in change to invert this trajectory. In relation to how to address environmental problems more effectively, this book is neither about macro, system-level approaches nor about micro, individual responsibilities. Rather it is focussed on corporations and the role they might perform in the transition towards a more environmentally friendly economy. Corporate efforts have mostly reduced negative impact and consequently, they are demanded to do ‘more’. In this respect, pertinent questions are: what exactly is ‘more’? And, has it to find inspiration in the concepts of sustainable development and corporate sustainability? Despite the fact that sustainable development is a concept in vogue since the late 1980s and corporate sustainability initiatives have been proliferating, this book believes that the answer to these questions is to be found somewhere else. Particularly, in an emergent and more powerful model for an economy that works within ecological limits, which is already motivating pioneering innovators across the globe to fundamentally rethink their business practices, and is known as ‘the circular economy’.

By proposing more resource-efficient industrial processes that mirror the cyclical functioning of the eco-system where the concept of waste does not exist, the implementation of the circular economy could have significant positive impact on production and consumption systems and circular economy thinking is gaining consensus across business, policy and academic circles. The role of corporations in the circular

economy model is central since a crucial constituent in the achievement of such an economy is business model innovation. However, while there is some evidence of circular business models elements, categories, strategies, frameworks, canvases and archetypes within academic and practitioner literature, the concept of the circular business model is not clearly understood, with potential negative consequences for theory building and practical implementation. In addition, the theoretical understanding of circular business models appears very limited to date. Hence, this book contributes to the literature at the intersection between the circular economy and business models by elaborating a set of propositions leading to a preliminary conceptualisation of the circular business model, which can be considered a stepping stone towards clarity and theory building in the relevant literature. It also investigates the theoretical foundations of circular business models in relation to the rationale for adopting them. The key themes and conceptual frameworks used in this book are derived from academic and practitioner literature on the circular economy as well as from the business model, strategic management and neo-institutional literature. The conceptual themes are enriched with examples concerning circular economy practices derived from secondary data.

After an initial overview of the book's aims and structure, this monograph introduces the reader to the circular economy thinking outlining its origins, principles and relationship with the concepts of sustainable development and corporate sustainability. Some critical perspectives of the concept are also sketched. The central part of the book reviews the literature on business models in the circular economy proposing a preliminary conceptualisation of the circular business model. It also explains the rationale for adopting circular business models under strategic management and neo-institutional lenses. Recommendations for future studies on circular business models are also given in this central section. Research contribution and limitations are summarised in the concluding chapter.

This book is aimed at students and researchers in the circular economy, circular business models and corporate sustainability. It can also be useful to practitioners interested in the circular economy concept and related business models.

My intellectual journey, including the writing of this book, has been supported by my close relatives and friends. I am very grateful first and foremost to Julie Whittaker for she provided a valuable feedback

on a preliminary version of this manuscript and, even more, because it is with her that I shared my passionate research interest in the circular economy since the beginning of my postgraduate career. She has always accompanied my research with dedication and care providing competent, thoughtful and challenging insights that have enriched and enlightened my understanding of the circular economy. Very special thanks also go to my husband, Giancarlo, who has always demonstrated comprehension and encouraged the preparation of this manuscript, and to my sister Laura, who is taking care of my relatives with daily commitment and love.

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ABBREVIATIONS

BM	Business Model
BMs	Business Models
CBM	Circular Business Model
CBMs	Circular Business Models
CE	Circular Economy
CEO	Chief Executive Officer
DEFRA	Department for Environment, Food and Rural Affairs
EC	European Commission
EMF	Ellen MacArthur Foundation
EU	European Union
GDP	Gross Domestic Product
NGOs	Non-Governmental Organisations
NRBV	Natural-Resource-Based-View
SMEs	Small Medium Enterprises
UK	United Kingdom
USA	United States of America
WRAP	Waste and Resource Action Plan

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