Moving Beyond the Why And What Question:
How Corporations Achieve Sustainable Development

Moving Beyond the Why and What Question:
How Corporations Achieve Sustainable Development

Voorbij de Waarom en Wat Vraag:
Hoe Bedrijven Duurzame Ontwikkeling Bewerkstelligen

Thesis

to obtain the degree of Doctor from the
Erasmus University Rotterdam
by command of the
rector magnificus

Prof. dr. F.A. van der Duijn Schouten
and in accordance with the decision of the Doctorate Board.

The public defense shall be held on
17 June 2021 at 15:30 hours

by

Thijs Hendrik Johan Geradts
born in Sittard

Erasmus University Rotterdam

Doctoral Committee

Doctoral dissertation supervisors:
Prof. dr. J.J.P. Jansen
Prof. dr. J.P. Cornelissen
Prof. dr. ir. A. Nijhof

Other members:
Prof. dr. T. Lumpkin
Prof. dr. J. Pinkse
Prof. dr. ir. V. Van de Vrande

Erasmus Research Institute of Management – ERIM
The joint research institute of the Rotterdam School of Management (RSM)
and the Erasmus School of Economics (ESE) at the Erasmus University Rotterdam
Internet: www.erim.eur.nl

ERIM Electronic Series Portal: repub.eur.nl/

ERIM PhD Series in Research in Management, 521
ERIM reference number: EPS-2021-521-S&E
ISBN 978-90-5892-603-6

Design: PanArt, www.panart.nl

This publication (cover and interior) is printed by Tuijtel on recycled paper, BalanceSilk®
The ink used is produced from renewable resources and alcohol free fountain solution.
Certifications for the paper and the printing production process: Recycle, EU Ecolabel, FSC®C007225
More info: www.tuijtel.com

FSC
www.fsc.org
RECYCLED
Paper made from recycled material
FSC® C007225

Voor mijn ouders, grootouders, zussen en Nancy

Bedankt voor alles

~

Wat bleef van al die dure teksten die we hoorden
waarom zo zoeken naar een ingewikkeld woord
de liefste zinnen tellen drie, vier woorden
"iets liefs" dat moeilijk klonk, heb ik nog nooit gehoord

Toon Hermans

To my parents, grandparents, sisters, and Nancy

Thank you for everything

~

What remained of all those fancy texts that we heard
why search for such a complicated word
the kindest sentences count three, four words
"something kind", which sounds complicated,
is something that I have never heard

Toon Hermans
(translated)

Table of Contents

List of Tables

List of Figures

CHAPTER 1

Introduction

1.1 Relevance and Overview

The year marks 2021. COVID-19 plunged the world economy into its worst recession since the Second World War (World Bank, 2020). Following an era of extraordinary economic growth and improvement of living standards, divides within and across countries are again on the rise (World Social Report, 2020). Increasing inequalities are holding back progress on poverty eradication. Income disparities and growing divides based on gender, race and ethnicity fuel social tensions and political instability across the globe. Moreover, the state of the natural environment is alarming. According to the Living Planet Report 2020 (WWF, 2020), population sizes of mammals, birds, fish, amphibians, and reptiles have fallen by 68% since 1970. Unfortunately, man-made climate change has not stopped for COVID-19. The last five years have been the warmest on record and predictions issued by the World Meteorological Organization (2020) show there is a 20% chance the world will witness a temperature rise of 1.5 degrees Celsius above pre-industrial levels in the next five years. Greenland's ice is melting beyond a point of no return, deforestation is still manifest, and intensifying draughts cause detrimental wildfires (Lenton, Rockström, Gaffney, Rahmstorf, Richardson, Steffen, & Schellnuber, 2020; King, Howat, Candela, Jeong, & Noël, 2020). The Paris Climate Agreement to keep a global temperature rise below 2 degrees Celsius seems a far cry away from the fundamental transformation that is globally needed and so urgently.

In the light of these developments, corporations are increasingly urged to address long-standing societal problems (Wang, Tong, Takeuchi, & George, 2016) and meet "the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987, p. 43). Motivated by economic opportunities, legislation, stakeholder pressure, and ethical concerns (Bansal & Roth, 2000; Margolis & Walsh, 2003), corporations have progressively started to embrace sustainable development by looking to "meet their short-term financial needs without compromising their (or other's) ability to meet future needs" (Slawinski & Bansal, 2015, p. 532), and achieve "inclusive, connected, equitable, prudent, and secure human development" (Gladwin, Kennelly, & Krause, 1995, p. 896). Delivering economic, social, and environmental benefits—the so-called triple bottom line—is a core element of this ambition (Hart & Milstein, 2003, p. 56).

Importantly, sustainable development requires corporations to apply the principles of economic prosperity, social equity, and environmental integrity to their products and practices (Bansal, 2005), and demands bold innovative solutions to address society's most pressing issues (Hart & Dowell, 2011). Even though corporations possess the creative and innovative potential to address society's grandest challenges (Howard-Grenville, Davis, Dyllick, Miller, Thau, & Tsui, 2019), they are at risk of prioritizing incremental improvements for quick and certain financial gains at the expense of sustainable development (Bansal & DesJardine, 2014). Problematically, managers are inclined to exploit existing operations instead of exploring new opportunities (March, 1991), and tend to focus on short-term profit (Laverty, 1996). Managers also show a propensity to perceive trade-offs between economic, social, and environmental dimensions, instead of looking for opportunities to reconcile sustainability goals with economic goals (Van der Byl & Slawinski, 2015). To achieve sustainable development, corporations are thus to resolve tensions on three fronts.

First, research has long suggested that the objective of maximizing shareholder value is at the core of the functioning of corporations (Friedman, 1970; Jensen & Meckling, 1976). Maximizing shareholder value does, however, require corporations to simultaneously exploit current operations, striving for refinement and efficiency, and explore new opportunities to develop novel products that help corporations stay ahead of the competition (He & Wong, 2004). Within the context of sustainable development, corporations are similarly challenged to balance incremental sustainability improvements with exploring more radical opportunities to develop new sustainable products (Hart & Milstein, 2003). Yet, considering that both activities require different knowledge management processes (i.e., extending current knowledge versus developing new knowledge) and managers favor exploitation over exploration for its certain returns, tensions are likely to arise (Andrioupoulos & Lewis, 2009).

Second, maximizing profit also contains a temporal element (Marginson & McAulay, 2008). Research has long suggested that to maximize profit, corporations are to balance investments to meet their short-term demands and prepare for the future (Laverty, 1996; Porter, 1992). Capital markets, however, demand quick profit (Souder, Reilly, Bromiley, & Mitchel, 2016). Because corporations tend to be organized accordingly (Reilly, Souder, & Ranucci, 2016), and humans naturally favor present over future considerations (Loewenstein & Thaler, 1989), managers mostly prioritize the short-term over the long-term. Considering that sustainable development calls for corporations to meet both their short- and long-term needs as well as those of present and future generations (Slawinski & Bansal, 2015), intertemporal tensions are likely to arise when demands of today differ from needs of tomorrow (Smith & Lewis, 2011). While corporations increasingly recognize that their own long-term interests are tied up with those of society and the biosphere (Howard-Grenville et al., 2019; Whiteman, Walker, & Perego, 2013), managers are yet to break with economic short-termism that pervades modern corporations (Bansal & DesJardine, 2014).

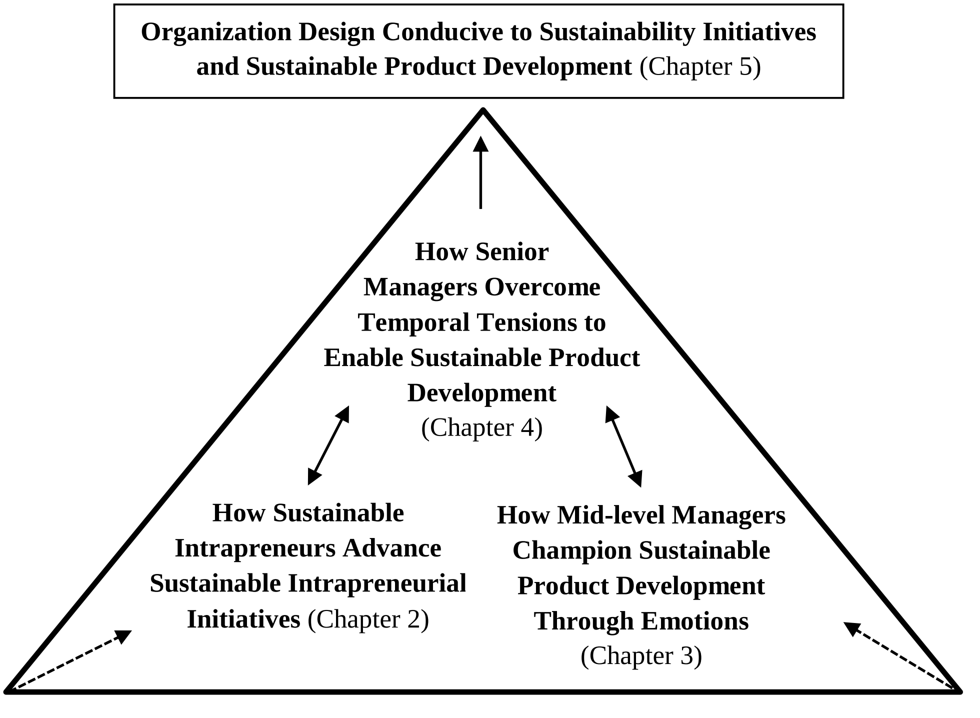
Lastly, scholars have long studied the relationship between financial performance and corporations pursuing social and/or environmental objectives (McWilliams & Siegel, 2000; Waddock & Graves, 1997; Orlitzky, Schmidt, & Rynes, 2003). While initially perceived as a trade-off dilemma, research suggests sustainability practices positively affect corporate performance (Eccles, Ioannou, & Serafeim, 2014; Ortiz-de-Mandojana & Bansal, 2016). Although trade-offs between multiple sustainability objectives exist (Karnani, 2011), scholars suggest that by accepting and working through paradoxical tensions, corporations are better positioned to achieve conflicting sustainability objectives and superior financial performance (Nijhof & Jeurissen, 2010; Van der Byl & Slawinski, 2015). While managers are inclined to consider social and/or environmental objectives that align with economic objectives, whereby inspiring narrow but workable sustainability initiatives along existing routines, developing more comprehensive and radical sustainability initiatives requires managers to accept and accommodate conflicting yet interrelated economic, social, and environmental objectives (Hahn, Preuss, Pinkse, & Figge, 2014). Thinking more holistically about sustainability does, however, demand a change in mindset, inconsistent with short-term pressures and managerial aversion to uncertainty and ambiguity (Van der Byl & Slawinski, 2015).

To advance sustainable development, corporations face the daunting challenge of balancing the exploitation of current operations and exploration of new opportunities, simultaneously considering the short- and long-term, and accommodating interrelated contradictory economic, social, and environmental objectives. Over the last decades scholars have extensively considered normative and instrumental motives for *why* corporations, despite its associated challenges, should pursue sustainable development (e.g., Carroll, 1991; McWilliams & Siegel, 2001). Scholars have also extensively considered *what* corporations could do to profitably deliver on their sustainability ambitions, such as creating blended value (Emerson, 2003), creating shared value (Porter & Kramer, 2011), creating sustainable value (Hart & Milstein, 2003), corporate social innovation (Kanter, 1999) or sustainable business model innovation (Stubbs & Cocklin, 2008). Yet, only recently, scholars started to shift their attention to *how* corporations can improve current practices and create sustainable products.

Traditionally, scholars have considered the importance of CEOs putting sustainable development on the corporate agenda (Chin, Hambrick, & Treviño, 2013; Walls & Berrone, 2017), and for sustainability to become integrated in corporate strategy (Hart, 1997; Shrivastava, 1995; Porter & Kramer, 2006). Scholars have also emphasized the importance of embedding sustainability in corporate processes and systems (Eccles et al., 2014; Eccles, Perkins, & Serafeim, 2012), as well as in training and recruitment practices (Stefano, Bagdadli, & Camuffo, 2018). Such a top-down approach would steer corporate attention to sustainable development and empower employees to act upon their corporations' sustainability ambitions (Bhattacharya & Polman, 2017; Geradts & Bocken, 2019). While the importance of employees driving sustainable development from the bottom up has been increasingly acknowledged (Mirvis & Googins, 2018; Polman & Bhattacharya, 2016), scholars started to progressively explore how employees in spite of, or as part of their role advance sustainability initiatives (Alt & Craig, 2016; Battilana, Leca, & Boxenbaum, 2009; Girschik, 2020; Glavas, 2016; Halme, Lindeman, & Linna, 2012; Hemingway, 2005; Meyerson, 2004). Yet, given a dearth of research on both top-down and bottom-up approaches, it remains underexplored how managers at all levels advance sustainable development in the face of a broad set of challenges.

Coherent with the need for more research to explore how corporations can advance incremental sustainability improvements and develop new radical sustainable products, the studies in this dissertation investigate how managers—either from the bottom-up or top-down—manage to do so. Drawing on diverse theoretical perspectives, the roles of mid-level (Chapters 2 and 3) and senior managers (Chapter 4) as well as the importance of organization design (Chapter 5) are considered in this dissertation. By taking a critical realist methodological approach grounded in ontological realism and epistemic relativism (Mir & Watson, 2001), this research seeks to critically assess reality independent from human conception while acknowledging that facts are subjectively observed. As such, this dissertation attempts to foster a holistic understanding on the "how to question" of sustainable development and addresses a multiplicity of factors that can be considered conjointly for corporations to deliver on their sustainability ambitions. Given a dearth of research on topics discussed in this dissertation, the research methods employed are mainly qualitative (Chapters 3, 4 and 5) with the exception of one conceptual study (Chapter 2).

Figure 1. Overview Dissertation Studies



Through these conceptual and empirical studies, I am able to arrive at relevant conclusions that advance our understanding on the how to of sustainable development, offer practical guidance to practitioners and provide a springboard for future research. The four studies are captured in Figure 1.1 to give an overview of the chapters included in the dissertation, the main topics of the studies and to show how they are related. Next, I will elaborate on the four research questions that together form the body of this dissertation and collectively aim to illuminate the way to a more sustainable future.

1.2 Four Research Questions on How Corporations Achieve Sustainable Development

First, I focus on the important role of sustainable intrapreneurs: employees or groups of employees inside incumbent organizations who autonomously, from the bottom-up, seek to address societal problems by pursuing entrepreneurial opportunities—"situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships" (Eckhardt & Shane, 2003, p. 336). Critically, scholars suggest that social and environmental problems exist because incumbent organizations would be uncapable of developing innovative solutions to societal problems; fail to allocate resources to address societal problems; and are reluctant to privatize uncertainty specific to societal problems (Dean & McMullen, 2007; Dees, 2007; Santos, 2012). Furthermore, incumbents are often criticized for clinging on to their current activities, allocating resources accordingly, and emphasizing predictability (March, 1991). Tackling societal problems, in direct contrast, would require novel innovative solutions, a more optimal allocation of resources and bearing high levels of uncertainty (Lumpkin, Moss, Gras, Kato, & Amezcua, 2013): three areas where sustainable entrepreneurs uniquely act (York & Venkataraman, 2010). With entrepreneurship widely considered as an effective vehicle to tackle societal problems (Shepherd, 2015), scholars have extensively considered how individuals who pursue entrepreneurial opportunities for sustainability purposes advance innovation, alter resource allocation, and manage uncertainty by forming new sustainable enterprises (Hall, Daneke, & Lerox, 2010). Anecdotal evidence does, however, suggest that entrepreneurial actors operating inside incumbent organizations are equally capable of spurring impactful entrepreneurial solutions to societal problems. Yet, there remains a gap in our theoretical understanding of how sustainable intrapreneurs manage the three core elements of entrepreneurial action inside organizations, which seen as responsible for creating and maintaining societal problems in the first place. This leads to the first research question of this dissertation:

Research Question 1: How do sustainable intrapreneurs, from their position inside incumbent organizations, advance innovation, alter resource allocation, and manage uncertainty when taking entrepreneurial action to address societal problems?

In Chapter 2, I focus on how mid-level managers who are acting as product champions—"individuals who informally emerge in an organization and make a decisive contribution to the innovation by actively and enthusiastically promoting its progress through the critical [organizational] stages" (Howell, Shea, & Higgins, 2005, p. 644)—develop innovative products that address the needs of the world's poorest at the so-called Economic Base of the Pyramid (BoP). I specifically explore how product champions inside a large MNC use emotions to develop BoP products in the face of its uncertain outcomes for the corporation and its management. Whereas sustainable development is typically associated with eco-efficiency and clean technology, at the turn of the century scholars started to emphasize the importance for corporations to move beyond "greening" to build a truly sustainable world

(Hart & Milstein, 2003; Prahalad & Hammond, 2002). As argued by Hart and Dowell (2011, p. 1466), “sustainable development, by its very definition, is not restricted to environmental concerns but also involves focusing on economic and social concerns.” In response to a growing call for MNCs to address symptoms and consequences of poverty (Margolis & Walsh, 2003), and in recognition of untapped economic opportunities at the BoP (Christensen & Hart, 2002), many corporations have subsequently sought to enter the BoP (Hart, Sharma, & Halme, 2016). Problematically, the BoP is a challenging market in which institutional voids are present, consumers have little to spend, and behavioral change of consumers is often required (McMullen, 2011; Simanis & Duke, 2014). Developing products for the BoP often requires corporations to develop new capabilities and experiment over long periods of time to reach profitability, if ever (London, 2008). Financial markets, do, however, demand quick profit and corporations tend to be organized accordingly (Laverty, 1996). In light of these discouraging motivational effects, emotional arguments are said to be pivotal for MNCs to enter the BoP (Prahalad, 2004). Yet, it remains unexplored how managers leverage emotions for such purpose. This leads to the second research question of this dissertation:

Research Question 2: How do product champions leverage emotions to develop products for the Base of the Pyramid inside a large multinational corporation?

In Chapter 3, I investigate how corporations that seek to realize sustainable development are able to develop new products at the BoP despite short-term financial pressures. Core to sustainable development is that corporations address economic, social and environmental needs both in the present and the future (Slawinski & Bansal, 2015). For corporations to maximize profit, it is also suggested that corporations have to perform on all of these dimensions simultaneously (Hart & Milstein, 2003). Yet, as corporate processes and incentive systems favor short-term profit, managers likely overly focus on the short-term, and tend to avoid uncertainty at the expense of developing products for tomorrow's markets (Marginson & McAuley, 2008; Reilly, Souder, & Ranucci, 2016). We know from research that temporal tensions impede new product development for sustainability (Bansal & DesJardine, 2014). Yet we do not know how firms can deal with temporal tensions. This leads to the third research question of this dissertation:

Research Question 3: How do new products that address social and/or environmental problems and drive profit in the long term, despite pressures to focus on short-term profit, develop inside a large multinational corporation?

Finally, in Chapter 4, I focus on the role of organization design in enabling corporations to innovate their business model—defined as the way in which firms create, deliver, and capture value (Baden-Fuller & Morgan, 2010)—to help achieve their ambitions on the triple bottom-line in both the present and the future. Business model innovation (BMI) requires MNCs to identify and assess opportunities (i.e., sensing), mobilize resources to address them and capture value from doing so (i.e., seizing), and drive continued renewal of the organization (i.e., transforming) (Teece, 2018). Such dynamic capabilities as an organization's ability to "integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516) are considered critical for corporations to craft, refine, and transform their business models for sustainability purposes (Hart & Dowell, 2011). Importantly, scholars suggest that organization design, as the practice of building effective organizations with components such as management philosophy, strategy, people, structure, and management processes (Galbraith, 1974; Miles & Snow, 1978), affect dynamic capabilities needed for BMI (Fjeldstad & Snow, 2018). Yet, to date the role of organization design in relation to the development of dynamic capabilities necessary for sustainable business model innovation (SBMI) remains scantily addressed. This leads to the fourth and last research question of this dissertation:

Research Question 4: How do factors of organization design influence the development of dynamic capabilities needed for sustainable business model innovation?

1.3 Outline Dissertation Studies

In the following four chapters, I will present four studies that together form the body of my dissertation. The abstracts of the studies answer the research questions that are presented above. Next, I outline these four dissertation studies briefly.

1.3.1 Abstract Study 1: Sustainable Intrapreneurship: Toward a Conceptualization and Avenues for Future Research

Entrepreneurship is widely seen as a promising vehicle to solve societal problems, yet the study of sustainable entrepreneurial action remains largely focused on the formation of new organizations. Meanwhile, anecdotal evidence suggests actors inside incumbents are capable of advancing impactful entrepreneurial solutions to societal problems—a phenomenon known as sustainable intrapreneurship. We argue that the context of incumbents poses unique opportunities and challenges to entrepreneurial action aimed at addressing societal problems, which remain hitherto unexplored. To advance sustainable intrapreneurship as a concept worthy of further academic inquiry, we integrate and synthesize the sustainable entrepreneurship and intrapreneurship literatures with a focus on how entrepreneurs in both contexts address three core elements of entrepreneurial action that are deemed particularly challenging for incumbents: innovation, resource allocation, and uncertainty. In doing so, we first develop a set of fundamental propositions that conceptually develop how sustainable intrapreneurs advance innovation by breaking from organizational path dependencies while satisfying the heterogeneous criteria of both internal and external groups of stakeholders. Second, we introduce a set of propositions on how sustainable intrapreneurs alter resource allocation by leveraging the resource base of established organizations and filling internal resource gaps with external resources while demonstrating to resource providers they can allocate resources more optimally. Third, we advance two propositions on how sustainable intrapreneurs manage a unique combination of uncertainty specific to societal problems and entrepreneurial uncertainty and adopt both other- and self-oriented motives to promote the belief of key internal and external stakeholders in the payoff of sustainable intrapreneurial initiatives. The propositions conceptually develop the role of sustainable intrapreneurs in addressing societal problems and open avenues for future research.

1.3.2 Abstract Study 2: Let's Profitably Fight Poverty, Shall We? How Product Champions Leverage Emotions to Enable Base of the Pyramid Venturing Inside a Large FMCG

Entering the BoP is often portrayed as a lucrative growth strategy for multinational corporations, yet only very few corporations have been able to effectuate such a strategy. Although scholars have suggested that emotions may be critical in motivating firms to engage in BoP, it has remained unexplored how product champions use emotions to overcome internal resistance during the BoP venturing process. Building on a multiple case study of four BoP products inside a Fast-Moving Consumer Goods Company (FMCG),

through 56 semi-structured interviews we find that product champions leveraged both positive and negative emotions throughout the BoP venture development process. More specifically, we find that product champions attach volunteers, allowing product champions to access human and financial resources to initiate BoP ventures; anchor emotions, allowing champions to gain permission and secure resources from senior managers to develop BoP ventures in absence of a positive business case; and entrench emotional commitment, allowing champions to receive respite from standard performance metrics to sustain BoP venture development. These findings contribute to a theoretical understanding of conditions and processes that enable BoP venture development inside MNCs, and contribute to the literatures on corporate entrepreneurship and product championing by expanding on the role of emotions in (sustainable) venture development inside corporations.

1.3.3 Abstract Study 3: From Short-termism Toward Business Sustainability: Temporal Alignment for New Product Development Inside a Large FMCG

New product development is crucial for firms to achieve sustainable development. Yet, in pursuit of short-term profit, managers are at risk of prioritizing incremental improvements to existing products for quick and certain gains, at the expense of new product development to prepare for the future. Studying four products in a large consumer goods firm started to address unmet needs at the BoP, through 56 semi-structured interviews we found that what differentiated success cases was the temporal alignment practices enacted by senior managers in the product division playing the role of product champions, whereby they synchronized the firm's desire for more focus on the long term with individual perspectives regarding the future (temporal orientations) and organizational rules that shaped the form and rhythm of work practices (temporal structures). Specifically, senior managers enacted temporal alignment by reconceiving the meaning of business and innovation and reshaping performance metrics and stage-gates. This study extends research on business sustainability by theorizing about time. We also offer insights into temporal work and product championing.

1.3.4 Abstract Study 4: Barriers and Drivers to Sustainable Business Model Innovation: Organization Design and Dynamic Capabilities

Sustainable business model innovation (SBMI) in large multinational corporations is increasingly perceived as a key driver for competitive advantage and corporate sustainability. By taking a qualitative research approach, through 53 semi-structured interviews with top, senior and mid-level managers inside six sustainability-oriented corporations we address the way in which organization design affects dynamic capabilities needed for SBMI. Accordingly, from an organization design perspective, we identified multitude of barriers and drivers on three levels: the institutional, the strategic, and the operational. The contributions of this study are threefold. First, the study contributes to a recent discussion on how organizational design affects dynamic capabilities needed for business model innovation. Second, a multi-level framework is introduced to show how interconnected barriers and drivers obstruct or enable SBMI. Third, this study answers a call to advance theoretical perspectives on SBMI.

1.4 Take-aways

In conclusion, there are six key take-aways from the four studies included in this dissertation:

1) Chapter 2 shows that employees inside incumbent organizations may impactfully tackle societal problems through entrepreneurial action by advancing innovation, altering resource allocation, and managing uncertainty, albeit in a different way compared to entrepreneurial actors in other contexts. This is important for the literature on

sustainable entrepreneurship and intrapreneurship (Antoncic & Hisrich, 2011; Hockerts & Wüstenhagen, 2010; Parker, 2011; Shepherd, 2015; York & Venkataraman, 2010).

2) Chapters 2, 3 and 4 show that mid-level managers (either autonomously, or as part of their role) play an important role in overcoming obstacles that reside within corporations when initiating and advancing sustainable product development. While new product development inside corporations is considered to be challenging in general, addressing societal problems by developing new products may be particularly incompatible with organizational processes and systems that favor short-term profit. This is important for the literature on sustainability and new product development (Bansal, 2002; Brown & Eisenhardt, 1995; Demanpour, 1991; Hart & Milstein, 2003; Shrivastava, 1995).

3) Chapter 3 shows that mid-level managers who are developing sustainable products may strategically leverage emotions to gain access to financial and human resources and earn senior management support. When developing new products, both positive and negative emotions may be leveraged by product champions during the initiation, development, and implementation phase. This is important for literature on (sustainable) product championing and emotions (Anderson & Bateman, 2000; Crane, 2000; Howell & Higgins, 1990; Wickert & De Bakker, 2018; Zahra & Wright, 2016).

4) Chapter 4 shows that senior managers play a critical role in enabling sustainable product development inside corporations through ‘temporal alignment’ when temporal orientations and temporal structures are incongruent with a firm’s ambition to develop products that address societal problems and drive profit in the long term. This is important for literature on the role of time in organizations and corporate sustainability (Bansal & DesJardine, 2014; Bansal & Song, 2017; Hahn, Pinkse, Preuss, & Figge, 2015; Hart & Milstein, 2003; Slawinski & Bansal, 2015).

5) Chapter 5 shows that organization design influences sensing, seizing, and transforming as dynamic capabilities that allow organizations to adjust, recombine and create ordinary capabilities needed for SBMI. Critically, barriers and drivers on an institutional, strategic, and operational level affect whether corporations can craft, refine, and transform their business models for sustainability purposes. This is important for literature on SBMI and dynamic capabilities (Bocken, Short, Rana & Evans, 2014; Boons & Lüdeke-Freund, 2014; Fjeldstad & Snow, 2018; Stubbs & Cocklin, 2008; Teece, 2018).
6) Chapters 4 and 5 show that for corporations who strategically pursue sustainable development, it is important to align their sustainability strategy with organizational processes and systems accordingly. This is important for literature on sustainability and organization design (Aragón-Correa & Sharma, 2003; Eccles, Ioannou, & Serafeim, 2014; Galbraith, 1974; Miles & Snow, 1978; Miles & Creed, 1995; Mintzberg, 1980).

1.5 Declaration of Contribution

Below, I declare my contribution to each of the chapters in this dissertation and gratefully acknowledge the invaluable contribution of my co-authors.

1.5.1 Chapter 1

I prepared this Chapter by myself and implemented feedback from my doctoral dissertation supervisor André Nijhof.

1.5.2 Chapter 2

Together with my co-author Elisa Alt, we prepared this Chapter. After having equally contributed to the first draft of the manuscript, following a revise and resubmit decision at an entrepreneurship journal I carried out the majority of the work in reconceptualizing the manuscript. In addition, I also presented the paper at three conferences. By the time of submission of this dissertation, the study was submitted to an entrepreneurship journal with me as the first author.

1.5.3 Chapter 3

After having collected the data through interviews, my doctoral dissertation supervisor Justin Jansen suggested *emotions* as a theoretical underpinning to study how BoP ventures managed to advance inside a multinational corporation. I led this project and outlined the theory on which the research question was built. After drafting the paper, I presented various versions of the manuscript at conferences. Throughout the writing process, my doctoral dissertation supervisors Justin Jansen and Joep Cornelissen provided most valuable feedback which helped prepare the manuscript for submission. By the time of submission of this dissertation, the study was submitted to a management journal with me as the first author.

1.5.4 Chapter 3

I led this project as it was my responsibility to collect data through interviews, carry out a literature review, analyze the data, and draft earlier versions of the paper. I received extensive feedback from my co-authors Julie Battilana and Marissa Kimsey throughout the writing process, and closely worked together with Julie Battilana and Marissa Kimsey in theorizing from the data. Marissa Kimsey also played an important and substantial role in drafting two earlier versions of the manuscript with me as the first author. I also presented versions of the study at three academic conferences.

1.5.5 Chapter 4

Together with my co-author Nancy Bocken, who identified the importance of organization design to develop dynamic capabilities for SBMI as an important research gap, we reviewed the literature on this topic, upon which we drafted the first version of the paper. I carried out the majority of the work as I collected the data, outlined the theory on which the research question was built, analyzed the data, and drafted the result section of the paper. We subsequently submitted the manuscript and dealt with two rounds of revisions necessary towards publication. We also presented versions of the study at two academic conferences, as well as Lund University and Lappeenranta University of Technology.

1.6 Word of Gratitude

First, I want to extend my gratitude to my doctoral dissertation supervisors for their mentorship. In chronological order, I want to thank André Nijhof, whose constructive feedback and encouragement were most appreciated from the first day I started my research at Nyenrode Business Universiteit. Next, I want to thank Justin Jansen for granting me the opportunity to do my PhD at the Rotterdam School of Management; his kind Rotterdam no-nonsense supervision, and for allowing me to work on my research all over the world. Finally, I want to thank Joep Cornelissen for his friendly support and advice, and for his personal and down to earth approach when helping me advance my research.

Next, I want to thank my co-authors in order of appearance as the Chapters presented above. First, I want to express my gratitude to Elisa Alt, whom I met through Tom Lumpkin's doctoral seminar, for zealously championing and exploring the topic of social intrapreneurship together. Second, I want to thank Julie Battilana and Marissa Kimsey for the unique chance to learn so much from them, both in Cambridge while having had the once-in-a-lifetime opportunity to attend MBA classes and a doctoral course at Harvard, at SICI where Brittany and Colleen kindly hosted me twice, and during our many transatlantic calls. I also want to extend my gratitude for their commitment to the project, fueled by a heartening desire to change the world for the better. Finally, I want to thank Nancy Bocken for her inspiring and genuine support, and for co-authoring our life story together.

Furthermore, I also want to thank co-authors with whom I have collaborated with on projects beyond the scope of this dissertation. First, I want to thank Paul Tracey for the opportunity to work together on the Philips project, and for facilitating a memorable research visit at the University of Cambridge. Second, when studying the effects of my entrepreneurship course at RSM, I want to thank my dear friend Katrin Smolka with whom I shared many great moments in Rotterdam and around the globe, Andreas Rauch with whom I had a great and productive time in Sydney, and Peter van de Zwan who brings laughter to the world. Third, I want to extend my gratitude to Ling Ling Phung and Maarten van Herpen for working together on our 'HBR' and for learning from their inspiring intrapreneurial adventures. Fourth, I want to thank Ante Glavas, Donald Kuratko, and Maureen Scully for our pleasant time in Kalamazoo, for learning from their diverse theoretical perspectives, and for our pleasant collaboration altogether. Fifth, I want to extend my gratitude to Luca Berchicci, Magdalena Cholokova, Mallory Flowers, Patricia Klopf, and Frank Wijnen for working together on our 'wine project,' which undoubtedly gets better with age. Finally, I want to thank Gerry George, whom I still owe a draft paper, for his kind patience.

In conclusion, I want to thank the participating companies who kindly supported my research. At Unilever, I want to specifically thank Kelvin Hughes whom I owe much gratitude for his kind support and for letting me learn from some of Unilever's amazing projects. I also want to thank Hanneke Willenborg for her support and for allowing me to continue my research. At Philips, I want to particularly thank Frans van Houten for the opportunity to study his inspiring organization, Saskia Verbunt for her kind assistance during my research and for working together on the Access to Care program, Robert Metzke for his thought leadership and our inspiring conversations, and the rest of the Africa Innovation Hub team for being such great hosts. At Johnson & Johnson, I want to thank Virginia Smith-Swintosky, Garrett Barr, and Adrian Thomas for sharing their insights about social intrapreneurship. At Interface, I want to thank Geanne van Arkel for the opportunity to learn from arguably one of the most sustainable corporations in the world. At AkzoNobel and Pearson, I would like to thank André Veneman and Teodora Berkova for granting me research access. This leaves me to say that it was an absolute privilege to interview and learn from close to 140 executives, senior and mid-level managers who, with whole their hearts, prove that corporations can indeed do well by doing good. I want to thank all interviewees for their participation and for their commitment towards making today's and tomorrow's world more sustainable.

CHAPTER 2

Sustainable Intrapreneurship: Toward a Conceptualization and Avenues for Future Research

This Chapter was prepared in collaboration with Elisa Alt.

2.1 Introduction

Across the private, public, and third sectors, organizations like Nestlé, the Australian Federal Government, and the Red Cross are increasingly embracing an entrepreneurial approach to address societal problems (Brans, De Pree, & Estrade, 2020). Indeed, entrepreneurship is widely regarded as an effective vehicle to tackle complex societal problems (Shepherd & Patzelt, 2011), however most research in this area has been devoted to examining the role of sustainable entrepreneurs in founding new ventures (Saebi, Foss, & Linder, 2019; Zahra & Wright, 2016). On the other hand, research examining entrepreneurial action in incumbents has focused primarily on financial value creation (Kuratko, McMullen, Hornsby, & Jackson, 2017). Significantly less attention has been paid to the role of entrepreneurial actors addressing *societal* problems from *within* incumbents (Dacin, Dacin, & Tracey 2011)—also referred to as sustainable intrapreneurship (Kistruck & Beamish, 2011; Mair & Martí, 2006). Even though researchers acknowledge that sustainable entrepreneurship can occur inside established organizations (e.g., Austin, Stevenson, & Wei-Skillern, 2006; Zahra, Gedajlovic, Neubaum, & Shulman, 2009), to date only very few studies have examined sustainable intrapreneurship as a specific context of inquiry (e.g., Alt & Craig, 2016; Halme, Lindeman, & Linna, 2012; Kistruck & Beamish, 2010), despite growing calls from practitioners to advance research in this area (e.g., Grayson, McLaren, & Spitzeck, 2014; McGaw & Malinsky, 2020; Yunus Social Business, 2020).

The focus of extant literature is not surprising given that new sustainable ventures are widely considered to be superior in addressing complex societal problems (e.g., Hockerts & Wüstenhagen, 2010; York & Venkataraman, 2010). Entrepreneurship scholars suggest societal problems such as poverty, inequality, and climate change originate from failures of incumbents across the private, public, and third sectors, and persist because incumbents often lack either the motivation or the means to address them (Dean & McMullen, 2007; Santos, 2012). Furthermore, incumbents are often criticized for prioritizing present activities, allocating resources to exploiting old certainties, and emphasizing predictability (Hockerts & Wüstenhagen, 2010; York & Venkataraman, 2010). Societal problems, in direct contrast, require innovative solutions, a more efficient allocation of resources and bearing high levels of uncertainty (Dees, 1998; Lumpkin, Moss, Gras, Kato, & Amezcua, 2013): three areas where entrepreneurs uniquely act (York & Venkataraman, 2010). Yet, such dichotomy between new ventures and incumbents masks the idea that impactful entrepreneurial solutions to societal problems also emerge from incumbents (Shepherd, 2015; Zahra & Wright, 2016).

To address this gap, the purpose of this paper is to shed light on the role of sustainable intrapreneurs in using entrepreneurship to address societal problems from the confines of established organizations. To achieve our purpose, we integrate and synthesize two streams of literature that have thus far remained mostly separate: sustainable entrepreneurship and intrapreneurship. Specifically, we attend to how sustainable entrepreneurs and intrapreneurs approach innovation, resource allocation, and uncertainty—the three key elements of entrepreneurial action deemed particularly challenging for incumbents (York & Venkataraman, 2010). We then highlight the unique challenges that emerge at the intersection of both research traditions, and develop a set of fundamental propositions that capture the distinctive role of sustainable intrapreneurs in addressing innovation, resource allocation, and uncertainty specific to societal problems.

This focus on the role of sustainable intrapreneurs is important because pursuing opportunities through the structures of established organizations challenges entrepreneurial action aimed at societal problems in ways that differ substantially from those who do so by creating new organizations. In contrast to sustainable entrepreneurs who create new organizations to specifically address societal problems through commercial means, sustainable intrapreneurs operate in organizations that have not been designed to either address societal problems or apply commercial means, or indeed to act entrepreneurially (Kistruck & Beamish, 2010). Sustainable intrapreneurs may subsequently operate in organizations that impose embedded constraints to innovation aimed at societal problems, that have a rich yet politically fraught internal resource base, and that tend to avoid the heightened uncertainty of societal problems (Alt & Craig, 2016; Halme, Lindeman, & Linna, 2012, Kistruck & Beamish, 2010). Given these challenges are not captured in the study of sustainable entrepreneurs starting new organizations, neither in the study of mainstream intrapreneurs, the distinctive role of sustainable intrapreneurs in advancing innovation, altering resource allocation and managing uncertainty to address societal problems remains largely unexplored.

Our conceptual development of sustainable intrapreneurship offers two key implications for the literatures on sustainable entrepreneurship, intrapreneurship, and the entrepreneurship literature more broadly. First, we combine the idea of addressing societal problems through entrepreneurship with the idea of acting entrepreneurially inside existing organizations. While these ideas are not unique to our paper, integrating them to unmask a set of challenges not covered either in the study of sustainable entrepreneurship or intrapreneurship is. The perspective we develop complements research on sustainable entrepreneurship, which remains mostly concerned with the creation of new organizations (Shepherd & Patzelt, 2017), and research on intrapreneurship, which remains mostly concerned with the creation of economic value (Antoncic & Hisrich, 2001; Covin & Miles, 1999). Second, we synthesize these literatures into propositions that define the role of sustainable intrapreneurs and open avenues for future research.

With incumbents as the context of our inquiry, we bring a renewed focus to established organizations as a setting where entrepreneurial actors can pursue opportunities to address societal problems (Hall, Daneke, & Lenox, 2010), be it in profit-maximizing organizations, government agencies or nonprofits. This is particularly salient at a time when profit-maximizing organizations are increasingly called upon to tackle societal problems (George, Howard-Grenville, Joshi, & Tihanyi, 2016), and nonprofits and governmental agencies are challenged to employ commercial means to acquire funds (Ardichvili, Cardozo, & Ray, 2003). Considering the opportunities and challenges that incumbents pose to the entrepreneurial tasks of addressing innovation, resource allocation, and uncertainty, distinguishing the role of sustaainable intrapreneurs is essential to advance our understanding of how incumbents can drive market transformations alongside sustainable ventures (Johnson & Schaltegger, 2019).

2.2 Sustainable Intrapreneurship

Over the last decade, multiple examples of sustainable intrapreneurs acting inside profit-maximizing, governmental, and nonprofit organizations have emerged to illustrate the promise of sustainable intrapreneurship as a vehicle to drive impactful solutions to societal problems. For example, within the private sector, the renowned mobile money service M-Pesa is the product of an initiative by the then mid-level manager Nick Hughes who led its development within Safaricom, Vodafone’s Kenyan associate. M-Pesa addresses the problem of financial inclusion for a vast number of people with access to mobile phones but no access to banking services (Grayson et al., 2014). In the public sector, the coffee bar Heilige Boontjes emerged from an initiative by Dutch police officer Marco den Dunnen.

Heilige Boontjes addresses the problem of reintegrating young criminals into society by offering work to ex-convicts and generating income to sustain their rehabilitation program (Hof, 2018). And in the third sector, a cocoa business in Sierra Leone emerged from an initiative by project manager Katie Sims at the Royal Society for the Protection of Birds. The Gola Rainforest chocolate addresses the problems of deforestation and community exploitation, by helping small-scale farmers to build a profitable business and rewarding them for protecting the rainforest and its biodiversity (League of Intrapreneurs, n.d.).

As initiatives that consist of entrepreneurial action aimed at societal problems within incumbents, these examples illustrate the unique amalgam of elements that form sustainable intrapreneurship: the entrepreneurial, the sustainable, and the internal. By juxtaposing these elements, we understand sustainable intrapreneurship as an autonomous process through which individuals or groups of individuals seek to identify and exploit entrepreneurial opportunities that address societal problems from within established organizations. To unpack this unique context, we next expand on each of its elements, positioning sustainable intrapreneurship next to entrepreneurship in two other contexts: entrepreneurship to address societal problems (sustainable entrepreneurship) and entrepreneurship inside established organizations (intrapreneurship).

2.2.1 Entrepreneurship

As a manifestation of entrepreneurship, sustainable intrapreneurship entails the identification and exploitation of entrepreneurial opportunities (Shane & Venkataraman, 2000)—“situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships” (Eckhardt & Shane, 2003, p. 336). The focus on novelty distinguishes entrepreneurial opportunities from opportunities of optimization within existing means-ends frameworks (Shane & Venkataraman, 2000), thus positioning innovation as central to entrepreneurship (Bull & Willard, 1993). With reference to our earlier examples, contributing to financial inclusion through a mobile banking service, or to the rehabilitation of ex-convicts through a coffee bar exemplify new means-ends relationships; a cocoa business to realize the mission of a nonprofit exemplifies a new means.

The pursuit of opportunities requires entrepreneurial actors to combine resources in novel ways that yield more value than their current form, and thus hinges on the belief of entrepreneurial actors that resources can be allocated more optimally than they currently are (Shane & Venkataraman, 2000). Yet, accessing the resources that are necessary to exploit opportunities is a challenging task (Venkataraman, 1997), requiring entrepreneurs to mobilize resources (Sarason, Dean, & Dillard, 2006) without knowing whether novel allocations will pay off (Knight, 1921). Subsequently, understanding entrepreneurial action requires a focus on how entrepreneurs advance innovation (Schumpeter, 1934), alter resource allocation (Shane, 2003), and manage uncertainty (Knight, 1921)—three areas where entrepreneurs typically excel (York & Venkataraman, 2010) and that, we argue, manifest differently in the contexts of sustainable entrepreneurship, intrapreneurship, and sustainable intrapreneurship.

2.2.2 Entrepreneurship in the Context of Societal Problems

Similar to sustainable entrepreneurs founding new organizations, sustainable intrapreneurs seek to address societal problems through commercial means (Mair & Martí, 2006). Societal problems refer to instances where actors are causing harm to society or fail to optimize societal welfare (Santos, 2012), leaving societal needs unaddressed (Zahra, Rawhouser, Bhawe, Neubaum, & Hayton, 2008). Societal problems may originate from actors refusing to provide much needed goods and services or lacking the capabilities of innovating toward these ends (Dean & McMullen, 2007), and from actors possessing different knowledge and beliefs about the (true) value of resources, leading to a societal suboptimal allocation of resources (Zahra et al., 2008). Furthermore, actors may also be unwilling to assume the high levels of uncertainty associated with societal problems (Dacin et al., 2010). Thus, entrepreneurs addressing societal problems advance innovative approaches to serve long-standing needs (Austin et al., 2006), alter resource allocation toward higher societal yields (Dees, 1998), and embrace opportunities that are inherently uncertain (Lumpkin et al., 2013). Sustainable entrepreneurs typically do this by creating new organizations, whereas sustainable intrapreneurs work from within established organizations (Mair & Martí, 2006).

2.2.3 Entrepreneurship in the Context of Established Organizations

Similar to intrapreneurs acting entrepreneurially inside incumbents (Hornsby, Naffziger, Kuratko & Montagno, 1993), sustainable intrapreneurs operate from within an organizational opportunity structure (Kacperczyk, 2012). Although the term intrapreneurship has been used to label individuals and groups of individuals engaging in entrepreneurship below the ranks of top management (Pinchot, 1985; Stevenson & Jarillo, 1990), or depict organizations acting in an entrepreneurial manner (Covin & Miles, 1999), in this paper we adopt the view that intrapreneurship is initiated and implemented autonomously by individuals or groups of individuals irrespective of rank. By moving beyond an organization's current concept of strategy (Antoncic & Hisrich, 2003; Burgelman, 1983a, 1983b), intrapreneurs face the conundrum of seeking organizational acceptance while attempting to escape the various administrative mechanisms that constrain the ability of organizations to innovate, allocate resources beyond present activities, and embrace uncertainty (Tushman & Anderson, 1986).

Whereas mainstream intrapreneurship responds to market factors such as competitive intensity, technological change, and evolving product-market domains (Ireland, Covin, & Kuratko, 2009), sustainable intrapreneurship responds to societal needs, often where progress is stalled by market or institutional failures (McMullen, 2011). Specifically, sustainable intrapreneurship differs from mainstream intrapreneurship by focusing on the achievement of societal ends through commercial means—a combination not typically found in established private, public, and third sector organizations. While incumbents in the private sector are not usually structured to use commercial means to achieve social and environmental goals, incumbents in the private sectors are not usually structured to employ commercial means to achieve societal goals. Sustainable intrapreneurs thus expand the remit of intrapreneurs by combining societal and commercial objectives inside organizations that are typically not designed for such purpose.

2.3.4 Entrepreneurship in the Context of Societal Problems and Established Organizations

By positioning sustainable intrapreneurship as a combination of the 'entrepreneurial', the 'sustainable', and the 'internal', we pose that sustainable intrapreneurship is conceptually distinct as a concept and phenomenon. To develop our arguments, we integrate the sustainable entrepreneurship and intrapreneurship literatures, with a particular focus on the role of entrepreneurial actors in advancing innovation, altering resource allocation, and managing uncertainty across both contexts. The synthesis that emerges (see table 2.1) reveals unique challenges in the sustainable intrapreneurship context, which we seek to capture in a set of propositions that conceptually develop the distinct role of sustainable intrapreneurs in addressing societal problems.

Table 2.1 Propositions for Sustainable Intrapreneurship Research

Entrepreneurial action	Sustainable entrepreneurship	Intrapreneurship	Sustainable intrapreneurship propositions
Innovation	Sustainable entrepreneurs advance innovation in the face of sociopolitical and institutional challenges by selecting legal forms of organization that enable experimentation, and developing novel organizational forms.	Intrapreneurs advance innovation in the face of path dependencies by violating rules and management directives, seeking 'air cover' from top management and operating 'under the radar'.	*P1a. Sustainable intrapreneurs advance innovative solutions societal problems by breaking out of organizational path dependencies that constrain the combined pursuit of societal objectives through commercial mechanisms inside established organizations.*
	When innovating, sustainable entrepreneurs have the freedom of action to adapt to stakeholders' demands, which are varied and potentially conflicting.	Intrapreneurs may limit innovation to initiatives that fit with current organizational practices, norms, and identity.	*P1b. Sustainable intrapreneurs advance innovative solutions to societal problems by satisfying the heterogeneous criteria of both internal and external groups of stakeholders.*
Resource allocation	Sustainable entrepreneurs operate in institutional environments where resources are dispersed or scarce, overcoming constraints through external bricolage and collaboration with outside actors.	Intrapreneurs operate in organizational environments where resources are concentrated and typically abundant, often leveraging slack, and overcoming constraints through internal bricolage or strategic alliances.	*P2a. Sustainable intrapreneurs alter resource allocation to address societal problems by leveraging the resource base of established organizations while filling internal resource gaps with external resources and collaborative partnerships.*
	Sustainable entrepreneurs allocate resources to resolve societal problems in an effective and commercially attractive way.	Intrapreneurs allocate resources more effectively to achieve the mission of their organizations.	*P2b. Sustainable intrapreneurs alter resource allocation to address societal problems by demonstrating to internal and external resource providers that they can put resources to a use that simultaneously achieves higher societal yields through commercial means and integrates with their organization's mission.*
Uncertainty	Sustainable entrepreneurs manage heightened levels of uncertainty specifically associated with complex societal problems.	Intrapreneurs absorb uncertainty in established organizations that typically focus on exploitation of present activities and tend to prefer to avoid entrepreneurial uncertainty.	*P3a. Sustainable intrapreneurs manage a unique combination of uncertainty specific to societal problems and entrepreneurial uncertainty, in organizational contexts that tend to avoid either or both types of uncertainty.*
	Sustainable entrepreneurs are motivated to bear uncertainty because moral and social incentives compensate for economic incentives that may not be competitive.	Intrapreneurs motivate key internal stakeholders to bear uncertainty by tapping into their personal utility motivations and selling the organizational benefits of initiatives.	*P3b. Sustainable intrapreneurs manage a unique combination of uncertainty specific to societal problems and entrepreneurial uncertainty by adopting both other- and self-oriented motives to promote the belief of key internal and external stakeholders in the payoff of sustainable intrapreneurial initiatives.*

2.4 Innovation

The capacity for innovation is a defining feature of entrepreneurship (Gartner, 1990). Schumpeter (1934), the first to highlight the entrepreneur as an innovator, proposed that the entrepreneur's capacity for innovation promotes economic progress by forcing the economy to a higher equilibrium position (Baumol, 1993). More specifically, Schumpeter suggested that innovating required 'new combinations' of resources—including new products or services, new methods of production, new markets, new sources of supply of raw materials, or new organizations—that did not previously exist, leading to the obsolescence of others (Bull & Willard, 1993). Importantly, although entrepreneurship must be somehow innovative, not all innovations entail novelty from a market's point of view (Ramoglou & Tsang, 2016).

The common notion in entrepreneurship research is that the higher the degree of innovation associated with an opportunity, the higher the likelihood it will be exploited through a de novo startup (Dew et al., 2004). Yet, these notions are widely challenged (Ahuja & Lampert, 2001; Hill & Rothaermel, 2003), and scholars have long asserted that entrepreneurial actors inside incumbent organizations are capable of driving innovation (e.g., Schumpeter, 1942). Likewise, some authors deem the likelihood of fostering innovative solutions to societal problems to be higher through de novo startups (e.g., Hockerts & Wüstenhagen, 2010; York & Venkataraman, 2010), an assertion which is also called into question (Hall et al., 2010). Notably, entrepreneurs inside existing organizations also carry the capacity to address societal problems in innovative ways (Tracey & Stott, 2017). However, depending on the context, we pose that entrepreneurs may face distinct challenges in advancing innovation.

2.4.1 Advancing Innovation in Sustainable Entrepreneurship

The willingness to innovate is a key characteristic of an entrepreneurial approach to addressing societal problems (Dees, 1998). Because solving complex societal problems demands inventive and novel approaches to create and distribute societal value (Peredo & McLean, 2006), sustainable entrepreneurs must develop the ability to creatively combine and leverage resources for such purpose (Dacin et al., 2010). Through the innovative use and combination of resources, sustainable entrepreneurs can spur the development of new initiatives that catalyze societal change and/or address societal needs (Mair & Martí, 2006).

By developing innovative solutions to complex societal problems, sustainable entrepreneurs may disrupt markets where participants have little incentive to change their actions, or where they fail to identify and explore opportunities to create societal value (Christensen, Baumann, Ruggles, & Sadtler, 2006). By generating market disequilibria through innovation, sustainable entrepreneurs may transform markets toward a more societal efficient state (Zahra et al., 2009). In doing so, sustainable entrepreneurs move beyond the methods and practices of existing organizations (Zahra et al., 2009), introducing innovations targeted at new customers or beneficiaries who are not adequately served by existing markets or institutions (Bower & Christensen, 1995).

Searching for innovative solutions to societal problems does, however, come with some distinct challenges. While societal problems exist because incumbent organizations may not be able or willing to develop innovative solutions (Hockerts & Wüstenhagen, 2010; York & Venkataraman, 2010), and individuals may not be able or willing to pay for innovative solutions that resolve these issues (McMullen, 2011; Winn & Cohen, 2007), sustainable entrepreneurs are required to find creative approaches to work within these boundary constraints. The ability of sustainable entrepreneurs to develop innovative solutions may be further hampered by "firmly embedded norms and institutional constraints" (Dacin et al. 2010, p. 50). Moreover, given the likely need to collaborate with a broad set of stakeholders and partners to develop novel solutions to complex societal problems (Selsky & Parker, 2005), sustainable entrepreneurs could also face the challenge of satisfying conflicting demands regarding the process and the outcomes of innovation (Lumpkin et al., 2013). Whereas commercial entrepreneurs typically demonstrate fulfilling stakeholders' expectations through commercial success and profitability, sustainable entrepreneurs may struggle to define success across the contradictory goals of funders, donors, customers and employees, among other stakeholders (Smith, Goning, & Besharov, 2013).

To overcome these challenges, sustainable entrepreneurs can select legal forms of organization that enable experimentation with new business models, and develop novel organizational forms (Battilana & Dorado, 2010). Sustainable entrepreneurs also have the freedom of action to adapt to stakeholders' demands (Dees, 2007), which may on the one hand enable innovations that satisfy multiple criteria, but on the other hand lead to actions that are inconsistent with either their societal or commercial objectives (Battilana & Lee, 2014). This freedom of action, however, is hardly achieved when entrepreneurship takes place in existing organizations.

2.4.2 Advancing Innovation in Intrapreneurship

As entrepreneurial behavior within established organizations, intrapreneurship is considered a key driver of innovation inside incumbent organizations (Stevenson & Jarillo, 1990). Within the context of incumbents, innovation can be broadly seen as the "pursuit of creative or new solutions to challenges confronting the [organization], including the development or enhancement of old and new products and services, markets, administrative techniques, and technologies for performing organizational functions, as well as changes in strategy, organizing, and dealing with competitors" (Antoncic & Hisrich, 2001, p. 499). Intrapreneurs hence have an important role driving innovation in existing organizations, by pursuing opportunities to create value through new combinations of resources (Nielsen, Peters, & Hisrich, 1985).

Indeed, the idea that established organizations can be viewed as engines of innovation harks back to Schumpeter (1942). This enabling view of existing organizations suggests that as they "grow and mature, they become increasingly able to absorb the entrepreneurial drive of their employees" (Kacperczyk, 2012, p. 485), which helps organizations to innovatively respond to change (Nielsen et al., 1985). One of the fundamental ways in which incumbents do that is by exposing employees to novel opportunities (Kacperczyk, 2012), due to organizational routines to process complex information and extensive networks (Cohen & Levinthal, 1990).

However, this enabling effect of incumbents on intrapreneurship is largely dependent on their ability to allow employees to take autonomous action, which is often hindered by the bureaucratization and dysfunctional politics of established organizations (Hitt, Nixon, Hoskisson, & Kochhar, 1999; McMullen et al., 2020). To facilitate coordination and control, incumbents tend to embrace standardization (Mintzberg, 1979), which stifles innovation by reducing the discretion and functional breadth of employees (Kacperczyk, 2012). Oftentimes, the innovative efforts of intrapreneurs are in direct opposition with organizations' tendency to prefer continuation of present activities and exploitation of old certainties (Antoncic & Hisrich, 2003).

To overcome these challenges, intrapreneurs may deliberately violate bureaucratic rules and management directives in order to innovate (Kanter, 1985; Mezias & Glynn, 1993). As some parts of organizations can be more receptive to innovation than others (Hornsby et al., 2009; Zahra et al., 2014), intrapreneurs may also seek 'air cover' from top management and operate 'under the radar' (Burgelman, 1983b; Thornhill & Amit, 2001). However, internal career advancement concerns may stray intrapreneurs, leading instead to the pursuit of initiatives that fit well with the current practices, norms, and identity of the organization, and that can be easily incorporated into its existing structures (Kacperczyk, 2012). Such concerns may be particularly limiting when intrapreneurs attempt to contribute to the entrepreneurial resolution of societal problems from their positions in established organizations, as the innovation required in these occasions may not easily integrate with the central mission of incumbents (Nielsen et al., 1985) or the expectations of external stakeholders (Kistruck & Beamish, 2010).

2.4.3 Advancing Innovation in Sustainable Intrapreneurship

In sustainable intrapreneurship, innovating requires overcoming challenges not only in the broader sociopolitical environment, but also within the organizational environment, where sustainable intrapreneurs lack the ability to select the legal form and design that will best support the innovative resolution of a societal problem (unlike sustainable entrepreneurs). Furthermore, advancing innovation in sustainable intrapreneurship requires not only overcoming preferences for old certainties (Antoncic & Hisrich, 2003) and cognitive lock-in into innovation paths (Thrane, Blaabjerg, & Møller, 2010), but also challenging "the way in which managers conceptualize the [organization] and make critical resource allocation decisions" (Prahalad & Bettis, 1986, p. 490)—i.e., the dominant logic of established organizations (unlike purely commercial intrapreneurs). By blending societal goals and commercial mechanisms, sustainable intrapreneurs attempt to create new innovation paths that depart from the different dominant logics held in private, public, and third sector organizations. In other words, sustainable intrapreneurs face the stiffer task of pursuing innovations within organizations that were originally designed for a different purpose (Adams, Jeanrenaud, Bessant, Denyer, & Overy, 2016) and that are further embedded within a given sociopolitical and institutional context (Kistruck & Beamish, 2010), hence intensifying the path dependencies that must be overcome to pursue entrepreneurial action. Thus, we propose:

Proposition 1a. *Sustainable intrapreneurs advance innovative solutions societal problems by breaking out of organizational path dependencies that constrain the combined pursuit of societal objectives through commercial mechanisms inside established organizations.*

As sustainable entrepreneurs, sustainable intrapreneurs may have to engage a wide array of stakeholders with potentially conflicting demands when developing entrepreneurial solutions to societal problems. In sustainable intrapreneurship, however, such conflicting demands may be exacerbated given that the multiple demands of external groups of stakeholders are compounded by those of internal groups. In other words, sustainable intrapreneurs must satisfy the innovation criteria related to solving a given societal problem, which involves a broad set of external stakeholders (unlike purely commercial intrapreneurs), while also satisfying the innovation criteria of internal stakeholders, including key organizational decision-makers (unlike sustainable entrepreneurs creating de novo startups). These differences add complexity to the task of engaging stakeholders, not only because some internal stakeholders control key resources (Dougherty & Hardy, 1996), but also because different groups of internal stakeholders may have diverging views on the value of sustainable intrapreneurship. Furthermore, complexity increases when coordinating with a broad and often undefined set of external stakeholders (Waddock, 2012), requiring organizations to “sense, interact with, learn from, and change based on stakeholders” (Dentoni, Bitzer, & Pascucci, 2016, p. 37). Hence, to advance innovation that creates societal value from within incumbents, sustainable intrapreneurs are challenged to manage the contradicting demands of multiple groups of internal and external stakeholders. Thus, we propose:

Proposition 1b. *Sustainable intrapreneurs advance innovative solutions to societal problems by satisfying the heterogeneous criteria of both internal and external groups of stakeholders.*

Depending on the type of organizational context, the ways in which sustainable intrapreneurs advance innovation to address societal problems may differ. For example, even though sustainable intrapreneurs in any type of organization likely confront bureaucracy and a preference to exploit existing operations—both renowned barriers to innovation (March & Simon, 1958)—the extent to which sustainable intrapreneurs suffer from these challenges may vary. The controlling nature of governments, for instance, is known to create stringent levels of bureaucracy that undermine entrepreneurial efforts in government agencies (Dees, 2007). Furthermore, government employees also tend to have little autonomy with even trivial decisions requiring senior level approval (Ramamurti, 1986). Nonprofits, in turn, may develop different innovation ‘pathologies’ depending on how routinized they are: highly formal nonprofits may fail to advance innovations that meet local needs, whereas highly informal nonprofits may succeed at the local level while struggling to scale their innovative ideas (Dover & Lawrence, 2012). Alternatively, profit-maximizing organizations must abide by the expectations of their shareholders, likely requiring sustainable intrapreneurs to demonstrate commercial success of some sort. In cases where there is substantial demand for profitability, sustainable intrapreneurs may face more limitations in finding innovative solutions to societal problems (Lumpkin et al., 2013).

2.5 Resource Allocation

The effective allocation of scarce resources for higher yields is critical to entrepreneurship (Eckhardt & Shane, 2003). In realizing that resources are not put to their best use, entrepreneurs form beliefs about how to allocate resources more optimally (Shane & Venkataraman, 2000). For entrepreneurial opportunities to exist, entrepreneurs must hold different beliefs about the value of resources than resource owners and other potential entrepreneurs (Casson, 1982). Such differences in beliefs may stem from cognitive properties (Baron, 2004), asymmetry in existing information between sellers and buyers (Kirzner, 1973), and the extent to which individuals are knowledgeable about exogenous information shocks, such as changes in regulation and technology (Venkataraman, 1997). With entrepreneurs acting upon opportunities to transform resources into a more valuable state, entrepreneurship is deemed an effective economic tool for solving problems in resource allocation (Shane, 2003).

Building on this notion, entrepreneurship theory suggests entrepreneurs shift resources to higher valued uses than competing resource allocations (Say, 1971). This assertion suggests other actors, including incumbent organizations, overlook opportunities to put resources to a higher yield (Nielsen et al., 1985), with entrepreneurs capitalizing on differences in belief about the value of resources by forming new organizations (Casson, 1982). By the same token, entrepreneurs may also allocate resources toward a more societal optimum by starting new organizations (Dees, 1998), or as we argue, by altering resource allocation in incumbent organizations to allocate resources to more societal optimal ends.

To do so, entrepreneurs likely require resources that are beyond their control, possibly facing difficulties in mobilizing these resources (Sarasvathy, 2001). As such, entrepreneurship requires the ability of individuals to acquire and employ resources (Sarason et al., 2006). However, depending on the context, we argue that the way in which entrepreneurs allocate resources may differ.

2.5.1 Altering Resource Allocation in Sustainable Entrepreneurship

Sustainable entrepreneurs play an important role in (re)allocating resources toward societal ends (Austin et al., 2006). Similar to entrepreneurs shifting resources to more economically productive uses, sustainable entrepreneurs put resources to a higher use to improve societal conditions (Dees, 1998). In doing that, sustainable entrepreneurs seek to create value by "exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created" (Dees, 1998, p. 4). By effectively dedicating resources to societal wealth creation, sustainable entrepreneurs manage to address societal problems that stem from misallocation of resources (Dacin et al., 2010).

Because "markets do not do a good job of valuing societal improvements, public goods and harms, and benefits for people who cannot afford to pay" (Dees, 1998, p. 3), entrepreneurs with knowledge of societal problems may be uniquely positioned to address market failures through a more societal optimal allocation of resources (Santos, 2012). Likewise, sustainable entrepreneurs may be well-positioned to creatively compensate for resource allocation failures of government agencies and nonprofits (Mair & Martí, 2009), particularly where austerity measures and corruption limit the allocation of resources to tackle societal problems (Zahra et al., 2008).

To allocate resources more effectively, entrepreneurs require the investment of scarce resources that are often beyond their control (Stevenson, 1983). In sustainable entrepreneurship, however, several factors exacerbate the typical entrepreneurial challenge of overcoming resource constraints (Short, Moss, & Lumpkin, 2009). First, a lack of societal awareness of relevant societal problems may limit access to resources (Santos, 2012). Second, the low profit potential of these initiatives may raise tensions between societal mission and financial return and hamper the investment of key resource providers (Austin et al., 2006). Third, although sustainable entrepreneurs may be able to draw from a wider pool of funding sources, they likely face restrictions from funders and granters on funding usage (Lumpkin et al., 2013). Finally, the contexts in which sustainable ventures operate may suffer from extreme resource scarcity and weak or absent institutional financing mechanisms (Mair & Martí, 2009).

To overcome these challenges, sustainable entrepreneurs tend to act boldly in the face of limited resources (Dees, 1998) and approach the critical task of obtaining resources with creativity (Lumpkin et al., 2013), engaging in bricolage to reconfigure existing resources at hand (Desa & Basu, 2013). Sustainable entrepreneurship extends bricolage processes to include persuasion of key stakeholders to gain access to resources, as well as stakeholder participation (Di Domenico, Haugh, & Tracey, 2010). More specifically, sustainable entrepreneurs may overcome resource constraints by collaborating with outside actors and leveraging external resources, including the sub-utilized resources of potential beneficiaries (Santos, 2012). In contrast, when entrepreneurship takes place in existing organizations, the focus of resource mobilization efforts shifts from the external to the internal environment.

2.5.2 Altering Resource Allocation in Intrapreneurship

By virtue of operating inside established organizations, intrapreneurs are uniquely positioned to mobilize resources that are nested in their organizations (Stevenson & Jarillo, 1990), such as human and financial resources, as well as "organization-specific combinations of tangible and intangible resources" (Antoncic & Hisrich, 2003, p. 12). Specifically, the availability of (slack) resources inside large established organizations is suggested to foster intrapreneurial opportunity-seeking behavior, and to lead to higher rates of intrapreneurship (Parker, 2011). This enabling view of entrepreneurship in incumbents suggests that "instead of being constrained by limited access to resources, employees in large and mature [organizations] can conveniently use [their] abundant resources" (Kacperczyk, 2012, p. 490). However, incumbents may also lack organizational slack (March & Simon, 1958), with large organizations having a clear advantage over their smaller counterparts (Nason, McKelvie, & Lumpkin, 2015).

Although intrapreneurs characteristically operate in large organizations with ample resources, such resources are likely beyond their control, requiring engagement in organizational politics (Kanter, 1985). In incumbents, power accrues to actors who control resources and competition for internal resources is inherently high (Dougherty & Hardy, 1996). Given that initiatives that depart from current organizational practices compete with ongoing activities, established organizations typically prioritize allocation of resources to the exploitation of old certainties over the exploration of new possibilities (March, 1991), oftentimes overlooking opportunities for more efficient resource allocation (Nielsen et al., 1985).

To overcome these challenges, intrapreneurs may seek to secure support from powerful organizational members who legitimize their initiatives and allocate resources accordingly (Kanter, 1985). Lobbying efforts and attempts to follow formal procedures likely require considerable time and effort, distracting intrapreneurs from developing their entrepreneurial initiatives (Starr & MacMillan, 1990). Alternatively, intrapreneurs may leverage slack resources that are directly available to them (Kanter, 1985), and fill resource gaps through bricolage (An, Zhao, Cao, Zhang, & Liu, 2018) or build strategic alliances that enhance competitiveness or other organizational goals (Teng, 2007). In any case, the future of intrapreneurial initiatives depends on whether resource providers perceive them to be valuable and whether they integrate with the central mission of the organization (Nielsen et al., 1985), which may be particularly challenging for intrapreneurs seeking to contribute to the resolution of societal problems.

2.5.3 Altering Resource Allocation in Sustainable Intrapreneurship

In sustainable intrapreneurship, allocating resources to the resolution of societal problems entails mobilizing resources both internal and external to established organizations. Whereas sustainable entrepreneurs typically operate in institutional environments where resources are more dispersed or scarce (Mair & Martí, 2009), sustainable intrapreneurs tend to operate in organizational environments where resources are likely to be more concentrated and typically abundant (Kacperczyk, 2012). Sustainable intrapreneurship hence builds on the proposition of leveraging the resource base of the organizations where it originates, which may enable sustainable intrapreneurs to find solutions to societal problems at scale (Jenkins, 2018). Yet, sustainable intrapreneurs may not be able to access sufficient internal resources due to the divergent nature of their initiatives, or because the organizations in which they operate lack organizational slack, forcing them to engage in intrapreneurial bricolage—"entrepreneurial activity within a large organization characterized by creative bundling of scarce resources" (Halme et al., 2012, p. 743)—or to acquire external resources (Grayson et al., 2014).

Furthermore, incumbents often do not have all the resources to address societal problems through entrepreneurship, requiring partnerships in the area in which sustainable intrapreneurs seek to invest (Selsky & Parker, 2005). Profit-maximizing organizations often lack capabilities to address societal problems and legitimately engage communities (Selsky & Parker, 2005), whereas nonprofits and government agencies often lack commercial and managerial capabilities (Gras & Mendoza-Abarca, 2014). Sustainable intrapreneurs may thus seek to fill resource gaps with external resources that contribute to the improvement of societal conditions, and partnerships that prioritize collaboration over competition (Lumpkin et al., 2013). Alternatively, sustainable intrapreneurs may form partnerships to compensate for a limited business perspective. Thus, we propose:

Proposition 2a. *Sustainable intrapreneurs alter resource allocation to address societal problems by leveraging the resource base of established organizations while filling internal resource gaps with external resources and collaborative partnerships*.

However, to mobilize resources to address societal problems, sustainable intrapreneurs need to demonstrate that they can put resources to a more effective use than alternative allocations. Notably, sustainable intrapreneurs need to establish not only how they can allocate resources to resolve societal problems in a commercially attractive way (unlike purely commercial intrapreneurs), but also how they can allocate resources more effectively to achieve the mission of their organizations, which were not originally designed for such purpose (unlike sustainable entrepreneurs creating de novo startups). If improving resource allocation in each domain is challenging, altering resource allocation in both domains compounds the challenge, not because of the additional work required, but because of the tensions that emerge at the intersection of both domains. The new possibilities afforded by committing resources to resolve societal problems through commercial means contrast with the old certainties of established organizations (March, 1991), which tend to bypass the tensions that such situations inherently raise, or consider them in terms of trade-offs (Van der Byl & Slawinski, 2015)—thus compromising the allocation of resources to their best use. To satisfy resource providers, sustainable intrapreneurs must show they are able to attend to contradictory demands simultaneously (Smith & Lewis, 2011), i.e. allocating resources for higher societal yields through commercial means, while achieving integration with their organization's mission. Thus, we propose:

Proposition 2b. *Sustainable intrapreneurs alter resource allocation to address societal problems by demonstrating to internal and external resource providers that they can put resources to a use that simultaneously achieves higher societal yields through commercial means and integrates with their organization's mission.*

Depending on the context, sustainable intrapreneurs may be able to alter resource allocation to address societal problems in varying degrees. For example, whereas nonprofits face pressure to become less dependent on donors and develop commercial mechanisms to sustain their operations (Salamon, 1993), entrepreneurial approaches to societal problems may present a double-edged sword in this context (Froelich, 1999). While commercial activities can generate income, they also expose nonprofits to market risk, thus threatening their survival (Eikenburry & Kluver, 2004). Furthermore, commercial activities may pose threats to the external legitimacy of nonprofits, causing opposition from donors who may withdraw their funding (Gras & Mendoza-Abarca, 2014). At the same time, nonprofits are under pressure to keep their overhead costs as low as possible to please donors, fueling an inclination not to spend any resources on new experimental programs such as sustainable intrapreneurial initiatives (Gneezy, Keenan, & Gneezy, 2014). Within the context of government agencies, sustainable intrapreneurs may compete for resources with private contractors or grantees who receive funds to perform public tasks (Freeman, 2003). Finally, in profit-maximizing organizations, sustainable intrapreneurs may benefit from increased access to external resources due to the societal objectives they pursue (Jenkins, 2018), leading to situations in which they may be eligible for government funding (Halme et al., 2012) and compete for resources directly with third sector organizations (Lumpkin et al., 2013).

2.7 Uncertainty

Addressing uncertainty is a cornerstone of entrepreneurial behavior (Knight, 1921). Dating back to the earliest definitions of entrepreneurship, Cantillon asserted that entrepreneurship requires increased risk and the exercise of judgment in the face of uncertainty (Hebert & Link, 1988), i.e., undertaking action without knowing whether resource allocation decisions will pay off (Casson, 1982). Knight (1921), however, was the first to clearly differentiate risk and uncertainty. More specifically, Knight postulates that "profit is the reward for those willing to bear uncertainty because, unlike risk, uncertainty is inestimable and therefore uninsurable" (McMullen & Shepherd, 2006, p. 138). Entrepreneurs thus distinguish themselves from non-entrepreneurs by assuming uncertainty and accepting the chance that their resource allocation decisions may fail to yield profit (van Praag, 1999).

The common assumption in entrepreneurship research is that the higher the degree of perceived uncertainty associated with an opportunity, the higher the likelihood it will be exploited through a de novo startup (Dew, Velamuri, & Venkataraman, 2004). Yet, extant research also suggests that incumbent organizations are likely to pursue entrepreneurial opportunities in uncertain environments (Russell & Russell, 1992). Similarly, some authors also deem the likelihood of exploiting highly uncertain sustainable entrepreneurial opportunities to be higher through de novo startups (e.g., York & Venkataraman, 2010). As we argue, sustainable entrepreneurial opportunities may still be pursued inside established organizations. Depending on the context, different types of uncertainty pose different challenges to entrepreneurial actors.

2.7.1 Managing Uncertainty in Sustainable Entrepreneurship

Sustainable entrepreneurship tends to occur in contexts where there are significant socioeconomic, cultural, or environmental problems, and which are characterized by high levels of uncertainty (Dacin et al., 2011). Some authors consider the markets for solving societal problems to be far more uncertain than traditional commercial markets (e.g., Miller, Grimes, McMullen, & Vogus, 2012), suggesting the greater uncertainties of these problems are the domain of the 'Knightian entrepreneur' (Hall et al., 2010). Hence, opportunities to address societal problems are shrouded in uncertainty (Lumpkin et al., 2013).

The inherent uncertainty of opportunities to address societal problems stems from several factors. First, sustainable entrepreneurship often occurs where supportive institutions are weak or lacking (Mair & Martí, 2009), hampering the ability of sustainable entrepreneurs to form expectations about the future (McMullen, 2011), and therefore raising uncertainty. Second, many of such issues are framed in a future context (e.g., climate change), which is unknowable (York & Venkataraman, 2010). Third, the problem of imperfect knowledge is exacerbated by difficulties in knowing "which stakeholders matter and what choices and value judgements they are going to make" (Matos & Hall, 2007, p. 1091). Fourth, societal problems are notoriously difficult to quantify and measure (Austin et al., 2006), and reliable data on demographics and market demand is often unavailable (Newbert, 2012). Finally, investors and resource providers may perceive conflict between their interests and the joint pursuit of societal and commercial goals, raising uncertainty (Battilana & Lee, 2014).

Uncertainty is one of many characteristics that makes societal problems difficult to solve (Ferraro, Etzion, & Gehman, 2015), not necessarily because of a lack of knowledge on solutions, but because fully understanding the causal mechanisms and boundaries of societal problems is nearly impossible (Gras, Conger, Jenkins, & Gras, 2020). This particularly applies to complex societal problems, often understood as 'wicked problems' (Dorado & Ventresca, 2013). Gras and colleagues (2020, p. 6) conceptualize this type of uncertainty as 'problem uncertainty': "a specific form of state uncertainty where the exact definition, boundary conditions, and causes of a problem are unknown or unknowable." Hence, the heightened uncertainty and reduced knowledge associated with societal problems complicate entrepreneurial action.

Importantly, the pursuit of entrepreneurial opportunities depends not only on the amount of uncertainty individuals perceive (knowledge), but also on their willingness to bear uncertainty (motivation) (McMullen & Shepherd, 2006). The sustainable entrepreneurship literature suggests that altruism and the desire to help others are key motivating factors of entrepreneurial action aimed at societal value creation (Austin et al., 2006; Zahra et al., 2009), beyond merely personal utility or self-oriented ends (Miller et al., 2012). Specifically, the focus on gains for those other than the entrepreneur (Patzelt & Shepherd, 2011) motivates sustainable entrepreneurs to bear the uncertainty associated with creating de novo startups that address intractable societal problems, with moral and social incentives compensating for economic incentives that may not be competitive (McMullen, 2011). However, sustainable entrepreneurs may also be susceptible to focusing on efficiency and profitability at the expense of societal good, leading to the abandonment of societal problems that are more uncertain and difficult to measure (Zahra et al., 2009)—a criticism that is also frequently levelled at established organizations, given their typical tendency to avoid uncertainty.

2.7.2 Managing Uncertainty in Intrapreneurship

Like any other type of entrepreneurial activity, intrapreneurship is characterized by uncertainty, implying "imperfect knowledge about causal relationships between means and ends" (Garud & Van de Ven, 1992, p. 95). At the heart of intrapreneurship is a dilemma: an entrepreneurial mindset furnishes organizational actors with the vision and flexibility to accept and absorb uncertainty (McGrath & MacMillan, 2000), yet within established organizations that typically embody the results of past learning (Burgelman, 1983b), and which for this reason tend to prefer to avoid uncertainty (Cyert & March, 1963).

In typical incumbents, high levels of bureaucratization (Merrifield, 1993) hinder the trial and error approach that enables organizations to deal with the imperfect knowledge that characterizes uncertainty (Garud & Van de Ven, 1992), thus stifling intrapreneurial ideas (Kacperczyk, 2012). Furthermore, when established organizations focus on exploiting successful routines, this detracts from their willingness and ability to explore future alternatives (March, 1991), which are inherently uncertain (Russell, 1999).

Hence, intrapreneurs play a key role in absorbing uncertainty within their organizations (Burgelman, 1983c). Although intrapreneurs do not see uncertainty as a patently aversive state (Townsend, Hunt, McMullen, & Sarasvathy, 2018, p. 662), they often do not have the power to decide what should be done, and their ability to act hinges on influencing key organizational decision-makers to take on uncertainty—by seeking to increase knowledge and motivation (McMullen & Shepherd, 2006) associated with the intrapreneurial opportunity.

Intrapreneurs may thus strive to reduce knowledge gaps between sets of means and ends (Packard, Clark, & Klein, 2017) through market and competitor analyses, and to motivate key internal stakeholders to bear uncertainty by selling the organizational benefits of initiatives (De Clercq, Castañer & Belausteguigoitia, 2011). Furthermore, given that perceptions of uncertainty vary across individuals (McKelvie, Haynie, & Gustavsson, 2011), intrapreneurs may tap into the nonpecuniary motivations of different selling targets (Dutton & Ashford, 1993) that maximize their personal utility. However, when seeking to solve societal problems through entrepreneurial action, sustainable intrapreneurs must also manage an additional type of uncertainty.

2.7.3 Managing Uncertainty in Sustainable Intrapreneurship

In sustainable intrapreneurship, the dilemma of the intrapreneur becomes a trilemma: not only should they consider how to manage entrepreneurial uncertainty (McMullen & Shepherd, 2006) and navigate organizational uncertainty avoidance (Cyert & March, 1963), but also how to manage uncertainty specific to societal problems (Gras et al., 2020). In other words, because sustainable intrapreneurship involves the pursuit of solutions to societal problems through entrepreneurial action inside established organizations, we pose that sustainable intrapreneurs must manage a unique combination of uncertainty, which differs in kind and degree from the uncertainty experienced by sustainable entrepreneurs creating de novo startups (entrepreneurial uncertainty and uncertainty specific to societal problems) and purely profit oriented intrapreneurs (entrepreneurial uncertainty in uncertainty avoiding contexts). We argue that the task of addressing the blend of entrepreneurial uncertainty and uncertainty specific to societal problems within established organizations that typically avoid both or either types of uncertainty is a distinguishing feature of sustainable intrapreneurship. Thus, we propose:

Proposition 3a. *Sustainable intrapreneurs manage a unique combination of uncertainty specific to societal problems and entrepreneurial uncertainty, in organizational contexts that tend to avoid both or either types of uncertainty.*

Taking on this unique combination of uncertainty requires sustainable intrapreneurs to motivate key decision-makers in their organizations (unlike in the creation of de novo sustainable startups) or external entities, and to draw on motives that go beyond organizational benefits and personal utility (unlike in purely commercial intrapreneurship). Specifically, sustainable intrapreneurs can uniquely address uncertainty by tapping into the prosocial motivation of key internal and external stakeholders to promote a belief in the payoff of their initiatives (Alt & Craig, 2016). Furthermore, a focus on other-oriented motives may enable sustainable intrapreneurs to connect the need of some stakeholders of meaningfulness through work (Aguinis & Glavas, 2019) to their initiatives. Individuals may however have differing levels of motivation to resolve different types of uncertainty (Townsend et al., 2018), and sustainable intrapreneurs may also attempt to influence their willingness to bear uncertainty by tapping into self-oriented motives. Thus, we propose:

Proposition 3b. *Sustainable intrapreneurs manage a unique combination of uncertainty specific to societal problems and entrepreneurial uncertainty by adopting both other- and self-oriented motives to promote the belief of key internal and external stakeholders in the payoff of sustainable intrapreneurial initiatives.*

Critically, the context in which sustainable intrapreneurs operate likely affects whether organizational decision-makers are willing to bear specific elements of the uncertainty that is intrinsic to sustainable intrapreneurial initiatives. Government agencies and nonprofits—with their experience in addressing societal problems and offering public services (Kettl, 2000; Salamon, 1997)—may be more accustomed to managing uncertainty specific to societal problems. Profit-maximizing organizations, on the other hand, are likely to have less experience and expertise in this area, given their tendency of avoiding the complexities inherent to societal problems (Van der Byl & Slawinski, 2015). Instead, profit-maximizing organizations likely possess greater managerial capabilities to act entrepreneurially and handle market risk than government agencies and nonprofits (Freeman, 2003; Gras & Mendoza-Abarca, 2014). Considering that incumbents are inclined to be uncertainty avoidant (Cyert & March, 1963), internal forces may deviate sustainable intrapreneurs from the pursuit of commercial solutions to societal problems, and pull them from unfamiliar terrain (i.e., a focus on societal problems within profit-maximizing organizations, or on entrepreneurial approaches within government agencies and nonprofits). For this reason, the elements that form the unique blend of uncertainty we described—entrepreneurial uncertainty and uncertainty specific to societal problems—may weigh differently relative to each other, likely requiring sustainable intrapreneurs to adapt their approach to managing uncertainty depending on the type of organizational context.

2.8 Discussion

Even though it is well regarded that sustainable entrepreneurship can emerge within incumbents (Austin et al., 2006; Mair & Martí, 2006), to date few studies have sought to understand how the context of established organizations may shape the pursuit of sustainable entrepreneurial opportunities (Alt & Craig, 2016; Halme et al., 2012; Kistruck & Beamish, 2010). In this paper, we integrate compatible assumptions across the sustainable entrepreneurship and intrapreneurship literatures to demonstrate how the context of incumbents changes the tasks of sustainable intrapreneurs advancing innovation, altering resource allocation, and managing uncertainty to resolve societal problems. By considering the distinct role of sustainable intrapreneurs in addressing these core elements of entrepreneurial action, our propositions conceptually develop sustainable intrapreneurship and offer avenues for future research.

2.8.1 Contributions

As we have come to understand sustainable intrapreneurship as an autonomous process through which individuals or groups of individuals seek to identify and exploit entrepreneurial opportunities that address societal problems from within established organizations, our study may raise the question of why 'sustainable intrapreneurship' should be considered as a distinct concept from sustainable entrepreneurship or intrapreneurship. Given that research on sustainable entrepreneurship remains mostly restricted to the creation of new organizations (Dacin et al., 2011), and research on intrapreneurship predominantly remains concerned with the creation of economic value (Antoncic & Hisrich, 2001), we argue that research on sustainable intrapreneurship could extend both streams of literature. However, we pose that the uniqueness of the sustainable intrapreneurship context cannot be fully observed within the separate boundaries of the sustainable entrepreneurship and intrapreneurship traditions. In each respective field, scholars assert that tackling societal problems through entrepreneurship (e.g., Lumpkin et al., 2013) and acting entrepreneurially inside established organizations (e.g., Hisrich, 1990) alters how individuals address the three elements of entrepreneurial action, justifying research into both contexts. By the same token, we advance that the amalgam of tackling societal problems through entrepreneurship inside established organizations is more than the sum of its parts, raising unique challenges that warrant the treatment of sustainable intrapreneurship as worthy of specific academic inquiry.

Importantly, it is not our intention to position the concept of sustainable intrapreneurship as a distinct type of entrepreneurship, but as a unique ‘context of inquiry’ (Dacin et al., 2010, p. 52). In this vein, we expand on one of the many different ways in which entrepreneurship is manifested (Shepherd, Wennberg, Suddaby, & Wiklund, 2019), and integrate knowledge that advances our understanding of how addressing three key elements of entrepreneurial action to tackle societal problems changes in the context of sustainable intrapreneurship. First, when addressing the problem of innovation, we pose that sustainable intrapreneurs differently need to break from widely shared organizational norms and beliefs either by pursuing societal objectives or adopting entrepreneurial means, while managing the contradicting and complementing demands of internal and external stakeholders. Second, when addressing the problem of resource allocation, we propose that sustainable intrapreneurs uniquely mobilize internal and external resources by demonstrating they can put these resources to a higher yield, both in terms of improving societal conditions in a commercially viable way, and integrating with their organization’s mission. Third, when tackling the problem of uncertainty, we advance that sustainable intrapreneurs distinctly navigate organizational uncertainty avoidance by managing a combination of entrepreneurial uncertainty and uncertainty specific to societal problems, while drawing on multiple motives to persuade others to bear that uncertainty. Taken together, our contributions combine knowledge from sustainable entrepreneurial and intrapreneurial contexts into a novel perspective, offering an enhanced view of the understudied phenomenon of sustainable intrapreneurship.

In synthesizing the sustainable entrepreneurship and intrapreneurship literatures, the sustainable intrapreneurship perspective we develop in this paper complements literatures on actors who from their position inside established organizations seek to advance solutions to societal problems. For example, much of the literature on corporate social responsibility (CSR) is concerned with top-down practices and opportunities of optimization within existing means-ends frameworks, such as philanthropy, corporate governance practices or recycling programs (Aguinis & Glavas, 2019). Our perspective complements an emerging body of work on employee-led CSR practices (e.g., Girschik, 2020; Jones, Newman, Shao, & Cooke, 2019) by focusing on entrepreneurial solutions to societal problems, a topic which remains underexplored in the CSR literature (Mirvis & Googins, 2018). Furthermore, our perspective on sustainable intrapreneurship also complements scholarship on insider activists (Briscoe & Gupta, 2016), who aspire constructive change to "rock the boat and stay in the boat" (Meyerson, 2001, p. xi). Our notion of sustainable intrapreneurship helps advance an understanding of how such 'tempered radicals' (Meyerson & Scully, 1995) may spur entrepreneurial solutions to societal problems to effectuate a change of course. Lastly, our perspective may also complement the institutional entrepreneurship literature (Battilana, Leca, & Boxenbaum, 2009). By shedding light on the entrepreneurial challenges that sustainable intrapreneurs encounter when attempting to change existing institutions, our perspective can expand on "the nature of the relationship between uncertainty and institutional entrepreneurship" (Maguire & Hardy, 2017, p. 12), and on how sustainable intrapreneurs catalyze institutional change by blending templates of organizing inside incumbents dominated by a single organizing template (Smets, Morris, & Greenwood, 2012).

2.8.2 Future Research Directions

As summarized in Table 2.2, the conceptual development of sustainable intrapreneurship encapsulated in our propositions offers clear directions and suggestions for future research.

Table 2.2 Implications for Sustainable Intrapreneurship and Potential New Research Topics

Implications for sustainable intrapreneurship	Potential new research topics
• Considering that sustainable intrapreneurs pursue innovations within organizations that were not originally designed to blend societal goals and commercial mechanisms (*P1a*).	• Examining when intrapreneurial actors are better positioned to advance innovative solutions to societal problems than startup sustainable entrepreneurs. • Investigating how sustainable intrapreneurs break organizational path dependencies that preclude innovative solutions to societal problems.
• Considering that in sustainable intrapreneurship, the multiple innovation demands of external groups of stakeholders are compounded by those of internal groups of stakeholders, and the need to achieve organization buy-in (*P1b*).	• Understanding whether and how sustainable intrapreneurs balance the innovation interests of internal and external stakeholders, and subsequent impacts on mission.
• Attending to resource scarcity in resource-rich contexts, which requires sustainable intrapreneurs to access external resources and partnerships to address societal needs (*P2a*). • Reflecting on the political and multi-sector nature of mobilizing resources to address societal problems from within incumbents (*P2a*).	• Investigating to which extent bricolage enables an optimal allocation of resources to address societal problems from within incumbents. • Understanding how sustainable intrapreneurs broaden their resource base through internal and external legitimation efforts.
• Considering that diverse sets of objectives—those of the incumbent organization and of improving societal conditions in a commercially viable way—raise the challenge of demonstrating that resources can be put to a better use to simultaneously realize potentially contradictory objectives (*P2b*).	• Examining how sustainable intrapreneurial solutions may effectively reallocate resources to achieve multiple objectives that are often mired in tensions and contradictions.
• Considering that intrapreneurial actors may circumvent the reluctance of incumbents to take on uncertainty associated with entrepreneurial solutions and societal problems (*P3a*).	• Investigating how entrepreneurial actors in uncertainty-avoiding incumbents navigate the blend of uncertainty associated with societal problems and entrepreneurial uncertainty.
• Reflecting on the political nature of raising the motivation of internal and external stakeholders' to bear uncertainty associated with entrepreneurial solutions and societal problems from within incumbents (*P3b*).	• Analyzing when and how the use of other- or self-oriented motives is most effective in raising willingness to bear the blend of uncertainty associated with entrepreneurial solutions and societal problems.

Proposition 1a guides future studies to acknowledge that sustainable intrapreneurs pursue innovations within organizations that are designed for a different purpose. While research suggests this would make incumbents less likely to drive entrepreneurial solutions to societal problems (York & Venkataraman, 2010), future studies could examine when intrapreneurial actors are better positioned to advance innovative solutions to societal problems than startup sustainable entrepreneurs (Hall et al., 2010), and how they break organizational path dependencies that preclude this type of innovation (Sydow, Schreyögg, & Koch, 2009).

Proposition 1b expands on the challenges of pursuing innovative solutions to societal problems from within incumbents, and guides future research to consider that, in sustainable intrapreneurship, the multiple demands of external groups of stakeholders are compounded by those of internal stakeholders and the need to achieve organizational buy-in. Given that sustainable intrapreneurs likely face conflicting internal and external stakeholder demands, future research should seek to understand whether and how sustainable intrapreneurs balance the innovation interests of internal and external stakeholders, and how prioritizing one group over the other affects the mission of the sustainable intrapreneur (Grimes, Williams, & Zhao, 2019).

Following Proposition 2a, studies could consider that sustainable intrapreneurs may face resource scarcity inside resource-rich incumbents, requiring them to engage in intrapreneurial bricolage or attract external resources through partnerships. Although there is evidence that bricolage can lead to an effective reallocation of resources for societal impact in resource-constrained environments (Bacq, Ofstein, Kickul, & Gundry, 2015), future studies could investigate to which extent bricolage may enable an optimal reallocation of resources to address societal problems from within resource-rich incumbents (Halme et al., 2012). Furthermore, future research could also consider how sustainable intrapreneurs align goals and behaviors with multi-sector actors to mobilize resources (Ramus et al., 2020). Although the simultaneous pursuit of societal and commercial objectives may raise tensions among actors, if organizations acquire legitimacy in the eyes of relevant audiences, they may benefit from a broader resource base (Battilana, Besharov, & Mitzinneck., 2017). Hence, researchers could also investigate how sustainable intrapreneurs broaden their resource base through internal and external legitimation efforts.

Following Proposition 2b, researchers could consider that diverse sets of objectives—namely those of the incumbent organization and of improving societal conditions in a commercially viable way—raise the challenge of demonstrating that resources can be put to a better use to realize multiple objectives at the same time. Extant research suggests that the success of sustainable intrapreneurs hinges on understanding how organizations enact societal and commercial objectives, and tailoring their solutions accordingly (Alt & Craig, 2016). Future studies could expand on this notion and examine how sustainable intrapreneurs devise solutions that embrace tensions and contradictions (Smith & Lewis, 2011), while effectively reallocating resources to achieve multiple objectives.

Following Proposition 3a, studies could consider that sustainable intrapreneurial actors may circumvent the reluctance of incumbents to take on uncertainty associated with entrepreneurial solutions and societal problems. Although researchers have long operationalized uncertainty as a multi-dimensional construct (Milliken, 1987), we still lack knowledge on how specific types of uncertainty may combine and interact—in particular uncertainty associated with societal problems (Gras et al., 2020) and entrepreneurial uncertainty (McMullen & Shepherd, 2006). Future research could explore how entrepreneurial actors navigate this unique combination of uncertainty inside uncertainty-avoiding incumbents.

Finally, Proposition 3b expands on this notion and guides future research to consider that the willingness of intrapreneurial actors to bear uncertainty associated with societal problems is not sufficient for entrepreneurial action: sustainable intrapreneurs must also motivate key internal and external stakeholders to bear that uncertainty. Extant research suggests that the rewards for bearing uncertainty in sustainable entrepreneurship are moral and social incentives, which compensate for the lack of competitive economic incentives (McMullen, 2011; Patzelt & Shepherd, 2001). Yet, research on employees motivating others to attend to societal problems suggests that individuals must frame those problems in ways that differ from their private understandings and that adapt to the motives of others (Sonenshein, 2006). Future research could thus address when and how the use of other- or self-oriented motives is most effective in raising willingness to bear uncertainty associated with entrepreneurial solutions to societal problems.

2.8.3 Limitations and Avenues for Further Research

In our synthesis we intentionally focus on how sustainable intrapreneurs address problems of innovation, resource allocation, and uncertainty as "the key areas in which entrepreneurs uniquely act" (York & Venkataraman, 2010, p. 452). Given that incumbents are often discounted as unable or unwilling to address these problems, we found this approach to be especially useful in explaining the role of sustainable intrapreneurs in contributing to the alleviation of societal problems. While our study provides a strong basis to theorize about sustainable intrapreneurs exploiting sustainable entrepreneurial opportunities, future research may examine whether and how other aspects of the entrepreneurship process (i.e., alertness, opportunity recognition, and growth) differ in the context of sustainable intrapreneurship. Furthermore, given that individual differences among sustainable intrapreneurs—such as position in the organizational hierarchy and social network—likely affect how sustainable intrapreneurs identify, exploit, and grow sustainable intrapreneurial initiatives (Shane & Venkataraman, 1996), future studies may also consider individual factors.

Second, our theoretical development is based on a broad application of sustainable intrapreneurship inside any form of established organization. While this approach allows for generalization across contexts, our propositions do not distinguish in depth the specific challenges that sustainable intrapreneurs working in profit-maximizing organizations, government agencies, nonprofits and other organizational forms may face. Future research may thus further explore the distinct challenges faced by sustainable intrapreneurs operating across different organizational settings, and how they go about addressing these issues.

Last, while our synthesis is rooted in the belief that sustainable intrapreneurs spur impactful solutions to societal problems and positively contribute to their organization's objectives, our study does not consider potential negative consequences of sustainable intrapreneurship. For example, on an individual level, organizational adversity to sustainable intrapreneurial initiatives may impact the mental health and well-being of sustainable intrapreneurs over time (Stephan, 2018). On an organizational level, sustainable intrapreneurs may serve a societal cause at the expense of profit (Gond et al., 2017), or deploy commercial approaches to societal problems that undermine the functioning of their organization (Gras & Mendoza-Abarca, 2014). Furthermore, actions by sustainable intrapreneurs may also cause identity conflict (Foreman & Whetten, 2002) and governance problems inside incumbent organizations (Santos et al., 2015). On a societal level, moral dilemmas emerge regarding the marketization of the nonprofit and public sector (Eikenberry & Kluver, 2004) or firms using sustainable initiatives as opportunities for window dressing

(Marquis et al., 2016). Future research could consider these matters and explore the potentially negative motivations and consequences of sustainable intrapreneurship.

2.9 Conclusion

In conclusion, we suggest that sustainable intrapreneurs have a unique role in pursuing opportunities to address societal problems from within incumbents, which is not captured in the study of sustainable entrepreneurs starting new ventures neither in the study of intrapreneurs pursuing financial value creation. By integrating the sustainable entrepreneurship literature with that of intrapreneurship, we identified distinct challenges faced by sustainable intrapreneurs, and theorized about how individuals inside incumbents may advance innovation, alter resource allocation, and manage uncertainty. It is our hope that the propositions developed in this paper, alongside the integrative guideposts we offered for future research, will make a small step toward increasing our understanding of sustainable intrapreneurship and raising interest in this important topic. As public and nonprofit organizations progressively look for opportunities to engage in self-financing, and profit-maximizing organizations face growing societal pressure to tackle society's problems, the time is ripe for sustainable intrapreneurship to move up the scholarly agenda.

CHAPTER 3

Let's Profitably Fight Poverty, Shall We? How Product Champions Leverage Emotions to Enable Base of the Pyramid Venturing Inside a Large FMCG

This chapter was prepared in collaboration with Justin Jansen and Joep Cornelissen.

3.1 Introduction

Although addressing the needs of more than four billion people earning less than $5 a day may allow multinational corporations (MNCs) to develop future markets and helps alleviate poverty (e.g., Hart & Christensen, 2002; Prahalad, 2004), only an equivocal number of MNCs managed to profitably develop products for those living at the so-called Economic Base of the Pyramid (BoP) (Reficco & Gutiérrez, 2016). Many MNCs have come to realize that the BoP context is challenging in which markets are perceived to have failed, institutional voids are present, consumers have little to spend, and behavioral change of consumers is often required (Jones, Christensen, Siemsen, & Balasubramanian, 2014; McMullen, 2011). As such, entering the BoP market typically requires MNCs to develop new capabilities (Chliova & Ringov, 2017), create new business models (Angeli & Jaiswal, 2016), and form new partnerships (Nahi, 2016), which cause BoP ventures to take a long time to come to fruition, if ever (London, 2008).

Even though MNCs may have the resources available to bear such uncertainty, they may prioritize more certain investment opportunities that are available to them in their traditional markets (McMullen, 2011). Considering that MNCs are pressured by capital markets to maximize short-term profits (Bansal & DesJardine, 2014), and internal processes and performance management systems guide managerial behavior accordingly (Halme, Lindeman, & Linna, 2012), managers may face a trade-off when having to sacrifice more certain returns in their home markets to pursue uncertain opportunities in BoP markets. To justify the development of new products and services that fulfill the needs of the world's poorest, scholars have suggested that the usage of social incentives may compensate for a wide range of discouraging motivational effects, which may render BoP venturing dependent on “emotional arguments for encouraging private sector engagement” (Prahalad, 2004, p. xv).

In this respect, scholars have long perceived emotions as a key driver of motivating behavior that benefits others (Tangney, Stuewig, & Mashek, 2007). Emotions are an integral part of human decision making (Dolan, 2002), and are defined as a “process that begins with a focal individual who is exposed to an eliciting stimulus, registers the stimulus for its meaning, and experiences a feeling state and physiological changes, with downstream consequences for attitudes, behaviors, and cognitions” (Elfenbein, 2007, p. 315). Importantly, emotions such as empathy, sympathy, and compassion have been found to motivate sustainable venture creation (Patzelt & Shepherd, 2011), and to elicit corporate socially responsible behavior (Crilly, Schneider, & Zollo, 2008). Considering that emotions shape managerial decision making (Elfenbein, 2007), studies have also found that product champions—“individuals who informally emerge in an organization and make a decisive contribution to the innovation by actively and enthusiastically promoting its progress through the critical [organizational] stages” (Howell, Shea, & Higgins, 2005, p. 644)—leverage emotions to gain support from decision-makers for sustainability initiatives.

Anderson and Bateman (2000), for example, show that product champions use emotion-evoking language when presenting their initiatives to internal decision-makers. In addition, Mayer, Ong, Sonenshein, and Ashford (2019) found that individuals use emotive moral language to inspire anticipatory guilt in decision-makers when selling solutions to societal issues. Wickert and de Bakker (2018), on the other hand, found that product champions established emotional proximity between decision-makers and a particular societal issue to inspire a feeling of personal responsibility. Yet, so far studies have only presented broad and static perspectives about how product champions may use emotions effectively to secure senior management support. Although venture gestation can take several years in which numerous start-up activities occur, it remains largely unexplored how entrepreneurial actors use emotions over time “between opportunity identification and exit” to obtain resources for their business (Cardon, Foo, Shepherd, & Wiklund, 2012, p. 3). Hence, even though emotions are likely to play a critical role in BoP venture development in the face of uncertain outcomes for the corporation and its management (Prahalad, 2004), it remains unclear how product champions may leverage emotions throughout various stages of the venturing process to gain support from senior managers who have the power and discretion to enable BoP venture development (George, McGahan, & Prabhu, 2012).

To address this gap, this study explores how product champions inside an MNC leverage emotions over time to gain support for BoP venture initiatives. Given the scant amount of theory development on the role of emotions throughout the BoP venturing process, we carried out an inductive multiple-case study by considering the emergence and development of four BoP ventures inside a large Fast-Moving Consumer Goods company (FMCG). As such, we find that by emotionalizing venture development throughout various stages of the BoP venturing process, product champions were able to develop BoP ventures with voluntary support of colleagues, and to sustain their venturing efforts up until a stage where products were considered for market launch despite an obvious sense of profitability.

Our study extends existing research in multiple ways. First, while existing BoP research has largely neglected intra-firm processes to explain BoP venturing outcomes (Halme et al., 2012, p. 744), including the interplay between mid-level and senior managers (George et al., 2012, p. 677), we contribute to this body of literature by unveiling how product champions leverage emotions during various venturing stages to enable BoP venture development in spite of its associated challenges (Hart, Sharma, & Halme, 2016). In highlighting the importance of product championing and senior management support (George et al., 2012), we also contribute to research on corporate entrepreneurship by showing how the skillful use of emotions by entrepreneurs enables (sustainable) venture development inside MNCs (e.g., Biniari, 2012), and contribute as well to research on product championing (e.g., Schön, 1963) by expanding our understanding about how champions may leverage both positive and negative emotions throughout the venturing process.

3.2 Theoretical Background

The BoP market is considered to be an attractive growth option for MNCs (Prahalad, 2004). Facing continuous pressure from shareholders to demonstrate (future) profit, the BoP provides MNCs with an opportunity to operate beyond saturated markets where they often face stiff competition and stagnated growth trajectories (Hart & Christensen, 2002; Hart & Milstein, 2004). At the same time, addressing the needs of the world's poorest is also considered an important way for corporations to help alleviate poverty and/or counteract its negative consequences (George et al., 2012). Despite it often being portrayed as a lucrative option, entering the BoP presents a host of challenges that temper MNC's chances of success (Hart et al., 2016) and complicate efforts by those product champions inside the MNC (Halme et al., 2012; Reficco & Gutiérrez, 2016), rendering BoP venture development also dependent on emotional arguments (Prahalad, 2004).

3.2.1 Product Championing and Base of the Pyramid Venturing

Research has long demonstrated that (mid-level) managers who are championing new product initiatives play a crucial role in new venture development (Schön, 1963). Importantly, product champions recognize and promote the significance of new business ideas and allow new venture initiatives to proceed beyond the initial idea stage (Day, 1994; Howell et al., 2005). Through social exchanges, product champions manage to connect entrepreneurial activity to the corporate agenda, resolve conflicts between old and new priorities, and enthuse actors on multiple organizational levels who decide over the faith of new venture initiatives (Shane, Venkataraman, & MacMillan, 1995).

Considering that new venture development generally suffers from profit conservatism (Shane & Venkataraman, 1996), a focus on efficiency (Andriopoulus & Lewis, 2009) as well as a preference for solutions that are familiar, mature, or near to existing solutions (Ahuja & Lampert, 2001), product champions face challenges when looking to develop ventures and guide them through critical stages (Schön, 1963). In essence, BoP venturing represents a radical departure from business as usual (Hart et al., 2016), presenting additional challenges to those who importantly advocate BoP venturing, engage senior managers, and link BoP ventures to existing operations (Zahra & Wright, 2016).

For one, the BoP is an inherently tough segment to reach. Markets require institutions and rules to emerge and thrive (McMullen, 2011). Yet the weakness or even absence of supportive institutional arrangements at the BoP often constrains market participation (Gao, Zuzul, Jones, & Khanna, 2017). As such, MNCs often need to develop fundamentally new capabilities (Chliova & Ringov, 2017) and form partnerships to build skills and legitimacy (Seelos & Mair, 2007). Such explorations and partnerships lead to greater uncertainty and require experimentation over long periods of time (London, 2008).

Second, MNCs may be forced to combine company profitability and growth with addressing symptoms and sources of vulnerabilities from poverty and environmental concerns (London, Anapundi, & Sheth, 2010). While economic, social, and environmental considerations are often closely intertwined in low-income markets, creating societal impact also allows MNCs to become locally embedded (London & Hart, 2004). Such joint pursuit of objectives at the BoP, however, calls for employees to think outside the dominant short-term profit paradigm in the face of complex societal issues (Hahn, Preuss, Pinkse, & Figge, 2014) and to reconcile potential conflicts when advancing multiple sustainability objectives simultaneously (Santos, Pache, & Birkholz, 2015). To develop ventures at the BoP, MNCs thus likely need to leave their comfort zone to learn new ways of doing things (Reficco & Gutiérrez, 2016) and contend with fundamentally different risks and complexities (Hart et al., 2016).

A key challenge here is that the organizational activities of MNCs—innovation processes, incentive systems, performance management criteria, and resulting routines—are set up to focus on quick profit (Halme et al., 2012; Olsen & Boxenbaum, 2009). Economic short-termism tends to characterize MNCs, whereby they prioritize present over future needs (Bansal & DesJardine, 2014) and try to avoid the uncertainty of developing new knowledge (Levinthal & March, 1993), often as a result of capital market pressures. A subsequent focus on quick and more certain gains in their traditional markets weakens the case for investing time and resources in BoP venturing (McMullen, 2011). And as routines and processes to understand, evaluate, and explore opportunities at the BoP tend to radically differ from common practices, product champions likely face adversity when looking to develop BoP ventures (Reficco & Guetiérrez, 2016). Subsequently, senior management support is deemed critical for product champions to be able to develop BoP ventures inside MNCs (Hart, 2005).

3.2.2 Emotions and Base of the Pyramid Venturing

Considering that BoP venturing is riddled with uncertainty and perceived trade-offs, emotions are said to be pivotal to encourage private-sector engagement at the BoP (Prahalad, 2004), with social incentives required to compensate for a wide range of external and internal challenges (McMullen, 2011). Importantly, emotions oftentimes inspire moral behavior (Tangney et al., 2007), defined as acting in accordance with internal principles of what is right or wrong (Kohlberg, 1973). While scholars underline the importance of morality for corporations to alleviate the suffering of those living in extreme poverty at the BoP (Singh, Bakshi, & Mishra, 2015), employees, unlike corporations, exhibit moral virtue and are capable of doing the "right thing" (Ewin, 1991). After all, employees experience moral emotions—those emotions "*that are linked to the interests or welfare either of society as a whole or at least of persons other than the judge or agent"* and arouse behavior which the actor expects will benefit individuals to whom their behavior is directed (Haidt, 2003, p.276).

When confronted with the hardship of others, both positive and negative emotions such as compassion, empathy, sympathy, gratitude, elevation, shame, guilt and embarrassment elicit morality (Eisenberg, 2000; Haidt, 2003; Lazarus, 1991), and motivate employees to engage in other-regarding behavior (Tangney et al., 2007; Treviño, Weaver, & Reynolds, 2006). While functioning as an antecedent to sustainable entrepreneurship (Miller, Grimes, McMullen, & Vogus, 2012; Patzelt & Shepherd, 2011) and corporate socially responsible behavior (Crilly et al., 2008), emotions are also suggested to inspire BoP venture development and its support thereof (Prahalad, 2004). After all, organizational members participating in innovation are suggested to experience strong emotions when its outcome has major consequences for people's well-being (Elfenbein, 2007), or when innovations have significant personal relevance (Hareli & Rafaeli, 2008).

Because of these considerations, scholars have increasingly set out to explore the role of emotions in (sustainable) venture development (Cardon et al., 2012). Emotions are considered important for opportunity recognition (Hayton & Cholokova, 2011; Patzelt & Shepherd, 2011), opportunity evaluation (Foo, 2012; Miller et al., 2012), and for sustaining venturing efforts (Foo, Uy, & Baron, 2009). In addition, entrepreneurs have also been found to convey emotions to gain access to resources (Baron & Markman, 2003; Chen, Yao, & Kotha, 2009; Roundy, 2014) and mobilize social capital from stakeholders (Huy & Zott, 2019). Within a corporate context, emotional contagion by top managers was found to inspire corporate entrepreneurship (Brundin, Patzelt & Shepherd, 2008), while fear and emotions expressed by fellow employees would negatively affect venturing outcomes and innovation (Biniari, 2012; Vouri & Huy, 2016). However, research has not yet addressed how (corporate) entrepreneurs leverage emotions throughout the entire (sustainable) venturing process (Cardon et al., 2012).

A burgeoning field of research does, however, consider how employees seek senior management support for initiatives that address societal issues, including environmental problems (Howard-Grenville & Hoffman, 2003), gender imbalance (Pioderit & Ashford, 2001), or social injustice (Sonenshein, 2006). Because businesses may typically not be aligned with societal goals championed by employees, scholars have observed a variety of tactics used by employees to gain senior management support, such as coalition building (e.g., Dutton, Ashford, O'Neill, & Lawrence, 2001), timing (e.g., Dutton & Ashford, 1993), using language that resonates with a target (e.g., Alt & Craig, 2016), or appealing to principles of morality (e.g., Mayer et al., 2019). While emotions influence and affect decision making of managers (Barsade & Gibson, 2007; Elfenbein, 2007; Huy, 2012), employees were also found to seek support for sustainability initiatives by inspiring emotions and establishing an emotional connection between social problems and their audience (Anderson & Bateman, 2000; Wickert & de Bakker, 2018). Yet, while only a handful of studies show how employees leverage emotions to develop sustainability initiatives, these studies only provide a static image. Considering that venture development consists of multiple stages over a longer period of time, there remains a need for "process-based studies of affect over time and at various stages of the [entrepreneurship] process" (Cardon et al., 2012, p. 4). Hence, with emotions suggested to play an important role in BoP venture development (Prahalad, 2004), through a multiple case study we set off to explore how and at which stages of the venturing process product champions leverage emotions to enable BoP venture development inside a large FMCG.

3.3 Methods

In this study, we use an inductive case-based research design, comparing four BoP ventures inside a FMCG in a product division internally known for its BoP venturing efforts (Yin, 1994). Besides this approach being suitable to address research questions that to date have remained unaddressed, an inductive multiple-case study design also allows for replication as each case serves to confirm or disconfirm inferences drawn from the others, permitting induction of more reliable models as a basis for analytical generalization (Eisenhardt, 1989). Similar to single-case designs, multiple-case studies allow for rich descriptions with the opportunity to compare and confirm insights across cases (Yin, 1994).

3.3.1 Research Context and Sample Selection

The research setting we selected is a large Western-European FMCG operating in more than 100 countries with recorded net sales over $50 billion. The FMCG is known for its tradition of being present in developing countries for over a hundred years as well as the CEO's outspoken support for developing new businesses that address the needs of the poor. For analytical generalization purposes and to reduce irrelevant sources of variance within or between firms, we restricted our investigation to four BoP ventures that emerged within the same product division (Yin, 2009). This led us to select the four cases described in Table 3.1.

Table 3.1 Description of Cases

Case	Mosquito	Toilet	Laundry	Water
Product	Bed net	Toilet	Laundry device	Water facility
Social objective	Prevent vector born disease to improve health	Improve access to sanitation to prevent disease, save time and increase dignity	Save time to empower women and improve health	Save time to empower women and provide clean water
Environmental objective	Reducing toxic pollution and greenhouse gasses used in alternative products	Conscious waste disposal and using waste as fertilizer or energy source	Low cost solar powered solution that reduced water consumption	Reduced water consumption
Target geography	Indonesia	Ghana	Kenya/Nigeria/ Vietnam	Nigeria
Number of interviews	28	20	20	16
Archival records	1	8	17	1

Building on earlier theory, we opted for a literal replication design (Yin, 1994). With each venture focusing on different markets, geographical areas, and social issues, the four ventures shared in common that products were specifically developed to profitably address pressing needs of those living at the BoP in developing countries. In addition, the BoP ventures also sought to achieve environmental objectives. Specifically, the BoP products we studied were: a bed net to address vector-borne disease from mosquito bites ("mosquito venture"), clean water to address excessive time spent collecting water ("water venture"), a toilet to address limited sanitation access ("toilet venture"), and a portable washer to address excessive time spent doing laundry ("laundry venture"). In each case, mid-level managers who were acting as product champions—either autonomously (toilet &

laundry venture) or as part of their role (mosquito & water venture)—required senior management support from different actors across multiple divisions and geographies to initiate and then sustain BoP venturing activities. At the time we started our research in 2015, the BoP ventures were working toward market launch, while still being insufficiently profitable according to conventional standards of profitability. This enabled us to study whether and how emotions played a role throughout a BoP venture's development process up until the point where ventures were evaluated for their official product launch on the basis of financial criteria.

3.3.2 Data Collection

As shown in Table 3.2, our primary data comes from 56 semi-structured interviews with 36 informants, which took place on site and over the phone between 2015 and 2019. For each venture, we interviewed two types of informants: (1) mid-level managers developing BoP ventures, including champions, and (2) senior managers and other employees affiliated with the ventures. An interview protocol was used, so were specific interview techniques such as "courtroom" questioning and event tracking (Eisenhardt, 1989). By sharing concrete examples and events, informants relied on their episodic memory leading to more accurate, convergent and comprehensive accounts (Vouri & Huy, 2016).

We undertook three phases of data collection, which enabled us to analyze the data after each round to inform subsequent interviews (Strauss & Corbin, 1998). First, we identified and interviewed employees who were involved in BoP venturing to understand how the ventures emerged and how they developed inside the organization. These data allowed us to understand how interactions and organizational actions influenced BoP venture development. In the second phase, through snowball sampling, we interviewed other informants to extend our data collection and validate the plausibility of earlier accounts.

Table 3.2 Informants and Interviews

Cases	Title	Phase 1	Phase 2	Phase 3
All	Executive vice-president		1	
	Chief R&D officer		1	
	Director global partnerships	1		
Mosquito	Divisional senior vice-presidents (two)		2	
	CTO		1	1
	Divisional senior vice-president R&D	1		
	Vice-president open innovation	1		
	Vice-president new business unit		1	
	Global R&D director			2
	R&D director open innovation	1		
	Behavioral science director	1		
	Social innovation director		1	2
	R&D managers (four)	4	3	1
	Scientist		1	
	Project manager	1		
	Trainee	1		
Toilet	Divisional senior vice-presidents (two)		2	
	CTO		1	1
	Divisional senior vice-president R&D	1		
	Vice-president open innovation		1	
	Vice-president new business unit		1	
	Director open innovation		1	1
	Behavioral science director	1		
	R&D managers (three)	1	2	4
Laundry	Divisional senior vice-president R&D	1		
	Global vice-president	1		1
	Director R&D discovery		1	1
	Marketing managers (three)	2	2	1
	Information scientist	1		
	R&D discovery manager		1	
	R&D managers (four)	1	3	1
Water	Divisional senior vice-president		1	
	Global vice-president	1		1
	Director global partnerships		1	
	Marketing manager	1		1
	R&D manager	1		2
	Partnership managers (two)		2	
	Customer development manager		1	
	External consultant		1	

*In total we interviewed 37 individual informants, with 21 individuals who were interviewed once, 14 individuals who were interviewed twice, and 2 individuals who were interviewed three times.

During the third phase, we built on the initial analyses of the first two phases, seeking to complement our understanding of how product champions leveraged emotions to advance BoP venture development inside the FMCG.

To triangulate our data, we sought to complement interviews with archival data from the company (Yin, 2009). The highly confidential and strategically sensitive nature of the information made informants somewhat reluctant to share archival data; hence a limited amount of internal documents were made available for triangulation purposes. The archival records obtained included internal presentation slides (14), an internal Excel spreadsheet (1), internal reports by employees (7), internal reports by consultants (7), publicly available reports by the firm (15), and public reports by nonprofit organizations and consultancies (4).

3.3.3 Data Analysis

We took an iterative approach between data and theory to explore patterns and identify key themes, which ultimately enabled us to develop novel inferences from our data (Strauss & Corbin, 1998). Sequential to our data collection phases, our theorizing evolved in three steps: (1) we identified through open-coding whether and how various emotions enabled product champions to advance BoP ventures inside the MNC; (2) we sought to deepen our understanding of how emotions enabled product champions to develop BoP ventures by identifying relationships between first-order categories which informed conceptual second-order themes; (3) we used theoretical coding to relate second-order themes to aggregate dimensions and distinguished emotionalizing practices per venturing phase—initiation, development, or implementation (see Russell, 1999). Parallel to our evolving understanding, we redefined our coding procedures (Glaser & Straus, 1998).

Table 3.3 Coding Scheme Basic Emotions

Emotion	Relational Themes	Examples
Anxiety	Ambiguous danger*/threat*/ having transgressed a moral imperative**	A response to an undesirable threat when senior managers were confronted with potential (reputational) loss when discontinuing investments. *"By getting external support, by starting partnerships with whether it be academics or NGOs, it made it much more difficult, it makes it more difficult for the [FMCG] or for any other business to stop a project. So it was quite a strategic or a tactical – you might say a tactical move… because they are still you know in public, it's more difficult for [the FMCG] to say actually you know, we are not interested in doing this because they do have a external profile."* – Mid-level R&D manager
Guilt	Self-blame*/facing uncertain and existential threat**	A response to avoid a feeling of self-blame when informants were confronted with the decision to discontinue a BoP venture at the expense of its beneficiaries. *"They wanted to kill the product… They brought it to my boss [who] is like, you're right. We can't kill this… so [the] project didn't die. ….[a division] doesn't want [the BoP product]… They take it to the board, on one fine day when I'm not there, and they kill the project again for the second time, but I'm still here… because no one wants to kill the project, because everyone wants to see this work."* – Mid-level R&D manager
Happiness	Making reasonable progress towards the realization of a goal**	A response to joy when reflecting on achievements of the individual or the team and its subsequent impact on those living at the BoP. *"We had women that their dream was to sing but they didn't have the time to sing because they had to work all the time so then out of the half an hour that they got every day they were able to go to the studio and record their own CD… for me that was so powerful…in the end that's great, that's really fantastic, that made me cry."* – Mid-level manager
Pride	Enhancement of one's ego-identity by taking credit for a valued object or achievement, either one's own or that of some or group with whom we identify**	A response to self-credit when being engaged in BoP venturing and its subsequent positive outcomes. *"You get a group of people together and say can we save 100 million lives? Can we impact a billion people? Then people get excited. We've all pulled all-nighters in this specific hotel in Jakarta. We've all stayed out. We've all got up early to be on calls. The regular team are on calls 1 o'clock to 7 o'clock in the morning UK time, because they are excited about the project. It would be very easy to say I'm not going to be on the call from 1 am to 7 am because I'm human and I need sleep. I haven't heard anyone bitch or moan."* – Mid-level manager
Compassion	Being moved by another's suffering and wanting to help**	A response to another's suffering and willingness to help when being aware of, and confronted with the suffering of those at the BoP. *"The reason why we started to think about what is it that we can do about these women is because we ourselves were kind of shocked to the kind of – to the amount of effort that they needed to go through and that maybe left to wash their clothes… It was just like, this is why we decided to do this job. Look at it, you know."* – Mid-level manager

*Smith and Lazarus (1990); **Lazarus (1991, 1993)

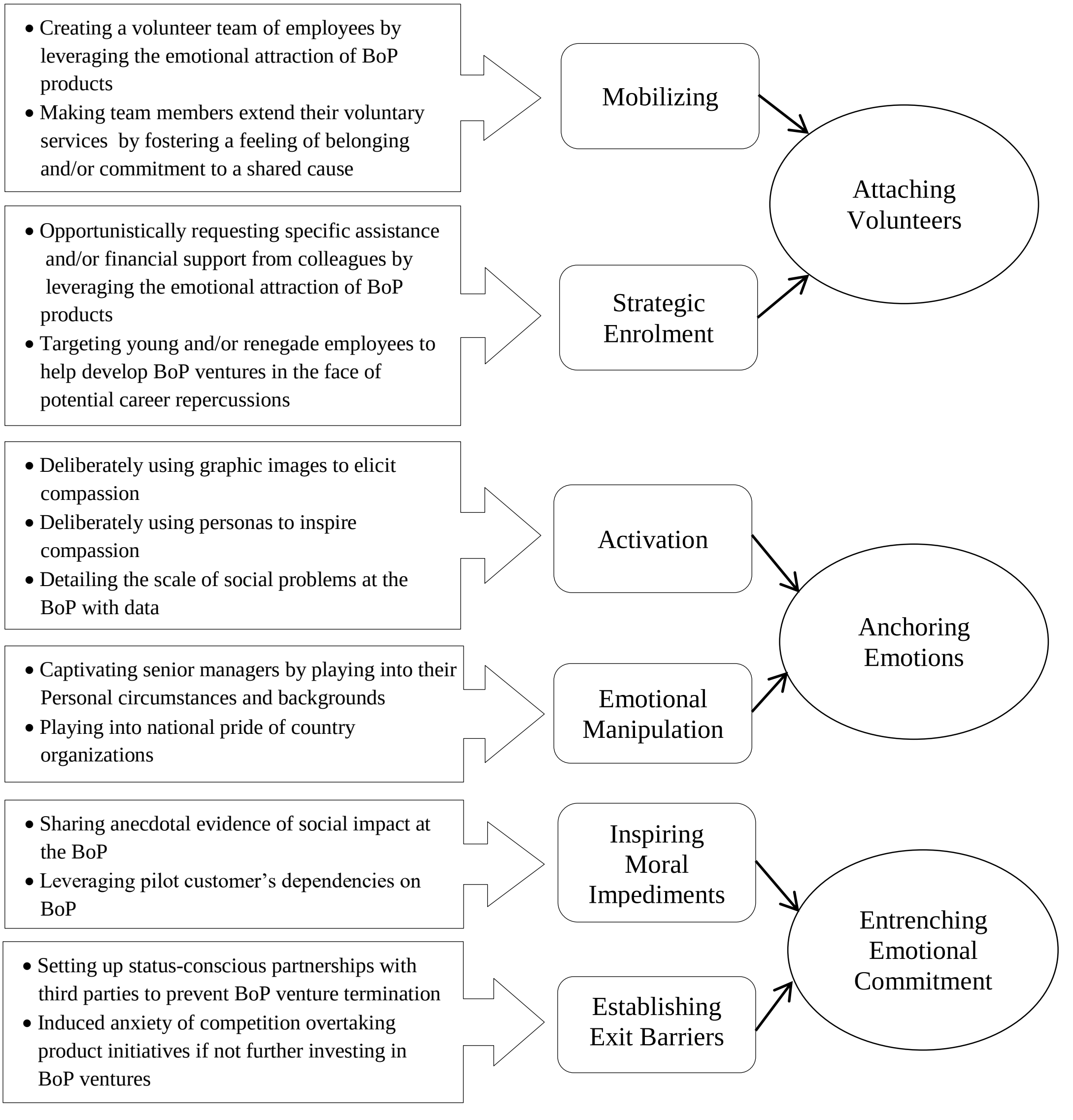
To code emotions during the first step, we based ourselves on approaches similar to Vouri and Huy (2016). We perceived emotions as a result of appraisal processes, with emotions experienced in relation to the attainment of personal goals, and with each basic emotion having its own prototypical appraisal pattern. To inform our analysis and code more systematically, we based ourselves on the appraisal theory of emotions by Lazarus (1991, 1993). As shown in Table 3.3, this allowed us to code the presence of various basic emotions—anxiety, guilt, happiness, pride and compassion—and core relational themes which exhibit relational benefit or harm underlying these positive and negative emotions.

Following our comparative case analysis, we identified how product champions leveraged positive emotions that promote motivation and behavioral activation, as well as negative emotions that inspire individuals to avoid unfavorable conditions that obstruct the attainment of personal goals. Figure 3.1 summarizes, by dimension, the corresponding first-order concepts and second-order dimensions, from informant interviews and archival data.

3.4 Findings

For BoP ventures to develop inside the FMCG, we find that product champions leveraged emotions throughout the venturing process. In each case emotions enabled BoP venture development in three ways, through: *attaching volunteers*, allowing product champions to access human and financial resources to initiate BoP ventures; *anchoring emotions*, allowing champions to gain permission and secure resources from senior managers to develop BoP ventures in absence of a positive business case; and *entrenching emotional commitment*, allowing champions to receive respite from standard performance metrics to sustain BoP venture development.

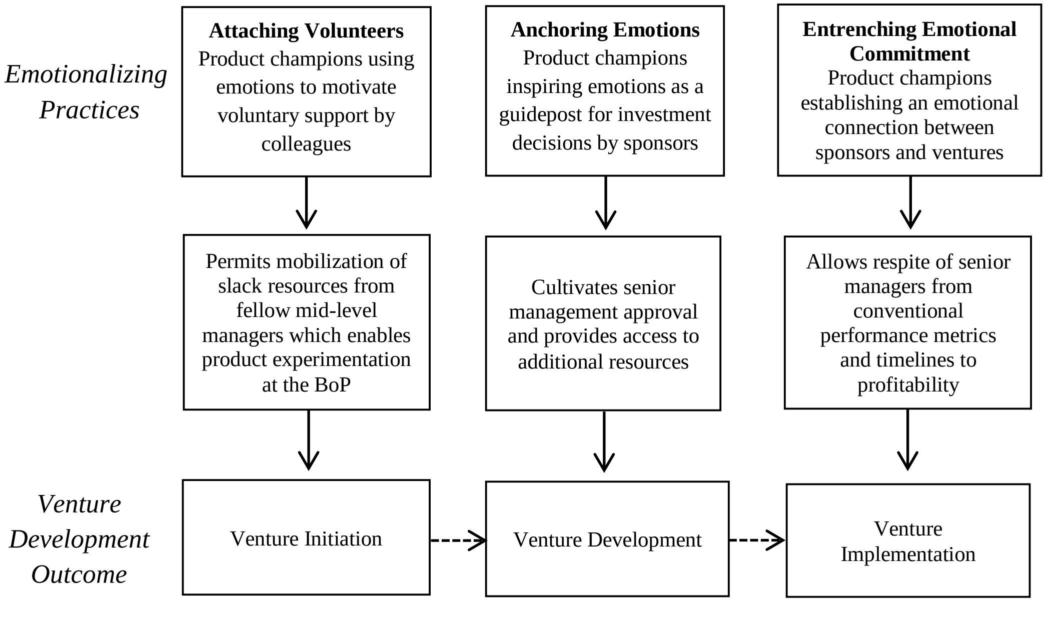
Figure 3.1 Data Analysis Code Aggregation Diagram



With these three practices catalyzing BoP venture development inside the FMCG, we observed that emotionalizing practices by product champions occurred across three distinct venturing phases: the initiation, development, and implementation phase (see

Russell, 1999). The initiation phase is defined by organizational members initiating creative ideas that have not been accepted as formal ventures yet. By mobilizing colleagues to BoP products and enrolling colleagues strategically, product champions could initiate BoP venture development by gathering resources to experiment with new product ideas and inform a business case. The development phase is defined by initial ideas transforming into more structured ventures with senior managers providing resources to a core of committed people. By activating emotions and engaging in emotional manipulation of senior managers, product champions received permission and resources to develop BoP ventures. The implementation phase is defined by incorporating new ventures as ongoing operations of the organization. By inspiring moral impediments and establishing exit barriers, product champions could work towards venture implementation without demonstrating near future profitability. As presented in Figure 3.2, we further detail these concepts that are grounded in the empirical data in the section below.

Figure 3.2 Conceptual Framework



3.4.1 Attaching Volunteers

Even though BoP venture development was an integral part of the MNC's corporate sustainability strategy, our data show that mid-level managers who championed BoP ventures could not gain access to human and financial resources through official canals. Notably, for mid-level managers to gain access to human and financial resources, new product initiatives were required to advance through a standardized stage gate process. Stage-gates refer to a predetermined process a new product must go through from inception to product launch, with each stage defined by a particular set of activities and deliverables followed by a review from senior managers to decide whether the product may advance to the next stage (O'Connor, 1994). Such step-by-step process intends to offer senior managers guidance on new product development, secures stability and ensures risk mitigation.

Crucially, stage one of the FMCG's stage gate process required product champions to demonstrate a profitable business case to gain access to resources. Estimations of profitability were calculated with software which required quantitative data on customers and pricing. Without such data readily available when targeting unfamiliar customers at the BoP with new products, product champions required upfront investments for field research and pilot studies to collect these data at the BoP. A mid-level manager clarified, "we buy a lot of consumer data for the products that we sell, and the categories that we sell. We don't buy data in this space. So I need the cash to go and buy data." Furthermore, stage gates were also closely connected to the FMCG's functional excellence model, which meant corporate support functions such as supply chain, marketing and finance would only become involved once new products advanced to certain stage gates. Given a need for early experimentation in target markets to learn about unfamiliar customer segments, test new business models, and collect data to demonstrate profitability, product champions almost immediately had to engage in market testing at the BoP. While the stage gate process only allowed pilot studies towards the very end of the process, standard stage gates were not suitable for BoP venturing. A mid-level manager recalled, “we didn’t want to crunch it straight into this machine… [so we] had got no one doing that supply chain element of it. [We] had no one doing finance.”

For employees to develop BoP ventures, we find that through *attaching volunteers*—defined as emotionally connecting volunteers to BoP ventures—product champions could gain access to resources. Attaching volunteers had two dimensions: *mobilizing* and *strategic enrolment*. Attaching allowed product champions to leverage time and slack resources from mid-level managers to enable experimentation at the BoP. As observed in the data, happiness, pride, and compassion as three positive emotions formed the basis for mobilizing practices.

3.4.1.1 Mobilizing

In terms of mobilizing, our data show that product champions sought to organize voluntary support by fellow mid-level managers. As a first step, we find that product champions created a volunteer team of employees by leveraging the emotional attraction of BoP products. Because BoP ventures would not progress through stage gates, product champions could not access human and financial resources inside the FMCG to develop BoP ventures. The product champion of the laundry venture recalled, “We didn’t have a specific taskforce for this project, we couldn’t really ask for any resources for this project so it was mostly showing it to people, if they were excited they were doing this on their free time.” Importantly, product champions leveraged the emotional appeal of BoP products to recruit volunteers and tap into their slack budgets to help develop BoP products and collect data in a BoP venture’s target market. The water venture’s product champion explained:

> At the beginning it's kind of more of a belief, you don't have a formal team that you suddenly have let's say a few people working on it and it is kind of officially part of their work scope. So, you depend a lot on volunteers or kind of another set of passionate people that want to help and want to share their expertise or knowledge or want to advise or want to spend their personal time... So, you know it's a different way of bringing a team together. It's kind of working more on the side of emotions and passions and you know, finding the right volunteers to… drive it to the point where it can become a little bit more official and formal.

Commenting on the emotional appeal of BoP products, the product champion of the mosquito venture said, "People come out of the woodwork because what you're doing is self-evidently good. You're solving the big social problem. You get cooperation, you get allies, you get people come forward." While the mid-level manager recalled, "a finance person came up to me and said…'do you need any help?' Never had that from finance before," the product champion concluded, "I actually don't want to admit how much resource I've had... I've had an enormous amount of help from people who have just volunteered."

After product champions onboarded employees to voluntary help develop BoP ventures, product champions sought to keep volunteers committed to compensate for a lack of dedicated resources. As such, product champions strategically fostered a feeling of belonging by creating team spirit. Commenting on how such practices were successful, a mid-level manager who helped developing a BoP venture stated, "the project team do more to involve you. So it makes you feel an important part of the team rather than just a supplier to the team. They realize the importance of buy-in." In addition, product champions also inspired commitment by moving social objectives of BoP ventures to the foreground and by communicating with team members about the social objectives of BoP products. A mid-level manager developing the mosquito venture said, "When you bring people together particularly when you're talking about meanings… You know you get to the root of very human things." Reflecting on how attaching fostered commitment, the mosquito venture's product champion offered, "It's a very emotional connection across the whole team. Even when people step out because they're not—needed, if you like—they still are very ready to step in again." The product champion of the laundry venture similarly observed, "people weren't that needed anymore, but they were all so passionate about the project that they just kept being there."

3.4.1.2 Strategic Enrolment

Besides recruiting and motivating a team of employees who voluntarily helped initiate BoP ventures, product champions also specifically sought to cling to mid-level managers with a certain expertise to help them advance BoP ventures. As such, product champions opportunistically requested specific assistance from colleagues by leveraging the emotional attraction of BoP products. For example, to compensate for a lack of expertise about supply chain management and conducting field research to test new products, the product champion of the laundry venture reached out to colleagues with specific functional expertise. Commenting on how this was successful, the mid-level manager stated:

> [A mid-level manager] works on devices or something and then we talked to him and I think he just jumped on board like it wasn't part of his goal you know. He wasn't putting it in the system as one of the targets that he needed to meet… we got the same from a person in R&D who was just… giving a lot of soul to the project even though it wasn't part of their [plan].

Next to approaching specific colleagues for help, product champions also particularly targeted young and renegade employees to help them develop BoP ventures in the face of potential career repercussions. Employees inside the FMCG were generally promoted on the basis of demonstrating success on the short-term, which was virtually impossible with BoP products. Moreover, successful career trajectories also required employees to take on roles with high visibility inside mainstream business functions instead of working on innovation projects. A mid-level manager who assisted the toilet venture's product champion explained:

> Sometimes it can be hard to find people who will work with you on projects which seem to be a little bit risky, a little bit marginal… you want to work on high profile projects that you know are going to be a success. You don't want to be associated with a project that’s risky and might not work. If you think about it, [BoP ventures] are risky. A lot of them do fail, and I think that makes the difference to the kind of people who then join those projects… [W]e were opportunistic. I think we saw these young graduates as, essentially, energetic, ambitious people who would do some work for us... [W]e were quite single-minded in identifying them.

Product champions specifically targeted employees who valued creating social impact over having successful careers inside the FMCG. A mid-level manager offered, “people that are passionate about numbers and results would not be into working on a project like this when it’s actually your leisure time or you are just doing extra work.” Because efforts by mid-level managers developing BoP ventures were not always appreciated and/or rewarded by their line managers, a mid-level manager developing a BoP venture recalled, “I pissed a lot of people off”, while a graduate trainee said, “I'm risking a long term laid out career at [the FMCG].”

3.4.2 Anchoring Emotions

While attaching volunteers allowed product champions to conduct field research and early pilot studies which helped inform a business case, for BoP ventures to move from the initiation to the development phase product champions were required to demonstrate conventional standards of profitability. According to conventional standards new BoP products were expected to be profitable within three years’ time, with profit margins similar to those of the FMCG’s existing products. In addition, new products would only be launched if the FMCG could potentially become market leader or the runner-up in a respective market.

Problematically, product champions struggled to for fill these expectations. Whereas BoP venturing required extensive experimentation and new capabilities to be developed, doing business at the BoP was also considered to be extremely challenging, increasing risk and prolonging timelines to reach profitability. In addition, interviewees also commented on issues with scaling due to cultural differences on regional and national levels. A mid-level manager commented, "You're not going to go from zero to market penetration of 50 to 60% and of millions of consumers, which is what [the FMCG] has currently... [Y]ou [have to] relax the margin criteria profitability for a few years, [so] you only need to deliver a 20% margin, rather than a 50% margin by year four." A senior manager confirmed, "it takes longer to arrive at a commercially viable plan, because [BoP venturing] is intrinsically more complex." Only with senior management support could product champions deviate from standard metrics. A mid-level manager thus stated, "you need to persuade [senior managers], people with money, the people who can give you the people, the resources, but even just the permission to go ahead." A senior manager confirmed, "the only way a [BoP venture] will get feedback is if someone senior has a personal interest in it."

To persuade senior managers, we find that employees developing BoP ventures engaged in *anchoring emotions*—defined as actions that inspire emotions as a guidepost for investment decisions by key decision makers. Anchoring emotions had two dimensions: *activation* and *emotional manipulation*. Anchoring emotions allowed products champions to cultivate senior management approval and gain access to substantial resources that were required to develop new BoP ventures. As observed in the data, both compassion and pride as two positive emotions formed the basis for anchoring practices.

3.4.2.1 Activation

To gain support from senior managers, product champions performed actions which prompted emotions. In their communication with senior managers, product champions inspired emotions by using visual material in their communication with senior managers. A mid-level manager involved in developing the water venture explained, “there’s always an emotional element to [communication with senior managers].” For example, as triangulated with archival data, the laundry venture’s product champion shared:

> Every single PowerPoint that we have, we have photos of women washing and that’s all you need to say. Honestly, it’s that powerful… you just look at it and it just does something to you. So in every single presentation, when we were trying to explain why this was important… [our team] was like, we don’t know if we are going to make money. We don’t know what impact that this is going to have but we do know this is going to help people massively and [our venture] was the only one that [received funding]... the emotional aspect of it did have a lot to do [with it].

In emotionalizing BoP venturing, product champions also presented numerical data to clarify the scope of the suffering their BoP ventures sought to alleviate, and the intended impact of BoP ventures. Commenting on how this was an effective strategy, a senior manager supporting the toilet venture stated, “You know, some of the kinds of things that they had was, that we realized that… You know, whatever it is, is 3 billion people don’t have toilets, or some ridiculous number. Our feeling was, that’s just not right in today’s world.”

3.4.2.2 Emotional Manipulation

Besides activation, product champions also engaged in emotional manipulation of senior managers—defined as actions that aim to influence decisions through emotional exploitation. Emotional manipulation consisted of captivating senior managers by playing into their personal background or circumstances, and playing into the national pride of senior managers. Both practices were particularly used when product champions sought permission from senior managers to experiment in markets. Without such support, product champions could not experiment in their target markets or gain access to the rich resource base and infrastructure of country organizations. In one extreme case, a mid-level manager commented on how a product champion leveraged a senior manager's first-hand experience with a social problem to earn his support. The mid-level manager explained:

> [A senior manager] had dengue fever… So literally on the brink of death... As you can imagine, you go and talk to someone like that about combatting dengue fever, they are pretty passionate about you combatting dengue fever. You can sell a story to someone like that… [Directors in Indonesia] all know somebody that has contracted a disease, that have either died or been serious ill. So the conversation you can have around that is so much more straight forward... If you can put on their desks ok, here is business impact, here is social impact, who is going to turn around and say no.

Besides exploiting personal circumstances and backgrounds of key decision-makers, product champions also leveraged chauvinism and contextual understanding of senior managers to gain buy-in from the country organization. A mid-level manager offered:

> It's very difficult to kind of get this ball rolling. I think through the emotions, you can get your local teams mobilized and create that pull… [through] something like, "I want to help my country in a way… So, [directors of target markets] have much faster, this local proudness and local experience… They also are closer to the social side of things… So they've got that connection. So it was also the fact that we were exploiting this gap quite successfully.

3.4.3 Entrenching Emotional Commitment

After product champions secured support from senior managers who gave permission to develop BoP ventures and allocated resources to a core of committed people, product champions sought to incorporate BoP ventures as ongoing operations of the FMCG. Even though BoP ventures were expected to show a positive financial return, or at least present a positive business case according to conventional standards, after having been operational for over four years none of the BoP ventures in our sample had yet reached such state.

To demonstrate profitability, product champions required extensive experimentation with new business models over a long period of time, confronting decision-makers with risk and uncertainty. Notably, incentive systems were based on short-term financial results, with an annual bonus system and promotion closely connected to profit margins and growth targets of brands inside business divisions. Reflecting on the low profitability of BoP ventures, a senior manager said, “[there] always seems to be the marginal profitability of [BoP ventures], if profitable at all… they tend not to be particularly attractive from a hardnosed investment point of view despite all the excitement they can generate social good.” Commenting on BoP ventures in our sample, a mid-level manager concluded, “the level of risk involved in those kinds of projects is very high, so if you sat down and did the numbers… those projects would be difficult to justify.”

To advance to the initiation stage, we find that product champions engaged in entrenching emotional commitment—defined as actions to establish an emotional connection between decision-makers and ventures to make venture termination unlikely. Entrenching emotional commitment allowed product champions to receive respite from senior managers from conventional performance metrics and timelines to profitability. Entrenching had two dimensions: *inspiring moral impediments* and *establishing exit barriers*. As observed in the data, anxiety and guilt as two negative emotions and compassion as a positive emotion formed the basis for entrenching emotional commitment.

3.4.3.1 Inspiring Moral Impediments

To gain support from senior managers, we found that product champions inspired moral impediments through actions that evoke morality and thus obstruct rational decision making. As a part of such efforts, product champions used storytelling to provide anecdotal evidence of BoP ventures creating social impact and sought to leverage pilot customer’s dependencies on BoP products. Commenting on the effectiveness of storytelling, the laundry venture’s product champion shared:

> We had many stories like that. There was this guy he was not working because there was a crisis so he couldn’t find any job so he was working as a maid washing for two clients and then when we put him in on that sisterhood platform with laundry

maids he now has 32 clients and he is finally able to buy himself a nice, decent, house… I think the leadership sees them as beautiful stories.

Critically, product champions collected visual material during early field studies to inspire moral impediments. The product champion of the mosquito venture explained:

> We videoed the responses of those consumers… mothers with children in their arms saying how much it had changed their lives. Smiling kids running around happy, some really powerful images and footage. And we shared the product and the [senior manager]…said "is there a business in this?" And we had to show him some numbers, and some projections of "this is the kind of price point, this is the kind—" and he said, "I see it's absolutely not ready, but there's a business here somewhere and more importantly this is something that we should do, so I'll support you."

Besides demonstrating the impact of BoP ventures by sharing success stories, product champions also sought to leverage the fact that pilot customers became dependent on new BoP products. A mid-level manager who helped develop the toilet venture explained:

> I know that "let's just delist [the toilet venture], stop [the toilet venture]" is like 20,000 people are basically indirectly affected by this and they won't have adequate access to sanitation anymore. The guy who's had the toilet in his house for five years, has transformed his whole family's life and livelihood, you know, [you would] take that away from him.

As a consequence, when a senior manager who was overseeing the toilet venture was ordered to close the venture due to a lack of fit and profitability, the senior manager kept supporting the venture against the will of the FMCG's board. The senior manager said:

> We found a way of keeping it alive because we thought [an executive] may be making the right decision that it is not a business [the FMCG] would ever run but it was the wrong thing to do for the world… We kept it alive because we believed it was the right thing to do… we don't want to kill it even though the instruction was to do so.

Commenting on how moral impediments influenced decision-making, a senior manager offered, "this is what defines all of these initiatives. People care about them, they care about… the good that they are doing to the societies… the potential benefit and opportunity that you can provide to people if you can get this to work." Commenting on the effectiveness of inspiring moral impediments, a mid-level manager involved in the mosquito and laundry venture shared, "[BoP ventures] have a better chance of winning because everyone has a heart... No one wants to kill the thing." She further offered: "They are going to try their hardest, even stick their necks out and do things that they wouldn't normally have done to try and save it because they think that it's so compelling."

3.4.3.2 Establishing Exit Barriers

In addition to inspiring moral impediments, our data show that product champions also leveraged negative emotions to aid BoP venture development by establishing exit barriers. In creating obstacles to prevent BoP venture termination, product champions set up partnerships so senior managers would be anxious to confront pushback and bad press when terminating BoP ventures. With respect to strategically collaborating with third parties, a mid-level manager who helped develop the mosquito and toilet venture stated, "by starting partnerships with whether it be academics or NGOs, it made it much more difficult… when you're a senior manager in [the FMCG] to stop a project because there are other people interested in this." The same mid-level manager further explained:

> We continued to focus on these making sure that our projects are really highly leveraged externally… it was quite a strategic or a tactical – you might say a tactical move… because they are still you know in public, it's more difficult for [the FMCG] to say actually you know, we are not interested in doing this because they do have an external profile… giving us the benefit of the doubt often where there were doubts.

While product champions established partnerships for their BoP ventures to survive, another mid-level manager who helped develop the mosquito and laundry venture added, "once you get external people involved and it's public… you can't cancel [it] even if the board says the project is cancelled. Which means it lives another day, which means it never dies."

In one instance, to sustain BoP venture development by establishing exist barriers, a mid-level manager strategically induced fear in order to convince senior stakeholders to keep investing in the toilet venture. When looking for senior management support for the BoP venture, the mid-level manager developing the toilet venture strategically accentuated sunk cost and the potential threat of competitors acquiring the BoP venture. She explained, "[We] did something to creat[e] business scenarios… The type was, what vision of [the BoP venture] would make [the FMCG] kick itself when [its main competitor] acquire it in 2012?"

3.5 Discussion

Our study set out to explore how product champions leverage emotions to enable BoP development inside a large MNC. Importantly, our data unveil that emotions shape actions by mid-level and senior managers whose support is critical for the progress of BoP ventures. Through attaching volunteers, we find that product champions could initiate BoP venturing by leveraging others' emotions and gain access to human and financial resources that were otherwise not accessible via standard innovation processes. Through anchoring emotions, we find that product champions emotionalized BoP venturing to gain permission from senior managers to further develop BoP ventures despite a corporate focus on short-term profit. Lastly, we find that through entrenching emotional commitment, product champions could work towards new venture implementation by leveraging emotions to sustain BoP venture development despite demonstrating insufficient profitability. Below we unpack the theoretical contributions of our research.

3.5.1 The Role of Emotions in Base of the Pyramid Venturing

Research has long suggested that emotional arguments are critical to motivate private sector companies to target the BoP (Prahalad, 2004). While the BoP is a challenging place for corporations to do business, research suggests social incentives are required to compensate for discouraging motivational effects when entering the BoP (Chliova & Ringov, 2017;

McMullen, 2011). Yet, to date the role of emotions remained unexplored in scholarship on BoP venture development. Through a multiple case study, we find that product champions, those employees who critically overcome internal barriers to BoP venturing (George et al., 2012) and manage to engage senior managers (Zahra & Wright, 2016), leveraged emotions in multiple ways to enable BoP venture development.

First, given a corporate emphasis on financial performance, short-termism, and uncertainty avoidance, scholars have observed that mid-level managers who champion BoP ventures struggle to gain access to internal resources (e.g., Halme et al., 2012; Olsen & Boxenbaum, 2009; Reficco & Guetiérrez, 2016). While Halme et al. (2012) highlight the importance of intrapreneurial bricolage—defined as "entrepreneurial activity within a large organization characterized by creative bundling of scarce resources" (p. 743)—for product champions to compensate for such lack of resources, we find that the social objectives of BoP ventures allowed product champions to mobilize resources without much ado. With the help of volunteers and slack resources product champions could capitalize on other's emotions and initiate BoP venture development inside the FMCG. As such, our findings suggest emotions may play an important role in enabling bricolage in a corporate context, and extend the work of Halme and colleagues (2012) who underline the importance of bricolage in a corporate setting when adequate support structures for BoP venture development are found wanting.

Second, our data also suggests that emotions play an important role in the formalization and continuation of BoP venture development. Even though the literature on internal corporate venture development emphasizes a need for new ventures to demonstrate profitability (e.g., Raisch & Tushman, 2016), we find that senior managers were willing to allow and sustain BoP venture development in absence of a positive business case to help alleviate the suffering of those living at the BoP. Considering that a need for extensive experimentation causes long and uncertain timelines to profitability (London, 2008), making BoP ventures incompatible with conventional financial performance metrics and incentive systems (Hart et al., 2016), our data suggest emotionalizing practices allowed product champions to gain senior management support and formalize BoP venture development inside a MNC organized to prioritize short-term profit. Emotions thus played a critical role in the interaction between mid-levels who overcome internal resistance to BoP ventures and senior managers who have the power and discretion to allow BoP ventures to develop internally (George et al., 2012), and helped facilitate conditions that enable exploration of new business opportunities and new capability development at the BoP (Hart et al., 2016).

3.5.2 Emotions and Corporate Entrepreneurship

Building on theories of bounded rationality (Simon, 1972), a rich body of literature on venturing inside corporations suggests managers irrationally prioritize exploiting old certainties at the expense of exploring new business opportunities (Shane & Venkataraman, 1996). Whereas investments in new venture development are deemed vital for organizational survival (Andriopoulos & Lewis, 2009), seemingly rational decisions about whether to explore new or exploit existing business operations are loaded with emotions of fear and hope due to the uncertainty involved (Vouri & Huy, 2016). While only very little empirical studies address how emotions influence the organizational innovation process and its outcomes, Vouri and Huy (2016) found that fear and perceived threats among senior managers obstruct innovation inside corporations. On the contrary, Brundin and colleagues (2008) found that positive emotional contagion by senior managers inspired corporate entrepreneurship. From the perspective of mid-level managers, Biniari (2012) found that negative emotions resulting from and influenced by the interaction between corporate entrepreneurs and other employees had a detrimental effect on the entrepreneurial process and its outcomes. In our study, we find the opposite to be true for BoP venturing inside the FMCG, with both positive and negative emotions by fellow employees allowing product champions to develop BoP ventures.

To our best knowledge our study uniquely explores how entrepreneurs leverage emotions throughout the entrepreneurship process (Cardon et al., 2012), let alone corporate entrepreneurs. At the same time, our findings specifically speak to how emotions enable BoP venture development inside a MNC. Even though the social nature and added complexity of BoP ventures is suggested to inspire organizational adversity (Olsen & Boxenbaum, 2009; Reficco & Guetiérrez, 2016), our data show that in spite of a broad range of internal and external challenges the social nature of BoP ventures may in fact allow these ventures to develop inside a corporate context that prioritizes short-term profit.

Importantly, emotions are considered to alter stances towards risk, result in a broader array of perceived benefits when making decisions, and cause individuals to respond to information in a different manner (Miller et al., 2012). Moral emotions are particularly suggested to inspire actions that contribute to another person's well-being, even when such actions come at the expense of the actors involved (Haidt, 2003; Tangney et al., 2007). Accordingly, with BoP venturing being incompatible with internal systems and processes (Halme et al., 2012; Olsen & Boxenbaum, 2009), we find that moral emotions inspired employees inside the FMCG to support BoP venture development whereby alleviating the suffering of those living at the BoP. With emotions considered as a precursor to sustainable entrepreneurial behavior (Miller et al., 2012; Patzelt & Shepherd, 2011), and as a means for sustainable entrepreneurs to attract resources (Roundy, 2014), our findings suggest emotions may also play an important role in sustainable venture creation inside a corporate setting.

3.5.3 Emotions and Product Championing

Scholars have long studied employee behavior directed toward affecting others' attention to and understanding of strategic issues in various settings, including product championing (Dutton & Ashford, 1993). To direct senior management attention to their initiatives, employees were found to employ a variety of tactics, including coalition building (e.g., Dutton, Ashford, O'Neill, & Lawrence, 2001), timing of issue selling (e.g., Dutton & Ashford, 1993), using language that resonates with a target (e.g., Alt & Craig, 2016), rationality (Sonenshein, 2006) or spread of emotions (e.g., Dutton, Worline, Frost, & Lilius, 2006). While emotions are known to affect managerial decision-making (Barsade & Gibson, 2007; Elfenbein, 2007), employees were found to elicit emotions and establish an emotional connection between societal problems and their audience to find senior management support (Anderson & Bateman, 2000; Wickert & de Bakker, 2018). With emotions as products of cognitive processes that regulate moral (Eisenberg, 2000) and ethical behavior (Etzioni, 1988), employees were also found to activate a moral decision frame by using moral language (Mayer et al., 2019) and by moralizing social initiatives (Crane, 2000).

Building on previous findings in the product championing literature underlining the importance of emotions for actors to advance business ventures and solutions to (societal) issues (Dutton & Ashford, 1993; Wickert & de Bakker, 2018), our data show a dynamic picture of how product champions use emotions throughout the venturing process, and suggest that product champions initially only leveraged positive emotions to recruit volunteers and initiate BoP venture development. Product champions did, however, leverage both positive and negative emotions to allow BoP ventures to progress throughout the development and implementation phases. Besides using moral language and moralizing BoP ventures, we find that product champions also engaged in emotional manipulation of key decision-makers and created exit barriers to prevent their initiatives from being terminated. As such, our findings contribute to the literature on product champions engaging in issue selling by showing how emotional manipulation can be a critical component of issue framing (Dörrenbächer & Gammelgaard, 2016), and by showing that actors may strategically form partnerships to establish exit barriers as an influence tactic (Sonenshein, 2006).

3.5.4 Implications for Managers

While research has extensively considered external challenges to explain why only a few BoP ventures managed to successfully mature, only little attention is spend on intra-firm processes (Halme et al., 2012) and the interplay between mid-level and senior managers (George et al., 2012). Recent studies started to direct attention to challenges that reside within organizations themselves, pointing to uncertainty avoidance and an emphasis on short-term profit as internal barriers to BoP venturing (Olsen & Boxenbaum, 2009; Reficco & Guetiérrez, 2016). While studies suggest product champions play a critical role in navigating BoP ventures through such adverse internal environment, either by engaging in intrapreneurial bricolage (Halme et al., 2012) or engaging senior managers (Zahra & Wright, 2016), we find that emotions are instrumental for both of these means.

The practical implications of our study are twofold. First, considering that product champions leverage emotions to acquire resources and compensate for a lack of short-term profitability, our findings suggest corporations need a different set of criteria to judge BoP ventures, adapting both performance metrics and innovation processes to accommodate BoP venture development. This may be particularly salient for corporations who strategically seek to enter the BoP, whereby rendering strategic efforts less dependent on emotionally motivated deviations from standard practices. Secondly, while we find that emotions enabled BoP venture development, overly relying on emotions to judge BoP ventures potentially exposes companies to flawed managerial decision-making. To prevent MNCs from investing in ventures that are not economically viable, a set of rational criteria should be employed that considers internal and external challenges and accounts for actual impact (Hart et al, 2016).

3.5.5 Limitations and Future Research Directions

Considering that inductive research calls us to delineate the limits of our study, we highlight limitations that may also provide springboards for future research. First, while our study took place inside a corporation known for its commitment to BoP venturing, future studies may explore how emotions affect BoP venture development inside MNCs that typically do not engage in BoP venturing. Furthermore, provided that the qualitative findings of our study yield limited explanatory power, and our data is based on a limited set of ventures that were considered for market launch, future research could address the extent to which emotions determine the extent to which BoP ventures are actually launched. Future studies could also account for comparative emotions of societal issues, considering the degree to which the societal objectives of ventures are more or less emotionally laden and thus account for variance in outcomes. Alternatively, because BoP venture development represents a specific type of venturing, future studies may also address whether and how emotions drive internal corporate venturing with solely commercial and/or environmental objectives. In any case, our in depth exploration of how emotions affect BoP venture development inside corporations opens the door for research to explore the role of emotions in new (sustainable) venture creation within a corporate context, and advances our understanding of the importance of intra-firm processes (Halme et al., 2012) and the interplay between mid-level and senior managers to explain BoP venture development outcomes (George et al., 2012).

CHAPTER 4

From Short-termism Toward Business Sustainability: Temporal Alignment For New Product Development Inside a Large FMCG

This Chapter was prepared in collaboration with Julie Battilana and Marissa Kimsey.

4.1 Introduction

Today society and the biosphere show signs of crisis. As inequalities widen and the climate changes, we face greater risks of pandemics and natural disasters as well as financial instabilities and political fissures (Amis, Mair, & Munir, 2020; George, Howard-Grenville, Joshi, & Tihanyi, 2016). Now a growing number of companies are recognizing how their own long-term interests are tied up with those of people and the planet (Howard-Grenville et al., 2019). “Business sustainability” has accordingly entered the lexicon, as “the ability of firms to respond to their short-term financial needs without compromising their (or others’) ability to meet their future needs” (Bansal & DesJardine, 2014, p. 71).

New product development is crucial if firms are ever going to reach business sustainability (Bansal, 2005; Hart, 1995). Complex challenges of society and the biosphere, like poverty and resource depletion, call for bold innovations (Hart & Dowell, 2011). Moreover, the ability of firms to survive and thrive into the future depends on their future markets, and new product development that addresses pressing problems of people and the planet is a vehicle for creating those future markets (Hart, 1997; Porter & Kramer, 2006; Shrivastava, 1995). However, conflicting pressures for firms to focus on short-term profit are formidable. In the balance between today and tomorrow, it is today that still tends to win in the modern corporation (Laverty, 1996), in particular as capital markets demand profit now and soon (Reilly, Souder, & Ranucci, 2016). As a result, managers are at risk of prioritizing incremental improvements to existing products for quick and certain results, at the expense of exploring opportunities to prepare for the future (March, 1991; Reilly et al., 2016). This raises the question of how new products that address social and/or environmental problems and drive profit in the long term develop inside corporations despite pressures to focus on short-term profit.

We know from research that temporal tensions impede new product development for business sustainability (Bansal & DesJardine, 2014; Hahn, Pinkse, Preuss, & Figge, 2015; Hart & Milstein, 2003). Yet we do not know how firms can deal with temporal tensions. To develop new products, research has long emphasized the need for firms to provide temporary relief from typical control, coordination, and communication (Brown & Eisenhardt, 1995; Damanpour, 1991; Hlavacek & Thompson, 1973). However, these studies have largely omitted explicit consideration of time. This paper proposes to fill that gap by examining the factors that enable a company to develop new products that address social and/or environmental problems and drive profit in the long term, despite pressures to focus on short-term profit.

We do so through an inductive qualitative study at a large Fast-Moving Consumer Goods (FMCG) firm known as a leader in business sustainability. In particular, we follow the development of four new products for business sustainability that address social problems at the economic base of pyramid—also known as the "BoP," or the 4 billion people in the world living on less than $5 per day (Prahalad, 2005). While two products succeeded in developing internally, two products failed to overcome pressures to focus on short-term profit and were terminated by the firm. We find that what differentiated our success cases was the *temporal alignment* practices enacted by senior managers in the product division playing the role of product champions. Here we define temporal alignment as the synchronization of an organization's desired temporal focus with organizational members' perspectives regarding the future (temporal orientations) and the organizational rules that shape the form and rhythm of work practices (temporal structures). At the large firm, temporal alignment practices, specifically, involved reconceiving the meaning of business and the meaning of innovation—which adapted existing temporal orientations—and reshaping performance metrics and stage-gates—which worked around existing temporal structures. It was by synchronizing temporal orientations and structures with the firm's aspiration of focusing more on the long term that champions helped create provisional space where mid-level managers could develop new products for business sustainability inside the firm.

Our study extends existing research on business sustainability by explicitly theorizing about time. This is one of the first investigations, to our knowledge, of what it takes for a firm to overcome temporal tensions in order to develop new products for business sustainability. We also offer new insights into temporal work by unpacking how champions can harness their decision-making power to enact temporal alignment. Moreover, in doing so, we also speak to the literature on product championing. Not only do we apply a novel temporal lens to understand champions' rule-breaking, but we also highlight an understudied aspect of the work of champions in reconceiving meanings among organizational members. Finally, speaking to research on organizational alignment, we shed light on obstacles stemming from misalignment between strategy and temporal structures, as well as what it takes to overcome those obstacles. In conclusion, we point out that a practical implication of our findings is that, if firms seek to encourage new product development for business sustainability, what is at stake is changing existing temporal structures, in particular performance metrics and stage-gates, as well as temporal orientations, to put strategy into action.

4.2 Theoretical Background

4.2.1 The Premise of Business Sustainability

The concept of sustainability came out of the field of international development, where "sustainable" development was originally differentiated for its temporal balancing, as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987, p. 43). At its core, business sustainability seeks to apply the principles of sustainable development to corporations, for a corporation to be able to consider multiple stakeholders in multiple time horizons. In contrast to only pursuing short-term profit, firms pursuing business sustainability also balance the needs of the organization (like shareholder value and organizational resilience) with social and environmental needs (like people’s freedoms and the planet’s biodiversity), in the long term as well as the short term (Bansal & DesJardine, 2014). From the perspective of firms, business sustainability is both a commercial opportunity to prepare for the future now and a necessity in the long term, given contemporary cracks in the social fabric of society and the physical limits of the planet, which cannot fuel business as usual indefinitely (Dyllick & Muff, 2016; Whiteman, Walker, & Perego, 2013).

To reach sustainability, businesses cannot stay the course; they need to innovate products (Bansal, 2005). Research broadly differentiates incremental from radical innovation (Ettlie, Bridges, & O’Keefe, 1984). An incremental approach involves making gradual improvements to current offerings that exploit existing organizational capabilities for certain quick returns (Levinthal & March, 1993). And some incremental innovation clearly advances business sustainability, like marginal product improvement that improves eco-efficiency and simultaneously lowers operational costs (Bansal & Roth, 2000). In contrast, a radical approach to innovation involves creating totally novel products that extend existing organizational capabilities for potentially superior but uncertain distant returns (March, 1991). In turning a market opportunity into a viable product for sale, new product development has long been known as a source of competitive advantage, diversification, and adaptation for firms (Schoonhoven, Eisenhardt, & Lyman, 1990). Increasingly, new product development is also recognized as an important pillar of business sustainability: new product development can address complex environmental and/or social problems while driving profit in the long term (Hart & Dowell, 2011). Building novel clean technologies that prevent pollution or developing new products that meet basic needs of the world's poorest people at the BoP while also generating future profit exemplify radical innovation for business sustainability (Hart, 1997). Overall, pursuing business sustainability thus calls for both incremental and radical innovation (Hart & Milstein, 2003).

4.2.2 Challenges of Economic Short-Termism

Economic short-termism, however, poses formidable challenges for business sustainability generally and new product development for business sustainability especially. For many years, firms have been called out for their economic short-termism, such that they focus on short-term profit to the extent that they often fail to make necessary investments to prepare for the future (Laverty, 1996). The roots are manifold (Marginson & McAulay, 2008). Myopic focus on the short term can stem from individual biases—humans often tend to favor the present over the future and avoid risk and uncertainty to attain smaller immediate results (Loewenstein & Thaler, 1989)—as well as institutional pressures—often as a result of capital markets and standard ways of measuring firm performance that demand profit now and soon (Reilly et al., 2016; Souder & Shaver, 2010).

Corresponding ways of thinking and relating to time have also come to infuse organizational life in various taken-for-granted ways that impede new product development for business sustainability—planning horizons, product life cycles, and reward systems, among many more (Adam, 1995; Bluedorn & Denhardt, 1988; Orlikowski & Yates, 2002; Reinecke & Ansari, 2017; Zerubavel, 1985). Well-documented examples that focus managerial attention on short-term profit include accounting practices like discounted cash flows analyses and quarterly performance reporting to demonstrate maximal stock prices (Souder, Reilly, Bromiley, & Mitchell, 2016), as well as compensation schemes, resource allocation based on indicators of short-term profit, and standardized innovation processes (Bansal & Grewatsch, 2019; Bocken & Geradts, 2019; Eccles, Ioannou, & Serafeim, 2014; Halme, Lindeman, & Linna, 2012).

An important result is that managers tend to favor the narrow purview of incremental innovation at the expense of deeper and more open exploration for greater but uncertain distant gain (March, 1991). It is anathema for firms infused with economic short-termism to encourage managers to contend with conflicts between the short versus long term that are inherent to new product development for business sustainability (Bansal & DesJardine, 2014). While business sustainability calls for multiple modes of innovation in pursuit of multiple aims, new product development to address social and/or environmental problems and drive profit in the long term is particularly at risk in firms pursuing business sustainability, given pressures of economic short-termism.

4.2.3 Breaking Away From Short-Termism

A large body of literature addresses how new products can develop inside firms (Brown & Eisenhardt, 1995; Damanpour, 1991; Dougherty, 1992). To overcome the risk of prioritizing product refinement over more open exploration, research points to the importance of accommodating distinct knowledge management processes (Benner & Tushman, 2003; Henderson & Clark, 1990; Leonard-Barton, 1992). Studies also point to managers adjusting their criteria for project screening and managerial performance (Christensen & Bower, 1996; Kanter, 1985; Van de Ven, 1986).

In addition, research has long highlighted the importance of social exchanges across managerial roles (Burgelman, 1986), as well senior management support for new product development (Day, 1994). Senior managers have been found to play important roles in providing strategic direction and encouragement and in harnessing their decision-making power, for instance, to put in place supportive systems, whether products originate inside or separate from mainstream business activity (Burgelman, 1983a, 1984; Dougherty & Hardy, 1996).

While research has not explored how managers specifically address temporal tensions to pave the way for new product development (Slawinski & Bansal, 2015), a growing body of research does consider ways to overcome temporal challenges in organizations more broadly. Kaplan and Orlikowski (2013) coined the term "temporal work," to describe how organizational members come together to resolve differences in how they conceive the past, present, and future, as a basis for strategic action. In the settings of NGOs, energy cooperatives, and consultancy projects, studies have shed light on open negotiation of different temporalities (Kaplan & Orlikowski, 2013; Mitzinneck & Besharov, 2019; Reinecke & Ansari, 2015), as well as covert and unarticulated "silent politics" of temporal work (McGivern et al., 2018).

Yet we still have a great deal to learn about how a firm can develop new products that both address social and/or environmental problems and drive profit in the long term. Scholars have not been able to explain why some new products for business sustainability develop internally while others fail to do so. Without explicitly considering time, research may miss important factors and mechanisms at play. The proposed study seeks to fill that gap, in the setting of a large company trying to break away from economic short-termism and walk the talk of business sustainability through new product development to address unmet needs at the BoP.

4.3 Methods

Given that existing theory on this issue is still developing, we undertook an inductive study of multiple cases of new product development for business sustainability (Yin, 1994). With multiple cases, we can treat our study akin to a series of experiments that may validate or invalidate emerging insights (Eisenhardt & Graebner, 2007).

Our research site is a firm that we call "FMCG CORP," in the fast-moving consumer goods sector.[1] Since its founding more than 50 years ago in Western Europe, FMCG CORP reached a huge scale, with billions of people consuming its food products and using its home care items daily. Four product divisions oversaw more than 400 brands, while three regional units were in charge of sales of more than 100 country organizations within the multinational. In 2010, a new CEO, convinced that the firm needed to tackle grand social and environmental challenges to remain competitive, launched a bold corporate sustainability strategy. He viewed the new strategy as a way to strengthen the firm's financial performance in the long term by addressing social and environmental problems, including building new markets at the BoP.

4.3.1 Multiple Cases

Upon gaining research access to FMCG CORP in 2015, we learned of eleven new products in the home care division meant to address social problems and drive profit in the long term. All of these "BoP products" were meant to fulfill the strategic aspiration of business sustainability. We selected the four products that we deemed especially ripe for theory-building (Eisenhardt, 1989)—the products most advanced in development and close to launching in their respective BoP markets in West Africa and Southeast Asia. This sampling

[1] In this paper, we change the names of the company, products, and individuals and remain nonspecific about geographies to protect privacy.

reduced the risk of product development inside the firm ending on the basis of bad business concepts. Furthermore, with this sample, we could track development not only retrospectively (2010-2014) but also in real-time (2015-2019) as products prepared to launch, "racing" to the outcome of internal development (Gehman et al., 2018). Specifically, the BoP products we studied were: a bed net to address vector-borne disease from mosquito bites (MUSCA), clean water to address excessive time spent collecting water (AQUA), a toilet to address limited sanitation access (LATRINA), and a portable washer to address excessive time spent doing laundry (LAVARE). See Table 4.1 for case details.

Over the course of our study, two products were able to reach the success outcome of "internal development"—that is, they launched after pilot testing for sale by the product division and country organizations, with the intention of scaling (MUSCA and AQUA). In contrast, two products failed to overcome internal pressures to focus on short-term profit, and FMCG CORP stopped supporting them (LATRINA in 2016 and LAVARE in 2017). Importantly, here, the failure outcome of "termination" does not indicate a bad business concept, as both LATRINA and LAVARE became the basis of viable independent social enterprise operations after leaving FMCG CORP.[2] Rather, termination denotes failure in the sense of the inability to launch the product after pilot testing for sale by the product division and country organizations within FMCG CORP. Altogether, our sample permits us to contrast BoP products that developed internally with those that FMCG CORP terminated.

[2] Internal reports for investors showed that in 2018 LATRINA reached a 20% profit margin, while email correspondence indicated that in 2019 LAVARE attracted new investment partners after FMCG CORP released its intellectual property rights.

Table 4.1 Description of Cases

	MUSCA	**AQUA**	**LATRINA**	**LAVARE**
Social problem	Vector-borne disease from mosquito bites	Excessive time spent collecting water.	Limited sanitation access	Excessive time spent doing laundry
Product	Bed net	Clean water	Toilet	Portable washer
Origin	2010	2014	2010	2013
Financial performance target	Conventional profit margin	Increased brand sales	Conventional profit margin	Increased brand sales
Revenue model	Sales of bed nets	Sales of existing products newly available near boreholes, alongside sales of clean water	Sales of existing and future products, alongside leasing fees	Sales of existing products, alongside sales of portable washers
Geographic area	Southeast Asia	West Africa	West Africa	West Africa and Southeast Asia
Development cost	~$3,000,000	~$2,000,000	~$1,000,000	~$1,000,000
Year terminated	NA	NA	2016	2017
Number of interviews	27	16	19	19
Number of archival records	21	23	29	39

Note: In total, we conducted 56 interviews with 36 informants, with some individuals interviewed multiple times and about multiple cases. We cumulatively collected 52 archival records, with some pertaining to multiple products.

4.3.2 Interview and Archival Data

For each case, we interviewed multiple employees actively involved in new product development at multiple levels of the corporate hierarchy, from the chief R&D officer and head of the product division to mid-level marketing and R&D managers, as well as a consultant. In total, we recorded and transcribed 56 interviews, which took place on site and over the phone between 2015 and 2019. They were all semi-structured and lasted 40 to 70 minutes on average.

We made several efforts to curtail informant bias (Golden, 1992). From the outset, we assured interviewees of confidentiality to encourage openness and truthfulness. During interviews, we focused on describing facts, such as objective event chronologies and behaviors, through our interview guide, which included questions about how and why new product development progressed or stagnated and what actions people took to overcome obstacles. Asking questions about recent events and in real time also mitigated recall bias (Leonard-Barton, 1990).

In addition, archives enabled us to cross-validate interview data. In addition to publicly available reports by the firm, NGOs, and consultancies, we also reviewed internal presentations, spreadsheets, and reports by employees and consultants. In total, our 52 archival records dating from 2010 to 2019 consisted of more than 500 single-spaced pages of secondary data.

4.3.3 Inductive Data Analysis

We undertook an iterative process of triangulating primary and secondary data and exploring patterns to identify key themes (Corbin & Strauss, 2007), continually fact-checking in accordance with grounded theory until reaching theoretical saturation (Glaser & Strauss, 1967).

In the first phase, we wrote a chronological history of each case based on interviews and archival materials. We then identified emergent themes by clustering information, starting with primary questions of what, why, who, how, and when (Lofland, 1976). Our initial analysis pointed to the importance of support from senior managers for BoP products to develop internally. This finding aligned with existing research that also highlights the importance of senior management support for new products to develop inside corporations (Burgelman, 1983a; Kanter, 1985).

In the second phase, we coded new and existing data to map internal challenges and manager responses in detail. Iteratively comparing differences and similarities within and across cases allowed us to apply a pattern-recognition logic (Eisenhardt, 1989). In all cases, we observed that new product development faced obstacles due to the ingrained tendency to focus on short-term profit, which aligned with existing research on economic short-termism (Laverty, 1996; Reilly et al., 2016). FMCG CORP's systems and managers generally expected innovations to avoid future uncertainty and demonstrate profitability in three years or less (short time horizon). To create provisional space for mid-level managers to develop BoP products, we observed senior managers work around typical performance measurement and the typical innovation process.

In the third phase, we coded new data collected in real-time and recoded existing data to better understand the factors that made new product development for business sustainability possible. Only two of our four cases were still developing inside FMCG CORP. We identified not only the importance of senior management support generally but in particular the importance of senior managers in the product division. This observation brought us to senior managers acting as "product champions," by navigating a firm's political environment to help bring product ideas from conception to commercialization (Burgelman, 1983a; Day, 1994; Howell & Higgins, 1990).

In the fourth and final phase of analysis, we sought to unpack the practices enacted by product champions to support new product development for business sustainability. Building on our early observations regarding obstacles for BoP products stemming from short-termism, we conducted axial coding of our data through the lens of time (Corbin &

Strauss, 2007). Going back and forth between our data and theory, we consolidated our codes into eight first-order categories and four second-order themes that culminated in two aggregate dimensions: (1) adapting temporal orientations and (2) working around temporal structures (see Table 4.2 for data structure). While temporal orientations denote “the relative cognitive dominance of the near versus distant future” (Das, 1987, p. 203), temporal structures refer to the rules that individuals create and use to give rhythm and form to work practices (Orlikowski & Yates, 2002).

Table 4.2 Data Structure

First-order categories	**Second-order themes**	**Aggregate dimensions**
Putting social goal on strategic agenda of product division or brand Communicating to managers about importance of social goal for creating long-term economic value	Reconceiving meaning of business	Adapting temporal orientations
Putting specific social problem on strategic agenda of product division or brand Communicating to managers about need to learn how to address unmet needs of BoP	Reconceiving meaning of innovation	
Accepting new metrics of social benefit expected to generate profit in long term Delaying existing profit targets	Reshaping performance metrics	Working around temporal structures
Accepting provisional qualitative and quantitative evidence to prove initial business case Improvising steps for iterative learning to access internal expertise and budget	Reshaping stage-gates	

4.4 Findings

All four of our cases of BoP products started with the aim of addressing social problems and driving profit in the long term. They shared favorable antecedent conditions, as the CEO was outspoken about his support for the new corporate sustainability strategy, where new product development addressing social problems at the BoP was an integral part of the vision of shifting focus at the firm more toward the long term. We find that what differentiated BoP products that were able to develop internally (MUSCA and AQUA) was the *temporal alignment* practices enacted by senior managers in the product division playing the role of product champions. We have defined temporal alignment as the synchronization of an organization's desired temporal focus with organizational members' perspectives regarding the future (temporal orientations) and the organizational rules that shape the form and rhythm of work practices (temporal structures).

Table 4.3 Summary of Evidence Linking Temporal Alignment and Product Development

	Temporal alignment practices					
Product	Temporal alignment enacted by champion	Reconceiving meaning of business	Reconceiving meaning of innovation	Reshaping performance metrics	Reshaping stage-gates	Product development outcome
MUSCA	Yes	Yes	Yes	Yes	Yes	Developed inside FMCG CORP
AQUA	Yes	Yes	Yes	Yes	Yes	Developed inside FMCG CORP
LATRINA	No	No	No	No	No	Terminated
LAVARE	No	No	No	No	Yes	Terminated

Specifically, champions enacted temporal alignment through four primary practices that interacted with each other: reconceiving the meaning of business and reconceiving the meaning of innovation (which led to adaptations in temporal orientations), in addition to reshaping performance metrics and reshaping stage-gates (which led to workarounds in temporal structures). The result was the creation of provisional space where mid-level managers could develop BoP products inside FMCG CORP. Below we contrast the presence and absence of temporal alignment practices across cases that contributed to new product development for business sustainability inside the firm. Table 4.3 summarizes our evidence, while Table 4.4 offers representative data for our success cases. Appendices A, B, C, and D provide further evidence for MUSCA, AQUA, LATRINA, and LAVARE respectively.

4.4.1 Adapting Temporal Orientations to Inspire More Focus on the Long Term

The status quo at FMCG CORP was a temporal orientation where the short term was at the fore of thought for senior and mid-level managers, such that short-term profit was the guidepost for action. We find that two primary temporal alignment practices enacted by champions led to adaptations in temporal orientations that inspired more focus on the long term during new product development: reconceiving the meaning of business, from a unidimensional to multidimensional vantage, and reconceiving the meaning of innovation, from avoiding to accepting future uncertainty.

4.4.1.1 Reconceiving The Meaning of Business

An obstacle to new product development for business sustainability was the prevalent understanding among managers across the organizational hierarchy that the singular goal of FMCG CORP was to increase profit in the short term. For instance, a senior manager warned, “You should never underestimate the people who are against innovation, who are against creating social values: practical people, the people who will talk about next quarter’s sales, the people who basically are a bit cynical, short-sighted.” A senior R&D manager added, “Even though you have a social agenda… the financial agenda is your number one.” Multiple individuals also commented on the lack of perceived connection among FMCG CORP managers between social/financial and the long/short term. For instance , a senior manager noted that what it meant to “do good business” was innovation that would “help us grow faster and make more money.”

Table 4.4 Temporal Alignment for MUSCA and AQUA

	Unidimensional to multidimensional	**Avoiding to accepting uncertainty**
Adapting temporal orientations	***Reconceiving meaning of business*** "[MUSCA] ticked all of the boxes around improving health, having a great external profile. This is [FMCG CORP] trying to help reduce insect-borne disease, helps the poor, in developing market… So, I think more people than not wanted this project to work… and to let it run and see where we got and how actually we would get to market." –Mid-level R&D manager on MUSCA "Why [is AQUA] good?… There is increasingly difficult access to getting water into some of the remote villages in Africa… We have a number of our businesses that depend upon access to water… [There are] thousands of women who otherwise are economically disempowered because they are taking all their time to get water… In the social aspect of access to clean water, there is a business opportunity." –Head of R&D on AQUA	***Reconceiving meaning of innovation*** "We think about what we sell, not just from a point of view of what we have sold in the past but what can address the questions we have in the 21st century… [MUSCA] requires some quite different thinking. You know, you start with a [social] problem you want to solve, not the products you sell currently… I think that's something [FMCG CORP] is learning. But it is not common." –Marc on MUSCA "Our core expertise is in understanding consumers, in understanding their needs in crafting product solutions and product innovations to fit their needs and to address their needs…We're not appraising usually the initiatives that are at the border of NGO work, which this one is. It's a kind of a different way of looking at things." –Mid-level marketing manager on AQUA
Working around temporal structures	***Reshaping performance metrics*** "There was a number of a [profit] margin [13% in 2013]… which wasn't even close to where it is now [conventional margin in 2017]. That number [13% in 2013] was sold into the region." –Mid-level R&D manager on MUSCA "For [FMCGG CORP], this is not going to be a money machine, because even though we sell product in our water kiosk, you know, the revenue that we get out of the water kiosk doesn't justify the investment… That doesn't mean we shouldn't be doing this, because as I said, there are other reasons why we do it." –Ana on AQUA	***Reshaping stage-gates*** "The actual pilot testing we did two years ago [in 2013]… Because we were in the unknown, we had to find different ways to get that insight to data to our stakeholders to prove that we can go onto the next phase of our program." –Mid-level R&D manager on MUSCA "Usually, when we develop a product innovation, we follow a certain process where in order to actually present an idea to the board or stakeholders… With this idea we couldn't follow the path because, you know, all the processes and all the templates and all the, you know, the different things that usually showcase the stakeholders, they didn't fit." –Mid-level marketing manager on AQUA

For BoP products that developed inside FMCG CORP, however, we find that champions were able to reconceive other managers' understanding of what the business of FMCG was about. Specifically, champions put a social goal on the strategic agenda of the product division or brand, and they communicated to senior and mid-level managers about its importance for creating long-term economic value. As a result, they extended the meaning of business beyond narrowly seeking short-term profit to a multidimensional vantage that also included seeking profit in the long term through pursuing social goals.

Take the example of the clean water product AQUA. In 2013, FMCG CORP called upon brands with annual revenue surpassing €1 billion to adopt some social purpose that would strengthen their brand equity and create opportunities for future market development. Officially, public documents required large brands to adopt a social purpose. However, mid-level managers indicated that, practically, senior managers had discretion to take that initiative or not. At the time, Ana was a senior marketing manager who was enthusiastic about the opportunity to enhance FMCG's long-term financial goals through addressing social problems. As a result, she harnessed her decision-making power as a senior manager in the product division to require a large dishwashing brand to articulate explicitly a social goal, utilizing that new corporate requirement as an opportunity. Specifically, in internal workshops, managers in this brand agreed on the social purpose of empowering women at the BoP, and Ana put that goal on the brand's strategic agenda in 2014. Ana's action contributed to shifting the assumptions of other senior and mid-level managers about what the work of FMCG CORP was supposed to be about. A mid-level marketing manager described Ana as "the inspiration" and "the encouragement" for AQUA, as well as "the one trying to make us kind of think around the theme." It was Ana putting a social goal on the brand's strategic agenda that also set in motion the search for solutions to empower women.

It created provisional space for mid-level managers to do so. Ana explained, "I think a good brand has… purpose. It has products or activities that deliver against the purpose… When we drafted our purpose, we said, 'Okay, what are we now going to do in order to drive this?'" AQUA came out of subsequent brand workshops.

In addition to putting a social goal on the strategic agenda of the brand, Ana communicated with senior and mid-level managers about the importance of the social goal for creating long-term economic value. She did so during regular meetings with the brand team, as well as targeted meetings she set up to secure internal support. Marketing managers commented on Ana's strength communicating about the vision of empowering women when she presented AQUA to leaders of the product division and the country organization of the target West African market. A mid-level manager elaborated:

> [Not] every leader is like [Ana] and [the CEO], right. There are lots of leaders who are not, and if you don't have the right leaders, you won't have the right teams and the right initiative… Leaders need to role model it. They need to get it, and they need to be able to articulate how they are going to grow that particular business area in a more sustainable way… and really making [mid-level managers] understand how they contribute to the [corporate sustainability strategy].

The need for AQUA to garner support from the country organization in particular stood out to Ana when an internal message notified employees of a strategic change: that country organizations would come to have final say on whether to support product launches in their markets, upon ongoing decentralization at FMCG CORP in 2016. Ana's response to resistance in country organizations to BoP products was extensive effort and creativity in communication. She commented: "Asking the President of Africa… if he wants to put his money on the table next year, he is going to say no… The question is are you going to focus not only 99 arguments that you could put on the table to kill it, but are you going to focus on the 3 arguments that are going to make you want to crack it?" Such conversations between

Ana and senior managers in the country organization planted the seeds for them subsequently to alter their performance metrics for AQUA, to delay its demonstration of profitability and to judge the product based on a wider set of criteria.

The portable washer product LAVARE provides a counterexample. As we noted previously, product champions are managers whose support navigating a firm's political environment is crucial to help bring product ideas from conception to commercialization. While Ana could harness her decision-making power as a senior marketing manager to play this role for AQUA, LAVARE's champion Larry would encounter more limits as a mid-level marketing manager. In 2013, FMCG CORP's sustainability team also held internal workshops for a large laundry brand to adopt some social purpose (they also agreed on empowering women at the BoP). Larry was enthusiastic about the opportunity to address a social problem, and he took the initiative to develop a low-cost washing device to ease the burden of women doing laundry in developing countries, which became LAVARE. However, from his position as a mid-level marketing manager, Larry could not prioritize the social goal of empowering women within the brand's strategic agenda. Other managers also did not take him seriously when he communicated with them about LAVARE's importance for creating long-term economic value. Larry explained, "Brands with purpose get 2.5 more brand equity score... That's passed around all the time. But when push comes to shove those are the first things that go." Similarly, country organizations in West Africa and Southeast Asia, where Larry intended to launch LAVARE, were also reluctant about the product. Larry added:

> We talked to many local markets, and every time they are, 'That's great but I only have [£]300,000 and usually that puts [£]300,000 on TV because [a competing brand] just put [£]500,000 on TV and I'm losing share. Are you telling me that I'm going to lose share and then invest [in] something else that is actually not giving me share back? That's stupid.

Without support from the brand or country organizations, Larry still managed to utilize other mid-level managers' volunteer time and slack budgets to run a pilot study in West Africa to test LAVARE's feasibility. With this initial evidence, LAVARE won a one-time internal competition in the product division set up to encourage experimentation and identify novel product ideas that could drive long-term profit. Winning this competition in 2014 meant that the new head of the product division would allocate time and resources for Larry and other mid-level managers to develop LAVARE. Yet LAVARE remained peripheral in the country organizations strategic agenda. When in 2016 country organizations came to have a final say on which product launches to support, the West African and Southeast Asian country organizations withdrew their support for LAVARE, and FMCG CORP terminated LAVARE by 2017.

4.4.1.2 Reconceiving The Meaning of Innovation

Another obstacle to new product development for business sustainability was the prevalent conception that innovation at FMCG CORP was meant to avoid future uncertainty by incrementally improving existing products in order to maximize short-term profit. For instance, a senior manager commented, "The probability of success of incremental innovations would be 90-ish [%]." A mid-level R&D manager added, "Innovation is very directly tied to making profit soon and making it through existing product formats." We find that champions for BoP products that developed inside FMCG CORP were able to reconceive the meaning of innovation at FMCG CORP to accept future uncertainty and thereby inspire more focus on the long term. Specifically, these champions put a specific social problem at the BoP on the strategic agenda of the product division or brand, and they communicated to managers about the need to learn how to address unmet needs of the BoP.

Take the example of the bed net product MUSCA. Upon introducing the corporate sustainability strategy in 2010, the CEO showed a special interest in mitigating vector-borne disease. Accordingly, he and the head of R&D assigned mid-level R&D managers to explore opportunities in this area. When Marc became the head of the product division in 2012, he took on the role of product champion of MUSCA. A mid-level R&D manager recalled: "[MUSCA] was presented [to] the [product division board]… [Marc] made it clear that he was supporting it… The finance guy said, 'It's not on strategy.' And, interestingly, in the meeting, [Marc] said, 'You're right. It's not at the moment.'" It was Marc who put the problem of vector-borne disease from mosquito bites on the division's strategic agenda. He accordingly used his authority to facilitate the transition of MUSCA from the R&D unit, where mid-level managers had explored the viability of MUSCA for four years, to the home care product division, where MUSCA would be able to access more resources to develop internally. The result of Marc's action was that more mid-level managers could shift their focus from the typical way of innovating at FMCG CORP, which involved improving existing products, to a different kind of innovating, which started from the desire to tackle a social problem. Marc's problem-framing for the division inspired more focus on the long term. With MUSCA, FMCG CORP would enter a new market by extending its capabilities to be able to address the problem of vector-borne disease.

Moreover, Marc communicated with other senior and mid-level managers about the need to learn how to address unmet needs of the BoP, which required accepting future uncertainty. A mid-level R&D manager commented on the novel approach of MUSCA, saying, "Senior people in [FMCG CORP] say, 'Yes, we should be doing more of this.' But… there is no clear business model… There is no clear brand involvement… We are working on projects where we don't know how we are going to make money." Due to the need to accept future uncertainty, even though it felt uncomfortable at FMCG CORP, an important part of Marc's role as the champion of MUSCA was to communicate with mid-level managers developing the product, to help them overcome that discomfort. His role was like that of a coach, nudging and encouraging experimentation by mid-level managers month to month. He also arranged one-off calls with senior managers from country organizations to emphasize the strategic importance for FMCG CORP to learn how to develop bed nets for consumers at the BoP—which planted the seeds for the country organizations subsequently to alter their gate reviews, for MUSCA to be tested in their markets despite a lack of strong quantitative evidence to prove its business case.

The toilet product LATRINA provides a counterexample. While MUSCA was championed by the head of the product division (Marc), LATRINA was championed by a mid-level R&D manager (Lydia). The toilet product was conceived and initially developed in the R&D unit. Outside of R&D, Lydia managed to get some support from senior managers inside a toilet cleaning brand and country organization, which would permit LATRINA to experiment in its target West African market—although senior managers outside of R&D would not commit financial resources to LATRINA's development, because they continued to perceive innovation at FMCG CORP as an activity that should avoid future uncertainty. Managers were familiar with developing new products that made incremental improvements to existing products. But they were unfamiliar with how to address a social problem like limited sanitation access at the BoP, and they wanted to avoid dealing with that uncertainty. A senior R&D manager involved in LATRINA explained, "[LATRINA] didn't align with our existing [product division] norms. [LATRINA] didn't fit our business model." When Lydia brought up the need to learn how to address limited access to sanitation at the BoP, she was unable to change the mindsets of senior managers in the product division. As a result, R&D managers developing LATRINA could only use limited resources from the R&D unit and searched for external financing. A former head of the product division, not involved in the toilet product, observed, “The only way a [BoP product] will get [positive] feedback is if someone senior has a personal interest in it.” A senior R&D manager elaborated, “You’ve got to get it so that it’s supported by the [head of a product division] or somebody in a very significant level [in the product division].”

Neither Lydia as a mid-level R&D manager nor other senior R&D managers were in positions to put a specific social problem at the BoP on the strategic agenda of the product division or brand. The head of R&D explained, “If you simply have the technology push, it is much harder to get traction inside the business. If what you have is the combination of a… brand with purpose and a marketing team that want to drive and engage in a certain area, supported then by differentiating technology, then I think you’ve got an opportunity for success.” In 2014, coincidentally, a large homecare brand adopted access to sanitation at the BoP as its social purpose, and when external consultants surveyed opportunities created outside and inside FMCG CORP, they identified LATRINA as the most promising new product. A mid-level R&D manager commented, “An independent company assessed and said [LATRINA] was at least two years ahead of any other business. So, in actual fact this is R&D doing its job right because we came up with something which the business actually did want.” Nonetheless, LATRINA still did not have a senior manager inside the product division acting as a product champion, who could communicate effectively to senior managers about the need for FMCG CORP to learn how to address access to sanitation. Within two years, in 2016, FMCG CORP terminated LATRINA. Senior managers did not perceive developing a new kind of toilet to increase sanitation access as what innovation at FMCG CORP should include.

In sum, existing temporal orientations at FMCG CORP, where short-term profit remained the compass for thought and action, posed formidable challenges to new product development for business sustainability. LATRINA and LAVARE were not able to overcome the meaning of business as unidimensionally about short-term profit-seeking or the meaning of innovation as meant to avoid future uncertainty. These products accordingly could not develop inside FMCG CORP. In contrast, the champions of MUSCA and AQUA were able to enact the temporal alignment practices of reconceiving the meaning of business (to a multidimensional vantage) and reconceiving the meaning of innovation (to accept future uncertainty), in order to inspire more focus on the long term during new product development for business sustainability.

4.4.2 Working around Temporal Structures to Facilitate More Focus on the Long Term

In addition to the issue of incongruent temporal orientations, new product development for business sustainability also faced the challenge of incongruent temporal structures—the rules that people create and use that imbue work with form and rhythm (Orlikowski & Yates, 2002). At FMCG CORP, existing rules continued to revolve around short-term profit, despite the new corporate sustainability strategy meant to shift focus more toward the long term. We identify two primary temporal alignment practices enacted by champions that led to workarounds in temporal structures: reshaping performance metrics, from a unidimensional to multidimensional vantage, and reshaping stage-gates, from avoiding to accepting future uncertainty.

4.4.2.1 Reshaping Performance Metrics

Another obstacle to new product development for business sustainability was the standard performance metrics at FMCG CORP that centered on profit in the short term. Managers evaluated the performance of the product division and country organizations against stringent financial targets to increase profit each year, and they expected new products to become profitable according to conventional margins within three years. For instance, a mid-level manager noted, “Sustainability is important, but if we don’t grow the business by 6-7%, then nobody gets a bonus.” A senior R&D manager added, “You can’t have people distracted from… the immediate response to business needs for growth.” As such, standard performance metrics were a consequential temporal structure, insofar as they were the basis for targets and rewards and accordingly tended to direct focus to the short term. A senior manager described most individuals at FMCG CORP: “They’re more interested in their bonus. They’re more interested in this year’s sales. I mean, that’s the problem with the incentive system. It’s short-term.” However, in the success cases where new products for business sustainability developed inside FMCG CORP, we find that champions were able to reshape performance metrics to facilitate more focus on the long term. Specifically, champions accepted new metrics of social benefit expected to generate profit in the long term, and they delayed existing profit targets.

Consider the clean water product AQUA, championed by Ana. As the head of a dishwashing brand, Ana clearly saw the link between the social problem that AQUA sought to address and the viability of a brand inside the product division, and she valued the interdependence. She saw the connection between addressing the problem and FMCG CORP’s short-term financial needs, commenting, “If people don’t have water, they cannot do their laundry or their dishes... [AQUA] puts action against our purpose.” Moreover, Ana also saw the connection of the social problem to FMCG’s profit in the long term, commenting, “The purpose of [the brand] is… that women can spend their time in order to progress either themselves, their families, or their communities… [FMCG CORP is] being helped by a healthy middle class, because that is how we sell products." As a result, alongside the traditional sales metric for the kiosks piloting the sale of AQUA, Ana also measured brand equity in the short term and considered the social benefit of increasing women's empowerment in the long term. She worked around the standard way of evaluating product progress at FMCG CORP, because she saw that the metrics had to change to align with brand's goal of empowering women at the BoP. A mid-level marketing manager explained:

> We're making ourselves resilient for the next 20 or 40 years, so that come the water shortages [FMCG CORP] can still go on selling its shampoos… Why you would spend money on women empowerment in the first place? 100% of our growth is due to women… It's long-term growth. But, of course, the short term is also good because you want to address all your problem areas… Brand equity and sales is more of a short-term thing, and it's good and it's needed because you need short term and long term. But the actual agenda is a long term one.

In addition to using social metrics, Ana also managed to delay standard performance targets to justify FMCG CORP's investments in AQUA, to align further with the brand's goal of empowering women at the BoP. Although typically at FMCG CORP new products should become profitable according to conventional margins within three years, AQUA's initial pilot testing did not show such profitability in that timeframe. Because AQUA deviated from standard product formats by trying to reach the BoP with a novel business model, mid-level managers would need to learn through extensive experimentation in AQUA's target markets. In the meantime, Ana evaluated the performance of AQUA based on its potential to build brand equity and pave the way for future market development by empowering women at the BoP. It was after four years of experimentation with different business models involving microentrepreneurs in West Africa that AQUA demonstrated sufficient profitability for the country organization to proceed with further supporting

AQUA. While Ana and a mid-level marketing manager developing AQUA moved to different positions inside FMCG CORP, they managed to transfer the ownership of AQUA to the country organization in 2018, where the product could continue to develop internally.

The portable washer product LAVARE, championed by the mid-level marketing manager Larry, provides a counterexample. After the introduction of the laundry brand’s social purpose, mid-level managers initially struggled to carve out sufficient time and financial resources to develop LAVARE in the face of incongruent performance metrics. A mid-level marketing manager commented, “Everybody’s target is turnover. It’s not on positive impact. Whenever you are being just judged by how many laundry detergents you can sell. Nothing that isn’t [directly] linked to selling laundry detergent is going to get any priority ever.” For LAVARE to find support from the brand on the basis of new metrics of social benefit expected to generate profit in the long term, Larry first had to win the internal innovation competition. The head of the product division explained that he selected LAVARE as a competition winner for its “economic and scalable model which can address the problems that society is facing” and as a necessity for the product division to be “managing for today and tomorrow” by investing in “ideas which are shaping the future.” While Larry subsequently had substantial time to experiment with delayed profit targets, Larry ultimately could not work around the incentives of the country organizations in West Africa and Southeast Asia, which continued to judge progress against annual sales growth. After FMCG CORP’s decentralization in 2016 gave country organizations more decision-making power, the country organizations withdrew their support for LAVARE. An email by a mid-level manager representing the country organization read: “The business case for [LAVARE] is not economically viable. The cost of device is too high.” Subsequently, the product division too stopped supporting LAVARE, and it spun out into an independent social enterprise.

Notably, it was not objective demonstrations of financial viability that differentiated our cases that developed internally from those that FMCG CORP terminated. External consultants had praised LAVARE's ability to increase sales of retailers in target countries and also to increase AQUA's sales by 100%, before FMCG terminated LAVARE. Moreover, LATRINA (which FMCG CORP also terminated) demonstrated the same profit margin as AQUA (which developed internally), at a margin half of FMCG CORP's conventional standard for profitability. The profit margin of MUSCA (which developed internally) was even lower than that of our failure cases of LATRINA and LAVARE over the course of six years, at around one third of FMCG CORP's conventional standard.

4.4.2.2 Reshaping Stage-gates

Another obstacle to new product development for business sustainability was the standard stage-gates at FMCG CORP, which paced the innovation process to avoid future uncertainty. For instance, a mid-level R&D manager explained: "The organization is churning over many possibilities all the time… and selecting a very few. And then those very few—many, many people have to work on before they hit the market." Stage-gates generally refer to the predetermined process that a new product must move through from inception to launch, with each stage defined by particular activities followed by a review to decide whether the product may advance. At FMCG CORP, the cautiousness of the standard stage-gates, which demanded strong quantitative evidence of profitability before product testing, generally precluded focus on the long term, which would call for extensive experimentation to develop new capabilities and to learn about new consumer segments. However, in the success cases where BoP products developed inside FMCG CORP, we find that champions were able to reshape stage-gates to facilitate more focus on the long term. Specifically, champions accepted provisional qualitative and quantitative evidence to prove the initial business case for BoP products, and they improvised steps for iterative learning to access internal expertise and budget.

Consider the example of the bed net product MUSCA, championed by Marc. As the head of the home care product division, Marc used his decision-making power to deviate from the typical stage-gates, which predetermined the steps for certain linear progress that would unlock access to internal expertise and budget for new product development. The standard innovation process inside FMCG CORP had five phases, from idea to rollout, with each phase centered around a decision point about whether to proceed with development and the level of resources to allocate. To get off the ground and pass the first phase, a new product would need to show a convincing business case based on quantitative evidence, because senior managers typically made strategic decisions based on quantitatively projecting a new product's potential revenue against its chances of becoming profitable. However, mid-level managers developing MUSCA would need resources before, not after, they could demonstrate such a quantitative business case for the product. They would need to obtain that evidence from outside consultants, field studies, and lengthy pilots in the first place, as data on new product areas and consumer segments were not readily available. Early market testing would also be important to learn about the unfamiliar consumer context at the BoP. Marc had the authority to give MUSCA the time and space to prove its initial business case based on provisional qualitative and quantitative evidence, without the typical quantitative business case. A mid-level R&D manager commented, "[MUSCA] would need a lot of iterating and a lot of practical pilots and then test market launches to learn." Marc permitted this iterative learning during innovation.

Notably, Marc also continued to permit mid-level managers to deviate from the standard stage-gates, and he improvised the steps needed to show progress for further access to internal expertise and budget. As a result, he further helped create provisional space for mid-level managers to proceed with iterative learning. A mid-level R&D manager commented, “We wouldn’t go through all the usual internal processes that our other colleagues would.” Mid-level managers developing MUSCA initially allocated resources to hire external consultants, and they utilized internal support functions once the product transitioned from the R&D unit to the product division. Commenting on the improvised nature of MUSCA’s innovation process, a mid-level R&D manager said, “Stages were really agreed with the senior stakeholders in terms of, ‘What do we need to [do] next?’” Another mid-level R&D manager concluded:

> People bought into that and that’s very entrepreneurial… [Marc’s] leadership role is critical, because [the senior leaders] provide you with the cover, if you like, of not committing to too much—too forcefully—to some of the milestones.

The toilet product LATRINA provides a counterexample. LATRINA’s champion Lydia, a mid-level R&D manager, was unable to reshape stage-gates to facilitate more focus on the long term. Unlike LAVARE, LATRINA could freely develop inside the R&D unit without mid-level managers needing to show substantial quantitative evidence to prove the initial business case. However, mid-level managers developing LATRINA could not improvise some steps of the stage-gates for iterative learning and subsequently gain access to internal expertise and budget from the product division and country organizations. Commenting on why LATRINA spun out from FMCG CORP, Lydia explained the perception: “There’s too much risk. So, it wouldn’t have been possible to—not quickly anyway—to address all of the concerns the company would have wanted to address.” Lydia pointed to the bureaucracy of typical stage-gates that included stringent and onerous decision-making criteria for each gate. She elaborated, "The conventional process is highly consultative… Lots of people can stop things for all kinds of reasons. So, the procedures for approval… would have been a ten-year research project." The slow rigidness of FMCG's typical innovation process flew in the face of what Lydia perceived LATRINA needed to develop: faster learning, iteration, and the acceptance of future uncertainty.

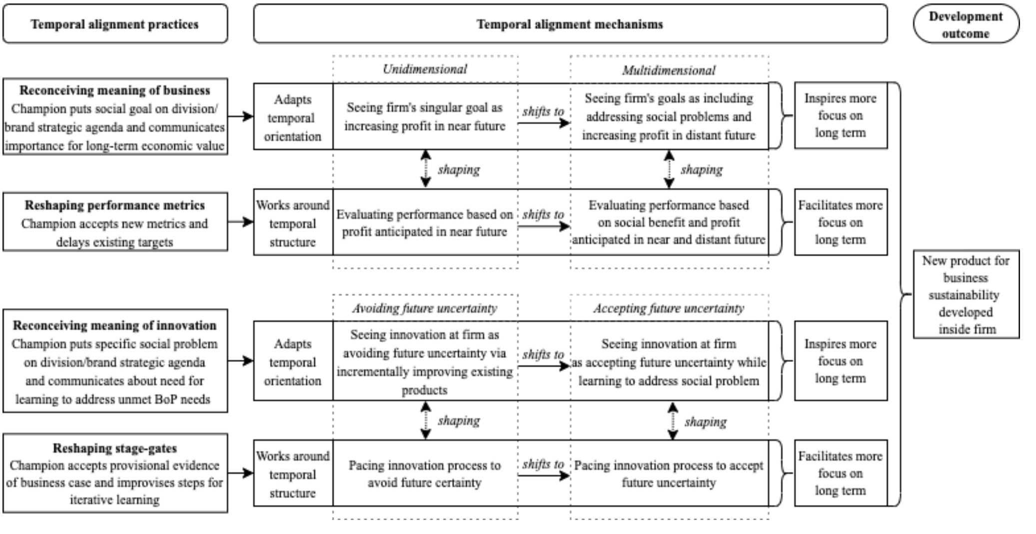
In sum, existing temporal structures at FMCG CORP, where standard rules continued to revolve around short-term profit, also posed formidable challenges to new product development for business sustainability. LATRINA and LAVARE were not able to overcome the unidimensional performance metrics or the stage-gates meant to avoid future uncertainty. As such, these products could not develop inside FMCG CORP. In contrast, the champions of MUSCA and AQUA were able to enact the temporal alignment practices of reshaping performance metrics (from a unidimensional to multidimensional vantage) and reshaping stage-gates (from avoiding to accepting future uncertainty), in order to facilitate more focus on the long term during new product development for business sustainability.

4.5 Discussion

This inductive qualitative study examines the factors that enable a company to develop new products that address social and/or environmental problems and drive profit in the long term, despite pressures to focus on short-term profit. At a large FMCG, we follow the development of four new products for business sustainability that addressed unmet needs at the BoP. While two products succeeded in developing internally, two failed to overcome pressures to focus on short-term profit and were terminated. We find that what differentiated our cases that managed to develop internally was the *temporal alignment* practices enacted by senior managers in the product division playing the role of product champions, whereby champions helped synchronize temporal orientations and structures during new product development with the organization's desire to focus more on the long term.

We identify four primary practices of temporal alignment: reconceiving the meaning of business and innovation—which led to adaptations in temporal orientations—as well as reshaping performance metrics and stage-gates—which led to workarounds in temporal structures. Figure 2.1 summarizes the mechanisms through which these practices affected new product development for business sustainability (Anderson et al., 2006; Elster, 1989). In particular, as a result of champions reconceiving the meaning of business and reshaping performance metrics, managers shifted from a unidimensional vantage, centered on short-term profit, to a multidimensional vantage, which included long-term profit and social benefit. Furthermore, as a result of champions reconceiving the meaning of innovation and reshaping stage-gates, managers shifted from avoiding to accepting future uncertainty during new product development. In both instances, shifts in temporal orientation simultaneously shaped and were shaped by shifts in temporal structures (Orlikowski & Yates, 2002). Together the shifts in temporal orientations, as a result of reconceiving the meaning of business and innovation, *inspired* more focus on the long term, while the shifts in temporal structures, as a result of reshaping performance metrics and stage-gates, *facilitated* such focus. The culmination of temporal alignment was provisional space where mid-level managers could develop new products for business sustainability, which addressed social problems and drove profit in the long term, inside the firm. We describe the culmination as "space," because what temporal alignment practices did was help get incongruent ways of thinking and relating to new product development out of the way, in order to make room for mid-level managers to carry out the day-to-day work of developing new products for business sustainability. We also describe the culmination as "provisional," because while temporal alignment practices enabled particular new products for business sustainability to develop inside FMCG CORP, the temporal alignment practices that we observed did not go about transforming temporal orientations or temporal structures comprehensively across the entire firm.

Figure 4.1 Theoretical Logic Linking Temporal Alignment and New Product Development



4.5.1 Contributions

Our study contributes to a growing body of work on business sustainability (Bansal & Song, 2017). The premise of business sustainability concerns multiple aims—improving the wellbeing of people and the planet while attending to profit and organizational resilience, which require not compromising the long term while attending to the short term. Research highlights various challenges to reaching business sustainability, not least conflicting temporal pressures that impede new product development therein (Bansal & DesJardine, 2014; Hahn et al., 2015; Hart & Milstein, 2003). However, we know much less about how to address such challenges. In particular, we do not know how firms can overcome pressures to focus on short-term profit in order to develop new products that address social and/or environmental problems and drive profit in the future. To our knowledge, this study is one of the first to address that gap, by shedding light on what it takes to inspire and facilitate more focus on the long term inside a firm, for new products for business sustainability to be able to develop internally. Our study suggests that, to put the aspiration of business sustainability into practice during new product development, it is important for firms to synchronize organizational members' perspectives regarding the future (temporal orientations) and organizational rules that shape the form and rhythm of work practices (temporal structures) with the desired shift in temporal focus more toward the long term. We refer to this synchronization as "temporal alignment."

Second, we contribute to the growing body of research on time in management (Ancona, Goodman, Lawrence, & Tushman, 2001). Here too we know more about the antecedents and consequences of how people understand and relate to time in organizations and challenges therein than we know about how actors can intervene to influence temporalities to advance organizational goals. "Temporal work" has been defined as "any individual, collective or organizational effort to influence, sustain or redirect the temporal structures and assumptions that shape strategic action" (Bansal, Reinecke, Suddaby, & Langley, 2019, p. 146). Some studies point to the importance of open negotiation to reconcile competing ways of understanding and relating to time as a basis for strategic action in organizations (Kaplan & Orlikowski, 2013; Reinecke & Ansari, 2015). Others point to the "silent politics" of temporal work in organizations (McGivern et al., 2018) and limitations of bottom-up efforts that are unable to shift the cognitive frames of senior managers (Sharma & Jaiswal, 2018). What stands out from our study is the importance of power in temporal work—that successful BoP products were championed by senior managers in the product division who harnessed their decision-making power during new product development

(Emerson, 1962; Pfeffer, 1981; Salancik & Pfeffer, 1974, 1977). Our findings are novel in that they unpack *how* champions harnessed their decision-making power to carry out temporal work, as we describe the temporal alignment practices that champions enacted. Interestingly, at FMCG CORP champions utilized their decision-making power not only through pulling, such as in conversations and presentations with other senior and mid-level managers that helped shift the meaning of business and innovation, but also through pushing. From their positions of power, champions also outright required brands and the product division to put social goals and specific social problems on the strategic agendas of the product division or brands, for instance. Champions furthermore enacted temporal alignment practices both openly, directly communicating with other managers, as well as somewhat silently, staying out of the way of mainstream business expectations when possible as they concentrated decision-making regarding BoP products.

Third, our study contributes to the literature on product championing (Day, 1994; Howell & Higgins, 1990). Scholars have long noted the importance of senior managers with decision-making power acting as product champions to strategically reorient firms and reshape stringent performance metrics and innovation processes (Burgelman, 1983a; Kanter, 1985; Mezias & Glynn, 1993). A core aspect of the role of champions in new product development involves breaking institutionalized rules (Kanter, 1985; Van de Ven, 1986), utilizing their decision-making power (Ambos & Schlegelmilch, 2007; Ibarra, 1993). In particular, different organizational departments and functions, and accordingly their members, have different claims to decision-making power inside a firm (Fligstein, 1987; Hickson, Hinings, Lee, Schneck, & Pennings, 1971). In our research setting at FMCG CORP, it was senior managers inside the product division who had the power to create provisional space for mid-level managers to develop new products for business sustainability. Our findings extend existing literature about how champions circumvent institutionalized rules by not only unpacking workarounds in performance measurement (metrics) and the innovation process (stage-gates) but also unpacking how champions helped shift the meaning of business and innovation to adapt temporal orientations. This qualitative aspect of product championing resulting in reconceived meanings among managers is understudied in the literature (Dougherty & Hardy, 1996). Our findings about champions shifting meanings resonate with recent research in the setting of geoengineering that develops the concept of the "distant future," as marked by ambiguity and the problem of imagining what might be, in contrast to the "near future" characterized by risk and the problem of predicting what will be; what differentiates the near and distant future is not only time horizon but, importantly, "qualitatively different processes of envisioning the future and acting on it" (Augustine, Soderstrom, Milner, & Weber, 2019, p. 1951). At FMCG CORP, we further show that product champions helped others develop qualitatively different ways of understanding and relating to the future, as champions reconceived the meaning of what FMCG was meant to do and what innovation at FMCG CORP should look like.

Finally, our study speaks to the longstanding notion in management that "structure should follow strategy" (Chandler, 1962). For decades, research has highlighted the importance for firms to align organizational strategy with supportive structures such as administrative arrangements, project screening criteria, measures of managerial performance, and appointments of managers with conducive orientations (Burgelman, 1983b; Tushman & O'Reilly, 2002). Now, practically, it is noteworthy that even FMCG CORP, which is widely regarded as a leader in business sustainability, failed to align systems and processes inside the firm to be able to fulfill the ambitions of the CEO laid out in the corporate sustainability strategy. Rather, for BoP products to develop inside FMCG CORP, we find that product champions had to deviate from standard rules, to adapt existing temporal orientations and work around existing temporal structures. Our findings extend existing research regarding the relationship between strategy and structure generally by shedding light on the obstacles of misalignment between strategy and temporal structures in particular. Moreover, a practical implication of our findings is that, if firms seek to encourage new product development for business sustainability, what is at stake is changing existing temporal structures, in particular performance metrics and stage-gates, as well as temporal orientations, to put strategy into action. Otherwise, as we find, new product development for business sustainability can come to depend in large part on the discretion of senior managers with sufficient decision-making power to break rules and thereby inspire and facilitate more focus on the long term.

4.5.2 Boundary Conditions and Future Research

In conclusion, we highlight boundary conditions of this study, which may also provide springboards for future research. First, our research site may be an extreme case, as the firm is known as a sustainability leader. Future work may examine how new sustainable products develop inside firms with less favorable corporate contexts.

Second, this study unpacks temporal alignment practices enacted by senior managers. Yet temporal alignment was only meaningful to help inspire and facilitate more focus on the long term alongside mid-level managers, who did the heavy lifting of new product development day-to-day. Existing research largely neglects how mid-level managers undertake temporal work that challenges temporal assumptions, to develop new products for business sustainability from the bottom up (Halme et al., 2012). Future research may explore how mid-level managers enact and alter temporal assumptions to advance new product development to address social and/or environmental problems and drive profit in the future. Another ripe area for future inquiry is temporal work carried out through multi-sector partnerships. Our data did not permit us to unpack the relationships between members of FMCG CORP and members of NGOs, government agencies, and sustainable enterprises involved in new product development. Such multi-sector collaborations have become common (Selsky & Parker, 2005), and they merit future study as well. Future research may consider how multi-sector actors from different sides can come together to overcome competing time frames and logics (Ramus, Vaccaro, & Berrone, 2020).

Moreover, the culmination of temporal alignment practices enacted by senior managers at FMCG CORP was provisional. While particular products for business sustainability could develop inside the firm, senior managers in the product division playing the role of product champions did not go about transforming temporal orientations or temporal structures comprehensively across FMCG CORP. Future research may further examine how corporations can change individual mindsets and organizational processes and systems so as to achieve temporal alignment across the organization.

In addition, this study does not find structural origins as a driver of new product development for business sustainability. The literature on new product development has given a great deal of attention to the question of where new products should originate, whether alongside mainstream business operations or structurally separated in autonomous business units. While many point to structural differentiation to resolve exploitation-exploration tensions (Burgers & Covin, 2016; Stettner & Lavie, 2014), others suggest that an integrated approach—where organizational members perform seemingly contradicting activities at the same time—may be more optimal (Wang, Luo, Maksimov, Sun, & Celly, 2019). In our study, structural origins did not determine whether a BoP product could develop internally or not: MUSCA originated in the R&D unit and AQUA in a mainstream brand, and both developed inside FMCG CORP with the support of champions enacting temporal alignment practices. Future research might further examine the implications of structural origins through the lens of time, especially if what may seem contradictory when seen from a short-term perspective might come to be perceived as synergistic from a long-term perspective (Sharma & Bansal, 2017).

Finally, it is noteworthy that our data do not permit us to speak to financial and social performance. Instead, the outcome that we study is whether a new product could develop internally, as opposed to the firm sticking to economic short-termism and terminating new product development. The outcome we study is theoretically and practically significant. Nonetheless, despite the challenges of conceptualizing and comparing social performance (Nason, Bacq, & Gras, 2018), it is also important that future research unpack performance implications, to understand better how firms can deliver business sustainability.

Overall, we still have a great deal to learn about how large companies can meet growing external demands, as well as their own internal commitments, for business sustainability. This study points to both challenges and opportunities for new product development for business sustainability that calls for more focus on the long term. While economic short-termism continued to pervade FMCG CORP after the introduction of a new corporate sustainability strategy, some senior managers playing the role of product champions were able to inspire and facilitate more focus on the long term during new product development by adapting temporal orientations—reconceiving the meaning of business and innovation—and working around temporal structures—reshaping performance metrics and stage-gates. We hope that this study will open the path for more research on how firms can address social and environmental problems while building future markets—an increasingly urgent task in our interdependent world.

CHAPTER
5
Barriers and Drivers to Sustainable Business Model Innovation: Organization Design and Dynamic Capabilities

This Chapter is based on Bocken, N. M. P. & Geradts, T. H. J. (2020). Barriers and Drivers to Sustainable Business Model Innovation: Organization Design and Dynamic Capabilities. Long Range Planning, 53(4), 1-23.

5.1 Introduction

Business model innovation (BMI) is about innovating the value creation, delivery, and capture mechanisms of firms to entice customers to pay for value and convert this into profits (Baden-Fuller & Morgan, 2010; Teece, 2010). It is perceived as a key activity for large multinational corporations (MNCs) to remain competitive (Baden-Fuller & Morgan, 2010; Robins, 2013; Wirtz et al., 2016; Zahra et al., 2006; Zott et al., 2011), leading to new customer offerings and revenue streams (Chesbrough, 2010; Massa et al., 2017). Faced with increasing sustainability challenges, as well as growing awareness amongst top managers that profit can be gained from tackling those challenges (Stubbs & Cocklin, 2008), corporate interest has recently expanded to embed societal issues into the BMI process. This is referred to as sustainable business model innovation (SBMI).

While equally focused on innovating the value creation, delivery, and capture mechanisms of firms, SBMI includes a broader notion of value: from mainly economic to also include social and environmental value; and from a customer and shareholder focus to a multi-stakeholder perspective, including societal stakeholders (Bocken et al., 2013; Lüdeke-Freund et al., 2016; Massa et al., 2017; Sommer, 2012). Importantly, SBMI can lead to direct business benefits such as cost savings and new revenue streams (Bocken et al., 2014; Schaltegger et al., 2012), and more amorphous advantages by being ahead of future stakeholder concerns and legislations (Schaltegger et al., 2012) and improving organizational resilience (Buliga et al., 2016), reputation (Homburg et al., 2013), and employee attractiveness (Greening & Turban, 2000). It is also well-recognized that SBMI holds great potential to address long-standing sustainability challenges (Foss & Saebi, 2017; Laasch, 2019; Stubbs & Cocklin, 2008). However, despite such opportunities, there is a lack of sustainable business models adopted by MNCs (Evans et al., 2017; Ritala et al., 2018).

Problematically, MNCs often lack the dynamic capabilities to innovate for SBMI (Hart & Dowell, 2011; Inigo et al., 2017). Defined as an organization's ability to "integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997, p. 516), dynamic capabilities are integral to BMI (Teece, 2018). At a base level, ordinary capabilities as repeatable patterns of action allow corporations to operate their current business model (Winter, 2003). At a higher level, *sensing* (identifying and assessing opportunities), *seizing* (mobilizing resources to address opportunities and capture value from doing so), and *transforming* (continued renewal of the organization) as dynamic capabilities enable corporations to adjust, recombine and create ordinary capabilities (Teece, 2018). By being concerned with change, dynamic capabilities are critical for corporations to craft, refine, and transform their business models (Harreld et al., 2007; Teece, 2007).

Notably, corporations typically only reconfigure their capabilities and invest in the development of (dynamic) capabilities when perceived financial benefits of changing and reconfiguring exceed those of maintenance (Hart & Dowell, 2011; Winter, 2003). This can be detrimental for SBMI. First, it is not always evident whether and how corporations can create financial value through sustainability (Epstein & Roy, 2001; Schaltegger et al., 2012). Second, addressing complex sustainability challenges with uncertain pay-offs may require financial trade-offs and lengthy experimentation with a broad range of external stakeholders, while corporations typically focus on short-term profit maximization (Aragón-Correa & Rubio-López, 2007; Weissbrod & Bocken, 2017). Third, costly efforts to innovate for sustainability may be easily imitated by others (Schaltegger et al., 2016). As a result, corporations may resist the development of dynamic capabilities needed for SBMI (Aragón-Correa & Sharma, 2003; Chakrabarty & Wang, 2012).

While ordinary capabilities that allowed corporations to build a competitive advantage over time are dependent on a firm's existing strategy, structure, and resources (Eisenhardt & Martin, 2000), business model literature only recently started to call attention to how organization design affects the dynamic capabilities needed to innovate a firm's dominant business model (Fjeldstad & Snow, 2018; Teece, 2018). Focused on building effective organizations to help firms reach their purpose and objectives (Burton et al., 2006), organization design is conceptualized as a configuration of components such as strategy, structure, processes, incentives, and people (Burton et al., 2006; Galbraith, 1974; Meyer et al., 1993; Miles & Snow, 1978; Mintzberg, 1980). Despite the recognition that a firm's vision, culture, structure, investment patterns, incentive system, and values can reinforce or undermine its dynamic capabilities (Aragón-Correa & Sharma, 2003; Hart & Dowell, 2011; Leih et al., 2015; Teece, 2018), the organization design to nurture dynamic capabilities, important for (S)BMI, remain scantly addressed (Fjeldstad & Snow, 2018; Leih et al., 2015).

To address this gap, we investigate factors within organization design that influence the development of dynamic capabilities needed for SBMI in MNCs. We adopt a qualitative research approach to reveal SBMI barriers and drivers by drawing on 53 semi-structured interviews with top, senior and mid-level managers involved in SBMI in six large MNCs: AkzoNobel, Interface, Johnson & Johnson, Pearson, Philips, and Unilever. By identifying factors at the institutional, strategic and operational levels that hinder and enable sensing, seizing, and transforming for SBMI, this study contributes to an understanding of the organizational design conducive for dynamic capabilities to effectuate SBMI. As such, we advance theoretical perspectives on SBMI (Dentchev et al., 2018) and provide guidance to corporate management on how to innovate business models towards greater sustainability

(Foss & Saebi, 2017). Overall, this study contributes to emergent theory of how MNCs can fulfil their growing commitments to deliver societal value alongside profit.

5.2 Theoretical Background

Strong dynamic capabilities are needed for BMI (Achtenhagen et al., 2013; Teece, 2018). It is also understood that organization design influences the strength of a firm's dynamic capabilities (Teece, 2018). While there has been a focus in literature on understanding the link between dynamic capabilities and BMI for MNCs (Teece, 2010; 2018); and the organizational environment that encourages innovation (Augier & Teece, 2009; Demanpour, 1991; Ireland et al., 2009; Zahra et al., 1999), the organizational design factors that support the dynamic capabilities needed for (S)BMI remain underexplored. Yet, understanding organization design factors that contribute to or hinder the development of strong dynamic capabilities could give new insight into the emergence of SBMI in MNCs.

5.2.1 Sustainable Business Model Innovation

SBMI has become prominent in literature and practice as a way to gain competitive advantage, while resolving social and environmental issues (Dentchev et al., 2016; Massa et al., 2017). It is about changing the way business is done, by incorporating societal and environmental concerns into core business practices (Foss & Saebi, 2017; Massa et al., 2017). SBMI can thus be defined as innovation to create significant positive impacts, and significantly reduced negative impacts for the environment and society, through changes in the way the organization and its value-network create, deliver and capture value or change their value propositions (Bocken et al., 2014).

For example, corporations may decide to retain ownership of products and provide service contracts instead of engaging in one-time sales, allowing the company to build longer lasting products and include maintenance and recycling services, which generates profits over a longer time, while benefitting the environment (Tukker, 2004). A social example is a company's refocus on developing markets, where societal needs such as better education and healthcare are addressed through SBMI, targeting a social need and a business opportunity (Dahan et al., 2010; Yunus et al., 2010). By providing a solution to global challenges such as climate change and poverty, SBMI can shape markets and society, sometimes more than regulators and NGOs, but often in collaboration with them (Schaltegger et al., 2016).

However, the significant processes and procedures to develop and transform business models are expected to be complex (Snihur & Wiklund, 2019). This is even worse for the specific case of SBMI involving the need to incorporate heterogeneous metrics (social, environmental and economic) and include diverse stakeholders in the innovation process (Freudenreich et al., 2019; Laasch, 2018; Massa et al., 2017; Sommer, 2012). Moreover, the SBMI may be developed with the best intent (Manninen et al., 2018), but the sustainability impacts are hard to foresee and negative rebounds (e.g., reducing public transport usage when entering a car sharing service) might lessen their impact (Weissbrod & Bocken, 2017). Given the complexity of SBMI, corporations need to invest in dynamic capabilities to move beyond the dominant logic they are accustomed to, which is no longer appropriate in the face of growing societal and environmental issues (Hart & Dowell, 2011; Sommer, 2012).

5.2.2 Dynamic Capabilities and SBMI

To understand the success and failure of BMI, dynamic capabilities are of relevance (Teece, 1997; Winter, 2003), as strong dynamic capabilities allow the firm to adjust and redesign its business model (Teece, 2018). Dynamic capabilities govern how a firm's ordinary capabilities (e.g., effective marketing tactics; efficient manufacturing processes) are developed, augmented and combined and include competences to: (1) sense and evaluate opportunities and threats; (2) seize opportunities, mitigate threats and capture value from doing so; and (3), reconfigure a firm's tangible and intangible assets to remain competitive (Harreld et al., 2007; Helfat & Peteraf, 2015; Teece, 2007). Strong dynamic capabilities lead to a coherent set of knowledge and skills needed to address emerging opportunities and help sense and seize such opportunities before competitors do (Zahra et al., 2006). Subsequently, it is argued that the dynamic capabilities of sensing, seizing, and transforming, are the ones on which top management should be most focused on as they are deemed critical for the innovation and selection of business models (Teece, 2018; Zahra et al., 2006).

Dynamic capabilities are also crucial for companies pursuing SBMI (Inigo et al., 2017; Sommer, 2012). Within the context of SBMI, *sensing* involves companies becoming aware of emerging sustainability issues and understanding and appraising these as potential business opportunities (McWilliams & Siegel, 2011). For example, sensing for SBMI may entail MNCs identifying and acting upon constraints created by the natural environment such as resource depletion that could create immediate discontinuities and threaten firms' existing resources and capabilities (Hart & Dowell, 2011). *Seizing* is about mobilizing resources to address emerging (sustainability) opportunities and capture value from doing so, by translating these into SBMI opportunities (Teece, 2018). As suggested by Hart and Dowell (2011), pressing sustainability challenges will require the mobilization of resources to address opportunities and threats and to reap the (financial) benefits from doing so. Finally, *transforming* is about the deliberate continued renewal of the organization's capabilities (Teece, 2018) towards becoming a sustainable business and is about implementing new sustainable business model concepts. In sum, while sensing, seizing, and transforming capabilities are essential for BMI, they are also seen as vital for SBMI (Pieroni et al., 2019).

5.2.3 Organization Design, Dynamic Capabilities and SBMI

Business models, dynamic capabilities, and organization design are interlinked (Fjelstad & Snow, 2018). Organization design is about the practice of building effective organizations, where organizations are conceptualized as a configuration of components such as strategy, people, structure and management processes (Burton et al., 2006; Galbraith, 1974; Meyer et al., 1993; Miles & Snow, 1978). An expanded theoretical model for organization design includes management philosophy – the values, beliefs, and assumptions that underlie and guide leadership and decision-making approaches (Miles & Snow, 1978; Miles & Creed, 1995). It has been argued that firms as 'human organizations' must confront challenges of organizational design, such as imperfect incentive alignment and governance, and bureaucratic decision-making, to make organizations more effective and efficient (Augier & Teece, 2009; Harris & Raviv, 2002; Mintzberg, 1980).

Research linking organizational design, dynamic capabilities and BMI is emerging (Fjelstad & Snow, 2018; Leih et al., 2015; Teece, 2018) and organization design is found to be crucial for dynamic capabilities needed for BMI (Leih et al., 2015; Wilden et al., 2013). Various studies have focused on the organizational design antecedents of dynamic capabilities (e.g., Augier & Teece, 2009; Teece, 2018; Zahra et al., 2006; Zollo & Winter, 2002). For example, a firm's incentive system as part of the organization design can reinforce or undermine dynamic capabilities (Teece, 2018). Kor and Mahoney (2005) investigated firm investment in R&D and marketing and how budgets are governed, and the relation to dynamic capabilities. More generally, Augier and Teece (2009) investigate how managerial decisions shape dynamic capabilities. Zollo and Winter (2002) describe how dynamic capabilities are shaped by the coevolution of various learning mechanisms, while Zahra et al. (2006) make the connection between organizational age, knowledge, and dynamic capabilities. Others like Aragón-Correa and Sharma (2003), Hart and Dowell (2011), and Lyneis and Sterman (2016) have touched upon aspects of organization design such as strategy and deliberate investments in relation to dynamic capabilities for sustainability. Yet, the ways in which organization design elements specifically influence dynamic capabilities for SBMI remain unexplored.

In sum, SBMI requires strong dynamic capabilities, but the organizational design factors that hinder or nurture these needs deeper investigation. Literature has broadly discussed barriers and drivers for BMI (e.g., Chesbrough, 2010), but only recently made the link between BMI, organization design and dynamic capabilities (Fjelstad & Snow, 2018; Leih et al., 2015; Teece, 2018). Given a need for MNCs to develop (dynamic) capabilities to tackle complex sustainability challenges (Hart, 2005; Hart & Dowell, 2011; Sommer, 2012), this suggests a necessity explore the role of organization design to nurture these.

5.3 Methods

Given a dearth of comprehensive empirical research on how organization design affects dynamic capabilities needed for SBMI, qualitative research methods are suitable to explore this topic (Corbin & Straus, 1990). Following methodological suggestions by established qualitative researchers (Glaser & Strauss, 1967; Locke, 2001), we specifically rely on a grounded theory approach in answering our research question, allowing us to build theory inductively on the basis of a continuous analysis of the data while remaining open to new themes that emerge from the data. Our data included 53 interviews with 55 top, senior and mid-level managers at six MNCs, each committed to SBMI in their respective industries. Building on substantive theory on the importance of dynamic capabilities for BMI (Helfat & Winter, 2011; Teece, 2007; Zahra et al., 2006) and emergent theory on how organization design affects dynamic capabilities for BMI (Fjeldstad & Snow, 2018; Teece, 2018), we took an interpretive research approach to extend and build on existing theory (Suddaby, 2006).

5.3.1 Sampling

To select information-rich settings that represent the phenomenon of interest, we first sought to identify MNCs in which the phenomenon was embedded (Morse, 2010). To do so, we purposefully based our selection of corporations on their position in two sustainability indexes—the GlobeScan/SustainAbility Survey and the Dow Jones Sustainability Index; the former being the longest running index which draws on the expertise of thousands of experts from the corporate and (non)governmental sector (Grayson et al., 2018) and the latter being consistently recognized for its credibility in the 'Rate the Raters' report by SustainAbility—and complemented our understanding of the MNC's commitment to sustainability with online media coverage of SBMI initiatives to ensure presence of the phenomenon of interest. To determine whether sustainability initiatives in the media classified as SBMI, we based ourselves on the sustainable business model archetypes by Bocken et al. (2014).

As a next step, through personal contacts of the researchers, senior managers of 7 MNCs were approached with the request to participate in our study. Interface (a carpet-tile manufacturer), Philips (a conglomerate in capital goods), and Unilever (a fast-moving consumer goods company) agreed to participate. Responding to perceived uniformities in our initial findings and suggestions by interviewees to account for variations between industries to aid our theorizing, 9 additional MNCs in different industries with top positions in both sustainability indexes and media coverage of SBMI were approached, again through personal contacts of the researchers. AkzoNobel (a paint and chemicals company), Johnson & Johnson (a pharmaceutical company), and Pearson (an education and publishing company) agreed to participate. Subsequent meetings with corporate representatives enabled us to identify SBMI initiatives to ensure that MNCs provided a rich empirical context of interest in our study.

5.3.2 Data Collection

As presented in Table 5.1, we conducted 53 semi-structured, in-depth interviews with 6 top managers (T), 24 senior managers (S), and 25 mid-level managers (M) who were actively engaged in SBMI inside their respective organizations. To get a holistic understanding of how organization design affects dynamic capabilities needed for SBMI, we sought to interview top and senior managers who sponsored the development of SBMI initiatives inside their respective organizations. We also interviewed senior and mid-level managers with different functional backgrounds (e.g., R&D or marketing) who were identified by their superiors and/or their peers as champions or supporters of SBMI initiatives. Following initial introductions to top, senior, and mid-level managers by representatives of the MNCs, we relied on snow-ball sampling to complete our data collection. Starting with three MNCs in 2016, we kept including corporations till theoretical saturation was reached – the point at which few or no new insights could be generated by including more data.

The semi-structured interviews were conducted between 2016 and 2018 and were held in Dutch or English via telephone or in person. Interviews typically lasted forty minutes to one hour. Although these interviews were conversational by nature, an interview protocol was used to cover topics related to our research question without leading respondents in any particular direction (Gioia et al., 2013). Each interviewee was asked to name and describe SBMI initiatives in which they were involved, to clarify their role in these initiatives, to identify organizational factors that stimulated and supported the development of SBMI initiatives in which they were involved, and to identify organizational factors that discouraged and hindered the development of SBMI initiatives in which they were involved.

Table 5.1 Interviewees

AkzoNobel	Interface	Johnson & Johnson	Pearson	Philips	Unilever
Corporate Director Sustainability (T)	President/ CEO EMEA - SVP Interface (T)	Vice-president Global Head Health Economics and Market Access (S)	Managing Director South Africa (S)	Chief Executive Officer (T)	President North America/ Executive Board (T)
Director Commercial Excellence Specialty Chemicals (S)	Sustainability Director (S)	Vice-president Global Medical Affairs (S)	Executive Director South Africa (S)	Global Head Sustainability (T)	Chief Sustainability Officer (T)
RD&I Director Specialty Chemicals (S)	Innovations Director (S)	Executive Director Corporate Citizenship & Community (S)	Managing Director China (S)	Chief HR Officer (S)	Global Vice-president Surf (S)
R&D Director Decorative Paints (S)	Director of Sustainability Strategy (S)	Head of JLABS (S)	Director Social Innovation (S)	General Managers Philips Lighting West Africa (S)	Vice-president Sustainable Business and Communication (S)
Global Sustainability Manager Decorative Coatings (M)	Head of Sustainable Development (M)	Senior Director Sustainability & Engagement (S)	Head of Learning Innovation (M)	CEO Philips Lighting Benelux (S)	R&D Program Director (M)
Director Sales & Marketing, RD Commercial Excellence (M)	Technical Support Manager (M)	Senior Director (S)	Senior Editor (M)	Innovation Program Manager Healthcare (S)	Director Sustainability BENELUX (M)
Global Sustainability Director Decorative Paints (M)	Concept Designer (M)	Senior Director Neuroscience (S)	Manager Portfolio Strategy & Planning (M)	Global Business Leader Installed Base (S)	R&D Manager (M)
Sustainability Director UK/Ireland (M)	Distribution Manager (M)	Director Corporate Contributions (M)		Product Configuration Manager (M)	Sustainability Manager (M)
Manager RD&I (M)	Account Manager (M)	Associate Director Global public Health (M)		Development Engineer (M)	HR Manager (M)
		Project manager (M)		Senior Research Scientist (M)	
				Research Scientist (M)	

*T=top manager **S=senior manager ***M=mid-level manager

Open-ended questions and probing allowed categories and themes to emerge during the interviews, and informed questions on emerging theoretical ideas throughout the interview as well as follow-up questions in subsequent interviews. All interviews were recorded and transcribed.

The data set included 59 SBMI initiatives in six MNCs, organized according to the sustainable business model archetypes in Bocken et al. (2014). The SBMI initiatives are diverse and, although some may not sound like full-scale SBMI (e.g., paint recycling), the initiatives mentioned have a profound effect on the elements of the business model (e.g., value creation, delivery, and capture) to address environmental and social issues. Importantly, BMI constitutes the development and refinement of business models, regardless of whether entire business models are innovated or only certain elements are replaced and/or recombined (Teece, 2018). Underlining the importance of also considering instances of incremental SBMI, the literature on BMI suggests that incremental BMI is far more common and may trigger radical change once incremental changes between and within components have accumulated over time (Demil & Lecocq, 2010; Laasch, 2019).

5.3.3 Data Analysis

By gathering empirical qualitative data, clustering text segments into meaningful concepts, themes, aggregate dimensions, and by making sense of these categories, we applied a pattern-inducing technique (Gioia et al., 2013; Glaser & Straus, 1967). To aid the discovery of theory from data through meaningful interpretation (Glaser & Straus, 1967), one of the researchers collected and analyzed the data while the other kept analytical distance, whereby allowing the analysis to benefit from a balance between distance from and closeness to the data. To improve theorizing, one of the authors served as “devil’s advocate,” whereby relentlessly pushing for clarification and elaboration, asking critical questions, and identifying themes that were adopted when support emerged after re-considering the data (Crosina & Pratt, 2019). While continuously going back and forth between theory and data, the researchers compared and contrasted new categories as they emerged, and discussed how they were interconnected (Charmaz, 2006). The data were analyzed with qualitative data analysis program NVivo 12. The coding process was divided into three stages: open coding, axial coding, and theoretical coding (Pratt et al., 2006). Although presented in a linear fashion below, our analysis was dynamic and iterative (Suddaby, 2006).

In the first stage, through open coding, we stayed close to the data (Locke, 2001) and sorted information into first order codes and provisional categories. Open codes were descriptive in nature, and were identified through multiple iterations. Open codes in our data included both negative statements about the role of organization design when interviewees for example commented on incentives that were based on short-term financial targets, and positive statements about organization design when interviewees for example commented on sustainability related training. While going back and forth between the data and descriptive codes, we systematically distinguished between factors that either positively or negatively influenced sensing, seizing, and transforming as dynamic capabilities needed for SBMI.

In the second stage of our analysis, when moving from open to axial coding, we clustered open codes under more abstract and theoretical categories (Locke, 2001; Strauss & Corbin, 1998). For example, we combined statements related to a "lack of skills for SBMI," a "lack of understanding for SBMI," and a "lack of awareness for SBMI" into "limited capacity for SBMI." Initially we identified 9 categories that constitute factors in organization design which negatively affect dynamic capabilities needed for SBMI (referred to as 'barriers') and 9 categories that constitute factors in organization design which enable dynamic capabilities needed for SBMI (referred to as ‘drivers’). After these initial categories were constructed, we revisited the data to see which, if any, first order codes fitted each category. While some of the revisited data did not fit well into some of the categories, we revised our initial categories and introduced 4 additional categories to describe barriers and drivers.

In the last stage of our analysis, we looked for aggregate dimensions underlying our categories by exploring how axial codes fitted together. For example, some categories seemed more about norms or beliefs that shape organizational action (e.g., valuing business sustainability), while others were more related to actions that help corporations achieve their organizational objectives (e.g., strategic focus on SBMI) and practices that facilitate these actions (e.g., incentive scheme for sustainability). We thus combined “focus on maximizing shareholder value,” “uncertainty avoidance,” and “short-termism” as institutional barriers, and “balancing shareholder and stakeholder value,” “embracing ambiguity,” and “valuing business sustainability” as drivers at the institutional level. Drawing on Hoffman (1999), we used the word institutional to indicate well-established rules, norms, and beliefs that describe the reality for the organization and guide their actions accordingly. We further combined “functional strategy,” “dominant focus on exploitation,” “prioritizing short-term growth,” “collaborative innovation,” “strategic focus on SBMI,” and “patient investments” into barriers and drivers at the strategic level. Drawing on Johnson et al. (2017), we use the word “strategic” to indicate actions that contribute to core organizational objectives and shape the long-term direction of a firm. Finally, “functional excellence,” “standard innovation processes and procedures,” “fixed resource planning and allocation,” “incentive system focused on short-term,” “financial performance metrics” encapsulated operational barriers to SBMI caused by practices that support strategic actions that contribute to core organizational objectives; and "people capability development," "enabling innovation structure," "ring-fenced resources for SBMI," "incentive scheme for sustainability," and "performance metrics for sustainability" were identified as operational drivers. Figure 5.1 summarizes the process that we followed by showing our first-order concepts, categories, and aggregate dimensions.

5.4 Results

Building on the notion that the highest order dynamic capabilities—sensing, seizing, and transforming—are most relevant for innovating business models (Teece, 2018), our analysis revealed organizational design factors at an institutional, strategic and operational level that inhibit or enable those dynamic capabilities for SBMI. We first discuss barriers in organization design followed by factors that drive dynamic capabilities for SBMI, as presented in Figure 5.2.

5.4.1 Barriers

As detailed in Figure 5.2, a focus on maximizing shareholder value fosters uncertainty avoidance and short-termism. In turn, barriers at the institutional level as rules, norms, and beliefs that guide organizational behavior lead to a strategic emphasis on functional strategy, exploitation of current business operations, and short-term profitability. These strategic barriers translate into the following operational barriers: functional excellence, standardized innovation processes and procedures, fixed resource planning and allocation, incentive systems focused on the short-term, and financial performance metrics. Barriers on each level affect a corporation's ability to identify and assess opportunities for SBMI; seize opportunities; and renew, displace and transform existing business models.

Figure 5.1 Data Structure

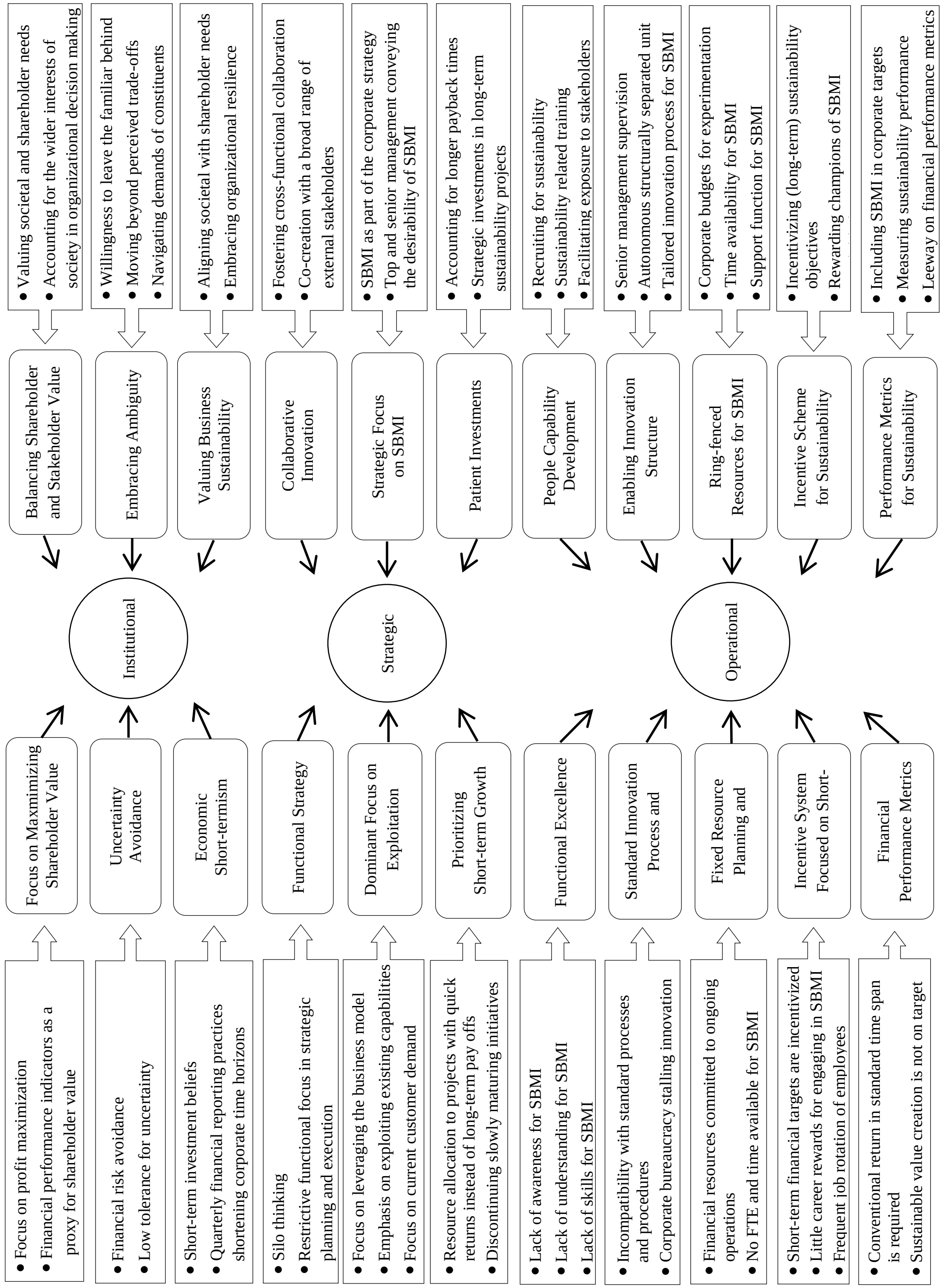
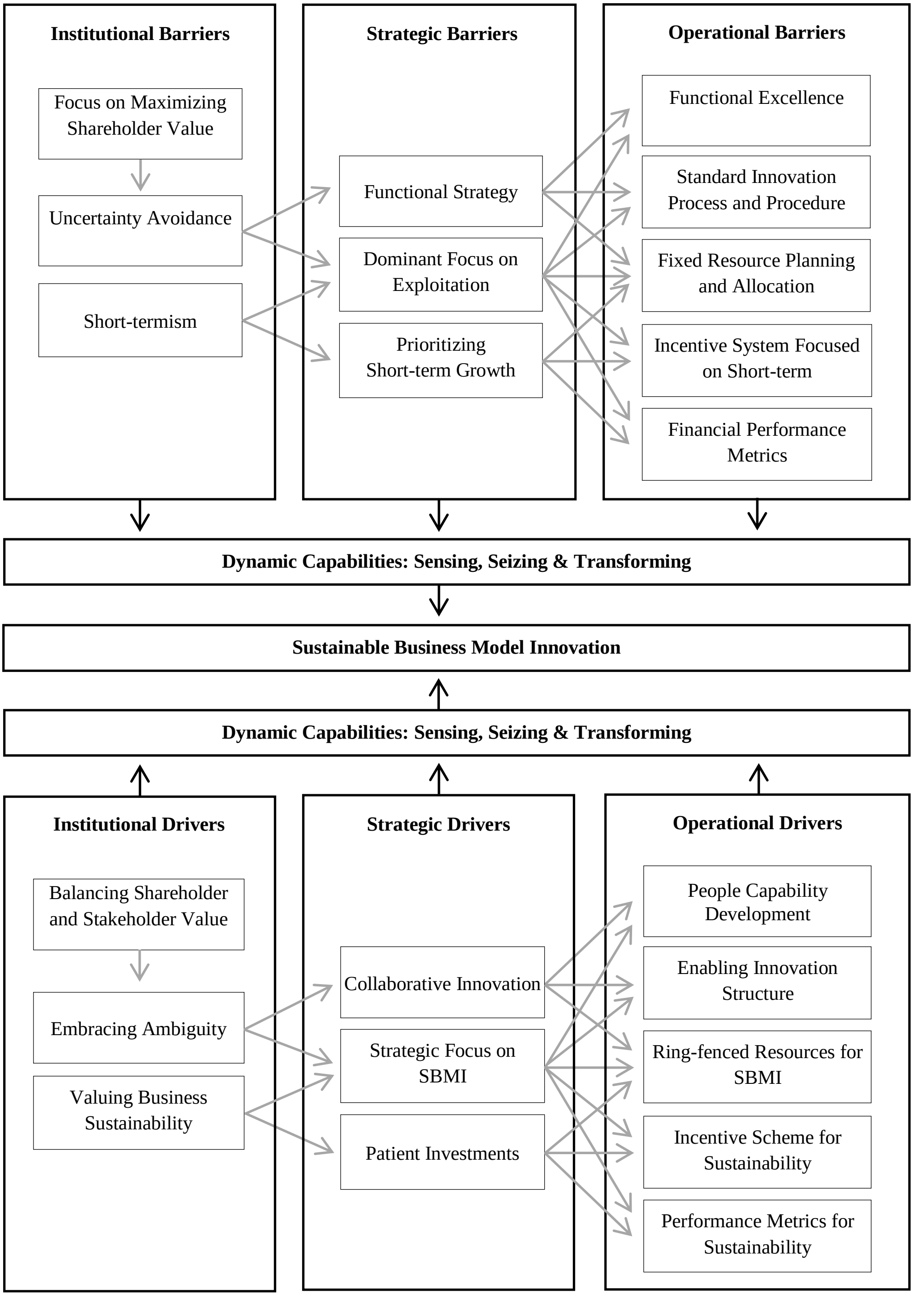


Figure 5.2 Barriers and Drivers to Sensing, Seizing and Transforming for SBMI



5.4.1.1 Institutional Barriers

Factors of organization design at the institutional level are concerned with well-established rules, norms, and beliefs that describe the reality for the organization and guide behavior accordingly (Hoffman, 1999, p. 351). We identified the purpose and objective of corporations to maximize shareholder value and subsequent short-termism and uncertainty avoidance as institutional barriers that obstruct sensing, seizing, and transforming for SBMI.

5.4.1.1.1 Focus on Maximizing Shareholder Value

As frequently stated by interviewees, SBMI suffers from a focus on profit maximization and financial performance indicators to satisfy shareholder value. SBMI is difficult to achieve in itself, but the requirement for SBMI to be substantially profitable makes it even more complicated. Commenting on its effect on seizing, a top manager said, "[Making SBMI profitable] is challenging, I have to show my shareholders that I can realize my 15% [profit margin target]." A senior manager confirmed, "Our biggest struggle is to create a business model with which we can show that [SBMI] is also good business." A focus on maximizing shareholder value also impaired sensing. A mid-level manager offered:

> There are an awful lot of very negative people… it was very much the theme of… this wasn't really seriously about the business, it's more... coming up to you with 'tree hugger'... [If] you're just thinking with a commercial mindset, how could I ever bring value to the company with this kind of model?

Furthermore, with financial performance indicators as a proxy for shareholder value, corporations are reluctant to drive SBMI when it negatively affects financial performance indicators. A top-manager illustrated how this inhibited transforming by explaining how the adoption of a sustainable (circular) business model was impaired by the capital market, and said, "you will get assets as part of a solution which is no longer bought by the customer, that remain on our balance sheet… when you are capital intensive, my return on capital goes down, and shareholders don't like that."

5.4.1.1.2 Uncertainty Avoidance

Problematically, a focus on maximizing shareholder value leads to uncertainty avoidance with respect to achieving financial results. As a consequence, investment decisions inside corporations are driven by financial risk avoidance and a low tolerance for uncertainty. As developing new capabilities for SBMI requires upfront investments with uncertain returns, a mid-level manager argued that financial risk avoidance impaired transforming: "this is common in the company, we are a bit risk-averse in terms of testing new things." While SBMI typically addresses complex social and ecological problems, a low tolerance for uncertainty also obstructs SBMI. Commenting on its negative effect on sensing, a senior manager stated, "People can be put-off by the complexity… the attention span doesn't give room for lots of exploration." A low tolerance for uncertainty also impaired seizing. A mid-level manager stated, "how to approach [SBMI] is maybe at still quite a vague stage… the solution isn't anywhere near clear."

5.4.1.1.3 Short-termism

As observed in our data, a focus on maximizing shareholder value also translates into short-termism. While corporations aim to realize immediate profits to satisfy shareholders demanding quick returns, short-term investment beliefs were said to dominate investment decisions. Commenting on its negative effect on sensing, a mid-level manager stated, "If I'd said to somebody I'm going to spend four years thinking about the problem and working [it] out… a lot of people… would have said… you need to be thinking of things that are going to deliver next year." The temporal orientation of corporations is also shortened by quarterly financial reporting practices. A top manager said, "a feature of a publicly listed firm is that every quarter you have to show good results." A mid-level manager explained this negatively affected the seizing of opportunities:

> When the CEO is going to stand up every three months to the external world and show progress on the financial side, particularly if you are not where the analysts want you to be, then that is quite hard to find a way of marrying that up with some of the long-term thinking that sustainability demands.

Furthermore, short-termism also affected transforming. Another mid-level manager said:

> [SBMI] requires long-term thinking and most businesses seem to struggle with this… the need for change is often articulated in terms of, you know, what the world would look like in 2050 or the end of the century and that's just too big a timescale for people to really get their heads around and to think about what it means for them now particularly when as an organization you're reporting quarterly profits and expectations of returns on investment.

5.4.1.2 Strategic Barriers

Originating from a focus on maximizing shareholder value, uncertainty avoidance and short-termism at the institutional level, we identified an emphasis on functional strategy, a dominant focus on exploitation, and prioritizing short-term growth as strategic barriers that obstruct sensing, seizing, and transforming for SBMI. Notably, these barriers at the strategic level are concerned with actions that contribute to core organizational objectives and shape the long-term direction of a firm (Johnson et al., 2017).

5.4.1.2.1 Functional Strategy

To reduce risk and uncertainty and drive efficiency, corporations in our sample seek to foster risk-mitigation and optimally leverage functional capabilities by setting clear functional boundaries and defining functional responsibility, accountability, and authority. To achieve corporate objectives, divisions and support functions each have their own strategy and follow their own strategic plan to reach specific goals. As a consequence, interviewees commented that this functional strategy focus negatively affects SBMI through a restrictive functional focus and silo thinking.

Commenting on a restrictive functional focus, interviewees stated that SBMI suffered from a lack of collaboration and shared ownership of a sustainability agenda between functions, which comes at the expense of seizing opportunities. A mid-level manager offered:

> Issues relate to different people in different realms. Production vs R&D. In order to try new things, you need to bother production. But production doesn't want to try new things, they want to use all of their resources to develop products. So there is always a conflict there. Conflict between sales and marketing, between engineering and maintenance, between production and quality. So for every project there are multiple conflicts.

In a similar vein, another mid-level manager stated about its negative effect on transforming:

> Our CEO, is saying "I want [business sustainability] to happen," several layers down I'm talking to a marketing director in the UK business who says, "I don't care what [the CEO] says, I've got these prices to deliver." And now she's not going to change her tune until her boss, the UK CEO, changes his, and he will take the view, "I understand sustainability is important, I'd love to deliver on these things but I can't tell my team what their priorities are."

Interviewees also commented on silo thinking. A mid-level manager stated on sensing:

> [C]ollaboration between departments is also important to be able to get that idea through the organization. [The corporation] has over the last three years changed areas, has changed quite dramatically from being more of an umbrella to more functionalized and it puts a lot of demands upon us to be able to work in a matrix and get your ideas through.

5.4.1.2.2 Focus on Exploitation

Both uncertainty avoidance and short-termism motivate a strategic focus on exploitation. As a consequence, we observed that an emphasis on leveraging the existing business model, exploiting existing capabilities, and current customer demand comes at the expense of sensing, seizing, and transforming for SBMI.

While a strategic emphasis on leveraging the existing business model was motivated by maximizing shareholder value in a quick and certain way, such a focus obstructs SBMI. With regard to transforming, a senior manager said, "if you want to make your 15% [profit margin]… you cannot think about a full redesign of your business model." A top manager added, "switching to a different business model is incredibly difficult… the complexity of changing your business model is tremendous… you cannot disrupt it at once, from the perspective of your legacy." A senior manager explained, "you need to keep your credibility towards the stock market… you cannot suddenly position yourself completely different."

Furthermore, our data also reveal that a strategic emphasis on exploiting existing capabilities comes at the expense of developing new capabilities needed for SBMI. A mid-level manager commented on its negative effect on seizing by saying, "the message is more and more focus on the core, which people are trying to do, but when you do that, your opportunities to do new things are diminished." Also, a focus on current customer demand obstructs SBMI. While this has a negative effect on sensing, a mid-level manager stated, "the way in which we go back to insight through customers, analysis of customer needs, does not always throw up sustainability as a core need from customers… [therefore] the marketing teams will concentrate on servicing the primary needs."

5.4.1.2.3 Prioritizing Short-term Growth

Lastly, short-termism at the institutional level fosters a strategic emphasis on prioritizing short-term growth. Interviewees experienced that resources were primarily allocated to projects with quick returns. Commenting on its effect on sensing for SBMI, a mid-level manager said, "your project will be competing towards very many other projects… we'll get the money, if the period of time is reasonable, therefore worth the comparison with others, but that can delay and actually stop [SBMI]." A mid-level manager added on transforming, "it's the politics of the prioritization and I think it is that alignment of internal business purpose to say: ‘if you want to do this guys, you’ve got to resource it, you’ve got to take some decisions which are not going to be short-term’.”

Moreover, interviewees mentioned that a focus on short-term growth translated into strategic decisions to discontinue slowly maturing initiatives. In terms of seizing, a senior manager offered, “I’ve been in so many projects where people say, ‘ah, well we need to show that we can get sales this year, otherwise we’re going to kill the project,’ and you sort of know that that’s not going to happen for two or three years.” Another senior manager confirmed, “You need to have the patience for [SBMI] to be small for quite long... You need to make sure that you’re not going to take away the resources off it too soon.”

5.4.1.3 Operational Barriers

A strategic emphasis on functional strategy, exploitation, and short-term growth were found to obstruct SBMI, yet, these strategic barriers also translate into organizational design factors that hinder sensing, seizing, and transforming for SBMI at the operational level. Operational barriers are caused by practices that support strategic actions that contribute to core organizational objectives, and included functional excellence, standardized innovation processes and procedures, fixed resource planning and allocation, short-term oriented incentive systems, and financial performance metrics.

5.4.1.3.1 Functional Excellence

As observed in our data, a strategic emphasis on functional strategy and a dominant focus on exploitation results in narrow functional expertise of employees. Commenting on a subsequent lack of awareness for SBMI, a mid-level manager explained its negative effects on sensing by sharing, “a reason why people don’t engage in [SBMI], is because they are not aware of it.” Interviewees also commented on a lack of understanding SBMI. A mid-level manager said about its effect on seizing, “The business isn’t set up to support and understand that type of innovation and there might be less acceptance of… the level of ambiguity and unrealistic expectations.” A lack of understanding SBMI also came at the expense of deliberate continued renewal of the organization’s capabilities. A mid-level manager stated, “[employees] [do not] understand the business case for sustainability… it is simply not clear to them.”

Lastly, a functional focus and a strategic emphasis on exploitation cause a lack of skills for SBMI. While underlining its importance to seizing, a senior manager explained, “many of the line managers don’t have any training or we haven’t done any capacity building… so that they are able to look at an idea which is not well formed and actually help with the BMC [business model canvas].”

5.4.1.3.2 Standardized Innovation Processes and Procedures

A strategic emphasis on exploitation and functional strategy also give impetus to standardized innovation processes and procedures. Problematically, interviewees remarked that SBMI is often incompatible with such processes and procedures, as they favor incremental innovation and require standard input from functions. While this forms a barrier to transforming, a mid-level manager said, “I totally accept that having a process is a really good thing. It's just when your reason is to change the future, then working with a process is sort of like hitting metal.” Commenting on its effect on seizing, another mid-level manager said, “[when] it becomes too standardized, it becomes too much procedures and processing, people tend to become mechanical in their work, and lose a bit of the creativity, which is needed to be able to come up with new ideas.”

Furthermore, interviewees experienced that corporate bureaucracy obstructs SBMI by slowing down decision making and overcomplicating resourcing. This negatively affects sensing as good ideas get “stuck”. A mid-level manager commented, “you always need to cross ten layers… to try something new.” Another mid-level manager added on seizing, “you are continuously waiting for others”, while a third observed, “we spend more time arguing with ourselves than we do with the marketplace… it takes a lot of resource… people spend so much time arguing cases internally to do things that it’s quite easy to lose heart.”

5.4.1.3.3 Fixed Resource Planning and Allocation

As observed in our data, a focus on functional strategy, exploitation, and short-term growth resulted in fixed resource planning and allocation as an operational barrier to SBMI. Both financial and human resources are committed to ongoing operations, but SBMI suffers from a lack of both types. Commenting on its effect on transforming, a senior manager admitted, “there is little budget for central stimulation, and our program management… does very little in terms of [SBMI].” A lack of time available for SBMI also has a negative effect on seizing. A mid-level manager stated, “there were a lot of employees with many ideas, but there was never time to implement these ideas.” Another mid-level manager added, “If you already have a very busy job and you need to find the time to do something extra like [SBMI] it could be very difficult, because you are still accountable for your day-to-day production and projects.” While this also had a negative effect on sensing, a senior manager said, “If people don’t have the time to think about things, if they are overwhelmed with the day-to-day responsibilities, that can be a discouragement.”

5.4.1.3.4 Incentive System Focused on Short-term

As observed in our data, a strategic focus on exploitation and short-term growth give impetus to a short-term incentive system at the operational level. Such an incentive system includes short-term financial targets, little career rewards for the pursuit of SBMI, and frequent rotation of employees. With respect to short-term financial targets, a mid-level manager commented, “[businesses] are faced with commercial realities within monthly, quarterly, annual business targets." A senior manager explained its negative effect on sensing, "[when] you try to implement something which is very good for the company, but it doesn't provide a direct gain to your direct boss... That is sometimes an issue." A mid-level manager added, "the role of the chief exec is not just about hitting next year's or next quarter's numbers, but actually making sure the long-term health of the business is there but most CEOs are heavily 'bonused' on their sort of three-year line."

Besides short-term financial incentives, employees commented on a lack of career rewards for SBMI. A mid-level manager shared, "You're out there battling quite often against other forces… [if] you want to… build your career and profile why on earth would you do something that everyone's going to argue with?" While acknowledging that a lack of incentives impairs sensing, a senior manager offered, "changing lives of poor people in Africa [so] maybe one day it's a new business model or do you want to be a brand manager launching the next million-dollar product? There is clearly a short-term career risk."

Lastly, short-term incentives as part of employee performance evaluations lead to frequent job rotation. A mid-level manager commented on the negative effect on transforming, "when you invested a lot of time, and you have built a prototype at the right price and people like it, it is ready to be used… suddenly there is a new manager." A senior manager added, "you do all this work… making sure that everyone understands the value it creates and then someone else comes in and you might have to do that all over again."

5.4.1.3.5 Financial Performance Metrics

Lastly, a dominant focus on exploitation and prioritizing short-term growth at a strategic level lead to short-term financial performance metrics. As a typical return on investment in a conventional time frame is required, SBMI is obstructed in multiple ways. Related to sensing, a mid-level manager stated, "[SBMI] might be a little bit more risky. It might take longer to realize a positive return.” As a consequence, another mid-level manager concluded, “any process for evaluating new ideas that focuses too heavily on the business case early is always going to filter out these things.” A third mid-level manager confirmed, “there is more to this [idea] when you start looking at the life cycle of a product… But those are indirect effects that do not translate into short-term financial effects.”

Lastly, interviewees also commented on a lack of shared sustainability targets. This comes at the expense of seizing, as explained by a mid-level manager:

> We have a set of core metrics in our business, which are managed at global board level, and they come down to what we would call… business unit directors, but at that level they are one amongst many objectives and they certainly don’t gravitate below that... Which means that [mid-level managers] can happily push back on the efforts to introduce [SBMI].

While a lack of shared sustainability targets also came at the expense of transforming, a mid-level manager offered:

> What happens is that the guys at the top put an overall framework in place which creates the atmosphere but they are very reluctant to drive that down so they don’t get reports… the top tier management… they are a little bit guilty of wishful thinking. Do they think because they think it’s important, if they don’t drive it down a level, it’ll still happen anyway?

5.4.2 Drivers

The purpose and objectives of corporations to maximize shareholder value trickle

down to institutional, strategic, and operational barriers. Counteracting this, a balanced approach to shareholder and stakeholder value at the institutional level fosters a willingness to embrace ambiguity and value business sustainability. As captured in Figure 5.2, these institutional drivers shape a strategic emphasis on collaborative innovation, SBMI, and patient investments. In turn, strategic divers trickle down to drivers at the operational level, where people’s capability development, an enabling innovation structure, ring-fenced resources for SBMI, an incentive scheme for sustainability, and performance metrics for sustainability, enabled SBMI. Drivers at each level affect the way in which corporations sense and evaluate opportunities for SBMI, influence whether corporations can seize opportunities, and impact a corporation's willingness to displace and transform its existing business models.

5.4.2.1 Institutional Drivers

Institutional drivers refer to well-established rules, norms and beliefs that describe the reality for organizations and affect organizational behavior (Hoffman, 1999). To mitigate negative effects of a focus on shareholder value, uncertainty avoidance, and short-termism as barriers to SBMI at the institutional level, we identified a balanced approach towards shareholder and stakeholder value, embracing ambiguity, and valuing business sustainability, as institutional drivers for dynamic capabilities for SBMI.

5.4.2.1.1 Balanced Focus on Shareholder and Stakeholder Value

To complement a focus on maximizing shareholder value, interviewees underlined the importance of a balanced focus on shareholder and stakeholder value as an institutional driver of SBMI. Reflecting on the importance of valuing societal and shareholder needs, a top manager commented on the positive effect on seizing: "there's a permissive culture about wanting to have to demonstrate that [our corporation] is a business of purpose and that we have a broader mandate than simply returning dollars and euros to shareowners, but also adding positive social value." Another top manager commented on its importance to transforming by saying:

> We have leadership that has really emphasized the importance of sustainability which is really better understanding the environment, the external environment in which we're operating in, connecting up to the big trends and issues that exist in society. It creates an awareness and sensitivity to bring ideas in as opposed to an insular, self-contained culture so if you embrace sustainability as a company, you're necessarily making a statement about the fact that you need the outside in, not just

> the inside out and that means being much more open to new business models, new ways of thinking.

Furthermore, interviewees mentioned that accounting for the wider interest of society in organizational decision making is important to move beyond financial performance indicators guiding organizational decision making. Explaining its importance to sensing, a top manager stated, “When [BMI] is from a financial and sustainable standpoint not the right decision it will not happen.” In a similar vein, a mid-level manager stated:

> It’s not just about making money. Obviously we’re a company and we need to be able to continue to… give a good return to our shareholders. On the other hand, though, because we’ve been successful and we have all of these opportunities, we do believe we have to make that accessible to people... ethically how could you not help them?

5.4.2.1.2 Embracing Ambiguity

Even though uncertainty avoidance was found to be integral to the functioning of corporations, interviewees highlighted the importance of corporations embracing ambiguity to solve long standing societal issues and navigate often conflicting demands of shareholders and stakeholders. To accept the discomfort of staying in uncertainty while outcomes of multiple potential solutions are unclear, corporations have to be willing to leave the familiar behind. A mid-level manager commented on its importance to seizing, “this kind of innovations need a different management and a different way to look at, people that are more comfortable with ambiguity as opposed to more conventional innovation.” While interviewees commented on the importance of balancing contradictory demands of stakeholder concurrently, a senior manager said in relation to transforming:

> Now it’s a risk but at the same time that’s the sort of risk that we take as a business all the time and so you have to be prepared as a company if you believe in trying to create new business models, you believe in the role of long term roles in society, that there’s a co-dependency, then you have to create the space for this.

Embracing ambiguity also entails that corporations move beyond perceived social-business trade-offs. A top manager commented on its importance to sensing by saying, "let's take waste as an example. If you actually drive waste down which is good for your costs, it's ethically right and it is sustainably right so you know that's the first point, so we need to break this narrative around 'it's more expensive'. It's not. It's really not."

5.4.2.1.3 Valuing Business Sustainability

Integral to corporate efforts to strike a balance between shareholder and stakeholder value, is the desire of corporations to meet their short-term and long-term needs, including those of society, to achieve greater levels of business sustainability. To underline the importance of aligning societal needs with those of shareholders, a top manager commented on its importance to sensing by saying:

> [It] is about this urgency and the now, versus sustainability for the future. Sustainability is therefore today's performance and tomorrow's performance because we manage a sustainable… growth model and therefore we outperform our competitors and that is super important. Because we know society better, we are closer to our culture, we create propositions which are actually more preferred by our consumer, and therefore sustainability for us… has to do with performance for today and for tomorrow.

With respect to aligning societal needs with those of shareholders in relation to seizing, a mid-level manager said, "once that climate's created at the very top of the business, it provides an umbrella to organize some resources to address the issues that are associated with that."

Furthermore, embracing organizational resilience was said to enable dynamic capabilities for SBMI. While such focus for corporations to prepare, anticipate, and respond to external changes in the environment was said to be important to enable SBMI, a top manager commented in relation to transforming: "last year we said that we wanted to become independent from oil… you confront your entire organization and just see how you manage… [SBMI] fits into that picture… we are not interested in oil prices any longer [because we largely] became independent of that.” The top manager further explained, “this is part of our thinking, that sustainable business model innovation type of thinking… you would never believe that you could realize such level of innovativeness… that type of sustainability thinking moved us to develop these competencies.”

5.4.2.2 Strategic Drivers

As observed in our data, institutional drivers in the shape of balancing shareholder and stakeholder value, embracing ambiguity, and valuing business sustainability inspire a strategic emphasis on collaborative innovation, a strategic focus on SBMI, and patient investments. Importantly, strategic drivers enable sensing, seizing, and transforming for the purpose of SBMI and provided a counterweight to strategic barriers.

5.4.2.2.1 Collaborative Innovation

Embracing ambiguity at the institutional level opened the door for SBMI. Yet, interviewees emphasized a need for collaborative innovation to foster dynamic capabilities for SBMI. To address complex sustainability challenges, interviewees mentioned that multidisciplinary and cross-sectoral collaboration are required to inspire innovative solutions. Cross-functional collaboration is central to innovating with multiple players inside and outside the organization. With respect to seizing, a senior manager stated, “[sustainability] is certainly not restricted to one function, but has to be carried out by multiple functions… so you leverage each discipline… it is important to look at… multiple angles to increase your chances for success.”

Co-creation with external stakeholders including customers, other organizations, and local communities, is found to be an important aspect of collaborative innovation. A senior manager commented on its importance to sensing by sharing, “That is the real stakeholder engagement – to understand what society's issues are and develop solutions according to that." Co-creation with a broad range of external stakeholders also enables transforming. A top manager explained, "as a company you never have all the knowledge and answers. This requires a specific co-innovation program. We have built that over the years... this forms the foundation of our success and capabilities and [sustainability] thinking to drive [SBMI]."

5.4.2.2.2 Strategic Focus On SBMI

Embracing ambiguity and valuing business sustainability at the institutional level provides a basis for a strategic focus on SBMI, which makes SBMI an integral and important part of a corporation's strategy to achieve its (long-term) objectives. A top manager commented on its importance to transforming, "to provide direction to innovation, we said, we provide a dot on the horizon." Commenting on why SBMI initiatives had emerged inside the respective corporation, a mid-level manager offered, "because sustainability has been brought in [to strategy]. It's one of the missions."

Furthermore, interviewees also commented on the importance of top and senior managers conveying the desirability of SBMI by underlining its strategic importance. Highlighting its importance to sensing, a senior manager said, "you have to stimulate employees to not only consider the business of today, but also the business of tomorrow." While this also had an influence on seizing, a mid-level manager said, "If you don't have that constant reinforcement from the top… it is actually very easy to get bogged down in the day-to-day so… whenever we're doing our list presentations or quarterly presentations… you'll always see progress against sustainability objectives."

5.4.2.2.3 Patient Investments

Valuing business sustainability at the institutional level was found to foster a long-term temporal orientation, which translates into patient investments at the strategic level. To enable dynamic capabilities for SBMI, interviewees commented on the importance of strategic investments in long-term sustainability projects and for managers to forgo an immediate return. With respect to sensing, a top manager said:

> Based on the profitability of [a SBMI initiative] we could have decided not to invest. But when you consider that it saves you energy and that you don't want to be depended on oil… I took the decision because it was the right thing… it fits our sales profile.

Furthermore, interviewees also expressed the importance of accounting for longer payback times. Commenting on its importance to seizing, a senior manager emphasized the importance of "[being] realistic about timelines" and stated:

> You are patient and you get it done or you're not. It's fine if people bang the table and I do it myself occasionally but that's really to encourage rather than to say, you know, 'No, I don't want to do this for more than a year'... some innovations take an awful long time to settle in, even really quite small innovations can take quite a long time to be accepted in the market.

Emphasizing the importance of accounting for longer payback times for the purpose of transforming, a top manager offered:

> It'll be the organizations that have been experimenting, that have been working in trial and error, that will be best positioned to take advantage of that and to also be part of that future… to understand the opportunities so it's really about long-term business survival and evolution.

5.4.2.3 Operational Drivers

While an emphasis on collaborative innovation, a strategic focus on SBMI, and patient investments at the strategic level enable sensing, seizing, and transforming for SBMI, these also facilitate practices that enable the execution of strategic actions conducive to dynamic capabilities for the purpose of SBMI. Drivers at the operational level include people capability development, an enabling innovation structure, ring-fenced resources for SBMI, an incentive scheme for sustainability, and performance metrics for sustainability.

5.4.2.3.1 People Capability Development

As observed in our data, a strategic emphasis on collaborative innovation and SBMI results in investments in people capability development related to training, recruitment, and development programs that facilitate exposure to stakeholders. Commenting on the need for recruiting sustainability minded employees for the purpose of transforming, a top manager emphasized the importance for organizations to have "like-minded people" and stated that "recruitment teams are pretty specific about what we stand for as a company, which also drives that you have a group of people working inside this company, many of whom share the purpose that we are here for."

As part of people capability development, training was said to be important to enable dynamic capabilities for SBMI. Commenting on the importance for seizing, a top manager stated, "education. I cannot emphasize that enough… We have to provide employees with training… when introducing a sustainable business model." With respect to corporations facilitating exposure to stakeholders and its effect on sensing, a senior manager offered:

> [W]e have taken [employees] to different healthcare environments to immerse themselves in the realities of what does life look like… they met people in poverty camps, they met people in hospitals, they met people in streets and other businesses so really taking them out of the cocoon... and then challenge them all the time to... [think about what they] could do differently tomorrow.

5.4.2.3.2 Enabling Innovation Structure

As observed in our data, collaborative innovation and a strategic emphasis on SBMI give room to an enabling innovation structure at the operational level. To overcome problems with bureaucracy and a lack of collaboration between functions, and to fund and protect

SBMI, the importance of top and senior management involvement was mentioned. Commenting on its need for seizing, a senior manager said, “breaking barriers should be part of the role of the sustainability leader by going through the levels within the hierarchy from top to bottom and… making bridges.” A mid-level manager added, “with the sustainability project, there [are] so many barriers… you need somebody at a high level who will help you tail off those barriers.” A senior manager confirmed “you need someone from management… who can spend some attention, [who] is willing to allocate budget… who believes that this is the direction the company should go.”

Furthermore, interviewees emphasized the importance of autonomous structurally separated units to enable dynamic capabilities for SBMI. In terms of transforming, a top manager argued, “sustainable business that we do, greening our current product portfolio, you can perfectly do that inside the existing businesses. For new innovative ideas, that can be challenging.” A tailored innovation process was also mentioned as an important driver for dynamic capabilities for SBMI. Commenting on the importance of tailored innovation process for sensing, a mid-level manager offered:

> We use a stage-gate type of approach in innovation, we have checklists at each of the gates and the governance process around how decisions are made, if projects are going to be higher impact or have some sort of sustainability issue [we have] policies in place that direct the sort of innovation.

5.4.2.3.3 Ring-fenced Resources for SBMI

Collaborative innovation, an emphasis on SBMI, and patient investments at the strategic level call for dedicated resources for SBMI at the operational level. While emphasizing a need for separate budgets to enable experimentation with SBMI, a mid-level manager offered with regard to seizing:

> If you are just relying on normal prioritization mechanisms to allow these projects to come to the top, I think that would always be a real challenge…You’ve always

> got competing resource issues. If you don't have technical teams or separate resources ring-fenced for these sorts of things the other types of project that are competing for resource that have got a clearer outcome, a shorter deliverable, a clearer business case, they're always easier to say yes to than something which is a bit less fully formed, a bit less clear as to how it's going to work, let alone if you're going to make any money out of it.

Dedicated budgets to enable experimentation was also said to be conducive to transforming. A top manager explained, "[every employee] was counted upon to reduce waste… it generated profit which we reinvested [in SBMI]… this created a snowball effect."

Interviewees also commented on the importance of time availability. With respect to its effect on sensing, a mid-level manager stated, "we have some sort of Friday afternoon-hour. You can spend them on whatever you feel like... so we have invested our Friday afternoon to see: okay, what [circular] propositions can we think of." Interviewees also commented on the importance of a support function for sustainability. Elaborating on its importance to sensing, a mid-level manager said, "The fact that we do have a sustainability team means we do have some dedicated resource… because we don't have those commercial day-to-day pressures, we have time to think and time to be a bit imaginative."

5.4.2.3.4 Incentive Scheme for Sustainability

Following a strategic emphasis on SBMI and patient investment, interviewees emphasized the importance of having an incentive scheme to give substance to these strategies at the operational level. While acknowledging the importance of incentivizing (long-term) sustainability objectives to seizing, a senior manager stated, "for years we had a part of our annual bonus based on sustainability performance… [to] put our money where our mouth is." Underlining the need for incentives to enable sensing, a top manager offered, "[a business unit manager had] never asked a question about sustainability before. I thought it was pretty shameless. The day after it was announced that 50% of the incentive scheme became dependent on long-term objectives, he asked… 'what can I do to improve my sustainability score?'." While such approach also had an effect on transforming, a top manager stated, "They all know, I play the game: if you do not co-operate, when your department doesn't innovate, [employees] miss their long-term incentive bonus."

Furthermore, rewarding champions for SBMI initiatives was also deemed important to enable dynamic capabilities for SBMI. Interviewees commented on the importance of rewards to stimulate sensing. A senior manager stated, "We start with a pat on the back but it can also be financial rewards for specific initiatives… [or] promotion."

5.4.2.3.5 Performance Metrics for Sustainability

Finally, a strategic emphasis on SBMI and patient investments inspire performance metrics for sustainability at the operational level. While interviewees perceived a need to include SBMI in corporate targets and embed them in functions, a top manager commented on the importance to sensing by offering, "it provides legitimation to the organization [and employees] say: '[the CEO] asked for… sustainable and circular business models, so what can we do?'." A mid-level manager added to this, "the only safeguard against that resource being prioritized out is having a clear objective owned by [management] to deliver on sustainability objectives." Another top-manager commented on the effect of setting corporate targets on transforming by offering, "[By setting audacious sustainability goals] we completely changed a fundamental assumption of our business… it makes your organization start thinking, you will end with completely different things."

As a critical part of performance metrics for sustainability, interviewees commented on the importance of measuring sustainability performance. With respect to sensing, a mid-level manager stated, "we have developed a scorecard to compare new initiatives, in terms of whether they are circular… they are not allowed to contain hazardous material… or else they won't be produced." Measuring sustainability performance was also important to seizing. A mid-level manager shared:

> Last year we ran a campaign of R&D, sales, marketing… it was role-specific in terms of we want you to focus on these particular areas [as part of the corporate sustainability plan], if you want to know more, here's where you can get more training and more reference sources but fundamentally this is what we want you to do… part of your measurement, which we do quite regularly, is checking to see that those actions are happening and that things are progressing.

Lastly, while interviewees commented on negative effects of short-term financial performance-based metrics for SBMI, leeway on financial performance metrics was mentioned as a critical factor to enable dynamic capabilities for SBMI. With respect to sensing, a mid-level manager admitted that "it is more risky [and] there is a longer payback time for positive cash flows." As a consequence, a senior manager explained:

> You need to be able to evaluate [SBMI] against the different evaluations… Because it's going to be small for long and it's not going to be profitable, it's not going to scale as fast but if you would hold it up to the same KPIs as your normal business then it's never going to work.

5.5 Discussion

SBMI is viewed as essential to solve pressing societal issues (Laasch, 2018; 2019). Yet, the emergence of SBMI in large incumbents, who have the potential to address societal challenges at scale, is lagging behind (Ritala et al., 2018). Recently, authors focused attention on the importance of a firm's organization design to stimulate the development of dynamic capabilities needed for BMI (Fjeldstad & Snow, 2018; Teece, 2018). Dynamic capabilities are key for SBMI, but the organization design as an important factor in the emergence of such dynamic capabilities, needs to be more fully understood. To bridge this gap, we conducted 53 interviews with 55 top, senior and mid-level managers in six MNCs to explore how factors of organization design hinder or reinforce dynamic capabilities for 59 SBMI initiatives. By providing a comprehensive understanding of barriers and drivers at the institutional, strategic and operational level as captured in Figure 5.2, our study highlights factors related to organization design that influence the dynamic capabilities needed for SBMI.

In doing so, we see the theoretical contributions of our paper as threefold. First, we address the underexplored link between organization design, dynamic capabilities and BMI in the context of SBMI. Second, we introduce an integrative and comprehensive multi-level framework which includes factors (barriers and drivers) for organization design in relation to dynamic capabilities for SBMI that trickle down from an institutional, to a strategic and operational level. Third and finally, we seek to contribute to literature on SBMI, which is in need for stronger theoretical contribution as well as practical guidance, beyond disparate cases (Lopez et al., 2019). We elaborate on these contributions in sequence next.

5.5.1 Organization Design and Dynamic Capabilities For SBMI

Responding to emerging conceptual studies, highlighting the importance of investigating the underexplored link between organization design, dynamic capabilities and BMI (Fjelstad & Snow, 2018; Teece, 2018), we empirically shed light on the intersections between these concepts and pose that organization design factors are important determinants for the existence of appropriate dynamic capabilities for SBMI.

In previous research, BMI barriers have been described broadly (Chesbrough, 2010), relating to the fact that BMI challenges the existing business model and its building blocks (Baden-Fuller & Haeflinger, 2013; Osterwalder & Pigneur, 2010). BMI may be seen as a threat to existing business as it challenges organizational structures, processes and assets (Amit & Zott, 2001; Chesbrough, 2010). Moreover, the BMI process is seen as unpredictable and iterative (Snihur & Wiklund, 2019). Because corporations have the tendency to perfect existing operations (Agarwal & Helfat, 2009; Teece, 2018), and exploiting current operations is more profitable in the short-run (March, 1991; Smith et al., 2010; Tushman & O'Reilly, 1996), such a focus comes at the expense of BMI. While SBMI seeks to incorporate deeply entrenched societal problems into core business practices, it is regarded as intrinsically more complex than conventional BMI, and requires corporations to adopt a different logic to succeed (Abdelkafi & Täuscher, 2016; Laasch, 2018; Sommer, 2012). As observed in our findings, this makes SBMI particularly vulnerable to the aforementioned barriers to BMI.

Notably, the literature on BMI identified some factors to overcome barriers to BMI. Organizational leadership, a clear vision, management support, organizational structure, incentives, resources and change processes were said to contribute to BMI (Chesbrough, 2010; Doz & Kosonen, 2010; Foss & Saebi, 2017; Teece, 2018). On top of this, for SBMI, a sustainability vision would be required, as well as performance management, metrics focused on sustainability, personal leadership, sustainability values and collaboration with stakeholders (Stubbs & Cocklin, 2008; Rauter et al., 2017). In a similar vein, the related fields of sustainable and social entrepreneurship also highlight the importance of a business purpose, identifying complementarities between social and commercial interests, and collaborating with a broad range of stakeholders for SBMI (Spieth et al., 2019).

More recently, Teece (2018) and Leih et al. (2015) have discussed various overlapping and new aspects of organization design, such as flexible organization (structures) and values, and how these might undermine or reinforce dynamic capabilities for BMI. A handful of studies also explicitly state the importance of dynamic capabilities for SBMI (Inigo et al., 2017; Pieroni et al., 2019), and call attention to a sustainability strategy and dedicated investment as important aspects of organization design that drive dynamic capabilities for corporate sustainability (Aragón-Correa & Sharma, 2003;

Chakrabarty & Wang, 2012; Hart & Dowell, 2011). However, the literature on BMI, SBMI and corporate sustainability, do not provide a thorough understanding of how aspects of organization design hinder or enable the identification and assessment of opportunities for SBMI; the mobilization of resources to address opportunities for SBMI and how corporations can extract value from these; and the transformation of business models, as dynamic capabilities for the purpose of SBMI.

In a similar vein, related fields of organizational ambidexterity (e.g., Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996), corporate entrepreneurship (e.g., Burgelman, 1983; Hornsby et al., 2002; Kuratko et al., 2018) and sustainability-oriented innovation (e.g., Adams et al., 2016; Eccles et al., 2014; Geradts & Bocken, 2019; Ramus, 2002) have addressed organizational barriers to corporate (sustainability-oriented) innovation and how to overcome these by pinpointing the role of leadership, structure, processes, systems, and people. While such studies look at similar issues to sensing, seizing, and transforming needed for (S)BMI (Teece, 2018), there are ample opportunities to tease out these relationships further through the lens of dynamic capabilities.

Building on rich empirical data, the present study identified organization design factors that hinder or enable dynamic capabilities for SBMI and how organizations might be designed more appropriately to also shape cognitive capabilities (e.g., changes in perception and reasoning) of its managers that underpin such dynamic capabilities for SBMI (Helfat & Peteraf, 2015). Notably, our results echo and extend previous studies on SBMI from two corporate cases (Stubbs & Cocklin, 2008) and smaller Austrian companies (Rauter et al., 2017) that emphasize a need for MNCs to consider a broad range of stakeholders, rather than solely focusing on shareholders, and to rethink their business purpose by taking a systemic view on doing business. As detailed in our study, doing so would allow MNCs to move beyond perceived trade-offs between shareholder and stakeholder value, and enables MNCs to align internal and external stakeholders interests and build more sustainable value propositions when organizing themselves accordingly (Bocken et al., 2013; Boons & Lüdeke-Freund, 2013; Freudenreich et al., 2019). While our findings also show some overlap with drivers to SBMI in the context of sustainable and social entrepreneurship (e.g., Parrish et al., 2010; Spieth et al., 2018), our study complements this body of work by unveiling barriers and drivers to SBMI in a setting where MNCs innovate their business model for sustainability as opposed to a setting where organizations implement business models to achieve sustainability (Laasch & Pinkse, 2019). Because MNCs are bound by their statutes to answer to shareholders and their performance is publicly exposed to the financial market, we find that barriers at the three levels – starting with the institutional barrier of maximizing shareholder value – co-exist with the various positive drivers, so there is no simple 'band-aid' to remove institutionalized barriers. By identifying detailed aspects of the organization design, and linking them to dynamic capabilities of sensing, seizing and transforming needed for SBMI, we provide a holistic understanding into how key barriers and drivers manifest themselves in corporations, so they can be acted upon by management.

5.5.2 Multi-level Organization Design Factors

Advancing conceptual work by Slawinski and colleagues (2017) who introduced a multi-level framework for organizational inaction to sustainability issues, our findings provide a detailed and comprehensive overview of how interconnected factors for an organization design conducive to dynamic capabilities for SBMI operate and trickle down from an institutional, to a strategic and operational level. For example, maximizing shareholder value and short-termism at the institutional level fosters a dominant focus on exploitation at the strategic level, and translates into a short-term incentive system that inhibits dynamic capabilities for SBMI at the operational level. Conversely, balancing shareholder and stakeholder value at the institutional level may foster a strategic focus on SBMI, and translate into performance metrics for sustainability that enable dynamic capabilities for SBMI at the operational level. Importantly, each identified factor of organization design in the shape of institutionalized rules, norms, and beliefs, strategic actions or operational practices, inhibits or enables sensing, seizing, and transforming for SBMI.

By introducing a multi-level framework, this study leads us to a deeper understanding of organization design. While often understood as a constellation of strategy, skills, structure, systems, and staff (Burton et al., 2006), an expanded theoretical model of organization design includes management philosophy – the values, beliefs, and assumptions that underlie and guide leadership and decision-making (Miles & Snow, 1978; Miles & Creed, 1995). Similar to research on sustainable and social entrepreneurship (Parrish, 2010; Spieth et al., 2019) and sustainable business models (Stubbs & Cocklin, 2008), we find that a philosophy based on balancing shareholder and stakeholder value is particularly important for SBMI in a corporate context (Freudenreich et al., 2019). Our study suggests that management philosophy is not only carried at the institutional level of rules, norms and beliefs of what a typical organization should do and be. It also trickles down to the strategic and operational levels. A management philosophy thus determines the strategy, and through this, the supporting processes and systems at the operational levels. In this way, drivers to SBMI are different from BMI, where the starting point is a shareholder orientation. To advance SBMI, a balanced focus on shareholder and stakeholder value is ideally carried through all aspects of the organization – from strategy, to structure, processes, incentives, and people – to break through the 'dominant corporate logic' (Sommer, 2012), focused on shareholder value, uncertainty avoidance and short-termism at the institutional level, affecting the strategic and operational levels.

Notably, no differences in factors for organization design between corporations in various industries were identified in our study, so the institutional, strategic and operational barriers and drivers may be regarded as common across our sample. While our findings allude to factors in organization design that find their origin in institutional barriers and drivers to SBMI, recent work by Laasch and Pinkse (2019) calls attention to external conditions under which corporations adapt their dominant logic. By contextualizing SBMI, the authors describe how institutional barriers and drivers to SBMI may be shaped by (diverging) demands of a corporation's most salient stakeholders, and how their perceived legitimacy of SBMI determines whether corporations embed responsibility and sustainability in their business models. The organization design and dynamic capabilities perspective in our study provides a complementary viewpoint on how the necessary dynamic capabilities to SBMI are built through factors of organization design, suggesting a pathway forward for companies that are either pressured or discretionary willing to embed sustainability into their business models.

5.5.3 Contributions To SBMI Literature

Lastly, we also contribute to the dispersed literature on SBMI, which has a diversity of individual case studies, but is in need for theory-advancing comprehensive studies (Dentchev et al., 2018; Lopez et al., 2019). By building on a comprehensive empirical data set from interviews with middle, senior and top-level management involved in overseeing and/or pursuing SBMI, we identified an exhaustive set of barriers and drivers at the organizational design level that contribute to dynamic capabilities for SBMI. These factors, as well as the multiple levels of barriers and drivers provide insight into why SBMI to date may have failed and how dynamic capabilities for SBMI be built, through conducive organization designs. As such, this study addresses the need for more empirical research in established organizations and the call for guidance for corporate management on how to innovate business models towards greater levels of sustainability (Foss & Saebi, 2017).

5.5.4 Implications for Practitioners and Future Research Directions

Our findings seek to give guidance to practitioners aiming to redesign their organizations to support SBMI (Foss & Saebi, 2017). By presenting a comprehensive overview of factors at the institutional, strategic and operational levels, we give insight on how important barriers can be broken-through via solutions in organizational design at these three levels. Because initiatives for SBMI are likely to fail when corporations are not organized accordingly, our findings can help corporations in their quest to realize societal betterment while improving company performance. Importantly, drivers do not replace barriers – they co-exist and evolve over time. As logics of companies progressively change towards sustainability, so must organization design factors to deliver on their objectives.

Critically, our findings do not account for actual outcomes of the SBMI process. We suggest future research to focus on the extent to which an organization design conducive to dynamic capabilities for SBMI leads to financial, environmental and social benefits. Moreover, our findings do not yet assess the extent to which barriers and drivers are impeding or enabling SBMI. Future research may contribute by assessing the importance of each of these barriers and drivers. Because the field of SBMI is still in the exploration phase, there is a general need for further quantitative studies that test findings from earlier exploratory studies such as the study at hand, to advance the field and allow it to mature further.

As a second avenue for future research, we suggest studies to address whether certain factors of organization design identified in this study are more important to some types of SBMI than others. While research suggest that different types of sustainability strategies require different capabilities to create value in different ways (Aragón-Correa & Sharma, 2003; Hart, 1995), factors in organization design are likely to play a different role depending on which strategy is adopted and what type of capabilities are needed. Moreover, according to Laasch and Pinkse (2019), pressure by salient stakeholders on corporations seeking to engage in SBMI, differs per sector and translates into varying degrees of embedding responsibility and sustainability into their business models. As such, future research may also address what factors in organization design explain distinct (non-)embedding responses by corporations.

Lastly, our findings did not provide a basis to differentiate between industries with regard to factors in organization design that affect dynamic capabilities needed for SBMI. Research by Hacklin and colleagues (2018) suggests that value migration – those shifts in value-creating forces typically resulting from the move from old business models to new ones to meet changing customer needs – is more prevalent in certain industries than others and therefore affects the extent to which firms in various industries would engage in BMI. While industries may be confronted with sustainability challenges to varying degrees, we suggest future research into the organization design factors per industry, and whether these depend on the degree of value migration in relation to sustainability. To this end, we view the present study on SBMI, organization design and dynamic capabilities as a fruitful source for future research to guide companies in their transitions towards achieving greater levels of sustainability, and as a means to support business practice towards sustainability.

References

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

Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of business models–strategizing, critical capabilities and activities for sustained value creation. *Long Range Planning*, 46(6), 427-442.

Adam, B. (1995). *Timewatch: The social analysis of time*. Cambridge, UK: Polity.

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.

Agarwal, R., & Helfat, C. E. (2009). Strategic renewal of organizations. *Organization Science*, 20(2), 281-293.

Aguinis, H., & Glavas, A. (2019). On corporate social responsibility, sensemaking, and the search for meaningfulness through work. *Journal of Management*, 45(3), 1057–1086.

Ahuja, G., & Morris Lampert, C. (2001). Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Management Journal*, 22(6-7), 521-543.

Alt, E., & Craig, J. B. (2016). Selling issues with solutions: Igniting social intrapreneurship in for-profit organizations. *Journal of Management Studies*, 53(5), 794-820.

Ambos, B., & Schlegelmilch, B. B. (2007). Innovation and control in the multinational firm: A comparison of political and contingency approaches. *Strategic Management Journal*, 28(5), 473-486.

Amis, J. M., Mair, J., & Munir, K. (2020). The organizational reproduction of inequality. *Academy of Management Annals*, 14(1), 195-230.

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, 22(6-7), 493-520.

An, W., Zhao, X., Cao, Z., Zhang, J., & Liu, H. (2018). How bricolage drives corporate entrepreneurship: The roles of opportunity identification and learning orientation. *Journal of Product Innovation Management*, 35(1), 49-65.

Ancona, D. G., Goodman, P. S., Lawrence, B. S., & Tushman, M. L. (2001). Time: A new research lens. *Academy of Management Review*, 26(4), 645-663.

Anderson, P. J., Blatt, R., Christianson, M. K., Grant, A. M., Marquis, C., et al. (2006). Understanding mechanisms in organizational research: Reflections from a collective journey. *Journal of Management Inquiry*, 15(2), 102–113.

Anderson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: Championing natural environmental issues in US business organizations. *Academy of Management Journal*, 43(4), 548-570.

Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, 20(4), 696-717.

Angeli, F., & Jaiswal, A. K. (2016). Business model innovation for inclusive health care delivery at the bottom of the pyramid. *Organization & Environment*, 29(4), 486-507.

Ansari, S., Munir, K., & Gregg, T. (2012). Impact at the 'bottom of the pyramid': The role of social capital in capability development and community empowerment. *Journal of Management Studies*, 49(4), 813-842.
Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*, 16(5), 495-527.
Antoncic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1), 7-24.
Aragón-Correa, J. A., & Rubio-Lopez, E. A. (2007). Proactive corporate environmental strategies: myths and misunderstandings. *Long Range Planning*, 40(3), 357-381.
Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105-123.
Augier, M., & Teece, D. J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, 20(2), 410-421.
Augustine, G., Soderstrom, S., Milner, D., & Weber, K. (2019). Constructing a distant future: Imaginaries in geoengineering. *Academy of Management Journal*, 62(6), 1930-1960.
Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), 1-22.
Bacq, S., Ofstein, L. F., Kickul, J. R., & Gundry, L. K. (2015). Bricolage in social entrepreneurship: How creative resource mobilization fosters greater social impact. *The International Journal of Entrepreneurship and Innovation*, 16(4), 283-289.
Baden-Fuller, C., & Morgan, M. S. (2010). Business models as models. *Long Range Planning*, 43(2-3), 156-171.
Baden-Fuller, C., & Haefliger, S. (2013). Business models and technological innovation. *Long Range Planning*, 46(6), 419-426.
Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic Management Journal*, 26(3), 197-218.
Bansal, P., & DesJardine, M. R. (2014). Business sustainability: It is about time. *Strategic Organization*, 12(1), 70-78.
Bansal, P., & Grewatsch, S. (2019). The unsustainable truth about the stage-gate new product innovation process. *Innovation*, 1-11.
Bansal, P., Reinecke, J., Suddaby, R., & Langley, A. (2019). Special issue of Strategic Organization: 'Temporal work: The strategic organization of time.' *Strategic Organization*, 17(1), 145-149.
Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717-736.
Bansal, P., & Song, H.-C. (2017). Similar but not the same: Differentiating corporate sustainability from corporate responsibility. *Academy of Management Annals*, 11(1), 105-149.
Baron, R. A. (2004). The cognitive perspective: A valuable tool for answering entrepreneurship's basic "why" questions. *Journal of Business Venturing*, 19(2), 221-239.
Baron, R. A., & Markman, G. D. (2003). Beyond social capital: The role of entrepreneurs' social competence in their financial success. *Journal of Business Venturing*, 18(1), 41-60.
Barsade, S. G., & Gibson, D. E. (2007). Why does affect matter in organizations? *Academy of Management Perspectives*, 21(1), 36-59.
Battilana, J., Besharov, M., & Mitzinneck, B. (2017). On hybrids and hybrid organizing: A review and roadmap for future research. In R. Greenwood, C. Oliver, T. Lawrence, & R.E.

Meyer. (Eds.), *The SAGE handbook of organizational institutionalism* (pp.133-169). New York, NY: SAGE Publishing.
Battilana, J., Leca, B. & Boxenbaum, E. (2009). How actors change institutions: Towards a theory of institutional entrepreneurship. *Academy of Management Annals*, 3(1), 65-107.
Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing: Insights from the study of social enterprises. *Academy of Management Annals*, 8(1), 397-441.
Batson, C. D., & Shaw, L. L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry*, 2(2), 107-122.
Baumol, W. J. (1993). Formal entrepreneurship theory in economics: Existence and bounds. *Journal of Business Venturing*, 8(3), 197-210.
Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of Management Review*, 28(2), 238-256.
Bhattacharya, C. B., & Polman, P. (2017). Sustainability lessons from the front lines. *MIT Sloan Management Review*, 58(2), 71.
Biniari, M. G. (2012). The emotional embeddedness of corporate entrepreneurship: The case of envy. *Entrepreneurship Theory and Practice*, 36(1), 141-170.
Bluedorn, A. C., & Denhardt, R. B. (1988). Time and organizations. *Journal of Management*, 14(2), 299-320.
Bocken, N. M., & Geradts, T. H. (2019). Barriers and drivers to sustainable business model innovation: Organization design and dynamic capabilities. *Long Range Planning*.
Bocken, N.M.P., Short, S., Rana, P., & Evans, S. (2013). A value mapping tool for sustainable business modelling. *Corporate Governance*, 13(5), 482-497.
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.
Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *Journal of Cleaner Production*, 45, 9-19.
Bower, J., & Christensen, C. (1995). Disruptive technologies: Catching the wave. *Harvard Business Review*, 73(1), 43–53.
Brown, S. L., & Eisenhardt, K. M. (1995). Product development: Past research, present findings, and future directions. *Academy of Management Review*, 20(2), 343-378.
Brans, M., De Pree, M., & Estrade, F. (2020). *The intrapreneurs guide to pathfinding*. USA: League of Intrapreneurs.
Briscoe, F., & Gupta, A. (2016). Social activism in and around organizations. *Academy of Management Annals*, 10(1), 671-727.
Brundin, E., Patzelt, H., & Shepherd, D. A. (2008). Managers' emotional displays and employees' willingness to act entrepreneurially. *Journal of Business Venturing*, 23(2), 221-243.
Buliga, O., Scheiner, C. W., & Voigt, K. I. (2016). Business model innovation and organizational resilience: Towards an integrated conceptual framework. *Journal of Business Economics*, 86(6), 647-670.
Bull, I., & Willard, G. E. (1993). Towards a theory of entrepreneurship. *Journal of Business Venturing*, 8(3), 183-195.
Burgelman, R. A. (1983a). A process model of internal corporate venturing in the diversified major firm. *Administrative Science Quarterly*, 28(2), 223-244.

Burgelman, R. A. (1983b). A model of the interaction of strategic behavior, corporate context, and the concept of strategy. *Academy of Management Review*, 8(1), 61-70.
Burgelman, R. A. (1983c). Corporate entrepreneurship and strategic management: Insights from a process study. *Management Science*, 29(12), 1349-1364.
Burgelman, R. A. (1984). Designs for corporate entrepreneurship in established firms. *California Management Review*, 26(3), 154-166.
Burgelman, R. A. (1986). *Inside corporate innovation: Strategy, structure, and managerial skills*. New York: Free Press.
Burgelman, R. A. (1988). Strategy making as a social learning process: The case of internal corporate venturing. *Interfaces*, 18(3), 74-85.
Burgers, J. H., & Covin, J. G. (2016). The contingent effects of differentiation and integration on corporate entrepreneurship. *Strategic Management Journal*, 37(3), 521-540.
Burton, R. M., Eriksen, B., Håkonsson, D. D., & Snow, C. C. (2006). *Organization design: The evolving state-of-the-art*. New York: Springer Science & Business Media.
Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship Theory and Practice*, 36(1), 1-10.
Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39-48.
Carter, N. M., Gartner, W. B., & Reynolds, P. D. (1996). Exploring start-up event sequences. *Journal of Business Venturing*, 11(3), 151-166.
Chakrabarty, S., & Wang, L. (2012). The long-term sustenance of sustainability practices in MNCs: A dynamic capabilities perspective of the role of R&D and internationalization. *Journal of Business Ethics*, 110(2), 205-217.
Chandler, A. 1962. *Strategy and structure: Chapters in the history of the industrial enterprise*. Cambridge, MA: MIT Press.
Chang, H.-J. 2011. *23 things they don't tell you about capitalism*. New York: Bloomsbury Press.
Charmaz, K. 2006. *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage Publications.
Chen, X. P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal*, 52(1), 199-214.
Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. *Long Range Planning*, 43(2-3), 354-363.
Chin, M. K., Hambrick, D. C., & Treviño, L. K. (2013). Political ideologies of CEOs: The influence of executives' values on corporate social responsibility. *Administrative Science Quarterly*, 58(2), 197-232.
Chliova, M., & Ringov, D. (2017). Scaling impact: Template development and replication at the base of the pyramid. *Academy of Management Perspectives*, 31(1), 44-62.
Christensen, C. M., Baumann, H., Ruggles, R., & Sadtler, T. M. (2006). Disruptive innovation for social change. *Harvard Business Review*, 84(12), 1-6.
Christensen, C. M., & Bower, J. L. (1996). Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal*, 17(3), 197-218.
Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128-152.
Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29-49.

Covin, J. G., & Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship Theory and Practice*, 23(3), 47-63.
Crane, A. (2000). Corporate greening as amoralization. *Organization Studies*, 21(4), 673-696.
Crilly, D., Schneider, S. C., & Zollo, M. (2008). Psychological antecedents to socially responsible behavior. *European Management Review*, 5(3), 175-190.
Crosina, E., & Pratt, M. G. (2019). Toward a model of organizational mourning: The case of former Lehman Brothers bankers. *Academy of Management Journal*, 62(1), 66-98.
Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ: Prentice Hall.
Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. *Academy of Management Perspectives*, 24(3), 37-57.
Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social entrepreneurship: A critique and future directions. *Organization Science*, 22(5), 1203-1213.
Dahan, N. M., Doh, J. P., Oetzel, J., & Yaziji, M. (2010). Corporate-NGO collaboration: Co-creating new business models for developing markets. *Long Range Planning*, 43(2-3), 326-342.
Das, T. K. (1987). Strategic planning and individual temporal orientation. *Strategic Management Journal*, 8(2), 203-209.
Day, G. S. (1994). Raising radicals: Different processes for championing innovative ventures. *Organization Science*, 5(2), 148-172.
De Clercq, D., Castañer, X., & Belausteguigoitia, I. (2011). Entrepreneurial initiative selling within organizations: Towards a more comprehensive motivational framework. *Journal of Management Studies*, 48(6), 1269-1290.
De Stefano, F., Bagdadli, S., & Camuffo, A. (2018). The HR role in corporate social responsibility and sustainability: A boundary-shifting literature review. *Human Resource Management*, 57(2), 549-566.
Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, 22(1), 50-76.
Dees, J. G., (1998). *The meaning of social entrepreneurship*. Kauffman Centre for Entrepreneurial Leadership, Kansas City, MO.
Dees, J. G. (2007). Taking social entrepreneurship seriously. *Society*, 44(3), 24-31.
Dentchev, N., Baumgartner, R., Dieleman, H., Jóhannsdóttir, L., Jonker, J., Nyberg, T., Rauter, R., Rosano, M., Snihur, Y., Tang., X., & van Hoof, B. (2016). Embracing the variety of sustainable business models: Social entrepreneurship, corporate intrapreneurship, creativity, innovation, and other approaches to sustainability challenges. *Journal of Cleaner Production*, 113, 1-4.
Dentchev, N., Rauter, R., Jóhannsdóttir, L., Snihur, Y., Rosano, M., Baumgartner, R., Nyberg, T., Tang., X. van Hoof., B., & Jonker, J. (2018). Embracing the variety of sustainable business models: A prolific field of research and a future research agenda. *Journal of Cleaner Production*, 194, 695-703.
Dentoni, D., Bitzer, V., & Pascucci, S. (2016). Cross-sector partnerships and the co-creation of dynamic capabilities for stakeholder orientation. *Journal of Business Ethics*, 135(1), 35-53.

Demil, B., & Lecocq, X. (2010). Business model evolution: In search of dynamic consistency. *Long Range Planning*, 43(2-3), 227-246.
Demanpour, F. (1991). Organization Innovation: A meta-analysis of effects on determinants and moderators. *Academy of Management Journal*, 34(2), 555-590.
Desa, G., & Basu, S. (2013). Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1), 26-49.
Dew, N., Velamuri, S. R., & Venkataraman, S. (2004). Dispersed knowledge and an entrepreneurial theory of the firm. *Journal of Business Venturing*, 19(5), 659-679.
Di Domenico, M., Haugh, H., & Tracey, P. (2010). Social bricolage: Theorizing social value creation in social enterprises. *Entrepreneurship Theory and Practice*, 34(4), 681-703.
Dolan, R. J. (2002). Emotion, cognition, and behavior. Science, *298*(5596), 1191-1194.
Dorado, S., & Ventresca, M. J. (2013). Crescive entrepreneurship in complex social problems: Institutional conditions for entrepreneurial engagement. *Journal of Business Venturing*, 28(1), 69–82.
Dörrenbächer, C., & Gammelgaard, J. (2016). Subsidiary initiative taking in multinational corporations: the relationship between power and issue selling. *Organization Studies*, 37(9), 1249-1270.
Dougherty, D. (1992). Interpretive barriers to successful product innovation in large firms. *Organization Science*, 3(2), 179-202.
Dougherty, D., & Hardy, C. (1996). Sustained product innovation in large, mature organizations: Overcoming innovation-to-organization problems. *Academy of Management Journal*, 39(5), 1120-1153.
Dover, G., & Lawrence, T. B. (2012). The role of power in nonprofit innovation. *Nonprofit and Voluntary Sector Quarterly*, 41(6), 991-1013.
Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long Range Planning*, 43(2-3), 370-382.
Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of Management Review*, 18(3), 397-428.
Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. *Academy of Management Review*, 18(3), 397-428.
Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. *Academy of Management Journal*, 44(4), 716-736.
Dutton, J. E., Worline, M. C., Frost, P. J., & Lilius, J. (2006). Explaining compassion organizing. *Administrative Science Quarterly*, 51(1), 59-96.
Dyllick, T., & Muff, K. (2016). Clarifying the meaning of sustainable business: Introducing a typology from business-as-usual to true business sustainability. *Organization & Environment*, 29(2), 156-174.
Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835-2857.
Eckhardt, J. T., & Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333-349.
Eikenberry, A. M., & Kluver, J. D. (2004). The marketization of the nonprofit sector: Civil society at risk? *Public Administration Review*, 64(2), 132-140.
Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology*, 51(1), 665-697.
Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
Elfenbein, H.A. (2007). Emotion in Organizations: A review and theoretical integration. *Academy of Management Annals*, 1(1), 315-386.
Elster, J. (1989). *Nuts and bolts for the social sciences*. Cambridge, UK: Cambridge University Press.
Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, 27(1), 31-41.
Emerson, J. (2003). The blended value proposition: Integrating social and financial returns. *California Management Review*, 45(4), 35-51.
Ettlie, J. E., Bridges, W. P., & O'Keefe, R. D. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*, 30(6), 682-695.
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(5), 597-608.
Ewin, R.E. (1991). The moral status of the corporation. *Journal of Business Ethics*, 10(10), 749-756.
Epstein, M. J., & Roy, M. J. (2001). Sustainability in action: Identifying and measuring the key performance drivers. *Long Range Planning*, 34(5), 585-604.
Ferraro, F., Etzion, D., & Gehman, J. (2015). Tackling grand challenges pragmatically: Robust action revisited. *Organization Studies*, 36(3), 363-390.
Fjeldstad, Ø. D., & Snow, C. C. (2018). Business models and organization design. *Long Range Planning*, 51(1), 32-39.
Flammer, C., & Bansal, P. (2017). Does a long-term orientation create value? Evidence from a regression discontinuity. *Strategic Management Journal*, 38(9), 1827-1847.
Fligstein, N. (1987). The intraorganizational power struggle: Rise of finance personnel to top leadership in large corporations, 1919-1979. *American Sociological Review*, 52(1), 44-58.
Foo, M. D. (2011). Emotions and entrepreneurial opportunity evaluation. *Entrepreneurship Theory and Practice*, 35(2), 375-393.
Foo, M. D., Uy, M. A., & Baron, R. A. (2009). How do feelings influence effort? An empirical study of entrepreneurs' affect and venture effort. *Journal of Applied Psychology*, 94(4), 1086.
Foreman, P., & Whetten, D. A. (2002). Members' identification with multiple-identity organizations. *Organization Science*, 13(6), 618-635.
Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management*, 43(1), 200-227.
Freeman, J. (2003). Extending public law norms through privatization. *Harvard Law Review*, 116(5), 1285-1352.
Freudenreich, B., Lüdeke-Freund, F., & Schaltegger, S. (2019). A stakeholder theory perspective on business models: Value creation for sustainability. *Journal of Business Ethics*, 1-16.
Friedman, M. (1970). A Friedman doctrine: The social responsibility of business is to increase its profits. *The New York Times Magazine*, 13(1970), 32-33.

Froelich, K. A. (1999). Diversification of revenue strategies: Evolving resource dependence in nonprofit organizations. *Nonprofit and Voluntary Sector Quarterly*, 28(3), 246-268.
Galbraith, J. R. (1974). Organization design: An information processing view. *Interfaces*, 4(3), 28-36.
Gao, C., Zuzul, T., Jones, G., & Khanna, T. (2017). Overcoming institutional voids: A reputation-based view of long-run survival. *Strategic Management Journal*, 38(11), 2147-2167.
Gartner, W. B. (1990). What are we talking about when we talk about entrepreneurship? *Journal of Business Venturing*, 5(1), 15-28.
Garud, R., & Van De Ven, A. H. (1992). An empirical evaluation of the internal corporate venturing process. *Strategic Management Journal*, 13(1), 93-109.
Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., et al. (2018). Finding theory–method fit: A comparison of three qualitative approaches to theory building. *Journal of Management Inquiry*, 27(3), 284-300.
George, G., Howard-Grenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, 59(6), 1880-1895
George, G., McGahan, A. M., & Prabhu, J. (2012). Innovation for inclusive growth: Towards a theoretical framework and a research agenda. *Journal of Management Studies*, 49(4), 661-683.
Geradts, T., & Bocken, N. (2019). Driving sustainability-oriented innovation. *MIT Sloan Management Review*, 60(2), 78-83.
Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, 47(2), 209-226.
Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15-31.
Girschik, V. (2020). Shared responsibility for societal problems: The role of internal activists in reframing corporate responsibility. *Business and Society*, 59(1), 34-66.
Gladwin, T. N., Kennelly, J. J., & Krause, T. S. (1995). Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of management Review*, 20(4), 874-907.
Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publication Company.
Glavas, A. (2016). Corporate social responsibility and employee engagement: Enabling employees to employ more of their whole selves at work. *Frontiers in Psychology*, 7, 796.
Gneezy, U., Keenan, E. A., & Gneezy, A. (2014). Avoiding overhead aversion in charity. *Science*, 346(6209), 632-635.
Golden, B. R. (1992). The past is the past–or is it? The use of retrospective accounts as indicators of past strategy. *Academy of Management Journal*, 35(4), 848-860.
Gras, D., & Mendoza-Abarca, K. I. (2014). Risky business? The survival implications of exploiting commercial opportunities by nonprofits. *Journal of Business Venturing*, 29(3), 392-404.
Gras, D., Conger, M., Jenkins, A., & Gras, M. (2020). Wicked problems, reductive tendency, and the formation of (non-) opportunity beliefs. *Journal of Business Venturing*, 35, https://doi.org/10.1016/j.jbusvent.2019.105966.
Grayson, D., Coulter, C., & Lee, M. (2018). *All in: The future of business leadership*. London: Routledge.

Grayson, D., McLaren, M., & Spitzeck, H. (2014). *Social intrapreneurism and all that jazz: How business innovators are helping to build a more sustainable world*. Sheffield, UK: Greenleaf Publishing.
Greening, D. W., & Turban, D. B. (2000). Corporate social performance as a competitive advantage in attracting a quality workforce. *Business & Society*, 39(3), 254-280.
Grimes, M. G., Williams, T. A., & Zhao, E. Y. (2019). Anchors aweigh: The sources, variety, and challenges of mission drift. *Academy of Management Review*, 44(4), 819-845.
Hacklin, F., Björkdahl, J., & Wallin, M. W. (2018). Strategies for business model innovation: How firms reel in migrating value. *Long Range Planning*, 51(1), 82-110.
Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, 39(4), 463-487.
Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Journal of Business Ethics*, 127(2), 297-316.
Haidt, J. (2003). *The Moral Emotions*. Oxford: Oxford University
Haidt, J. (2007). The new synthesis in moral psychology. *Science*, 316(5827), 998-1002.
Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25(5), 439-448.
Halme, M., Lindeman, S., & Linna, P. (2012). Innovation for inclusive business: Intrapreneurial bricolage in multinational corporations. *Journal of Management Studies*, 49(4), 743-784.
Hardy, C., & Maguire, S. (2017). Institutional entrepreneurship and change in fields. In R. Greenwood, C. Oliver, T. B. Lawrence & R. Meyer (Eds.), *The SAGE handbook of organizational institutionalism* (2nd ed., pp. 261–280). Thousand Oaks, CA: SAGE.
Hareli, S., & Rafaeli, A. (2008). Emotion cycles: On the social influence of emotion in organizations. *Research in Organizational Behavior*, 28, 35-59.
Harreld, J. B., O'Reilly III, C. A., & Tushman, M. L. (2007). Dynamic capabilities at IBM: Driving strategy into action. *California Management Review*, 49(4), 21-43.
Harris, M., & Raviv, A. (2002). Organization design. *Management Science*, 48(7), 852-865.
Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review*, 20(4), 986-1014.
Hart, S. L. (1997). Beyond greening: Strategies for a sustainable world. *Harvard Business Review*, 75(1), 66-77.
Hart, S. L. (2005). *Capitalism at the crossroads: The unlimited business opportunities in solving the world's most difficult problems*. Pearson Education.
Hart, S. L., & Christensen, C. M. (2002). The great leap: Driving innovation from the base of the pyramid. *MIT Sloan Management Review*, 44(1), 51-56.
Hart, S. L., & Dowell, G. (2011). A natural-resource-based view of the firm: Fifteen years after. *Journal of Management*, 37(5), 1464-1479.
Hart, S., & Milstein, M. B. (2003). Creating sustainable value. *Academy of Management Executive*, 17(2), 56-67.
Hart, S., Sharma, S., & Halme, M. (2016). Poverty, Business strategy, and sustainable development. *Organization & Environment*, 29(4), 401-415.
Hayton, J. C., & Cholakova, M. (2012). The role of affect in the creation and intentional pursuit of entrepreneurial ideas. *Entrepreneurship Theory and Practice*, 36(1), 41-67.

He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, *15*(4), 481-494.
Hebert, R. F., & Link, A. N. (1988). *The entrepreneur: Mainstream views and radical critiques* (2nd ed.). New York, NY: Praeger.
Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36(6), 831-850.
Helfat, C. E., & Winter, S. G. (2011). Untangling dynamic and operational capabilities: Strategy for the (n)ever changing world. *Strategic Management Journal*, 32(11), 1243-1250.
Hemingway, C. (2005). Personal values as a catalyst for corporate social entrepreneurship. *Journal of Business Ethics*, 60(3), 233-249.
Henderson, R. M., & Clark, K. B. (1990). Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*, 35(1), 9-30.
Hickson, D. J., Hinings, C. R., Lee, C. A., Schneck, R. E., & Pennings, J. M. (1971). A strategic contingencies' theory of intraorganizational power. *Administrative Science Quarterly*, 16(2), 216-229.
Hill, C. W., & Rothaermel, F. T. (2003). The performance of incumbent firms in the face of radical technological innovation. *Academy of Management Review*, 28(2), 257-274.
Hisrich, R. D. (1990). Entrepreneurship/intrapreneurship. *American Psychologist*, 45(2), 209-222.
Hitt, M. A., Nixon, R. D., Hoskisson, R. E., & Kochhar, R. (1999). Corporate entrepreneurship and cross-functional fertilization: Activation, process and disintegration of a new product design team. *Entrepreneurship Theory and Practice*, 23(3), 145-168.
Hlavacek, J. D., & Thompson, V. A. (1973). Bureaucracy and new product innovation. *Academy of Management Journal*, 16(3), 361-372.
Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids—Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5), 481-492.
Hof, K. (2018). Rehabilitation through coffee at Heilige Boontjes in Rotterdam. https://sprudge.com/social-enterprise-heilige-boontjes-offers-rotterdam-ex-cons-a-chance-to-become-coffee-professionals-130072.html
Hoffman, A. J. (1999). Institutional evolution and change: Environmentalism and the US chemical industry. *Academy of Management Journal*, 42(4), 351-371.
Homburg, C., Stierl, M., & Bornemann, T. (2013). Corporate social responsibility in business-to-business markets: How organizational customers account for supplier corporate social responsibility engagement. *Journal of Marketing*, 77(6), 54-72.
Hornsby, J. S., Kuratko, D. F., Shepherd, D. A., & Bott, J. P. (2009). Managers' corporate entrepreneurial actions: Examining perception and position. *Journal of Business Venturing*, 24(3), 236-247.
Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: Assessing a measurement scale. *Journal of Business Venturing*, 17(3), 253-273.
Hornsby, J. S., Naffziger, D. W., Kuratko, D. F., & Montagno, R. V. (1993). An interactive model of the corporate entrepreneurship process. *Entrepreneurship Theory and Practice*, 17(2), 29-37.
Howard-Grenville, J. A. (2007). Developing issue-selling effectiveness over time: Issue selling as resourcing. *Organization Science*, 18(4), 560-577.

Howard-Grenville, J., Davis, G. F., Dyllick, T., Miller, C. C., & Thau, S. (2019). Sustainable development for a better world: Contributions of leadership, management, and organizations. *Academy of Management Discoveries*, 5(4), 355-366.
Howard-Grenville, J. A., & Hoffman, A. J. (2003). The importance of cultural framing to the success of social initiatives in business. *Academy of Management Perspectives*, 17(2), 70-84.
Howell, J. M., & Higgins, C. A. (1990). Champions of technological innovation. *Administrative Science Quarterly*, 35(2), 317-341.
Howell, J. M., Shea, C. M., & Higgins, C. A. (2005). Champions of product innovations: defining, developing, and validating a measure of champion behavior. *Journal of Business Venturing*, 20(5), 641-661.
Huy, Q. N. (2012). Emotions in strategic organization: Opportunities for impactful research. *Strategic Organization*, 10(3), 240-247.
Huy, Q., & Zott, C. (2019). Exploring the affective underpinnings of dynamic managerial capabilities: How managers' emotion regulation behaviors mobilize resources for their firms. *Strategic Management Journal*, 40(1), 28-54.
Ibarra, H. (1993). Network centrality, power, and innovation involvement: Determinants of technical and administrative roles. *Academy of Management Journal*, 36(3), 471-501.
Inigo, E. A., Albareda, L., & Ritala, P. (2017). Business model innovation for sustainability: Exploring evolutionary and radical approaches through dynamic capabilities. *Industry and Innovation*, 24(5), 515-542.
Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship Theory and Practice*, 33(1), 19–46.
Jenkins, B. (2018). Cultivating the social intrapreneur. *Stanford Social Innovation Review*. https://ssir.org/articles/entry/cultivating_the_social_intrapreneur
Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
Johnson, M. P., & Schaltegger, S. (2019). Entrepreneurship for sustainable development: A review and multilevel causal mechanism framework. *Entrepreneurship Theory and Practice*, https://doi.org/10. 1177/1042258719885368
Johnson, G., Whittington, R, Regnér, P., Scholes, K., & Angwin, D. (2017). *Exploring strategy: Text & cases*. Harlow: Pearson.
Jones, D. A., Newman, A., Shao, R., & Cooke, F. L. (2019). Advances in employee-focused micro-level research on corporate social responsibility: Situating new contributions within the current state of the literature. *Journal of Business Ethics*, 157(2), 293-302.
Jones Christensen, L., Siemsen, E., & Balasubramanian, S. (2015). Consumer behavior change at the base of the pyramid: Bridging the gap between for-profit and social responsibility strategies. *Strategic Management Journal*, 36(2), 307-317.
Kacperczyk, A. J. (2012). Opportunity structures in established firms: Entrepreneurship versus intrapreneurship in mutual funds. *Administrative Science Quarterly*, 57(3), 484-521.
Kanter, R. (1985). Supporting innovation and venture development in established companies. *Journal of Business Venturing*, 1(1), 47-60.
KaKaplan, S., & Orlikowski, W. J. (2013). Temporal work in strategy making. *Organization Science*, 24(4), 965-995.
Kettl, D. F. (2000). The transformation of governance: Globalization, devolution, and the role of government. *Public Administration Review*, 60(6), 488-497.

King, M. D., Howat, I. M., Candela, S. G., Noh, M. J., Jeong, S., Noël, B. P., & Negrete, A. (2020). Dynamic ice loss from the Greenland Ice Sheet driven by sustained glacier retreat. *Communications Earth & Environment*, 1(1), 1-7.
Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago, IL: University of Chicago Press.
Kistruck, G.M., & Beamish, P. (2010). The interplay of form, structure, and embeddedness in social intrapreneurship. *Entrepreneurship Theory and Practice*, 34(4), 735-761.
Knight, F. H. (1921). *Risk, uncertainty and profit*. New York, NY: Houghton-Mifflin.
Kor, Y. Y., & Mahoney, J. T. (2005). How dynamics, management, and governance of resource deployments influence firm level performance. *Strategic Management Journal*, 26(5), 489-496.
Kuratko, D.F., McMullen, J.S., Hornsby, J.S. & Jackson, C. (2017). Is your organization conducive to the continuous creation of social value? Toward a social corporate entrepreneurship scale. *Business Horizons*, 60(3), 271-283.
Laasch, O. (2018). Beyond the purely commercial business model: Organizational value logics and the heterogeneity of sustainability business models. *Long Range Planning*, 51(1), 158-183.
Laasch, O. (2019). An actor-network perspective on business models: How 'being responsible' led to incremental but pervasive change. *Long Range Planning*, 52(3), 406-426.
Laasch, O., & Pinkse, J. (in press). How the leopards got their spots: Embedding responsibility into business models as strategic response across spaces of institutional complexity. *Long Range Planning*, https://doi.org/10.1016/j.lrp.2019.101891
Laverty, K. J. (1996). Economic 'short-termism': The debate, the unresolved issues, and the implications for management practice and research. *Academy of Management Review*, 21(3), 825-860.
Lazarus, R.S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, 46(8), 819-834.
Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44(1), 1-22.
League of Intrapreneurs (n.d.). Saving the rainforest through the power of cocoa. https://www.leagueofintrapreneurs.com/2019/06/13/saving-the-rainforest/
Leih, S., Linden, G., & Teece, D. (2015). Business model innovation and organizational design: A dynamic capabilities perspective. In Foss, N.J., & Saebi, T. (Eds.), *Business model innovation: The organizational dimension:* 24-42. Oxford: Oxford University Press.
Lenton, T. M., Rockström, J., Gaffney, O., Rahmstorf, S., Richardson, K., Steffen, W., & Schellnhuber, H. J. (2019). Climate tipping points—too risky to bet against. *Nature*, 575, 592-595.
Leonard-Barton, D. (1990). A dual methodology for case studies: Synergistic use of a longitudinal single site with replicated multiple sites. *Organization Science*, 1(3), 248-266.
Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(1), 111-125.
Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, 14(2), 95-112.
Locke, K. 2001. *Grounded Theory in Management Research.* London: Sage.
Loewenstein, G., & Thaler, R. H. (1989). Anomalies: Intertemporal choice. *Journal of Economic Perspectives*, 3(4): 181-193.

Lofland, J. (1976). *Doing social life: The qualitative study of human interaction in natural settings*. New York: Wiley.
London, T. (2008). The base-of-the-pyramid perspective: A new approach to poverty alleviation. *Academy of Management Proceedings*, 1, 1-6.
London, T., Anupindi, R., & Sheth, S. (2010). Creating mutual value: Lessons learned from ventures serving base of the pyramid producers. *Journal of Business Research*, 63(6), 582-594.
Lopez, F. J. D., Bastein, T., & Tukker, A. (2019). Business model innovation for resource-efficiency, circularity and cleaner production: What 143 cases tell us. *Ecological Economics*, 155, 20-35.
Lüdeke-Freund, F., Massa, L., Bocken, N., Brent, A., & Musango, J. (2016). Business models for shared value. *Cape Town: Network for Business Sustainability South Africa*.
Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S., & Amezcua, A. S. (2013). Entrepreneurial processes in social contexts: How are they different, if at all? *Small Business Economics*, 40(3), 761-783.
Lyneis, J., & Sterman, J. (2016). How to save a leaky ship: Capability traps and the failure of win-win investments in sustainability and social responsibility. *Academy of Management Discoveries*, 2(1), 7-32.
Maidique, M. A. (1980). Entrepreneurs, champions, and technological innovation. *Sloan Management Review*, 21(2), 59.
Mair, J., & Martí, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1), 36–44.
Mair, J., & Martí, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, 24(5), 419-435.
Manninen, K., Koskela, S., Antikainen, R., Bocken, N., Dahlbo, H., & Aminoff, A. (2018). Do circular economy business models capture intended environmental value propositions? *Journal of Cleaner Production*, 171, 413-422.
March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87.
March, J. G., & Simon, H. A. (1958). *Organizations*. New York, NY: Wiley & Sons.
Marginson, D., & McAulay, L. (2008). Exploring the debate on short-termism: A theoretical and empirical analysis. *Strategic Management Journal*, 29(3), 273-292.
Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 48(2), 268-305.
Marquis, C., Toffel, M. W., & Zhou, Y. (2016). Scrutiny, norms, and selective disclosure: A global study of greenwashing. *Organization Science*, 27(2), 483-504.
Massa, L., Tucci, C. L., & Afuah, A. (2017). A critical assessment of business model research. *Academy of Management Annals*, 11(1), 73-104.
Matos, S., & Hall, J. (2007). Integrating sustainable development in the supply chain: The case of life cycle assessment in oil and gas and agricultural biotechnology. *Journal of Operations Management*, 25(6), 1083-1102.
Mayer, D. M., Ong, M., Sonenshein, S., & Ashford, S. J. (2019). The money or the morals? When moral language is more effective for selling social issues. *Journal of Applied Psychology*, 104(8), 1058.
McGaw, N., & Malinsky, E. (2020). *Unlocking the potential of corporate social intrapreneurship.* https://www.aspeninstitute.org/publications/unlocking-the-potential-of-csi/

McGivern, G., Dopson, S., Ferlie, E., Fischer, M., & Fitzgerald, L. (2018). The silent politics of temporal work: A case study of a management consultancy project to redesign public health care. *Organization Studies*, 39(8), 1007-1030.
McKelvie, A., Haynie, J. M., & Gustavsson, V. (2011). Unpacking the uncertainty construct: Implications for entrepreneurial action. *Journal of Business Venturing*, 26(3), 273-292.
McMullen, J. S. (2011). Delineating the domain of development entrepreneurship: A market-based approach to facilitating inclusive economic growth. *Entrepreneurship Theory and Practice*, 35(1), 185-193.
McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132-152.
McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal*, 21(5), 603-609.
McWilliams, A., & Siegel, D. S. (2011). Creating and capturing value: Strategic corporate social responsibility, resource-based theory, and sustainable competitive advantage. *Journal of Management*, 37(5), 1480-1495.
Merrifield, D. B. (1993). Intrapreneurial corporate renewal. *Journal of Business Venturing*, 8, 383-389.
Meyer, A. D., Tsui, A. S., & Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6), 1175-1195.
Meyerson, D. (2001). *Tempered radicals: How people use difference to inspire change at work.* Boston, MA: Harvard Business School Press.
Meyerson, D. E., & Scully, M. A. (1995). Crossroads tempered radicalism and the politics of ambivalence and change. *Organization Science*, 6(5), 585-600.
Mezias, S. J., & Glynn, M. A. (1993). The three faces of corporate renewal: Institution, revolution, and evolution. *Strategic Management Journal*, 14(2), 77-101.
Miles, R.E., & Creed, D. (1995). Organizational forms and managerial philosophies. A descriptive and analytical review. In B. Staw, & L. Cummings. (Eds.), *Research in organizational behavior*: 333-372.
Miles, R.E., & Snow, C.C. (1978). *Organizational strategy, structure, and processes*. McGraw-Hill: New York
Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review*, 37(4), 616-640.
Milliken, F. J. (1987). Three types of perceived uncertainty about the environment: State, effect, and response uncertainty. *Academy of Management review*, 12(1), 133-143.
Mintzberg, H. (1979). *The structuring of organizations.* Englewood Cliffs, NJ: Prentice Hall.
Mintzberg, H. (1980). Structure in 5's: A synthesis of the research on organization design. *Management Science*, 26(3), 322-341.
Mitzinneck, B. C., & Besharov, M. L. (2019). Managing value tensions in collective social entrepreneurship: The role of temporal, structural, and collaborative compromise. *Journal of Business Ethics*, 159(2): 381-400.
Mir, R., & Watson, A. (2001). Critical realism and constructivism in strategy research: toward a synthesis. *Strategic Management Journal*, 22(12), 1169-1173.

Mirvis, P., & Googins, B. (2018). Engaging employees as social innovators. *California Management Review*, 60(4), 25-50.
Morse, J. M. 2010. Sampling in grounded theory. In: Brymant, A., & Charmaz, K. (Eds). *The SAGE handbook of grounded theory*: 229-244. London: Sage Publications.
Murray, G. P. D., Lissenden, N., Jones, J., Voloshin, V., Toé, K. H., et al. (2020). Barrier bednets target malaria vectors and expand the range of usable insecticides. *Nature Microbiology*, 5(1), 40–47.
Nahi, T. (2016). Cocreation at the base of the pyramid: Reviewing and organizing the diverse conceptualizations. *Organization & Environment*, 29(4), 416-437.
Nason, R. S., Bacq, S., & Gras, D. (2018). A behavioral theory of social performance: Social identity and stakeholder expectation. *Academy of Management Review*, 43(2), 259-283.
Nason, R. S., McKelvie, A., & Lumpkin, G. T. (2015). The role of organizational size in the heterogeneous nature of corporate entrepreneurship. *Small Business Economics*, 45(2), 279-304.
Newbert, S. L. (2012). Marketing amid the uncertainty of the social sector: Do social entrepreneurs follow best marketing practices? *Journal of Public Policy and Marketing*, 31(1), 75-90.
Nielsen, R. P., Peters, M. P., & Hisrich, R. D. (1985). Intrapreneurship strategy for internal markets—corporate, non-profit and government institution cases. *Strategic Management Journal*, 6(2), 181-189.
O'Connor, P. (1994). Implementing a stage-gate process: a multi-company perspective. *Journal of Product Innovation Management*, 11(3), 183-200.
Olsen, M., & Boxenbaum, E. (2009). Bottom-of-the-pyramid: Organizational barriers to implementation. *California Management Review*, 51(4), 100-125.
Orlikowski, W. J., & Yates, J. (2002). It's about time: Temporal structuring in organizations. *Organization Science*, 13(6), 684-700.
Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403-441.
Ortiz-de-Mandojana, N., & Bansal, P. (2016). The long-term benefits of organizational resilience through sustainable business practices. *Strategic Management Journal*, 37(8), 1615-1631.
Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. New Jersey: John Wiley & Sons.
Packard, M. D., Clark, B. B., & Klein, P. G. (2017). Uncertainty types and transitions in the entrepreneurial process. *Organization Science*, 28(5), 840-856.
Parker, S. C. (2011). Intrapreneurship or entrepreneurship? *Journal of Business Venturing*, 26(1), 19-34.
Parrish, B. D. (2010). Sustainability-driven entrepreneurship: Principles of organization design. *Journal of Business Venturing*, 25(5), 510-523.
Patzelt, H., & Shepherd, D. A. (2011). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, 35(4), 631-652.
Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), 56-65.
Pfeffer, J. (1981). *Power in organizations*. Cambridge, MA: Ballinger Publishing Company.
Piderit, S. K., & Ashford, S. J. (2003). Breaking silence: Tactical choices women managers make in speaking up about gender-equity issues. *Journal of Management Studies*, 40(6), 1477-1502.

Pieroni, M.P., McAloone, T., & Pigosso, D.A.C. (2019). Business model innovation for circular economy and sustainability: A review of approaches. *Journal of Cleaner Production*, forthcoming.
Pinchot, G. (1985). *Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur*. New York, NY: Harper and Row.
Polman, P., & Bhattacharya, C. (2016). Engaging employees to create a sustainable business. *Stanford Social Innovation Review*, 14(4), 34-39.
Porter, M. E. (1992). Capital disadvantage: America's failing capital investment system. *Harvard Business Review*, 70(5), 65.
Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.
Porter, M. E., & Kramer, M. R. (2011). The Big Idea: Creating Shared Value. How to reinvent capitalism—and unleash a wave of innovation and growth. *Harvard Business Review*, 89(1-2).
Prahalad, C. K. (2004). *The fortune at the bottom of the pyramid: Eradicating poverty through profits*. Upper Saddle River, NJ: Wharton School Publishing.
Prahalad, C. K., & Bettis, R. A. (1986). The dominant logic: A new linkage between diversity and performance. *Strategic Management Journal*, 7(6), 485-501.
Pratt, M. G., Rockmann, K. W., & Kaufmann, J. B. (2006). Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *Academy of Management Journal*, 49(2), 235-262.
Ramamurti, R. (1986). Public entrepreneurs: Who they are and how they operate. *California Management Review*, 28(3), 142-158.
Ramoglou, S., & Tsang, E. W. (2016). A realist perspective of entrepreneurship: Opportunities as propensities. *Academy of Management Review*, 41(3), 410-434.
Ramus, C.A. (2002). Encouraging innovative environmental actions: What companies and managers must do. *Journal of World Business*, 37(2), 151-164.
Ramus, T., Vaccaro, A., & Berrone, P. (2020). Time Matters! How hybrid organizations use time to respond to divergent stakeholder demands. *Organization Studies*, https://doi.org/10.1177/0170840619900341.
Rauter, R., Jonker, J., & Baumgartner, R. J. (2017). Going one's own way: Drivers in developing
Raisch, S., & Tushman, M. L. (2016). Growing new corporate businesses: From initiation to graduation. *Organization Science*, 27(5), 1237-1257.
Reficco, E., & Gutiérrez, R. 2016. Organizational ambidexterity and the elusive quest for successful implementation of BoP ventures. *Organization & Environment*, 29(4), 461-485.
Reilly, G., Souder, D., & Ranucci, R. (2016). Time horizon of investments in the resource allocation process: Review and framework for next steps. *Journal of Management*, 42(5), 1169-1194.
Reinecke, J., & Ansari, S. (2015). When times collide: Temporal brokerage at the intersection of markets and developments. *Academy of Management Journal*, 58(2), 618-648.
Reinecke, J., & Ansari, S. (2017). Time, temporality and process studies. In A. Langley & H. Tsoukas (Eds.), *The SAGE handbook of process organization studies*: 402-416. London: SAGE Publications.

Ritala, P., Huotari, P., Bocken, N., Albareda, L., & Puumalainen, K. (2018). Sustainable business model adoption among S&P 500 firms: A longitudinal content analysis study. *Journal of Cleaner Production*, 170, 216-226.
Robins, J. (2013). Editorial managing business models for innovation, strategic change and value creation. *Long Range Planning*, 46(6), 417-418.
Russell, R. D. (1999). Developing a process model of intrapreneurial systems: A cognitive mapping approach. *Entrepreneurship Theory and Practice*, 23(3), 65-84.
Russell, R. D., & Russell, C. J. (1992). An examination of the effects of organizational norms, organizational structure, and environmental uncertainty on entrepreneurial strategy. *Journal of Management*, 18(4), 639-656.
Saebi, T., Foss, N. J., & Linder, S. (2019). Social entrepreneurship research: Past achievements and future promises. *Journal of Management*, 45(1), 70-95.
Salamon, L. M. (1993). The marketization of welfare: Changing nonprofit and for-profit roles in the American welfare state. *Social Service Review*, 67(1), 16-39.
Salancik, G. R., & Pfeffer, J. (1974). The bases and use of power in organizational decision making: The case of a university. *Administrative Science Quarterly*, 19(4), 453-473.
Salancik, G. R., & Pfeffer, J. (1977). Who gets power-and how they hold on to it: A strategic-contingency model of power. *Organizational Dynamics*, 5(3), 3-21.
Santos, F. M. (2012). A positive theory of social entrepreneurship. *Journal of Business Ethics*, 111(3), 335-351.
Santos, F., Pache, A. C., & Birkholz, C. (2015). Making hybrids work: Aligning business models and organizational design for social enterprises. *California Management Review*, 57(3), 36-58.
Sarason, Y., Dean, T., & Dillard, J. F. (2006). Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*, 21(3), 286-305.
Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243-263.
Say, J. B. (1971). *A treatise on political economy or the production, distribution and consumption of wealth.* New York, NY: A.M. Kelley Publishers.
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.
Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & Environment*, 29(3), 264-289.
Schön, D. (1963). Champions for radical new inventions. *Harvard Business Review*, 41, 77-86.
Schoonhoven, C. B., Eisenhardt, K. M., & Lyman, K. (1990). Speeding products to market: Waiting time to first product introduction in new firms. *Administrative Science Quarterly*, 35(1), 177-207.
Schumpeter, J. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
Schumpeter, J. (1942). Creative destruction. *Capitalism, Socialism and Democracy*, 825, 82-85.
Seelos, C., & Mair, J. (2007). Profitable business models and market creation in the context of deep poverty: A strategic view. *Academy of Management Perspectives*, 21(4), 49-63.

Selsky, J. W., & Parker, B. (2005). Cross-sector partnerships to address social issues: Challenges to theory and practice. *Journal of Management*, 31(6), 849-873.
Shane, S. A. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Cheltenham, UK: Edward Elgar Publishing.
Shane, S., & Venkataraman, S. (1996). Renegade and rational championing strategies. *Organization Studies*, 17(5), 751-771.
Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
Shane, S., Venkataraman, S., & MacMillan, I. (1995). Cultural differences in innovation championing strategies. *Journal of management*, 21(5), 931-952.
Sharma, G., & Bansal, P. (2017). Partners for good: How business and NGOs engage the commercial–social paradox. *Organization Studies*, 38, 341-364.
Sharma, G., & Jaiswal, A. K. (2018). Unsustainability of sustainability: Cognitive frames and tensions in bottom of the pyramid projects. *Journal of Business Ethics*, 148(2), 291-307.
Shepherd, D. (2015). Party On! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing*, 30(4), 489-507.
Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship Theory and Practice*, 35(1), 137-163.
Shepherd, D. A., & Patzelt, H. (2017). *Trailblazing in entrepreneurship: Creating new paths for understanding the field*. London, UK: Palgrave McMillan.
Shepherd, D. A., Wennberg, K., Suddaby, R., & Wiklund, J. (2019). What are we explaining? A review and agenda on initiating, engaging, performing, and contextualizing entrepreneurship. *Journal of Management*, 45(1), 159-196.
Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of Management Review*, 20(4), 936-960.
Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal*, 3(2), 161-194.
Simanis, E., & Duke, D. (2014). Profits at the bottom of the Pyramud. Harvard Business Review, 92(10), 86-93.
Simon, H. A. (1987). Making management decisions: The role of intuition and emotion. *Academy of Management Perspectives*, 1(1), 57-64.
Simon, H. A. (1972). Theories of bounded rationality. *Decision and organization*, 1(1), 161-176.
Singh, R., Bakshi, M., & Mishra, P. (2015). Corporate social responsibility: Linking bottom of the pyramid to market development? *Journal of Business Ethics*, 131(2), 361-373.
Slawinski, N., & Bansal, P. (2015). Short on time: Intertemporal tensions in business sustainability. *Organization Science*, 26(2), 531-549.
Slawinski, N., Pinkse, J., Busch, T., & Banerjee, S. B. 2017. The role of short-termism and uncertainty avoidance in organizational inaction on climate change: A multi-level framework. *Business & Society*, 56(2): 253-282.
Smets, M., Morris, T. I. M., & Greenwood, R. (2012). From practice to field: A multilevel model of practice-driven institutional change. *Academy of Management Journal*, 55(4), 877-904.

Smith, W.K., Binns, A., & Tushman, M.L., (2010). Complex business models: Managing strategic paradoxes simultaneously. *Long Range Planning*, 43 (2), 448-461.
Smith, W. K., Gonin, M., & Besharov, M. L. (2013). Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, 23(3), 407-442.
Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, 36(2), 381-403.
Snihur, Y., & Wiklund, J. (2019). Searching for innovation: Product, process, and business model innovations and search behavior in established firms. *Long Range Planning*, 52(3), 305-325.
Sommer, A. (2012). *Managing green business model transformations.* Berlin: Springer-Verlag.
Sonenshein, S. (2006). Crafting social issues at work. *Academy of Management Journal*, 49(6), 1158-1172.
Sonenshein, S. (2009). Emergence of ethical issues during strategic change implementation. *Organization Science*, 20(1), 223-239.
Souder, D., Reilly, G., Bromiley, P., & Mitchell, S. (2016). A behavioral understanding of investment horizon and firm performance. *Organization Science*, 27(5), 1202-1218.
Souder, D., & Shaver, J. M. (2010). Constraints and incentives for making long horizon corporate investments. *Strategic Management Journal*, 31(12), 1316-1336.
Spieth, P., Schneider, S., Clauß, T., & Eichenberg, D. (2018). Value drivers of social businesses: A business model perspective. *Long Range Planning*, 52(3), 427-444.
Starr, J. A., & MacMillan, I. C. (1990). Resource cooptation via social contracting: Resource acquisition strategies for new ventures. *Strategic Management Journal*, 11, 79-92.
Stephan, U. (2018). Entrepreneurs' mental health and well-being: A review and research agenda. *Academy of Management Perspectives*, 32(3), 290-322.
Stevenson, H. H., & Jarillo, J.C. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11, 17-27.
Stettner, U., & Lavie, D. (2014). Ambidexterity under scrutiny: Exploration and exploitation via internal organization, alliances, and acquisitions. *Strategic Management Journal*, 35(13), 1903-1929.
Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques: Techniques and procedures for developing grounded theory*. Los Angeles: Sage Publications.
Stubbs, W., & Cocklin, C. (2008). Conceptualizing a "sustainability business model". *Organization & Environment*, 21(2), 103-127.
Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal*, 49(4), 633-642.
Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational path dependence: Opening the black box. *Academy of Management Review*, 34(4), 689-709.
Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, 58, 345-372.
Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43, 172-194.
Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49.

Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13-35.
Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
Teng, B. S. (2007). Corporate entrepreneurship activities through strategic alliances: A resource-based approach toward competitive advantage. *Journal of Management Studies*, 44(1), 119-142.
Thornhill, S., & Amit, R. (2001). A dynamic perspective of internal fit in corporate venturing. *Journal of Business Venturing*, 16(1), 25-50.
Thrane, S., Blaabjerg, S., & Møller, R. H. (2010). Innovative path dependence: Making sense of product and service innovation in path dependent innovation processes. *Research Policy*, 39(7), 932-944.
Townsend, D. M., Hunt, R. A., McMullen, J. S., & Sarasvathy, S. D. (2018). Uncertainty, knowledge problems, and entrepreneurial action. *Academy of Management Annals*, 12(2), 659-687.
Tracey, P. & Stott, N. (2017). Social innovation: A window on alternative ways of organizing and innovation. *Innovation*, 19(1), 51-60.
Treviño, L.K., Weaver, G.R., & Reynolds, S.J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32(6), 951-990.
Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31, 439-465.
Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8-29.
Tushman, M., & O'Reilly, C. A. (2002). *Winning through innovation: A practical guide to leading organizational change and renewal*. Boston: Harvard Business School Press.
United Nations. (1987). *Report of the World Commission on Environment and Development: Our common future*. Oxford: Oxford University Press.
UN. (2020). *World Social Report 2020*. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/01/World-Social-Report-2020-FullReport.pdf
Van de Ven, A. H. (1986). Central problems in the management of innovation. *Management Science*, 32(5), 590-607.
Van der Byl, C. A., & Slawinski, N. (2015). Embracing tensions in corporate sustainability: A review of research from win-wins and trade-offs to paradoxes and beyond. *Organization & Environment*, *28*(1), 54-79.
Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics*, *44*, 95-105.
van Praag, C. M. (1999). Some classic views on entrepreneurship. *De economist*, 147(3), 311-335.
Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. In J. Katz & R. Brockhaus (Eds.) *Advances in entrepreneurship, firm emergence, and growth* (pp. 119-138). Greenwich, CT: JAI Press.
Vouri, T.O., & Huy, Q.N. (2016). Distributed attention and shared emotions in the innovation process: How Nokia lost the smartphone battle. *Administrative Science Quarterly*, 61(1), 9-51.
Waddock, S. (2012). More than coping: Thriving in a world of wicked problems. *International Food and Agribusiness Management Review*, 15, 117-122.

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic Management Journal*, 18(4), 303-319.
Walls, J. L., & Berrone, P. (2017). The power of one to make a difference: How informal and formal CEO power affect environmental sustainability. *Journal of Business Ethics*, 145(2), 293-308.
Wang, S. L., Luo, Y., Maksimov, V., Sun, J., & Celly, N. (2019). Achieving temporal ambidexterity in new ventures. *Journal of Management Studies*, 56(4), 788-822.
Weissbrod, I., & Bocken, N. M. (2017). Developing sustainable business experimentation capability–a case study. *Journal of Cleaner Production*, 142, 2663-2676.
Wickert, C., & De Bakker, F. G. (2018). Pitching for social change: Toward a relational approach to selling and buying social issues. *Academy of Management Discoveries*, 4(1), 50-73.
Whiteman, G., Walker, B., & Perego, P. (2013). Planetary boundaries: Ecological foundations for corporate sustainability. *Journal of Management Studies*, 50(2), 307-336.
WHO. 2020a. *Malaria*. https://www.who.int/news-room/fact-sheets/detail/malaria.
WHO. 2020b. *Drinking-water*. https://www.who.int/news-room/fact-sheets/detail/drinking-water.
WHO. 2020c. *Sanitation*. https://www.who.int/news-room/fact-sheets/detail/sanitation.
Wilden, R., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013). Dynamic capabilities and performance: Strategy, structure and environment. *Long Range Planning*, 46, 72-96.
Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24(10), 991-995.
Wirtz, B. W., Pistoia, A., Ullrich, S., & Göttel, V. (2016). Business models: Origin, development and future research perspectives. *Long Range Planning*, 49(1), 36-54.
Worldbank. (2020). *COVID-19 to plunge global economy into worst recession since world war II*. https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii
WWF. 2020. *Living Planet Report*. https://livingplanet.panda.org/
Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications.
Yin, R. K. (2009). How to do better case studies. *The SAGE handbook of applied social research methods*, 2, 254–282.
York, J. G., & Venkataraman, S. (2010). The entrepreneur–environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, 25(5), 449-463.
Yunus, M., Boingeon, B., & Lehmann-Ortega, L. (2010). Building social business models: Lessons from the Grameen experience. *Long Range Planning*, 43, 308-325.
Yunus Social Business (2020). How social intrapreneurs can turn companies into a force for good. https://www.yunussb.com/business-as-unusual
Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5), 519-532.
Zahra, S. A., Rawhouser, H. N., Bhawe, N., Neubaum, D. O., & Hayton, J. C. (2008). Globalization of social entrepreneurship opportunities. *Strategic Entrepreneurship Journal*, 2(2), 117-131.
Zahra, S. A., & Wright, M. (2016). Understanding the social role of entrepreneurship. *Journal of Management Studies*, 53(4), 610-629.
Zerubavel, E. (1985). *Hidden rhythms*. Berkeley: University of California Press.

Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13(3), 339-351.
Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019-1042.

Summary

In today's world sustainable development is considered to be an important driver for a corporation's competitive advantage. Pursuing sustainable development provides corporations with a source of innovation, creates opportunities to improve their standing among a broad range of stakeholders, and allows them to strengthen their organizational resilience. Sustainable development is not only essential for corporations to achieve short-term efficiencies and long-term market development, but also serves as a powerful engine of positive societal change. While scholars have focused a lot on reasons why corporations would pursue sustainable development and what they could do to effectively deliver on their ambition to achieve sustainability, much remains unknown about the "how to" of sustainable development. To address this gap, the four studies in this dissertation answer four research questions, which are aimed at advancing our understanding how managers may effectively drive sustainable development.

To start with, I focus on the role of employees who autonomously advance entrepreneurial solutions to societal problems from the bottom-up. I propose that in order to overcome a unique set of challenges, these so-called sustainable intrapreneurs distinctly advance innovation, alter resource allocation, and manage uncertainty compared to sustainable entrepreneurs and intrapreneurs. Second, I focus on how product champions leverage emotions to develop products for the world's poorest in the face of uncertain outcomes for the corporation and its management. I find that product champions exploit volunteers' emotional attachment to their product initiatives, strategically seek to anchor emotions in managerial decision-making, and inspire emotional commitment in key internal decision-makers to gain access to resources and earn senior management support. Third, I focus on the role of senior managers in overcoming economic short-termism inside corporations when corporations are looking to develop new sustainable products. I find that senior managers were in a position to synchronize a firm's desire for more focus on the long-term with manager's perspectives regarding the future (temporal orientations) and rules that shaped the form and rhythm of work practices (temporal structures). Finally, I focus on how organization design affects dynamic capabilities needed for sustainable business model innovation. I identify a multitude of barriers and drivers on three levels: the institutional, the strategic, and the operational.

In exploring the "how to" of sustainable development by considering the role of senior and mid-level managers as well as organization design, I am able to arrive at relevant propositions and observations through qualitative inquiry that aim to guide corporations in their quest for sustainable development. At the same time, exciting opportunities for further research reside in further exploring the role senior managers, mid-level managers and organization design in sustainable development, and how those actors and their organizational environment interact in the corporate pursuit of sustainable development.

Samenvatting (Summary in Dutch)

Duurzame ontwikkeling wordt tegenwoordig door bedrijven als belangrijke drijver van concurrentievoordeel gezien. Het nastreven van duurzame groei geeft bedrijven inspiratie voor innovatie, geeft ze de mogelijkheid zich positief te positioneren tegenover belangrijke stakeholders zoals klanten en Ngo's, en stelt ze in staat om hun veerkrachtig vermogen te vergroten. Verduurzamen is niet alleen belangrijk voor bedrijven om op korte termijn efficiënter te produceren en om op de lange termijn nieuwe markten te ontwikkelen, maar fungeert ook als motor voor maatschappelijke verandering. Hoewel wetenschappers veel aandacht hebben besteed aan waarom bedrijven duurzame groei omarmen en wat ze kunnen doen om te verduurzamen, is er relatief weinig bekend over de hoe achter duurzame ontwikkeling. Daarom richten de vier studies in deze dissertatie zich op het vergroten van de kennis over hoe managers effectief duurzame ontwikkeling kunnen bewerkstellingen.

Als eerste onderzoek ik de rol van managers die op eigen initiatief ondernemende koplossingen voor maatschappelijke problemen vanuit de onderkant van de organisatie ("bottom-up") realiseren. Hierbij stel ik dat vergeleken met duurzame ondernemers en interne ondernemers, deze "duurzame interne ondernemers" op een unieke manier innovatie bewerkstellingen, middelen toewijzen, en met onzekerheid omgaan. Ten tweede onderzoek ik hoe managers als voorvechters van nieuwe producten, gelet op de onzekerheid die hierbij gepaard gaat voor de onderneming en haar management, emoties gebruiken om producten voor arme mensen te ontwikkelen. De resultaten laten zien dat managers vrijwilligers aan hun initiatieven weten te hechten, emoties in organisatorische besluitvorming verankeren, en emotionele betrokkenheid van interne besluitvormers versterken om steun vanuit de organisatie en toegang tot middelen te verkrijgen. Ten derde onderzoek ik de rol van leidinggevenden in het overbruggen van korte-termijn denken bij het ontwikkelen van duurzame producten. Resultaten laten zien dat leidinggevenden een organisatorische focus op de lange termijn kunnen faciliteren, zowel door termijnperspectieven van managers als de regels die deze termijnperspectieven vormgeven met de lange termijn ambities van hun bedrijf te synchroniseren. Als laatste onderzoek ik hoe het ontwerp van een organisatie de dynamische vaardigheden die nodig zijn voor duurzame innovatie van bedrijfsmodellen beïnvloedt. Resultaten laten zien dat meerdere barrières en drijfveren op drie niveaus aanwezig zijn: het institutionele, het strategische, en het operationele.

In het verkennen van "hoe" bedrijven duurzaam kunnen ontwikkelen door de rol van leidinggevenden, middenmanagers, en organisatieontwerp in beschouwing te nemen, ben ik in staat om tot bevindingen en kwalitatieve observaties te komen die bedrijven kunnen helpen om te verduurzamen. Tegelijkertijd bieden deze bevindingen verschillende mogelijkheden voor vervolgonderzoek naar de rol van en interactie tussen middenmanagers, leidinggevenden en organisatieontwerp in het streven van bedrijven naar duurzaamheid.

About the Author

Thijs Hendrik Johan Geradts was born in Sittard, the Netherlands. He holds a bachelor's degree in Liberal Arts and Sciences from University College Maastricht and two master's degrees in the fields of International Business and Applied Cognitive Psychology from Maastricht University, the Netherlands. After his graduation, he joined the department of Organization, Strategy and Entrepreneurship at the School of Business and Economics-Maastricht University as a junior lecturer, and Nyenrode Business Universiteit as a researcher. Following his transition one year after graduation to the department of Strategic Management and Entrepreneurship at the Rotterdam School of Management, Thijs continued his work as a lecturer in entrepreneurship while working on his PhD dissertation to investigate how large multinationals corporations develop new sustainable ventures internally. As part of his research he spent four months as a visiting fellow at the Harvard Graduate School of Arts and Sciences, the Harvard Kennedy School, and the Cambridge Judge Business School.

Thijs's research interests cover sustainable intrapreneurship, the role of mid- and senior managers in sustainable product development, and the importance of organization design for business sustainability. His research was presented at several scientific conferences, including the Academy of Management Annual Meeting, European Group of Organization Studies Colloquium, and Strategic Management Society Annual Conference. Thijs is also frequently invited to speak at industry conferences, corporate events or as a guest lecturer at other academic institutes. Three of his studies are published in *Long Range Planning*, *MIT Sloan Management Review* and *Harvard Business Review*. In his work as a lecturer, Thijs has been coordinating and teaching a variety of sustainable entrepreneurship, entrepreneurship and management courses to executive, master, and bachelor students. He also supervised numerous master and bachelor thesis projects. After working as Assistant Professor in Entrepreneurship at Utrecht University for one year, Thijs currently works as Assistant Professor in the Organization, Strategy, and Entrepreneurship department at the School of Business and Economics, Maastricht University.

Portfolio

PUBLICATIONS

Bocken, N. M. P. & Geradts, T. H. J. (2020). Barriers and Drivers to Sustainable Business Model Innovation: Organization Design and Dynamic Capabilities. *Long Range Planning*, 53(4), 1-23.

Geradts, T. H. J., & Bocken, N. M. P. (2019). Driving sustainability-oriented innovation. *MIT Sloan Management Review*, 60(2), 78-83.

Geradts, T. H. J., Phung, L. L., & van Herpen, M. (2019, June 26). What holds back corporate social innovators. *Harvard Business Review*, available at: https://hbr.org/2019/06/what-holds-back-corporate-social-innovators.

Alt, E., & Geradts, T. (2019). Social Intrapreneurship: Unique Challenges and Opportunities for Future Research. *Academy of Management Proceedings*, 16643.

Kramer, M. R., Geradts, T. H. J., & Nadella, B. (2019). Philips Lighting: Light-as-a-Service. *Harvard Business School Case*, available at: https://store.hbr.org/product/philips-lighting-light-as-a-service/719446.

NON-DISSERTATION WORKING PAPERS

Violence at the safe space: How new business units gain and loose their legitimacy over time (with P. Tracey).

Social change agents in corporations: A corporate social intrapreneurship framework (with E. Alt, A. Glavas, D. Kuratko, & M. Scully).

Why Bother Teaching Entrepreneurship? A Field Quasi-Experiment on the Outcomes of Mandatory University Entrepreneurship Education (with K. Smolka, A. Rauch, & P. van der Zwan)

Paradoxical tensions in business sustainability: How corporations develop new sustainable business (with J. Jansen).

Grabbing the bull by the horns or a boiling frog: How institutional membership affects climate change adaptation by U.S. and French wineries (with F. Wijen, P. Klopf, M. Flowers, M. Cholakova, & L. Berchicci).

Effectually committed or causally involved? How entrepreneurial decision-making in new venture teams affect processes and outcomes (with K. Smolka & S. Codreanu).

CONFERENCE PRESENTATIONS

2019 Bocken, N., & Geradts, T. Sustainable Business Model Innovation: Barriers and How to Overcome Them. *78th Annual Meeting Academy of Management* (Boston, U.S.).

2019 Alt, E., & Geradts, T. Social Intrapreneurship: Unique Challenges and Opportunities for Future Research. *78th Annual Meeting Academy of Management* (Boston, U.S.).

2019 Geradts, T., Battilana, J., & Kimsey, K. Inside a Multinational Corporation Combining Commercial and Social Objectives: Rule Extrication as a Response to Short-Termism. *36th EGOS Colloquium* (Edinburgh, U.K.).

2019 Smolka, K., Geradts, T., & Rauch, C. The Return on University-based Entrepreneurship Education. *BCERC* (Babson, U.S.).

2018 Geradts, T., Jansen, J., & Cornelissen, J. Internal Corporate Venturing for a Better World: How Emotions Enable Base of the Pyramid Venturing. *38th SMS Annual Conference* (Paris, France).

2018 Geradts, T., Battilana, J., & Kimsey, K. Inside a Multinational Corporation Combining Commercial and Social: Rule Extrication as a Response to Short-Termism and Uncertainty Avoidance. *78th Annual Meeting Academy of Management* (Chicago, U.S.).

2018 Geradts, T., Jansen, J., & Cornelissen, J. Internal Corporate Venturing for a Better World: How Emotions Enable Base of the Pyramid Venturing. *35th EGOS Colloquium* (Tallinn, Estonia).

2018 Geradts, T., Battilana, J., & Kimsey, K. Inside a Multinational Corporation Combining Commercial and Social: Rule Extrication as a Response to Short-Termism and Uncertainty Avoidance. *EURAM Annual Conference* (Reykjavik, Iceland).

2017 Geradts, T., Battilana, J., & Kimsey, K Reaching the Base of the Pyramid with a Differentiated or Integrated Approach? A Comparative Case Study on Internal Corporate Venturing and Ambidexterity inside a FMCG. *37th SMS Annual Conference* (Houston, U.S.).

2016 Geradts, T., & Bocken, N. Kickstarting Social Intrapreneurship: A Conceptual Corporate Social Entrepreneurship Framework.*76th Annual Meeting Academy of Management* (Anaheim, U.S.).

2015 Geradts, T., & Bocken, N. Kickstarting Social Intrapreneurship: A Conceptual Corporate Social Entrepreneurship Framework. *1st Journal of Cleaner Production Conference* (Sitges, ES).

2015 Geradts, T. How Social Innovators Turn Action Into Logic: A Multiple-Case Study on Sustainable Corporate Venturing Inside Unilever. *1st Growing Sustainable Business Conference* (Tilburg, NL).

2015 Geradts, T. How Social Innovators Turn Action Into Logic: A Multiple-Case Study on Sustainable Corporate Venturing Inside Unilever. *13th ABIS Annual Colloquium 2014* (Cambridge, U.K.).

INVITED TALKS

2021 Violence At the Safe Space: How New Business Units Gain and Loose their Legitimacy Over Time, Research Seminar, King's College London.

2020 Social Corporate Venturing, Keynote, Corporate Venturing Network Netherlands.

2020 Circular Business Models, Guest Lecture, Nyenrode Business Universiteit

2020 Social Innovation, Guest Lecture, Erasmus Centre for Entrepreneurship

2019 Social Intrapreneurship, Keynote, European Commission

2019 Social Intrapreneurship, Keynote, NRC NEXT Social Impact Challenge
2019 Sustainable Business Model Innovation: Barriers and How to Overcome Them, Research Seminar, Research Seminar, Lund University.
2019 Corporate Social Entrepreneurship, Guest Lecture, Lund University.
2019 Social Intrapreneurship, Guest Lecture, NRC Live Impact Challenge.
2019 Sustainable Business Model Innovation: Barriers and How to Overcome Them, Research Seminar, Research Seminar, Lappeenranta University.
2018 Social Intrapreneurship, Guest Lecture, Cambridge Judge Business School.
2018 Corporate Social Entrepreneurship, Guest Lecture, Lund University.
2018 Sustainable Corporate Venturing, Keynote, Sustainability Workshop at Philips.
2018 Corporate Social Entrepreneurship, Keynote, Outside inc. Bootcamp at FMO.
2017 Entrepreneurship Education, Teaching Seminar, Utrecht University.
2017 Theory of Change, Guest Lecture, Social Innovation and Change Initiative, Harvard Kennedy School.
2017 An Introduction to Social Innovation, Guest Lecture, Wexner Fellowship, Harvard Kennedy School.
2017 Corporate Social Entrepreneurship, Guest Lecture, Technical University Delft.
2016 Entrepreneurial Thinking for Social Innovators, Guest Lecture, Social Innovation and Change Initiative, Harvard Kennedy School.
2016 Creating Shared Value at the Base of the Pyramid, Guest Lecture, Creating Shared Value and Impact Investment Club, Harvard Kennedy School.
2016 Corporate Social Entrepreneurship, Guest Lecture, Technical University Delft.
2015 Corporate Social Entrepreneurship, Guest Lecture, Social Enterprise Day.

DOCTORAL CONSORTIA, STIPENDS, GRANTS AND AWARDS

2019 Doctoral Consortium Entrepreneurship Division at the 79^{th} Academy of Management Annual Meeting in Boston
2019 Erasmus+ Mobility Grant 2.000,-
2018 Cambridge Judge Business School Winter Doctoral Consortium
2018 Nominee Teacher of the Year by RSM Student Representation
2018 Department Visiting Scholar Research Grant 3.000,-
2017 Department Visiting Scholar Research Grant 7.500,-
2016 Social Entrepreneurship Doctoral Seminar by Tom Lumpkin
2015 Doctoral Consortium ONE Division at the 75^{th} Academy of Management Annual Meeting in Vancouver
2015 Social Entrepreneurship Doctoral Seminar by Tom Lumpkin
2013 VSB Scholarship € 7.000,-

The ERIM PhD Series

The ERIM PhD Series contains PhD dissertations in the field of Research in Management defended at Erasmus University Rotterdam and supervised by senior researchers affiliated to the Erasmus Research Institute of Management (ERIM). All dissertations in the ERIM PhD Series are available in full text through the ERIM Electronic Series Portal: http://repub.eur.nl/pub. ERIM is the joint research institute of the Rotterdam School of Management (RSM) and the Erasmus School of Economics (ESE) at the Erasmus University Rotterdam (EUR).

Dissertations in the last four years

Ahmadi, S., *A motivational perspective to decision-making and behavior in organizations*, Promotors: Prof. J.J.P. Jansen & Dr T.J.M. Mom, EPS-2019-477-S&E, https://repub.eur.nl/pub/116727

Akemu, O., *Corporate Responses to Social Issues: Essays in Social Entrepreneurship and Corporate Social Responsibility,* Promotors: Prof. G.M. Whiteman & Dr S.P. Kennedy, EPS-2017-392-ORG, https://repub.eur.nl/pub/95768

Albuquerque de Sousa, J.A., *International stock markets: Essays on the determinants and consequences of financial market development*, Promotors: Prof. M.A. van Dijk & Prof. P.A.G. van Bergeijk, EPS-2019-465-F&A, https://repub.eur.nl/pub/115988

Alserda, G.A.G., *Choices in Pension Management*, Promotors: Prof. S.G. van der Lecq & Dr O.W. Steenbeek, EPS-2017-432-F&A, https://repub.eur.nl/pub/103496

Arampatzi, E., *Subjective Well-Being in Times of Crises: Evidence on the Wider Impact of Economic Crises and Turmoil on Subjective Well-Being,* Promotors: Prof. H.R. Commandeur, Prof. F. van Oort & Dr. M.J. Burger, EPS-2018-459-S&E, https://repub.eur.nl/pub/111830

Arslan, A.M., *Operational Strategies for On-demand Delivery Services,* Promotors: Prof. R.A. Zuidwijk & Dr N.A. H. Agatz, EPS-2019-481-LIS, https://repub.eur.nl/pub/126463

Avci, E., *Surveillance of Complex Auction Markets: a Market Policy Analytics Approach*, Promotors: Prof. W. Ketter, Prof. H.W.G.M. van Heck & Prof. D.W. Bunn, EPS-2018-426-LIS, https://repub.eur.nl/pub/106286

Balen, T.H. van, *Challenges of Early Stage Entrepreneurs: the Roles of Vision Communication and Team Membership Change*, Promotors: Prof. J.C.M. van den Ende & Dr M. Tarakci, EPS-2019-468-LIS, https://repub.eur.nl/pub/115654

Bansraj, S.C., *The Principles of Private Equity: Ownership and Acquisitions*, Promotors: Prof. J.T.J Smit & Dr V. Volosovych, EPS-2020-507-F&A, https://repub.eur.nl/pub/132329

Bavato, D., *With New Eyes: The recognition of novelty and novel ideas*, Promotors: Prof. D.A. Stam & Dr. S. Tasselli, EPS-2020-500-LIS, https://repub.eur.nl/pub/134264

Bernoster, I., *Essays at the Intersection of Psychology, Biology, and Entrepreneurship*, Promotors: Prof. A.R. Thurik, Prof. I.H.A. Franken & Prof. P.J.F Groenen, EPS-2018-463-S&E, https://repub.eur.nl/pub/113907

Blagoeva, R.R., *The Hard Power Of Soft Power: A behavioral strategy perspective on how power, reputation, and status affect firms*, Promotors: Prof. J.J.P. Jansen & Prof. T.J.M. Mom, EPS-2020-495-S&E, https://repub.eur.nl/pub/127681

Bouman, P., *Passengers, Crowding and Complexity: Models for Passenger Oriented Public Transport*, Prof. L.G. Kroon, Prof. A. Schöbel & Prof. P.H.M. Vervest, EPS-2017-420-LIS, https://repub.eur.nl/pub/100767

Breugem, T., *'Crew Planning at Netherlands Railways: Improving Fairness, Attractiveness, and Efficiency'*, Promotors: Prof. D. Huisman & Dr T.A.B. Dollevoet, EPS-2020-494-LIS, https://repub.eur.nl/pub/124016

Bunderen, L. van, *Tug-of-War: Why and when teams get embroiled in power struggles*, Promotors: Prof. D.L. van Knippenberg & Dr. L. Greer, EPS-2018-446-ORG, https://repub.eur.nl/pub/105346

Burg, G.J.J. van den, *Algorithms for Multiclass Classification and Regularized Regression*, Promotors: Prof. P.J.F. Groenen & Dr. A. Alfons, EPS-2018-442-MKT, https://repub.eur.nl/pub/103929

Chammas, G., *Portfolio concentration*, Promotor: Prof. J. Spronk, EPS-2017-410-F&E, https://repub.eur.nl/pub/94975

Chan, H.Y., *'Decoding the consumer's brain: Neural representations of consumer experience'*, Promotors: Prof. A. Smidts & Dr M.A.S. Boksem, EPS-2019-493-MKT, https://repub.eur.nl/pub/124931

Couwenberg, L.*, Context dependent valuation: A neuroscientific perspective on consumer decision-making*, Promotors: Prof. A. Smit, Prof. A.G. Sanfrey & Dr M.A.S. Boksem, EPS-2020-505-MKT, https://repub.eur.nl/pub/129601

Dalmeijer, K., *Time Window Assignment in Distribution Networks*, Promotors: Prof A.P.M. Wagelmans & Dr R. Spliet, EPS-2019-486-LIS, https://repub.eur.nl/pub/120773

Dennerlein, T. *Empowering Leadership and Employees' Achievement Motivations: the Role of Self-Efficacy and Goal Orientations in the Empowering Leadership Process*, Promotors: Prof. D.L. van Knippenberg & Dr J. Dietz, EPS-2017-414-ORG, https://repub.eur.nl/pub/98438

Dolgova, E., *On Getting Along and Getting Ahead: How Personality Affects Social Network Dynamics*, Promotors: Prof. P.P.M.A.R Heugens & Prof. M.C. Schippers, EPS-2019-455-S&E, https://repub.eur.nl/pub/119150

Duijzer, L.E., *Mathematical Optimization in Vaccine Allocation*, Promotors: Prof. R. Dekker & Dr W.L. van Jaarsveld, EPS-2017-430-LIS, https://repub.eur.nl/pub/101487

Fasaei, H., *Changing the Narrative: The Behavioral Effects of Social Evaluations on the Decision Making of Organizations*, Promotors: Prof. J.J.P. Jansen, Prof. T.J.M. Mom & Dr. M.P. Tempelaar, EPS-2020-492-S&E, https://repub.eur.nl/pub/129598

Eijlers, E., *Emotional Experience and Advertising Effectiveness: on the use of EEG in marketing*, Prof. A. Smidts & Prof. M.A.S. Boksem, EPS-2019-487-MKT, https://repub.eur.nl/pub/124053

El Nayal, O.S.A.N., *Firms and the State: An Examination of Corporate Political Activity and the Business-Government Interface*, Promotor: Prof. J. van Oosterhout & Dr. M. van Essen, EPS-2018-469-S&E, https://repub.eur.nl/pub/114683

Feng, Y., *The Effectiveness of Corporate Governance Mechanisms and Leadership Structure: Impacts on strategic change and firm performance*, Promotors: Prof. F.A.J. van den Bosch, Prof. H.W. Volberda & Dr J.S. Sidhu, EPS-2017-389-S&E, https://repub.eur.nl/pub/98470

Frick, T.W., *The Implications of Advertising Personalization for Firms, Consumer, and Ad Platfroms*, Promotors: Prof. T. Li & Prof. H.W.G.M. van Heck, EPS-2018-452-LIS, https://repub.eur.nl/pub/110314

Fytraki, A.T., *Behavioral Effects in Consumer Evaluations of Recommendation Systems*, Promotors: Prof. B.G.C. Dellaert & Prof. T. Li, EPS-2018-427-MKT, https://repub.eur.nl/pub/110457

Gai, J., *Contextualized Consumers: Theories and Evidence on Consumer Ethics, Product Recommendations, and Self-Control*, Promotors: Prof. S. Puntoni & Prof. S.T.L. Sweldens, EPS-2020-498-MKT, https://repub.eur.nl/pub/127680

Ghazizadeh, P. *Empirical Studies on the Role of Financial Information in Asset and Capital Markets*, Promotors: Prof. A. de Jong & Prof. E. Peek, EPS-2019-470-F&A, https://repub.eur.nl/pub/114023

Giurge, L., *A Test of Time; A temporal and dynamic approach to power and ethics*, Promotors: Prof. M.H. van Dijke & Prof. D. De Cremer, EPS-2017-412-ORG, https://repub.eur.nl/pub/98451

Gobena, L., *Towards Integrating Antecedents of Voluntary Tax Compliance*, Promotors: Prof. M.H. van Dijke & Dr P. Verboon, EPS-2017-436-ORG, https://repub.eur.nl/pub/103276

Groot, W.A., *Assessing Asset Pricing Anomalies*, Promotors: Prof. M.J.C.M. Verbeek & Prof. J.H. van Binsbergen, EPS-2017-437-F&A, https://repub.eur.nl/pub/103490

Hanselaar, R.M., *Raising Capital: On pricing, liquidity and incentives*, Promotors: Prof. M.A. van Dijk & Prof. P.G.J. Roosenboom, EPS-2018-429-F&A, https://repub.eur.nl/pub/113274

Harms, J. A., *Essays on the Behavioral Economics of Social Preferences and Bounded Rationality*, Prof. H.R. Commandeur & Dr K.E.H. Maas, EPS-2018-457-S&E, https://repub.eur.nl/pub/108831

Hendriks, G., *Multinational Enterprises and Limits to International Growth: Links between Domestic and Foreign Activities in a Firm's Portfolio,*
Promotors: Prof. P.P.M.A.R. Heugens & Dr. A.H.L Slangen, EPS-2019-464-S&E, https://repub.eur.nl/pub/114981

Hengelaar, G.A., *The Proactive Incumbent: Holy grail or hidden gem? Investigating whether the Dutch electricity sector can overcome the incumbent's curse and lead the sustainability transition*, Promotors: Prof. R.J. M. van Tulder & Dr K. Dittrich, EPS-2018-438-ORG, https://repub.eur.nl/pub/102953

Jacobs, B.J.D., *Marketing Analytics for High-Dimensional Assortments*,
Promotors: Prof. A.C.D. Donkers & Prof. D. Fok, EPS-2017-445-MKT, https://repub.eur.nl/pub/103497

Jia, F., *The Value of Happiness in Entrepreneurship*,
Promotors: Prof. D.L. van Knippenberg & Dr Y. Zhang, EPS-2019-479-ORG, https://repub.eur.nl/pub/115990

Kahlen, M. T., *Virtual Power Plants of Electric Vehicles in Sustainable Smart Electricity Markets*, Promotors: Prof. W. Ketter & Prof. A. Gupta,
EPS-2017-431-LIS, https://repub.eur.nl/pub/100844

Kampen, S. van, *The Cross-sectional and Time-series Dynamics of Corporate Finance: Empirical evidence from financially constrained firms*, Promotors: Prof. L. Norden & Prof. P.G.J. Roosenboom, EPS-2018-440-F&A, https://repub.eur.nl/pub/105245

Karali, E., *Investigating Routines and Dynamic Capabilities for Change and Innovation,* Promotors: Prof. H.W. Volberda, Prof. H.R. Commandeur &
Dr J.S. Sidhu, EPS-2018-454-S&E, https://repub.eur.nl/pub/106274

Keko. E, *Essays on Innovation Generation in Incumbent Firms*,
Promotors: Prof. S. Stremersch & Dr N.M.A. Camacho, EPS-2017-419-MKT, https://repub.eur.nl/pub/100841

Kerkkamp, R.B.O., *Optimisation Models for Supply Chain Coordination under Information Asymmetry*, Promotors: Prof. A.P.M. Wagelmans &
Dr. W. van den Heuvel, EPS-2018-462-LIS, https://repub.eur.nl/pub/109770

Khattab, J., *Make Minorities Great Again: a contribution to workplace equity by identifying and addressing constraints and privileges*,
Promotors: Prof. D.L. van Knippenberg & Dr A. Nederveen Pieterse,
EPS-2017-421-ORG, https://repub.eur.nl/pub/99311

Kim, T. Y., *Data-driven Warehouse Management in Global Supply Chains*, Promotors: Prof. R. Dekker & Dr C. Heij, EPS-2018-449-LIS, https://repub.eur.nl/pub/109103

Klitsie, E.J., *Strategic Renewal in Institutional Contexts: The paradox of embedded agency*, Promotors: Prof. H.W. Volberda & Dr. S. Ansari, EPS-2018-444-S&E, https://repub.eur.nl/pub/106275

Koolen, D., *Market Risks and Strategies in Power Systems Integrating Renewable Energy*, Promotors: Prof. W. Ketter & Prof. R. Huisman, EPS-2019-467-LIS, https://repub.eur.nl/pub/115655

Kong, L. *Essays on Financial Coordination*, Promotors: Prof. M.J.C.M. Verbeek, Dr. D.G.J. Bongaerts & Dr. M.A. van Achter. EPS-2019-433-F&A, https://repub.eur.nl/pub/114516

Kyosev, G.S., *Essays on Factor Investing*, Promotors: Prof. M.J.C.M. Verbeek & Dr J.J. Huij, EPS-2019-474-F&A, https://repub.eur.nl/pub/116463

Lamballais Tessensohn, T., *Optimizing the Performance of Robotic Mobile Fulfillment Systems*, Promotors: Prof. M.B.M de Koster, Prof. R. Dekker & Dr D. Roy, EPS-2019-411-LIS, https://repub.eur.nl/pub/116477

Leung, W.L., *How Technology Shapes Consumption: Implications for Identity and Judgement*, Promotors: Prof. S. Puntoni & Dr G Paolacci, EPS-2019-485-MKT, https://repub.eur.nl/pub/117432

Li, X. *Dynamic Decision Making under Supply Chain Competition*, Promotors: Prof. M.B.M de Koster, Prof. R. Dekker & Prof. R. Zuidwijk, EPS-2018-466-LIS, https://repub.eur.nl/pub/114028

Liu, N., *Behavioral Biases in Interpersonal Contexts*, Supervisors: Prof. A. Baillon & Prof. H. Bleichrodt, EPS-2017-408-MKT, https://repub.eur.nl/pub/95487

Maas, A.J.J., *Organizations and their external context: Impressions across time and space*, Promotors: Prof. P.P.M.A.R Heugens & Prof. T.H. Reus, EPS-2019-478-S&E, https://repub.eur.nl/pub/116480

Maira, E., *Consumers and Producers*, Promotors: Prof. S. Puntoni & Prof. C. Fuchs, EPS-2018-439-MKT, https://repub.eur.nl/pub/104387

Manouchehrabadi, B., *Information, Communication and Organizational Behavior*, Promotors: Prof. G.W.J. Hendrikse & Dr O.H. Swank, EPS-2020-502-ORG, https://repub.eur.nl/pub/132185

Matawlie, N., *Through Mind and Behaviour to Financial Decisions*, Promotors: Prof. J.T.J. Smit & Prof. P. Verwijmeren, EPS-2020-501-F&A, https://repub.eur.nl/pub/134265

Mirzaei, M., *'Advanced Storage and Retrieval Policies in Automated Warehouses'*, Promotors: Prof. M.B.M. de Koster & Dr N. Zaerpour, EPS-2020-490-LIS, https://repub.eur.nl/pub/125975

Nair, K.P., *Strengthening Corporate Leadership Research: The relevance of biological explanations*, Promotors: Prof. J. van Oosterhout & Prof. P.P.M.A.R Heugens, EPS-2019-480-S&E, https://repub.eur.nl/pub/120023

Nullmeier, F.M.E., *Effective contracting of uncertain performance outcomes: Allocating responsibility for performance outcomes to align goals across supply chain actors*, Promotors: Prof. J.Y.F.Wynstra & Prof. E.M. van Raaij, EPS-2019-484-LIS, https://repub.eur.nl/pub/118723

Okbay, A., *Essays on Genetics and the Social Sciences*, Promotors: Prof. A.R. Thurik, Prof. Ph.D. Koellinger & Prof. P.J.F. Groenen, EPS-2017-413-S&E, https://repub.eur.nl/pub/95489

Peng, X., *Innovation, Member Sorting, and Evaluation of Agricultural Cooperatives*, Promotor: Prof. G.W.J. Hendriks, EPS-2017-409-ORG, https://repub.eur.nl/pub/94976

Petruchenya, A., *Essays on Cooperatives: Emergence, Retained Earnings, and Market Shares*, Promotors: Prof. G.W.J. Hendriks & Dr Y. Zhang, EPS-2018-447-ORG, https://repub.eur.nl/pub/105243

Plessis, C. du, *Influencers: The Role of Social Influence in Marketing*, Promotors: Prof. S. Puntoni & Prof. S.T.L.R. Sweldens, EPS-2017-425-MKT, https://repub.eur.nl/pub/103265

Pocock, M., *Status Inequalities in Business Exchange Relations in Luxury Markets*, Promotors: Prof. C.B.M. van Riel & Dr G.A.J.M. Berens, EPS-2017-346-ORG, https://repub.eur.nl/pub/98647

Polinder, G.J., *New Models and Applications for Railway Timetabling*, Prof. D. Huisman & Dr. M.E. Schmidt, EPS-2020-514-LIS, https://repub.eur.nl/pub/134600

Pozharliev, R., *Social Neuromarketing: The role of social context in measuring advertising effectiveness*, Promotors: Prof. W.J.M.I. Verbeke & Prof. J.W. van Strien, EPS-2017-402-MKT, https://repub.eur.nl/pub/95528

Qian, Z., *Time-Varying Integration and Portfolio Choices in the European Capital Markets*, Promotors: Prof. W.F.C. Verschoor, Prof. R.C.J. Zwinkels & Prof. M.A. Pieterse-Bloem, EPS-2020-488-F&A, https://repub.eur.nl/pub/124984

Reh, S.G., *A Temporal Perspective on Social Comparisons in Organizations,* Promotors: Prof. S.R. Giessner, Prof. N. van Quaquebeke & Dr. C. Troster, EPS-2018-471-ORG, https://repub.eur.nl/pub/114522

Riessen, B. van, *Optimal Transportation Plans and Portfolios for Synchromodal Container Networks*, Promotors: Prof. R. Dekker & Prof. R.R. Negenborn, EPS-2018-448-LIS, https://repub.eur.nl/pub/105248

Romochkina, I.V., *When Interests Collide: Understanding and modeling interests alignment using fair pricing in the context of interorganizational information systems*, Promotors: Prof. R.A. Zuidwijk & Prof. P.J. van Baalen, EPS-2020-451-LIS, https://repub.eur.nl/pub/127244

Schie, R. J. G. van, *Planning for Retirement: Save More or Retire Later?* Promotors: Prof. B. G. C. Dellaert & Prof. A.C.D. Donkers, EOS-2017-415-MKT, https://repub.eur.nl/pub/100846

Schneidmüller, T., *Engaging with Emerging Technologies: Socio-cognitive foundations of incumbent response*, Promotors: Prof. H. Volberda & Dr S.M. Ansari, EPS-2020-509-S&E, https://repub.eur.nl/pub/131124

Schouten, K.I.M. *Semantics-driven Aspect-based Sentiment Analysis,* Promotors: Prof. F.M.G. de Jong, Prof. R. Dekker & Dr. F. Frasincar, EPS-2018-453-LIS, https://repub.eur.nl/pub/112161

Sihag, V., *The Effectiveness of Organizational Controls: A meta-analytic review and an investigation in NPD outsourcing*, Promotors: Prof. J.C.M. van den Ende & Dr S.A. Rijsdijk, EPS-2019-476-LIS, https://repub.eur.nl/pub/115931

Smolka, K.M., *Essays on Entrepreneurial Cognition, Institution Building and Industry Emergence*, Promotors: P.P.M.A.R. Heugens, & Prof. J.P. Cornelissen, Eps-2019-483-S&E, https://repub.eur.nl/pub/118760

Straeter, L.M., *Interpersonal Consumer Decision Making*, Promotors: Prof. S.M.J. van Osselaer & Dr I.E. de Hooge, EPS-2017-423-MKT, https://repub.eur.nl/pub/100819

Stuppy, A., *Essays on Product Quality*, Promotors: Prof. S.M.J. van Osselaer & Dr N.L. Mead. EPS-2018-461-MKT, https://repub.eur.nl/pub/111375

Subaşi, B., *Demographic Dissimilarity, Information Access and Individual Performance*, Promotors: Prof. D.L. van Knippenberg & Dr W.P. van Ginkel, EPS-2017-422-ORG, https://repub.eur.nl/pub/103495

Suurmond, R., *In Pursuit of Supplier Knowledge: Leveraging capabilities and dividing responsibilities in product and service contexts,* Promotors: Prof. J.Y.F Wynstra & Prof. J. Dul. EPS-2018-475-LIS, https://repub.eur.nl/pub/115138

Toxopeus, H.S. *Financing sustainable innovation: From a principal-agent to a collective action perspective*, Promotors: Prof. H.R. Commandeur & Dr. K.E.H. Maas. EPS-2019-458-S&E, https://repub.eur.nl/pub/114018

Turturea, R., *Overcoming Resource Constraints: The Role of Creative Resourcing and Equity Crowdfunding in Financing Entrepreneurial Ventures,* Promotors: Prof. P.P.M.A.R Heugens, Prof. J.J.P. Jansen & Dr. I. Verheuil, EPS-2019-472-S&E, https://repub.eur.nl/pub/112859

Valboni, R.,*'Building Organizational (Dis-)Abilities: The impact of learning on the performance of mergers and acquisitions'*,Promotors: Prof. T.H. Reus & Dr A.H.L. Slangen, EPS-2020-407-S&E, https://repub.eur.nl/pub/125226

Vandic, D., *Intelligent Information Systems for Web Product Search*, Promotors: Prof. U. Kaymak & Dr Frasincar, EPS-2017-405-LIS, https://repub.eur.nl/pub/95490

Verbeek, R.W.M., *Essays on Empirical Asset Pricing*, Promotors: Prof. M.A. van Dijk & Dr M. Szymanowska, EPS-2017-441-F&A, https://repub.eur.nl/pub/102977

Visser, T.R. Vehicle Routing and Time Slot Management in Online Retailing, Promotors: Prof. A.P.M. Wagelmans & Dr R. Spliet, EPS-2019-482-LIS, https://repub.eur.nl/pub/120772

Vlaming, R. de.,*Linear Mixed Models in Statistical Genetics*, Prof. A.R. Thurik, Prof. P.J.F. Groenen & Prof. Ph.D. Koellinger, EPS-2017-416-S&E, https://repub.eur.nl/pub/100428

Vongswasdi, P., *Accelerating Leadership Development: An evidence-based perspective*, Promotors: Prof. D. van Dierendonck & Dr H.L. Leroy, EPS-2020-512-ORG, https://repub.eur.nl/pub/134079

Vries, H. de, *Evidence-Based Optimization in Humanitarian Logistics*, Promotors: Prof. A.P.M. Wagelmans & Prof. J.J. van de Klundert, EPS-2017-435-LIS, https://repub.eur.nl/pub/102771

Wang, R., *Corporate Environmentalism in China*, Promotors: Prof. P.P.M.A.R Heugens & Dr F. Wijen, EPS-2017-417-S&E, https://repub.eur.nl/pub/99987

Wang, R., *Those Who Move Stock Prices*, Promotors: Prof. P. Verwijmeren & Prof. S. van Bekkum, EPS-2019-491-F&A, https://repub.eur.nl/pub/129057

Wasesa, M., *Agent-based inter-organizational systems in advanced logistics operations*, Promotors: Prof. H.W.G.M van Heck, Prof. R.A. Zuidwijk & Dr A. W. Stam, EPS-2017-LIS-424, https://repub.eur.nl/pub/100527

Wessels, C., *Flexible Working Practices: How Employees Can Reap the Benefits for Engagement and Performance*, Promotors: Prof. H.W.G.M. van Heck, Prof. P.J. van Baalen & Prof. M.C. Schippers, EPS-2017-418-LIS, https://repub.eur.nl/

Wiegmann, P.M., *Setting the Stage for Innovation: Balancing Diverse Interests through Standardisation*, Promotors: Prof. H.J. de Vries & Prof. K. Blind, EPS-2019-473-LIS, https://repub.eur.nl/pub/114519

Wijaya, H.R., *Praise the Lord!: Infusing Values and Emotions into Neo-Institutional Theory*, Promotors: Prof. P.P.M.A.R. Heugens & Prof. J.P. Cornelissen, EPS-2019-450-S&E, https://repub.eur.nl/pub/115973

Williams, A.N., *Make Our Planet Great Again: A Systems Perspective of Corporate Sustainability*, Promotors: Prof. G.M. Whiteman & Dr. S. Kennedy, EPS-2018-456-ORG, https://repub.eur.nl/pub/111032

Witte, C.T., *Bloody Business: Multinational investment in an increasingly conflict-afflicted world*, Promotors: Prof. H.P.G. Pennings, Prof. H.R. Commandeur & Dr M.J. Burger, EPS-2018-443-S&E, https://repub.eur.nl/pub/104027

Wu, J., *A Configural Approach to Understanding Voice Behavior in Teams*, Promotors: Prof. D.L. van Knippenberg & Prof. S.R. Giessner, EPS-2020-510-ORG, https://repub.eur.nl/pub/132184

Ye, Q.C., *Multi-objective Optimization Methods for Allocation and Prediction*, Promotors: Prof. R. Dekker & Dr Y. Zhang, EPS-2019-460-LIS, https://repub.eur.nl/pub/116462

Yuan, Y., *The Emergence of Team Creativity: a social network perspective*, Promotors: Prof. D. L. van Knippenberg & Dr D. A. Stam, EPS-2017-434-ORG, https://repub.eur.nl/pub/100847

Zhang, Q., *Financing and Regulatory Frictions in Mergers and Acquisitions*, Promotors: Prof. P.G.J. Roosenboom & Prof. A. de Jong, EPS-2018-428-F&A, https://repub.eur.nl/pub/103871