

BUSINESS MODELS AND A A A A A A A COGNITION

EDITED BY

KRISTIAN J. SUND

ROBERT J. GALAVAN

MARCEL BOGERS

Business Models and Cognition



New Horizons in Managerial and Organizational Cognition

Business Models and Cognition

EDITED BY

KRISTIAN J. SUND

Roskilde University, Denmark

ROBERT J. GALAVAN

Maynooth University, Ireland

MARCEL BOGERS

Eindhoven University of Technology, The Netherlands, University of Copenhagen, Denmark, and UC Berkeley, USA



Emerald Publishing Limited Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2021

Copyright © 2021 Emerald Publishing Limited

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-83982-063-2 (Print) ISBN: 978-1-83982-062-5 (Online) ISBN: 978-1-83982-064-9 (Epub)

ISSN: 2397-5210 (Series)



ISOQAR certified Management System, awarded to Emerald for adherence to Environmental standard ISO 14001:2004.

Certificate Number 1985 ISO 14001



Contents

List of Contributors	vii
Author Biographies	ix
Exploring the Connections Between Business Models and Cognition: A Commentary	
Kristian J. Sund, Robert J. Galavan and Marcel Bogers	1
Examining CEOs' Business Model Schemas: A Cognitive Mapping of Differences Between Industry Insiders and Outsiders Somendra Narayan, Jatinder S. Sidhu, Charles Baden-Fuller	
and Henk W. Volberda	15
Unveiling the Dark Side of Business Models: A Novel Framework for Managerial Cognition and Decision-Making	
Antonio Daood, Cinzia Calluso and Luca Giustiniano	39
Escaping the Founder Identity Trap: A Process View on Business Model Design During New Venture Creation	
Anneleen Van Boxstael and Lien Denoo	57
What Bounds Entrepreneurial Business Modelling? The Impacts of Visual Framing Effects and Cognitive Dispositions	
Tassilo Henike and Katharina Hölzle	95
Creating Meta-Narratives: How Analogies and Metaphors Support Business Model Innovation	
Ksenia Podoynitsyna, Yuliya Snihur, Llewellyn D. W. Thomas and Denis A. Grégoire	135
The Metacognition Underlying Radical Business Model	
Innovation: Four Case Studies of Individual Criticism Emilio Bellini and Silvia Castellazzi	169

vi Contents

Barriers in Searching for Alternative Business Models:	
An Essay on the Fear of Looking Foolish	
Sea Matilda Bez and Henry Chesbrough	187
Business Model Innovation in Incumbent Firms: Cognition and	
Visual Representation	
Lorenzo Massa and Fredrik Hacklin	203
Science and Swagger for Success: The Interactions of	
Hypothesis Testing and Self-Efficacy to Influence Business	
Model Performance	
Ted Ladd	233
Index	253

List of Contributors

Charles Baden-Fuller Cass Business School, UK

Emilio Bellini Politecnico di Milano, Italy

Sea Matilda Bez University of Montpellier, France

Marcel Bogers Eindhoven University of Technology, The Nether-

lands, University of Copenhagen, Denmark, and UC

Berkeley, USA

Cinzia Calluso Luiss University, Italy

Silvia Castellazzi Politecnico di Milano, Italy

Henry Chesbrough UC Berkeley, USA, and Luiss University, Italy

Antonio Daood University of Bologna, Italy

Lien Denoo Tilburg University, The Netherlands

Robert J. Galavan National University of Ireland Maynooth, Ireland

Luca Giustiniano Luiss University, Italy

Denis A. Grégoire HEC Montréal, Canada

Fredrik Hacklin Vlerick Business School, Belgium, and ETH Zürich,

Switzerland

Tassilo Henike ITONICS, Germany

Katharina Hölzle University of Potsdam, Germany

Ted Ladd Hult International Business School, USA

Lorenzo Massa Aalborg University, Denmark

Somendra Narayan NEOMA Business School, France

Ksenia Podoynitsyna Tilburg University and Eindhoven University of

Technology, The Netherlands

Jatinder S. Sidhu Leeds University Business School, UK

Yuliya Snihur Toulouse Business School, France

viii List of Contributors

Kristian J. Sund Roskilde University, Denmark

Llewellyn D. W. Thomas LaSalle Universitat Ramon Lull, Spain

Anneleen Van Boxstael Eindhoven University of Technology, The Netherlands

Henk W. Volberda Amsterdam Business School, University of Amster-

dam, The Netherlands

Author Biographies

Charles Baden-Fuller is the Centenary Professor of Strategy and the Leader of the Strategy Group at Cass Business School, City, University of London. He is one of the leading global thinkers on the topic of Business Models. He has made key contributions to the field, particularly on their role as cognitive devices to assist managerial thinking and predict firm behaviour. He has also had a significant impact on policy in mature firms and in firms in the field of High Technology (especially Biotechnology). His honors include being a Senior Fellow at the Wharton School, University of Pennsylvania since 2010, Editor-in-Chief of *Long Range Planning* 1999–2010, Fellow of the Strategic Management Society, Fellow of Academy of Social Sciences, and Fellow of British Academy of Management.

Emilio Bellini is an Assistant Professor of Leadership and Innovation at the School of Management, Politecnico di Milano, Italy. He is the Co-founder of the *LEADIN'Lab*, the laboratory for Leadership, Design and Innovation at the School of Management, Politecnico di Milano. He holds a PhD in Management Engineering from the Università di Roma Tor Vergata, Italy. His current research focuses on design-driven innovation in services and the innovation of meaning process.

Sea Matilda Bez is an Associate Professor at the University of Montpellier-MOMA in France and a Member of the research groups Labex Entreprendre, and Montpellier Research in Management. As a Postdoctoral Researcher at the University of California, Berkeley (UC Berkeley), she worked on open-coopetition (open-innovation in collaboration with competitors). She holds a PhD in strategic management from the University of Montpellier. Her research focuses on how competitors can innovate together and share their core competitive advantage transparently.

Marcel Bogers is a Professor of Open and Collaborative Innovation at the Eindhoven University of Technology, at the Innovation, Technology Entrepreneurship and Marketing (ITEM) group (Department of Industrial Engineering and Innovation Sciences). Before, when his work on this volume was conducted, he was a Professor of Innovation and Entrepreneurship at the University of Copenhagen, at the Unit for Innovation, Entrepreneurship and Management (Department of Food and Resource Economics). Currently, he also is an Adjunct Professor at the University of Copenhagen (Faculty of Science) and a Senior Research Fellow

Author Biographies

at the University of California, Berkeley (at the Garwood Center for Corporate Innovation, Haas School of Business). He obtained a combined BSc and MSc in Technology and Society from the Eindhoven University of Technology and a PhD in Management of Technology from the Ecole Polytechnique Fédérale de Lausanne (Swiss Federal Institute of Technology).

Cinzia Calluso is an Assistant Professor (Research) of Organization Studies at the Department of Business and Management of Luiss University. She studied cognitive psychology at the Gabriele D'Annunzio University of Chieti-Pescara (Italy), where she also got her PhD in functional neuroimaging at the Department of Neuroscience, Imaging and Clinical Sciences. She also studied clinical neuropsychology at the Skinner Institute & European University of Rome, where she got a second-level postgraduate master's in clinical neuropsychology. She is also a Cognitive Psychotherapist in training at the Italian School of Clinical Cognitivism (SICC) in Rome. Her research is focused on the study of a particular class of organizational behaviors – organizational routines – and their cognitive and neurofunctional counterparts.

Silvia Castellazzi is a Research Fellow at the Department of Management, Economics and Industrial Engineering, Politecnico di Milano, Italy. She has a background in Philosophy and holds a PhD from Zeppelin Universität, Friedrichshafen, Germany. Her current research focuses on innovation and its cognitive antecedents.

Henry Chesbrough is the Faculty Director of the Garwood Center for Corporate Innovation at the Haas School of Business at UC Berkeley and Maire Tecnimont Professor of Open Innovation at Luiss University in Rome. He holds a PhD in business administration from UC Berkeley, an MBA from Stanford University, and a BA from Yale University, summa cum laude. His book Open Innovation (2003) articulates a new paradigm for organizing and managing R&D; his second book, Open Business Models (2006), extends his analysis of innovation to business models, intellectual property management, and markets for innovation; and his third book, Open Services Innovation (2011), explores open innovation in services businesses. His newest book is Open Innovation Results (2019). He received the IRI Medal of Achievement in 2017.

Antonio Daood is a Postdoctoral Research Fellow at the University of Bologna and cooperates with the Centre for Research in Leadership, Innovation, and Organisation (CLIO) at Luiss University. He obtained his PhD at the Sapienza University of Rome, with a thesis on business model innovation and organizational change in SMEs operating in Made in Italy industries. His current research interests are focused on organizational change, business model innovation, and traditional industries.

Lien Denoo is an Assistant Professor in entrepreneurship at Tilburg University's Department of Management. She got her PhD from Ghent University and

previously was a postdoctoral scholar at the University of Southern California. Her research interests include technology-market linking in new ventures, entrepreneurship in nascent industries, and the impact of founder characteristics and resource acquisition processes on new venture start-up and growth. Her dissertation received the Heizer Doctoral Dissertation Award in New Enterprise Development from the Academy of Management's Entrepreneurship division. Her research was published in the *Journal of Business Venturing* as well as in several book chapters.

Robert J. Galavan is a Full Professor and holds the Chair in Strategic Management at the National University of Ireland Maynooth. He was the Founding Head of the School of Business at NUI Maynooth and formerly Dean of the Faculty of Social Science. He is a Council Member of the Irish Academy of Management and Chairs the Strategy Significant Interest Group (SIG). He holds an award winning PhD on Strategic Leadership from Cranfield University, a master's degree in Adult Education and Sustainable Development, and degrees in Strategy and Management.

Luca Giustiniano is a Professor of organization studies in the Department of Business and Management and the Director of CLIO (Center for research in Leadership, Innovation and Organisation) at Luiss University, Rome, Italy. He is an Editorial Board Member of the *Journal of Management Studies*. During his career, he has been visiting researcher and scholar at the Viktoria Institute (Sweden), the Sauder School of Business (Canada), the Interdisciplinary Centre for Organizational Architecture (Denmark), the Nova SBE (Portugal), and the Waseda Institute for Advanced Studies (Japan). He co-authored *Elgar Introduction to Theories of Organizational Resilience* (2018). His current research interests are focused on new forms of organizing, organizational paradoxes and metaphors.

Denis A. Grégoire (PhD, University of Colorado – Boulder) holds the Rogers-J.A.-Bombardier Chair of entrepreneurship research and is an Associate Professor of Entrepreneurship and Innovation at HEC Montréal, Canada. His research centers on the cognitive processes supporting the early identification of insightful ideas for new innovative products/services and entrepreneurial projects, entrepreneurs' decision to expand their firm's activities in foreign locations, and the contributions of business angels and venture capitalists to the growth of high-potential technology ventures. His research has been published in the Academy of Management Journal, Entrepreneurship Theory and Practice, the Journal of Business Venturing, the Journal of International Business Studies, the Journal of Management Studies, Organizational Research Methods, Organization Science, Small Business Economics, in addition to a few French-language journals. He is currently an Associate Editor at the Academy of Management Journal.

Fredrik Hacklin is a Professor of Entrepreneurship at Vlerick Business School in Brussels and Associate Professor (PD) at ETH Zurich. He further serves as a Member of the Board of Directors at Evli Bank Plc and as a Visiting Faculty at

ESMT Berlin. Being a regular speaker and trainer, he has worked with companies such as ABB, Bang & Olufsen, Danone, Deutsche Telekom, Nokia, and UBS and advised organizations such as the European Parliament or the Swiss Federal Department of Foreign Affairs. He holds a PhD in management from ETH Zurich, an MSc in computer science from KTH Royal Institute of Technology Stockholm, and a BSc in computer science and physics from RWTH Aachen.

Tassilo Henike is a Senior Innovation Consultant at ITONICS, a leading provider of Innovation Software and Consulting Solutions. Previously, he was a Teaching Assistant and obtained his PhD at the Chair of Innovation Management and Entrepreneurship, University of Potsdam, Germany. He holds an MSc in Business Administration and Engineering from the Technical University Berlin, Germany. His research concerns how cognitive factors affect innovation behavior, particularly focusing on the emergence of new business models. His research is published in international outlets such as *Long Range Planning*, the *Journal of Business Models*, or the *Routledge Companion to Innovation Management*.

Katharina Hölzle is a Professor and the Head of the research group IT-Entrepreneurship at the Hasso-Plattner-Institute, Faculty of Digital Engineering at the University of Potsdam. Since 2015, she has been the Editor-in-Chief of the Creativity and Innovation Management Journal (Wiley) and editorial board member in various other innovation management journals. She is a Visiting Professor to the University of International Business and Economics in Beijing, to the University of Technology, Sydney, and the Macquarie Graduate School of Management in Sydney. She is a Spokesperson for the Potsdam Graduate School and a Member of the Fulbright commission's selection committee for PhD grants. She has been the Vice-chair of the Commission of Experts for Research and Innovation (EFI) since May 2019 and a Member of the Hightech Forum of the German Federal Government. Her research focuses on digital entrepreneurship, digital innovation and transformation, and digital ecosystems. She advises young and established companies in the field of technology-driven business model innovation, digitalization, strategic technology, and innovation management and is a mentor to technology start-ups and entrepreneurs.

Ted Ladd is the Dean of Research and a Professor of Entrepreneurship at the Hult International Business School, as well as an Instructor of Platform Entrepreneurship at Harvard University. He has participated in five start-up ventures; the most recent was acquired by Google as the basis for its WearOS software. His research focuses on the design of new ventures, especially multisided platforms. He holds a PhD in Management from Case Western Reserve, an MBA from Wharton at the University of Pennsylvania, an MA from SAIS at Johns Hopkins, and a BA from Cornell.

Lorenzo Massa is Professor and Director of the Business Design Lab at Business School Aalborg University (AAU), Adjunct Faculty at EPFL-EMBA, at the École Polytechnique Fédérale de Lausanne, and member of the Expert Network

(Innovation) at the World Economic Forum. He has been the Scientist at the College du Management (CDM) of EPFL, an Adjunct Professor at the University of Bologna (UNIBO), a Visiting Scholar at the Wharton School, University of Pennsylvania (UPENN), a Visiting Researcher at the MIT Sloan School of Management (MIT), and an Assistant Professor at the Vienna University of Economics and Business (WU). He holds graduate degrees with distinctions in Mechanical Engineering from the Dublin Institute of Technology (BEng) and the University of Genoa (MSc Eng) and a master and PhD in Management from IESE Business School.

Somendra Narayan is an Assistant Professor of Strategic Management and Entrepreneurship at the NEOMA Business School in France. He holds a doctorate in Strategic Management from the Rotterdam School of Management, Erasmus University, The Netherlands. Prior to that he has also completed a Master of Science in Management of Technology from the Delft University of Technology (TU Delft) in The Netherlands and a Bachelor of Engineering from the National Institute of Technology – Surat in India. Currently, he serves as an Ad hoc Reviewer for the Journal of Management Studies, Journal of Organizational Change Management, the Asian Academy of Management, and the European Academy of Management.

Ksenia Podoynitsyna is an Associate Professor of Data-Driven Entrepreneurship at JADS, the Joint Graduate School of Tilburg University and Eindhoven University of Technology, The Netherlands. Her research focuses on business models and ecosystems for data-driven and sustainable businesses and employs both qualitative and quantitative methods. She codeveloped two tools that allow to map, design, and analyze business models and ecosystems and that were explicated in publications in Long Range Planning and Journal of Cleaner Production. She has furthermore published in journals such as Journal of Business Venturing, Entrepreneurship Theory and Practice, California Management Review, Journal of Product Innovation Management, Renewable & Sustainable Energy Reviews, Strategic Organization, and Technological Forecasting & Social Change. She received her PhD in entrepreneurship from the Eindhoven University of Technology.

Jatinder S. Sidhu is a Professor of Strategic Management & Organization at the Leeds University Business School (LUBS), University of Leeds, UK. Prior to joining LUBS, he was affiliated as an Associate Professor of Strategic Management to the Rotterdam School of Management, Erasmus University Rotterdam, The Netherlands, which he joined after obtaining his PhD degree at the Tinbergen Institute, Erasmus School of Economics, Rotterdam, The Netherlands. He has served as the National Representative of the Netherlands (2015–2018) at the European Academy of Management (EURAM), and he currently serves as an Associate Editor for *European Management Review*, EURAM's peer-reviewed journal.

Yuliya Snihur is an Associate Professor of Strategy, Entrepreneurship, and Innovation at the Toulouse Business School, France. She teaches and studies

strategy-formation processes in new ventures and the evolution of strategic management in existing firms based on the analysis of firms' business models. She is researching the role of time and language in strategy-making by applying theories of organizational imprinting, complexity, and cognitive framing. To this end, she uses hand-collected interview data, fieldwork, and longitudinal datasets to build theory. She has published in journals such as *Academy of Management Journal*, *Journal of Management Studies*, *Long Range Planning*, and *Strategic Entrepreneurship Journal*. She serves as Associate Editor at *Long Range Planning* and is a Member of editorial boards at *Strategic Organization* and *Strategic Entrepreneurship Journal*. She received her PhD in management from the IESE Business School (Barcelona, Spain), prior to which she worked in corporate finance.

Kristian J. Sund is a Professor of Strategic Management at Roskilde University in Denmark. He is a Co-editor, with Robert Galavan, of the *New Horizons in Managerial and Organizational Cognition* book series. His research currently focuses on business model innovation, uncertainty, and management education and has recently appeared in outlets like *MIT Sloan Management Review* and *Studies in Higher Education*. He holds a Doctorate in Management and Licentiate (MSc) in Economics from the University of Lausanne, and an MA from the Ecole Polytechnique Fédérale de Lausanne (EPFL), where he also completed his postdoc.

Llewellyn D. W. Thomas is an Associate Professor at LaSalle Universitat Ramon Lull (Barcelona) and a Visiting Professor at Imperial College Business School (London). His research interests lie in the coevolutionary processes that lead to successful innovation and entrepreneurship. He focuses on digital economy contexts with an interest in ecosystem creation, evolution, and dynamics. He has published in *Journal of Management Studies*, *Strategic Entrepreneurship Journal, Industrial and Corporate Change, Communications of the ACM, Academy of Management Perspectives, Business Horizons*, and *Telecommunications Policy*. He has a PhD from Imperial College London, an MBA with Distinction from Cass Business School London, and Honors Degrees in both Law and Arts from Sydney University, Australia.

Anneleen Van Boxstael is an Assistant Professor at the Eindhoven Technical University whose research and teaching focus on entrepreneurship, technology innovation, and entrepreneurial strategy. She received the PhD degree in Applied Economics from Ghent University. She takes a special interest in learning and managerial cognition during business founding, in settings of industry evolutions. Currently, she is engaged in innovation studies of music publishing, renewable energy transition, and digitization of business. She also aims to understand programs that shape entrepreneurial ecosystems: user innovations, intermediary organizations, accelerator and incubation programs, communities of practices, advisory and funding programs.

Henk W. Volberda is a Professor of Strategic Management & Innovation at Amsterdam Business School of the University of Amsterdam. Moreover, he is

the Director of the Amsterdam Centre for Business Innovation. He has held visiting scholarships at the Wharton School of the University of Pennsylvania, Duke University's Fuqua School of Business and at Cass Business School in London. He holds various advisory positions such as member of the supervisory board of NXP Semiconductors, The Netherlands, expert member of the World Economic Forum, and fellow of the European Academy of Management. His research on technological disruption, coevolution, new business models, strategic flexibility, and management innovation has led to an extensive number of publications in international peer-reviewed journals including the Academy of Management Journal, Journal of Management, Journal of Management Studies, Journal of International Business Studies, Management Science, Organization Science, and Strategic Management Journal. He is a Member of the editorial boards of Long-Range Planning, Journal of Strategy and Management, Management and Organization Review, and Organization Studies.