

FOUR PERSPECTIVES ON CORPORATE ENTREPRENEURSHIP AND NEW VENTURE CREATION

Der Fakultät für Wirtschaftswissenschaften der

Universität Paderborn

zur Erlangung des akademischen Grades

Doktor der Wirtschaftswissenschaften

– Doctor rerum politicarum –

vorgelegte Dissertation von

Slawa Tomin, B.A., M.Sc.,

geboren am 15.09.1989 in Pretorija (Gebiet Orenburg)

Erscheinungsjahr 2022

Erstgutachter: Prof. Dr. Rüdiger Kabst, Lehrstuhlinhaber für International Business,
Department Management, Fakultät für Wirtschaftswissenschaften, Universität Paderborn -
Leiter des Technologietransfer-und Existenzgründungs-Centers an der Universität Paderborn.

Zweitgutachter: Prof. Dr. Tobias Jenert, Lehrstuhlinhaber für Wirtschaftspädagogik,
insbesondere Hochschuldidaktik- und entwicklung, Department Wirtschaftspädagogik,
Fakultät für Wirtschaftswissenschaften, Universität Paderborn

Danksagung

Es ist mir an dieser Stelle ein besonderes Anliegen, einigen Personen meine Dankbarkeit für die Unterstützung in den letzten Jahren auszudrücken, die damit hinreichend zu der Erstellung dieser Dissertation beitragen haben.

Zunächst bedanke ich mich bei Prof. Dr. Rüdiger Kabst, der mir die notwendigen Rahmenbedingungen mit dem Feldlabor garage33 geschaffen hat, die wissenschaftliche Reise anzutreten und mir stets mit seiner Erfahrung und Offenheit zur Seite stand. Über die Unterstützung auf sowohl praktischer als auch wissenschaftlicher Ebene bin ich sehr dankbar.

Mein besonderer Dank gilt Prof. Dr. Bernhard Wach der mir als Coach und Mentor jederzeit zur Seite stand, sämtliche Wochenend- oder Late-Night-Sessions mit mir verbrachte und mich stets nach Rückschlägen und Motivationstiefs wieder aufrichtete. Ebenfalls möchte ich Dr. Holger Steinmetz besonders danken, der mir von der ersten Stunde an mit seiner immensen fachlichen Expertise zur Seite stand und maßgeblich an der Gestaltung und Auswahl von Forschungsdesigns und interessanten Fragestellungen beteiligt war. Beiden möchte ich für ihren unermüdlichen Motivation entlang aller Höhen und Tiefen, für ihren Ehrgeiz immer noch ein Stückchen mehr aus den gemeinsamen Manuskripten zu holen, die intensiven wissenschaftlichen Diskussionen und die Möglichkeit von ihnen zu lernen herzlich danken!

Darüber hinaus möchte ich bei meinen Ko-Autoren Prof. Dr. Rodrigo Isidor, Prof. Dr. Katrin Burmeister-Lamp, Dr. Benjamin Krebs, Mirko Brunk und Marieke Funck bedanken, die mich fachlich und persönlich durch die gemeinsamen Forschungsprojekte gefördert haben und mit mir die gemeinsamen Herausforderungen bestritten haben. Zudem möchte ich meinen (ehemaligen) Kollegen Nicolas Megow, Yasmine Yahyaoui, Dr. Tim Brühn, Lea Hansjürgen, Katharina Weßling und Eva Jakob für ihren Zuspruch, Inspiration und Motivation danken.

Zu guter Letzt möchte ich meinem persönlich Umfeld danken:

Besonders wichtig, wenn nicht sogar am wichtigsten für das Gelingen der Dissertation war die seelische als auch moralische Unterstützung meiner ganzen Familie, insbesondere meiner Eltern Wassili und Nina und meiner Lebenspartnerin Laura. Ihre unermüdliche Positivität, bedingungslose Unterstützung und ihr kontinuierlicher Glaube an mich über alle Phasen der Dissertation haben mich stets darin bestärkt eine Schippe draufzulegen, weiterzumachen und nicht aufzugeben. Auch wenn meine Dankbarkeit schwer in Worte zu fassen ist: Danke, dass ihr den Weg von Anfang bis Ende mit mir gegangen seid!

Table of Contents

CHAPTER 1 SYNOPSIS.....	1
1.1. INTRODUCTION	2
1.2. THEORETICAL FOUNDATION: CORPORATE ENTREPRENEURSHIP AND NEW VENTURE CREATION.....	3
1.3. RESEARCH GAPS AND OVERARCHING RESEARCH QUESTIONS	4
1.4. OUTLINE OF THE DISSERTATION AND RESEARCH AIMS AND CONTRIBUTIONS	8
1.4.1. STUDY 1: INVESTIGATING THE PERFORMANCE EFFECTS OF STRATEGIC RENEWAL: THE ROLE OF STRATEGIC PERSEVERANCE, INCREMENTAL RENEWAL AND DISCONTINUOUS TRANSFORMATION.....	11
1.4.2. STUDY 2: FOSTERING EMPLOYEES’ ENTREPRENEURIAL ACTIVITY: A QUASI-..... EXPERIMENTAL FIELD STUDY ON INTERNAL CORPORATE VENTURING	12
1.4.3. STUDY 3: HOW NON-MANAGERIAL EMPLOYEES NAVIGATE VENTURE IDEA ELABORATION: A COGNITIVE FRAME PERSPECTIVE ON CORPORATE ENTREPRENEURSHIP	12
1.4.4. STUDY 4: NEW VENTURE TEAMS’ CAPACITY FOR IDEA GENERATION AND EXECUTION IN LIGHT OF HIERARCHICAL CULTURAL VALUES.....	13
REFERENCES	17
CHAPTER 2 INVESTIGATING THE PERFORMANCE EFFECTS OF STRATEGIC RENEWAL: THE ROLE OF STRATEGIC PERSISTENCE, INCREMENTAL RENEWAL, AND DISCONTINUOUS TRANSFORMATION	22
REFERENCES	24
CHAPTER 3 FOSTERING EMPLOYEES’ ENTREPRENEURIAL ACTIVITY: A QUASI-EXPERIMENTAL FIELD STUDY ON INTERNAL CORPORATE VENTURING.....	30
REFERENCES	32
CHAPTER 4 HOW NON-MANAGERIAL EMPLOYEES NAVIGATE IDEA ELABORATION: A COGNITIVE FRAME PERSPECTIVE ON CORPORATE ENTREPRENEURSHIP	38
REFERENCES	40
CHAPTER 5 NEW VENTURE TEAMS’ CAPACITY FOR IDEA GENERATION AND EXECUTION IN LIGHT OF HIERARCHICAL CULTURAL VALUES.....	44
REFERENCES	46
CHAPTER 6 GENERAL DISCUSSION AND OUTLOOK	52
6.1. CONTRIBUTIONS AND THEORETICAL IMPLICATIONS.....	53
6.2. PRACTICAL IMPLICATIONS	60
6.3. OUTLOOK	61
REFERENCES	64

CHAPTER 1 | SYNOPSIS

1.1. Introduction

Increasing competition, unforeseen environmental shocks, instabilities in market demands, political changes, technological disruption, environmental dynamism, and the desire to grow are only few reasons why established firms have to rethinking their strategies on how to compete in the future (e.g., Agarwal & Helfat, 2009; Flier et al., 2003; Guth & Ginsberg, 1990; Kuratko & Morris, 2018). While competitive advantages have been seen as sustainable once achieved and guaranteed long-term survival with financial prosperity, these competitive advantages might turn into deadly structures that promote organizational inertia and stagnation (McGrath, 2013) in a world where technological disruption and change became rather a normal than abnormal thing (Kuratko & Morris, 2018).

To hold pace and solve emerging challenges by innovating and re-inventing themselves constantly, established organizations engage in corporate entrepreneurship (CE) that describes entrepreneurial behavior within established firms (Guth & Ginsberg, 1990; Stopford & Baden-Fuller, 1994), conceiving activities to sustain innovativeness by means of generating novel products, services, and/or processes (Guth & Ginsberg, 1990; Sharma & Chrisman, 1999). With CE, established firms are extending their portfolio of innovation activities to engage and collaborate with entrepreneurial ventures (Shankar & Shepherd, 2019; Weiblen & Chesbrough, 2015), which is corroborated by a report of 500Startups and INSEAD from 2016. The report states that half of the 500 publicly-traded organizations in the USA already had any kind of startup engagement and a quarter of them having launched an incubator or accelerator program (Bonzom & Netessine, 2016; Shankar & Shepherd, 2019). Similar progress can be observed in Germany, where the intrapreneurship monitors from 2020 and 2021 highlight the importance of corporate entrepreneurial initiatives: the authors state that 13% of organizations had established dedicated departments for CE in 2020 which has grown to 29% in 2021 (Baum et al., 2020, 2021). Yet, this trend has not finished as

60% of the 603 German organizations are planning to increase and promote corporate entrepreneurial activities (i.e., intrapreneurial activities) within the next 24 months by several initiatives, for instances, training the managerial employees, providing more financial resources to venture projects, and unlocking more time for exploration (Baum et al., 2021).

1.2. Theoretical Foundation: Corporate Entrepreneurship and New Venture Creation

It becomes apparent, that established firms are seeking to integrate and engage increasingly in CE and collaborate with new ventures in the future which is the topic of the present dissertation. By definition, CE embraces two types of phenomena that address mutually exclusive and collectively exhaustive activities, namely, *strategic renewal* and *corporate venturing* (Guth & Ginsberg, 1990; Zahra, 1993) that help organizations to become more innovative. Herein, *strategic renewal* describes the revitalization and rejuvenation of the company's business by means of changing the scope of its current business (Zahra, 1993, 1995), thereby generating new wealth from existing resources by recombining and altering resource combinations to serve novel environmental demands (Guth & Ginsberg, 1990; Sharma & Chrisman, 1999). In that sense, strategic renewal promotes the transformation of an organization by renewing the central ideas firms are built on (Guth & Ginsberg, 1990) with the aim to gain and re-gain competitive advantages in an ever-changing environment (Covin & Miles, 1999).

In addition, *corporate venturing* describes the creation of entirely new businesses within the structure of pre-existing firms (Covin & Miles, 2007; Guth & Ginsberg, 1990) in order to explore and exploit new markets and/or new products (Sharma & Chrisman, 1999), embracing an internal and external perspective. The distinction between the emergence of new ventures inside or outside the parent firms' boundaries is addressed by *internal or external corporate venturing* (Miles & Covin, 2002; Sharma & Chrisman, 1999).

On the one hand, *internal corporate venturing* addresses new venture creation inside the existing organization as individuals or small groups of individuals alter their entrepreneurial behavior to start working on novel entrepreneurial opportunities from within the firm (e.g., Guth & Ginsberg, 1990; Sharma & Chrisman, 1999; Stopford & Baden-Fuller, 1994). By means of internally staffed venture teams that are detached from organizational regulations and work semi-autonomously, they enter new businesses by expanding operations in new markets (Sharma & Chrisman, 1999; Zajac et al., 1991).

On the other hand, *external corporate venturing* describes activities that result in the creation of semi-autonomous organizational entities or new ventures that reside outside the organization (Covin & Miles, 2007; Sharma & Chrisman, 1999). Particularly, external corporate venturing consists of entrepreneurial activities that invent or acquire new businesses that have been created by parties outside the established organization (Kuratko & Audretsch, 2013) or develop ventures together with external partners to facilitate new venture emergence (Keil, 2004). Thus, external corporate venturing defines the organizations' search of novel ideas outside of the own company (e.g., Dushnitsky & Lenox, 2006; Wadhwa & Kotha, 2006). Examples for external corporate venturing activities are joint ventures, spin-offs, venture capital investments in independent startups (Sharma & Chrisman, 1999), idea-sourcing events, hackathons, and business plan competitions (Mocker et al., 2015; Shankar & Shepherd, 2019).

1.3. Research Gaps and Overarching Research Questions

The profound objective of CE, either through strategic renewal or corporate venturing, is to enhance organizational profitability and growth by means of nurturing entrepreneurial behavior within the organization. With that objective, extant research largely investigated organizational-level performance effects of CE, finding primarily positive performance implications of CE (Bierwerth et al., 2015; Schmitt et al., 2018). However, notwithstanding

these positive effects, our understanding relies on overly simplistic assumptions as studies rarely integrate temporal dynamics that may obscure distinct (negative) performance effects. In that sense, competing within dynamic environments with ever-changing market demands may nurture the chaos within organizational structures (Brown & Eisenhardt, 1997; Eisenhardt & Brown, 1998), thereby temporarily generating disadvantages related to radical change events. Thus, the first overarching research question of this dissertation addresses the role of time (i.e., temporal dynamics) for organizational-level CE and firm performance, shedding explicit light on the phenomenon of strategic renewal as an instrument to rejuvenate the firms' business.

Research Question 1:

What implications does the integration of temporal dynamics have on the performance effects of strategic renewal?

While organizational-level performance effects have been the primary focus of CE studies (e.g., Bierwerth et al., 2015), individual-level mechanisms that promote CE and nurture employees' entrepreneurial behavior remain less represented with few exceptions (e.g., Biniari, 2012; Fini et al., 2012; Rigtering et al., 2019). To understand underlying individual-level dynamics in CE, this dissertation builds on knowledge from *new venture creation* (e.g., Davidsson & Gruenhagen, 2021; Patzelt et al., 2021; Shepherd et al., 2021) to shed light on the role of employees' entrepreneurial activity (EEA) and individuals' collaboration in new venture teams that are precursive to organizational-level performance implications.

New venture creation (NVC) is described as the central topic of entrepreneurship (Shepherd et al., 2021), adapting a processual perspective of how ventures are created from

initiation to completion (Davidsson & Gruenhagen, 2021). Herein, a new venture can emerge as either an independent or corporate venture, seeking to seize entrepreneurial opportunities to bring novel ventures into life (Shankar & Shepherd, 2019). Yet, to understand underlying individual-level dynamics within the NVC process in a corporate context, extant research cautioned to investigate distinct venture phases in order to generate a holistic understanding of NVC, namely venture inception, venture development, and venture decline (Patzelt et al., 2021).

A recent literature review on NVC (Shepherd et al., 2021) corroborates that knowledge in the field remains limited and blurred as scholars encounter the challenge to study new ventures before they have been created, especially as entrepreneurial efforts of starting up are oftentimes abandoned or terminated prior to first sales or the formal creation of a venture itself (McGrath, 1999; Shepherd et al., 2021; Ucbasaran et al., 2013). In that sense, extant research retrospectively investigated successful ventures and thereby faced a sample selection bias that blurs our understanding regarding the inception phase of ventures and its corresponding antecedents (e.g., Davidsson & Gruenhagen, 2021; Patzelt et al., 2021; Shepherd et al., 2021).

Nevertheless, prior research has generated important evidence regarding the role of individuals for NVC (Shepherd et al., 2021; Shook et al., 2003). Particularly, Shook et al. (2003) found in their literature review, that psychological determinants (e.g., personality, beliefs, values, attitudes), demographic characteristics (e.g., gender, age, education, past experience), and cognition (e.g., knowledge, biases, and heuristics) are preceding entrepreneurial intentions that eventually translate into entrepreneurial actions (e.g., Bird, 1992; Boyd & Vozikis, 1994; Krueger & Carsrud, 1993) and the establishment of new ventures (Bird, 1992; Gartner, 1985; Shook et al., 2003).

However, most studies investigated actions taken by independent entrepreneurs (Shepherd et al., 2021; Shook et al., 2003), not addressing the idiosyncrasies that corporate employees' are facing once engaging in CE and NVC. Particularly, Shepherd and colleagues (2021) caution that corporate venturing activities may be different from those of independent entrepreneurs (i.e., in regard of starting from the scratch or from an existing product) which is why the authors excluded CE studies from their literature review. Therefore, this dissertation seeks to contribute towards understanding NVC in the context of CE, particularly because the corporate context might impede or promote EEA differently (Hornsby et al., 2002, 2009; Kuratko et al., 2005). As scholars corroborate that entrepreneurial thoughts and behaviors are not stable and may vary across situations and environments (Shane & Venkataraman, 2000; Shook et al., 2003), for example given a corporate entrepreneurial context, this dissertation complements research in this regard by studying "why, when and how different modes of action are used to exploit entrepreneurial opportunities" (Shane & Venkataraman, 2000: 218; Shook et al., 2003).

As NVC begins prior to the generation of first revenues or the formal establishment of ventures, the venture inception phase is of primary interest in this dissertation, describing a period of time in which formal structures have not been established yet and individuals or groups of individuals are elaborating on the initial steps of a venture journey (Patzelt et al., 2021). The venture inception phase is characterized by the goal of entrepreneurs to develop first ideas into products or services with a corresponding business model by integrating early feedback from customers and experts (Grimes, 2018; Patzelt et al., 2021). Moreover, the venture inception phase addresses the formation of new venture teams by collectively coming up with an entrepreneurial opportunity to work on and seizing this by collaborating mostly in a team (Patzelt et al., 2021). Herein, entrepreneurial team collaboration is depended on

individual-level characteristics such as cognition, affect, identity and interpersonal processes that potentially prevent or promote the creation of new ventures (Patzelt et al., 2021).

However, as contemporary research on NVC encounters difficulties observing the new venture inception phase with its corresponding dynamics that are implied in venture teams (Shepherd et al., 2020), I seek to generate more knowledge on this behalf within a CE context. To complement on existing knowledge on individual-level CE and NVC, the second overarching research question addresses how and why individual-level characteristics nurture EEA (i.e., entrepreneurial behavior) within organizations, and how those characteristics influence new venture team collaboration that eventually leads to venture creation. Moreover, the third overarching research question focusses on how contextual factors (i.e., national culture and cultural hierarchical values) influence new venture team collaboration and corresponding entrepreneurial outcomes. Stated formally:

Research Question 2:

How do individual-level characteristics contribute to employees' entrepreneurial activity that are precursors of corporate entrepreneurial outcomes?

Research Question 3:

What are the implications of contextual factors (i.e., national culture) regarding the collaboration of individuals within a new venture team and their quality of work?

1.4. Outline of the Dissertation and Research Aims and Contributions

The present dissertation comprises four research papers with distinct research gaps in order to enhance our understanding concerning CE and NVC on either organizational- or individual-level. Figure 1 depicts the overall outline of this dissertation and connects each

studies' research aim to the corresponding research question. Herein, Study 1 focusses on the time-related performance implications generated from strategic renewal as part of organizational-level CE, answering *Research Question 1*. Study 2 and 3 shift the perspective towards internal corporate venturing, as part of the overarching CE construct, extending current knowledge on the individual-level phenomenon, which is a precursor of firm performance. Thereby, both studies contribute towards the aim of answering *Research Question 2*. Finally, Study 4 contributes towards the aim of understanding external corporate venturing, investigating contextual factors (i.e., the influence of hierarchy) that may influence individuals' collaboration within new venture teams, addressing *Research Question 3*. In the following, each of the papers will be briefly elaborated by outlining the theoretical background, methodology used, and contributions generated. An overview of all four research papers is presented in Table 1.1.



1.4.1. Study 1: Investigating the Performance Effects of Strategic Renewal: The Role of Strategic Perseverance, Incremental Renewal and Discontinuous Transformation

Study 1 (single-authored) follows the objective to examine curvilinear (i.e., inverted u-shaped) performance effects embedded in CE. Adopting the tenet of the evolutionary theory (Nelson & Winter, 1982), this study analyzes how established firms foster strategic renewal as part of CE, simultaneously reconciling mechanisms of strategic perseverance (i.e., stability) and change over time. Moreover, by separating incremental renewal and discontinuous transformation, I investigate the unique performance effects of each sub-type of strategic renewal (Agarwal & Helfat, 2009). I test my hypotheses using panel data on 1,164 organizations between 1990 and 2018, applying a linear fixed-effects regression model.

The contributions of Study 1 are twofold. First, I provide longitudinal evidence on the curvilinear unfolding of strategic renewal, generating initially positive performance effects during strategic perseverance but shifting negative once a high environmental misfit is present, thereby contributing to a time-related perspective that enables researchers to observe both short-and long-term performance effects. Incremental renewal further moderates the effects on both ends. In that sense, I open up the debate about studying the role of temporal dynamics, specifically strategic perseverance (i.e., stability), in contrary to analyzing change events (Albert et al., 2015; Fang et al., 2021). Second, by decomposing strategic renewal into incremental renewal and discontinuous transformation (Agarwal & Helfat, 2009), I uncover distinct performance effects that remained previously obscured (Bierwerth et al., 2015), such as the negative performance effects of CE in case of discontinuous transformation.

1.4.2. Study 2: Fostering Employees' Entrepreneurial Activity: A Quasi-Experimental Field Study on Internal Corporate Venturing

Study 2 (co-authored) analyzes EEA by investigating mediating learning mechanisms (Kraiger et al., 1993), that are necessary to understand the antecedents of EEA within internal corporate venturing, adopting an action-learning approach (Byrne et al., 2016; Gielnik et al., 2015). Particularly, we develop a lean startup-based training (LST) (e.g., Ries, 2011; Shepherd & Gruber, 2021) and investigate longitudinal effects on learning outcomes that nurture EEA sustainably. By means of a quasi-experimental field study with 276 employees from 12 organizations, we apply an autoregressive structural equation model.

Study 2 makes three primary contributions. First, we theoretically and empirically validate the importance of the lean startup framework for academia (e.g., Leatherbee & Katila, 2019; Shepherd & Gruber, 2021) and its usability for CE. Second, we add upon the understanding of the composition of venture learning proficiency (e.g., Covin et al., 2018, 2020), emphasizing embedded learning mechanisms across three levels (i.e., cognitive, skill-based, and affective learning), highlighting the importance of action learning to promote EEA (e.g., Gielnik et al., 2015, 2017). Lastly, we corroborate the effectiveness of CE training (Byrne et al., 2016), in this case LST, that enables employees' to sustain EEA over time by drawing on decision rules to bypass organizational rigidity (Hornsby et al., 2002, 2009).

1.4.3. Study 3: How Non-Managerial Employees Navigate Venture Idea Elaboration: A Cognitive Frame Perspective on Corporate Entrepreneurship

Study 3 (co-authored) combines the logics of internal corporate venturing (e.g., Burgelman, 1983; Miles & Covin, 2002) and NVC (e.g., Davidsson & Gruenhagen, 2021; Patzelt et al., 2021). Drawing on cognitive frame theory (Goffmann, 1974), we identify distinct cognitive frames that are utilized by non-managerial employees (NMEs) within the new venture idea elaboration phase (Perry-Smith & Mannucci, 2017) and examine how

NMEs' cognitive frames influence the creative synthesis among team members (i.e., synthesis of individual members' judgement regarding the understanding of a new venture idea). Thereby, we investigate how a collective understanding of a new venture idea eventually may lead to venture creation via distinct entrepreneurial behaviors of employees. By means of an inductive qualitative study with 35 semi-structured interviews from two organizations, we contribute on the role of NMEs within internal corporate venturing and the importance of individual-level cognitive frames for NVC.

The contributions of Study 3 are threefold. First, we accentuate the importance of NMEs (Zimmermann et al., 2018) within the new venture elaboration process (Perry-Smith & Mannucci, 2017), complementing research on CE that attributes successful CE initiatives rather to senior- and middle managers than to NMEs (e.g., Corbett et al., 2013; Hornsby et al., 2002, 2009). Particularly, we show that NMEs entrepreneurial behavior within new venture idea elaboration is imperative for the potential creation of new (corporate) ventures. Second, we pinpoint towards the role of individual-level cognition within CE (e.g., Corbett et al., 2007; Corbett & Hmieleski, 2007), nurturing or impeding employees' entrepreneurial behavior. Third, we develop a model of frame-related interactions within the venture inception phase, shedding light on the importance of cognitive frames in the collaboration among team members, to integrate or disregard differences in individual judgment on new venture ideas to champion concrete venture ideas (e.g., Kaplan, 2008; Patzelt et al., 2021).

1.4.4. Study 4: New Venture Teams' Capacity for Idea Generation and Execution in light of Hierarchical Cultural Values

Study 4 (co-authored) addresses external corporate venturing (e.g., Keil, 2004; Kuratko & Audretsch, 2013) and NVC (e.g., Davidsson & Gruenhagen, 2021; Patzelt et al., 2021) by means of understanding contextual factors that have an effect on a new venture team (NVT) and corresponding entrepreneurial outcomes. Specifically, we assess the role of

hierarchical cultural values (Schwartz, 2004) that influence NVTs' entrepreneurial outcomes within their venture inception phase (Patzelt et al., 2021). Drawing upon dysfunctional (Bunderson et al., 2016; Bunderson & Reagans, 2011; Greer & Kleef, 2010; Tarakci et al., 2016) and functional accounts of hierarchy (Greer et al., 2018; Halevy et al., 2012; Magee & Galinsky, 2008), we propose that hierarchical cultural values work as a double-edged sword. On the one hand, hierarchy reduces information-sharing that culminates in decreasing the quality of new ventures' ideas within the idea generation, and on the other hand, enhances team coordination ultimately increasing implementation speed within the idea execution. By means a third-party international hackathon with 284 monocultural NVTs, we found that hierarchical cultural values negatively influence both the new ventures' idea quality and implementation speed. Therefore, NVTs that are embedded in hierarchical cultures are hampered by a liability of hierarchy.

The contributions of Study 4 are threefold. First, we are among the first to analyze contextual factors that influence early-stage NVTs capacity to generate and execute new venture ideas, thereby accentuating the importance of culture on early-stage entrepreneurial outcomes (Davidsson & Gruenhagen, 2021). Second, we provide evidence from a large-scale international hackathon on cross-cultural differences in NVTs, assessing social dynamics through which hierarchical cultural values influence entrepreneurial activity in NVTs (Gartner & Teague, 2020). Third, we contribute on the new venture inception phase, observing NVTs in a highly controlled environment where new venture operations are initiated and terminated equally and comparable (Lifshitz-Assaf et al., 2021). Thereby, we overcome a pre-existing sampling bias in NVC literature that primarily investigated successful ventures, by providing evidence on entrepreneurial outcomes that are usually generated prior the formal creation of a venture (Davidsson & Gruenhagen, 2021).

Table 1.1: Overview of Studies included in the Dissertation

Title	Research Aims	Contributions	Theoretical Perspective(s)	Core Constructs	Method	Sample
Study 1: Investigating the Performance Effects of Strategic Renewal: The Role of Strategic Persistence, Incremental Renewal and Discontinuous Transformation	Analyze how established firms engage in strategic renewal, simultaneously reconciling mechanisms of stability and change over time.	Provide longitudinal evidence on the unfolding of strategic renewal, by adding a time-related perspective to understand short- and long-term performance.	Corporate Entrepreneurship / Strategic Renewal	Strategic Persistence Incremental Renewal	Linear Fixed-effects Regression Analysis	1,164 firms between 1990 and 2018 (S&P 500 index)
	Investigate the distinct roles of incremental renewal and discontinuous transformation on firm performance.	Decompose the construct of strategic renewal into incremental renewal and discontinuous transformation, thereby observing positive and negative performance effects.	Evolutionary Theory	Discontinuous Transformation Firm Performance		
Study 2: Fostering Employees' Entrepreneurial Activity: A Quasi-Experimental Field Study on Internal Corporate Venturing	Investigate training effects from a lean startup-based training (LST) on multidimensional learning outcomes and employees' entrepreneurial activity.	Highlight the importance of the lean startup method for academia.	Corporate Entrepreneurship / Internal Corporate Venturing	Training Participation Lean Startup Knowledge	Autoregressive Structural Equations Model	276 employees from 12 organizations
	Examine whether action learning enables sustainable entrepreneurial activity and learning transfer.	Investigate experimentally the longitudinal effects of LST on learning outcomes (i.e., cognitive, skill-based, and affective learning) nurturing EEA.	Lean Startup Framework	Entrepreneurial Alertness		
		Validate empirically the effectiveness of LST.	Action-Learning Approach	Creative Self-Efficacy		
				Employee Entrepreneurial Activity		

Table 1.2: Overview of Studies included in the Dissertation (continued)

Title	Research Aims	Contributions	Theoretical Perspective(s)	Core Constructs	Method	Sample
Study 3: How Non-Managerial Employees Navigate Venture Idea Elaboration: A Cognitive Frame Perspective on Corporate Entrepreneurship	Identify types of cognitive frames that are applied within the new venture idea elaboration process.	Examine the importance of NMEs for CE, particularly for idea elaboration and selection during the NVC process.	Corporate Entrepreneurship / Internal Corporate Venturing	Cognitive Frames	Inductive Qualitative Analysis	35 interviews from 33 informants from 2 established firms
	Examine the role of NMEs in CE, and analyze how cognitive frames influence creative synthesis to find a collective understanding of a new venture idea.	Evaluate the role and types of cognitive frames applied in CE activities.	Cognitive Frame Theory	New Venture Idea Elaboration		
	Investigate how creative synthesis may lead to venture creation via entrepreneurial behavior.	Assess and decompose the role of individual-level cognition for idea elaboration and a collective creative synthesis during the venture inception phase.	New Venture Creation	Employees' Entrepreneurial Behavior		
Study 4: New Venture Teams' Capacity for Idea Generation and Execution in light of Hierarchical Cultural Values	Examine the effects of hierarchical cultural values on new ventures' outcomes, particularly on new venture idea quality (idea generation) and implementation speed (idea execution).	Position hierarchical cultural values as contextual factors that influence new venture teams' capacity to generate and execute on new venture ideas.	New Venture Teams	Hierarchical Cultural Values (from the Schwartz Value Survey)	Linear Mixed-effects Regression Analysis	284 mono-cultural new venture teams from an international hackathon (#EuvsVirus)
		Identify cross-national differences among individuals to become entrepreneurially active.	New Venture Creation	New Venture Idea Quality		
		Mitigate an existing sample bias of heterogeneity and oversampling of successful ventures in NVC research.	Dysfunctional/Functional Perspectives of Hierarchy	Implementation Speed		

References

- Agarwal, R., & Helfat, C. E. (2009). Strategic Renewal of Organizations. *Organization Science*, 20(2), 281–293. <https://doi.org/10.1287/orsc.1090.0423>
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Albert, D., Kreutzer, M., & Lechner, C. (2015). Resolving the Paradox of Interdependency and Strategic Renewal in Activity Systems. *Academy of Management Review*, 40(2), 210–234. <https://doi.org/10.5465/amr.2012.0177>
- Baum, M., Isidor, R., Franzke, S., Schüler, J., & Strich, F. (2021). *Intrapreneurship Monitor 2021*. <https://www.eship.uni-bayreuth.de/de/forschung/Intrapreneurship-Monitor/Intrapreneurship-Monitor-2021.pdf>
- Baum, M., Isidor, R., Franzke, S., Schüler, J., Strich, F., Böhnlein, P., Genrich, R., Schunk, A., Stumpf, C., Teringl, C., & Yahyaou, Y. (2020). *Intrapreneurship Monitor 2020*. <https://www.hrm.uni-bayreuth.de/pool/dokumente/Intrapreneurship-Monitor-20201.pdf>
- Bell, B. S., & Kozlowski, S. W. J. (2008). Active Learning: Effects of Core Training Design Elements on Self-Regulatory Processes, Learning, and Adaptability. *Journal of Applied Psychology*, 93(2), 296–316. <https://doi.org/10.1037/0021-9010.93.2.296>
- Bierwerth, M., Schwens, C., Isidor, R., & Kabst, R. (2015). Corporate Entrepreneurship and Performance: A Meta-Analysis. *Small Business Economics*, 45(2), 255–278. <https://doi.org/10.1007/s11187-015-9629-1>
- Biniari, M. G. (2012). The Emotional Embeddedness of Corporate Entrepreneurship: The Case of Envy. *Entrepreneurship Theory and Practice*, 36(1), 141–170. <https://doi.org/10.1111/j.1540-6520.2010.00437.x>
- Bird, B. J. (1992). The Operation of Intentions in Time: The Emergence of the New Venture. *Entrepreneurship Theory and Practice*, 17(1), 11–20. <https://doi.org/10.1177/104225879201700102>
- Bonzom, A., & Netessine, S. (2016). #500CORPORATIONS: How the World's Biggest Companies Deal with the Startup Revolution. https://cdn2.hubspot.net/hubfs/698640/500CORPORATIONS_-_How_do_the_Worlds_Biggest_Companies_Deal_with_the_Startup_Revolution_-_Feb_2016.pdf
- Bower, J. L., & Gilbert, C. G. (2005). From Resource Allocation to Strategy. In *Oxford University Press*.
- Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 18(4), 63–77. <https://doi.org/10.1177/104225879401800404>
- Brown, S. L., & Eisenhardt, K. M. (1997). The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly*, 42(1), 1–34. <https://doi.org/10.2307/2393807>
- Bunderson, J. S., & Reagans, R. E. (2011). Power, Status, and Learning in Organizations. *Organization Science*, 22(5), 1182–1194. <https://doi.org/10.1287/orsc.1100.0590>
- Bunderson, J. S., Van Der Vegt, G. S., Cantimur, Y., & Rink, F. (2016). Different Views of Hierarchy and Why they Matter: Hierarchy as Inequality or as Cascading Influence. *Academy of Management Journal*, 59(4), 1265–1289. <https://doi.org/10.5465/amj.2014.0601>
- Burgelman, R. A. (1983). A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*, 28(2), 223. <https://doi.org/10.2307/2392619>
- Byrne, J., Delmar, F., Fayolle, A., & Lamine, W. (2016). Training Corporate Entrepreneurs: An Action Learning Approach. *Small Business Economics*, 47(2), 479–506.

- <https://doi.org/10.1007/s11187-016-9734-9>
- Corbett, A. C., Covin, J. G., O'Connor, G. C., & Tucci, C. L. (2013). Corporate Entrepreneurship: State-of-the-Art Research and a Future Research Agenda. *Journal of Product Innovation Management*, 30(5), 812–820. <https://doi.org/10.1111/jpim.12031>
- Corbett, A. C., & Hmieleski, K. M. (2007). The Conflicting Cognitions of Corporate Entrepreneurs. *Entrepreneurship Theory and Practice*, 31(6), 103–121. <https://doi.org/10.1111/j.1540-6520.2007.00165.x>
- Corbett, A. C., Neck, H. M., & DeTienne, D. R. (2007). How Corporate Entrepreneurs Learn from Fledgling Innovation Initiatives: Cognition and the Development of a Termination Script. *Entrepreneurship Theory and Practice*, 31(6), 829–852. <https://doi.org/10.1111/j.1540-6520.2007.00208.x>
- Covin, J. G., Garrett, R. P., Gupta, J. P., Kuratko, D. F., & Shepherd, D. A. (2018). The Interdependence of Planning and Learning among Internal Corporate Ventures. *Entrepreneurship Theory and Practice*, 42(4), 537–570. <https://doi.org/10.1177/1042258718783430>
- Covin, J. G., Garrett, R. P., Kuratko, D. F., & Shepherd, D. A. (2020). Short Leash or Long Leash? Parenting Style, Initial Strategic Clarity, and the Development of Venture Learning Proficiency. *Journal of Business Venturing*, 35(4). <https://doi.org/10.1016/j.jbusvent.2019.105951>
- Covin, J. G., & Miles, M. P. (1999). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, 23(3), 47–63.
- Covin, J. G., & Miles, M. P. (2007). Strategic Use of Corporate Venturing. *Entrepreneurship Theory and Practice*, 31(2), 183–207. <https://doi.org/10.1111/j.1540-6520.2007.00169.x>
- Davidsson, P., & Gruenhagen, J. H. (2021). Fulfilling the Process Promise: A Review and Agenda for New Venture Creation Process Research. *Entrepreneurship Theory and Practice*, 45(5), 1083–1118. <https://doi.org/10.1177/1042258720930991>
- Dushnitsky, G., & Lenox, M. J. (2006). When does Corporate Venture Capital Investment Create Firm Value? *Journal of Business Venturing*, 21(6), 753–772. <https://doi.org/10.1016/j.jbusvent.2005.04.012>
- Eisenhardt, K. M., & Brown, S. L. (1998). Competing on the Edge: Strategy as Structured Chaos. *Long Range Planning*, 31(5), 786–789.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What are they? *Strategic Management Journal*, 21(11), 1105–1121.
- Fang, H. C., Chrisman, J. J., & Holt, D. T. (2021). Strategic Persistence in Family Business. *Entrepreneurship Theory and Practice*, 45(4), 931–950. <https://doi.org/10.1177/10422587211001806>
- Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2012). The Determinants of Corporate Entrepreneurial Intention Within Small and Newly Established Firms. *Entrepreneurship Theory and Practice*, 36(2), 387–414. <https://doi.org/10.1111/j.1540-6520.2010.00411.x>
- Flier, B., Bosch, F. A. J. Van Den, & Volberda, H. W. (2003). Co-evolution in Strategic Renewal Behaviour of British, Dutch and French Financial Incumbents: Interaction of Environmental Selection, Institutional Effects and Managerial Intentionality. *Journal of Management Studies*, 40(8), 2163–2187. <https://doi.org/10.1046/j.1467-6486.2003.00416.x>
- Gartner, W. B. (1985). A Conceptual Framework for Describing the Phenomenon of New Venture Creation. *Academy of Management Review*, 10(4), 696–706.
- Gartner, W. B., & Teague, B. T. (2020). *Research Handbook on Entrepreneurial Behavior, Practice and Process*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788114523>
- Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Wasswa Katono, I., Kyejjusa, S., Ngoma, M., Munene, J., Namatovu-Dawa, R., Nansubuga, F., Orobia, L., Oyugi, J., Sejjaaka, S.,

- Sserwanga, A., Walter, T., Bischoff, K. M., & Dlugosch, T. J. (2015). Action and Action-Regulation in Entrepreneurship: Evaluating a Student Training for Promoting Entrepreneurship. *Academy of Management Learning & Education*, 14(1), 69–94. <https://doi.org/10.5465/amle.2012.0107>
- Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and Sustaining Passion: A long-term Perspective on the Effects of Entrepreneurship Training. *Journal of Business Venturing*, 32(3), 334–353. <https://doi.org/10.1016/j.jbusvent.2017.02.003>
- Goffmann, E. (1974). *Frame Analysis: An Essay on the Organization of Experience* (2nd (1986)). Northeastern University Press.
- Greer, L. L., de Jong, B. A., Schouten, M. E., & Dannals, J. (2018). Why and When Hierarchy Impacts Team Effectiveness: A Meta-Analytic Integration. *Journal of Applied Psychology*, 103(6), 591–613. <https://doi.org/10.1037/apl0000291>
- Greer, L. L., & Kleef, G. A. Van. (2010). Equality versus Differentiation: The Effects of Power Dispersion on Group Interaction. *Journal of Applied Psychology*, 95(6), 1032–1044. <https://doi.org/10.1037/a0020373>
- Grimes, M. G. (2018). The Pivot: How Founders Respond to Feedback through Idea and Identity Work. *Academy of Management Journal*, 61(5), 1692–1717. <https://doi.org/10.5465/amj.2015.0823>
- Guth, W. D., & Ginsberg, A. (1990). Guest Editors' Introduction: Corporate Entrepreneurship. *Strategic Management Journal*, 11, 5–15.
- Halevy, N., Chou, E. Y., Galinsky, A. D., & Murnighan, J. K. (2012). When Hierarchy Wins: Evidence From the National Basketball Association. *Social Psychological and Personality Science*, 3(4), 398–406. <https://doi.org/10.1177/1948550611424225>
- 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. <https://doi.org/10.1016/j.jbusvent.2008.03.002>
- 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. [https://doi.org/10.1016/S0883-9026\(00\)00059-8](https://doi.org/10.1016/S0883-9026(00)00059-8)
- Kaplan, S. (2008). Framing Contests: Strategy Making Under Uncertainty. *Organization Science*, 19(5), 729–752. <https://doi.org/10.1287/orsc.1070.0340>
- Keil, T. (2004). Building External Corporate Venturing Capability. *Journal of Management Studies*, 41(5), 799–825. <https://doi.org/10.1111/j.1467-6486.2004.00454.x>
- Kraiger, K., Ford, J. K., & Salas, E. (1993). Application of Cognitive, Skill-Based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation. *Journal of Applied Psychology*, 78(2), 311–328. <https://doi.org/10.1037/0021-9010.78.2.311>
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial Intentions: Applying the Theory of Planned Behaviour. *Entrepreneurship and Regional Development*, 5(4), 315–330. <https://doi.org/10.1080/08985629300000020>
- Kuratko, D. F., & Audretsch, D. B. (2013). Clarifying the Domains of Corporate Entrepreneurship. *International Entrepreneurship and Management Journal*, 9(3), 323–335. <https://doi.org/10.1007/s11365-013-0257-4>
- Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship Theory and Practice*, 29(6), 699–716. <https://doi.org/10.1111/j.1540-6520.2005.00103.x>
- Kuratko, D. F., & Morris, M. H. (2018). Corporate Entrepreneurship: A Critical Challenge for Educators and Researchers. *Entrepreneurship Education and Pedagogy*, 1(1), 42–60.
- Leatherbee, M., & Katila, R. (2020). The Lean Startup Method: Early-stage Teams and Hypothesis-based Probing of Business Ideas. *Strategic Entrepreneurship Journal*, 14(4),

- 570–593. <https://doi.org/10.1002/sej.1373>
- Lifshitz-Assaf, H., Lebovitz, S., & Zalmanson, L. (2021). Minimal and Adaptive Coordination: How Hackathons' Projects Accelerate Innovation without Killing it. *Academy of Management Journal*, 64(3), 684–715. <https://doi.org/10.5465/amj.2017.0712>
- Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The Self-Reinforcing Nature of Power and Status. *The Academy of Management Annals*, 2(1), 351–398. <https://doi.org/10.1080/19416520802211628>
- McGrath, R. G. (1999). Falling Forward: Real Options Reasoning and Entrepreneurial Failure. *Academy of Management Review*, 24(1), 13–30.
- McGrath, R. G. (2013). *The End of Competitive Advantage: How to Keep your Strategy Moving as Fast as your Business*. Harvard Business Review Press.
- Miles, M. P., & Covin, J. G. (2002). Exploring the Practice of Corporate Venturing: Some Common Forms and their Organizational Implications. *Entrepreneurship Theory and Practice*, 26(3), 21–40.
- Mocker, V., Bielli, S., & Haley, C. (2015). *Winning Together: A Guide to Successful Corporate-Startup Collaborations*. CiteSeer.
- Nelson, R. R., & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. The Belknap Press of Harvard Univ. Press.
- Patzelt, H., Preller, R., & Breugst, N. (2021). Understanding the Life Cycles of Entrepreneurial Teams and Their Ventures: An Agenda for Future Research. *Entrepreneurship Theory and Practice*, 45(5) 1119–1153. <https://doi.org/10.1177/1042258720978386>
- Perry-Smith, J. E., & Mannucci, P. V. (2017). From Creativity to Innovation: The Social Network Drivers of the Four Phases of the Idea Journey. *Academy of Management Review*, 42(1), 53–79. <https://doi.org/10.5465/amr.2014.0462>
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*.
- Rigtering, J. P. C. (Coen), Weitzel, G. U. U., & Muehlfeld, K. (Katrin). (2019). Increasing Quantity without compromising Quality: How Managerial Framing affects Intrapreneurship. *Journal of Business Venturing*, 34(2), 224–241. <https://doi.org/10.1016/j.jbusvent.2018.11.002>
- Schmitt, A., Raisch, S., & Volberda, H. W. (2018). Strategic Renewal: Past Research, Theoretical Tensions and Future Challenges. *International Journal of Management Reviews*, 20(1), 81–98. <https://doi.org/10.1111/ijmr.12117>
- Schwartz, S. H. (2004). Mapping and Interpreting Cultural Differences around the World. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing Cultures, Dimensions of Culture in a Comparative Perspective* (pp. 43–73). Leiden, The Netherlands: Brill.
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25(1), 217–226. <https://pdfs.semanticscholar.org/e777/71389077a13c680c124a005da85fbb5b3742.pdf>
- Shankar, R. K., & Shepherd, D. A. (2019). Accelerating Strategic Fit or Venture Emergence: Different Paths adopted by Corporate Accelerators. *Journal of Business Venturing*, 34(5), 1–19. <https://doi.org/10.1016/j.jbusvent.2018.06.004>
- Sharma, P., & Chrisman, S. J. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23, 11–27.
- Shepherd, D. A., & Gruber, M. (2021). The Lean Startup Framework: Closing the Academic–Practitioner Divide. *Entrepreneurship Theory and Practice*, 45(5), 967–998. <https://doi.org/10.1177/1042258719899415>
- Shepherd, D. A., Souitaris, V., & Gruber, M. (2021). Creating New Ventures: A Review and

- Research Agenda. *Journal of Management*, 47(1), 11–42.
<https://doi.org/10.1177/0149206319900537>
- Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture Creation and the Enterprising Individual: A Review and Synthesis. *Journal of Management*, 29(3), 379–399.
[https://doi.org/10.1016/S0149-2063\(03\)00016-3](https://doi.org/10.1016/S0149-2063(03)00016-3)
- Stopford, J. M., & Baden-Fuller, C. (1994). Creating Corporate Entrepreneurship. *Strategic Management Journal*, 15(7), 521–536.
- Tarakci, M., Greer, L. L., & Groenen, P. J. F. (2016). When Does Power Disparity Help or Hurt Group Performance? *Journal of Applied Psychology*, 101(3), 415–429.
<https://doi.org/10.1037/apl0000056>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533.
- Ucbasaran, D., Shepherd, D. A., Lockett, A., & Lyon, S. J. (2013). Life After Business Failure: The Process and Consequences of Business Failure for Entrepreneurs. *Journal of Management*, 39(1), 163–202. <https://doi.org/10.1177/0149206312457823>
- Wadhwa, A., & Kotha, S. (2006). Knowledge Creation Through External Venturing: Evidence from the Telecommunications Equipment Manufacturing Industry. *Academy of Management Journal*, 49(4), 819–835. <https://doi.org/10.5465/amj.2006.22083132>
- Weiblen, T., & Chesbrough, H. W. (2015). Engaging with Startups to Enhance Corporate Innovation. *California Management Review*, 57(2), 66–90.
<https://doi.org/10.1525/cmr.2015.57.2.66>
- Zahra, S. A. (1993). Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach. *Journal of Business Venturing*, 8(4), 319–340.
[https://doi.org/10.1016/0883-9026\(93\)90003-N](https://doi.org/10.1016/0883-9026(93)90003-N)
- Zahra, S. A. (1995). Corporate Entrepreneurship and Financial Performance. *Journal of Business Venturing*, 10(3), 225–247. [https://doi.org/10.1016/0883-9026\(94\)00024-O](https://doi.org/10.1016/0883-9026(94)00024-O)
- Zajac, E. J., Golden, B. R., & Shortell, S. M. (1991). New Organizational Forms for Enhancing Innovation: The Case of Internal Corporate Joint Ventures. *Management Science*, 37(2), 170–184. <https://doi.org/10.1287/mnsc.37.2.170>
- Zimmermann, A., Raisch, S., & Cardinal, L. B. (2018). Managing Persistent Tensions on the Frontline: A Configurational Perspective on Ambidexterity. *Journal of Management Studies*, 55(5), 739–769. <https://doi.org/10.1111/joms.12311>

**CHAPTER 2 | INVESTIGATING THE PERFORMANCE
EFFECTS OF STRATEGIC RENEWAL: THE ROLE OF
STRATEGIC PERSISTENCE, INCREMENTAL RENEWAL,
AND DISCONTINUOUS TRANSFORMATION**

Chapter 2:

**Investigating the Performance Effects of Strategic Renewal:
The Role of Strategic Persistence, Incremental Renewal and Discontinuous
Transformation**

AUTHOR

Slawa Tomin, Paderborn University

References

- Adler, P. S., Benner, M., Brunner, D. J., MacDuffie, J. P., Osono, E., Staats, B. R., Takeuchi, H., Tushman, M., & Winter, S. G. (2009). Perspectives on the Productivity Dilemma. *Journal of Operations Management*, 27(2), 99–113. <https://doi.org/10.1016/j.jom.2009.01.004>
- Agarwal, R., & Helfat, C. E. (2009). Strategic Renewal of Organizations. *Organization Science*, 20(2), 281–293. <https://doi.org/10.1287/orsc.1090.0423>
- Albert, D., Kreutzer, M., & Lechner, C. (2015). Resolving the Paradox of Interdependency and Strategic Renewal in Activity Systems. *Academy of Management Review*, 40(2), 210–234. <https://doi.org/10.5465/amr.2012.0177>
- Amburgey, T. L., Kelly, D., & Barnett, W. P. (1993). Resetting the Clock : The Dynamics of Organizational Change and Failure. *Administrative Science Quarterly*, 38(1), 51–73. <https://doi.org/10.2307/2393254>
- Amburgey, T. L., & Miner, A. S. (1992). Strategic Momentum: The Effects of Repetitive, Positional, and Contextual Momentum on Merger Activity. *Strategic Management Journal*, 13(5), 335–348. <https://doi.org/10.1002/smj.4250130503>
- Antonicic, B. (2006). Impacts of Diversification and Corporate Entrepreneurship Strategy Making on Growth and Profitability: A Normative Model. *Journal of Enterprising Culture*, 14(1), 49–63. <https://doi.org/10.1142/S0218495806000040>
- Barkema, H. G., & Schijven, M. (2008). Toward Unlocking The Full Potential of Acquisitions: The Role of Organizational Restructuring. *Academy of Management Journal*, 51(4), 696–722. <https://doi.org/10.5465/amr.2008.33665204>
- Basu, S., & Wadhwa, A. (2013). External Venturing and Discontinuous Strategic Renewal. *Journal of Product Innovation Management*, 30(5), 956–975. <https://doi.org/10.1111/jpim.12039>
- Benner, M. J., & Tushman, M. L. (2003). Exploitation, Exploration, and Process Management. *Academy of Management Review*, 28(2), 238–256. <https://doi.org/10.5465/amr.2003.9416096>
- Bierwerth, M., Schwens, C., Isidor, R., & Kabst, R. (2015). Corporate Entrepreneurship and Performance: A Meta-Analysis. *Small Business Economics*, 45(2), 255–278. <https://doi.org/10.1007/s11187-015-9629-1>
- Bingham, C. B., Howell, T., & Ott, T. E. (2019). Capability Creation: Heuristics as Microfoundations. *Strategic Entrepreneurship Journal*, 13(2), 121–153. <https://doi.org/10.1002/sej.1312>
- Boyd, B. K., Gove, S., & Hitt, M. A. (2005). Construct Measurement in Strategic Management Research: Illusion or Reality? *Strategic Management Journal*, 26(3), 239–257. <https://doi.org/10.1002/smj.444>
- Brown, S. L., & Eisenhardt, K. M. (1997). The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly*, 42(1), 1. <https://doi.org/10.2307/2393807>
- Chakravarthy, B. S. (1986). Measuring Strategic Performance. *Strategic Management Journal*, 7(5), 437–458. <https://doi.org/10.1002/smj.4250070505>
- Cohen, M. D., Burkhart, R., Dosi, G., Egidi, M., Marengo, L., Warglien, M., & Winter, S. (1996). Routines and Other Recurring Action Patterns of Organizations: Contemporary Research Issues. *Industrial and Corporate Change*, 5(3), 653–698. <https://doi.org/10.1093/icc/5.3.653>
- Corbett, A. C., Covin, J. G., O'Connor, G. C., & Tucci, C. L. (2013). Corporate Entrepreneurship: State-of-the-Art Research and a Future Research Agenda. *Journal of Product Innovation Management*, 30(5), 812–820. <https://doi.org/10.1111/jpim.12031>

- Covin, J. G., & Miles, M. P. (1999). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, 23(3), 47–63. <https://doi.org/10.1177/104225879902300304>
- Crossan, M. M., & Berdrow, I. (2003). Organizational Learning and Strategic Renewal. *Strategic Management Journal*, 24(11), 1087–1105. <https://doi.org/10.1002/smj.342>
- Dess, G. G., & Beard, D. W. (1984). Dimensions of Organizational Task Environments. *Administrative Science Quarterly*, 52–73. <https://doi.org/10.2307/2393080>
- Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. (2003). Emerging Issues in Corporate Entrepreneurship. *Journal of Management*, 29(3), 351–378. [https://doi.org/10.1016/S0149-2063\(03\)00015-1](https://doi.org/10.1016/S0149-2063(03)00015-1)
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial Strategy Making and Firm Performance: Tests of Contingency and Configurational Models. *Strategic Management Journal*, 18(9), 677–695. [https://doi.org/10.1002/\(SICI\)1097-0266\(199710\)18:9<677::AID-SMJ905>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1097-0266(199710)18:9<677::AID-SMJ905>3.0.CO;2-Q)
- Dosi, G., Nelson, R., & Winter, S. (2001). *The Nature and Dynamics of Organizational Capabilities* (Giovanni Dosi, R. R. Nelson, & S. Winter (eds.)). Oxford University Press. <https://doi.org/10.1093/0199248540.001.0001>
- Eggers, J. P., & Kaplan, S. (2013). Cognition and Capabilities: A Multi-Level Perspective. *Academy of Management Annals*, 7(1), 295–340. <https://doi.org/10.1080/19416520.2013.769318>
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What are they? *Strategic Management Journal*, 1105–1121. [https://doi.org/10.1002/1097-0266\(200010/11\)21:10/11<1105::AID-SMJ133>3.0.CO;2-E](https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E)
- Fang, H. C., Chrisman, J. J., & Holt, D. T. (2021). Strategic Persistence in Family Business. *Entrepreneurship Theory and Practice*, 45(4), 931–950. <https://doi.org/10.1177/10422587211001806>
- Feldman, M. S. (2000). Organizational Routines as a Source of Continuous Change. *Organization Science*, 11(6), 611–629. <https://doi.org/10.1287/orsc.11.6.611.12529>
- Flier, B., Bosch, F. A. J. Van Den, & Volberda, H. W. (2003). Co-evolution in Strategic Renewal Behaviour of British, Dutch and French Financial Incumbents: Interaction of Environmental Selection, Institutional Effects and Managerial Intentionality. *Journal of Management Studies*, 40(8), 2163–2187. <https://doi.org/10.1046/j.1467-6486.2003.00416.x>
- Floyd, S. W., & Lane, P. J. (2000). Strategizing throughout the Organization: Managing Role Conflict in Strategic Renewal. *Academy of Management Review*, 25(1), 154–177. <https://doi.org/10.2307/259206>
- Ford, J. D., Ford, L. W., & D’Amelio, A. (2008). Resistance to Change: The Rest of the Story. *Academy of Management Review*, 33(2), 362–377. <https://doi.org/10.5465/amr.2008.31193235>
- Fox, J. (2015). *Applied Regression Analysis and Generalized Linear Models*. Sage Publications.
- Furr, N. R., & Eggers, J. P. (2021). Behavioral Innovation and Corporate Renewal. *Strategic Management Review*, 2(2), 285–322. <https://doi.org/10.1561/111.000000029>
- Gersick, C. J. G. (1991). Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm. *The Academy of Management Review*, 16(1), 10–36. <https://doi.org/10.5465/amr.1991.4278988>
- Gersick, C. J. G. (1994). Pacing Strategic Change: The Case of a New Venture. *Academy of Management Journal*, 37(1), 9–45. <https://doi.org/10.5465/256768>
- Girod, S. J. G. G., & Whittington, R. (2015). Change Escalation Processes and Complex Adaptive Systems: From Incremental Reconfigurations to Discontinuous Restructuring. *Organization Science*, 26(5), 1520–1535. <https://doi.org/10.1287/orsc.2015.0993>

- Girod, S. J. G., & Whittington, R. (2017). Reconfiguration, Restructuring and Firm Performance: Dynamic Capabilities and Environmental Dynamism. *Strategic Management Journal*, 38(5), 1121–1133. <https://doi.org/10.1002/smj.2543>
- Gröhn, B., Strese, S., Flatten, T. C., Jaeger, N. A., & Brettel, M. (2017). Temporal Change Patterns of Entrepreneurial Orientation: A Longitudinal Investigation of CEO Successions. *Entrepreneurship Theory and Practice*, 41(4), 591–619. <https://doi.org/10.1111/etp.12239>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5th ed.). McGraw-Hill/Irwin. <http://www.worldcat.org/oclc/750898436>
- Guth, W. D., & Ginsberg, A. (1990). Guest Editors' Introduction: Corporate Entrepreneurship. *Strategic Management Journal*, 11, 5–15.
- Hannan, M. T., & Freeman, J. (1984). Structural Inertia and Organizational Change. *American Sociological Review*, 49(2), 149. <https://doi.org/10.2307/2095567>
- Hausman, J. A. (1978). Specification Tests in Econometrics. *Econometrica: Journal of the Econometric Society*, 46(6), 1251–1271. <https://doi.org/10.2307/1913827>
- Helfat, C. E., & Eisenhardt, K. M. (2004). Inter-temporal Economies of Scope, Organizational Modularity, and the Dynamics of Diversification. *Strategic Management Journal*, 25(13), 1217–1232. <https://doi.org/10.1002/smj.427>
- Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., & Winter, S. G. (2007). *Dynamic capabilities: Understanding Strategic Change in Organizations*. Wiley.
- Helfat, C. E., & Peteraf, M. A. (2003). The Dynamic Resource-based View: Capability Lifecycles. *Strategic Management Journal*, 24(10), 997–1010. <https://doi.org/10.1002/smj.332>
- 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. <https://doi.org/10.1002/smj.955>
- Herbane, B., Elliott, D., & Swartz, E. M. (2004). Business Continuity Management: Time for a Strategic Role? *Long Range Planning*, 37(5), 435–457. <https://doi.org/10.1016/j.lrp.2004.07.011>
- Hill, C. W. L., & Snell, S. A. (1988). External Control, Corporate Strategy, and Firm Performance in Research- Intensive Industries. *Strategic Management Journal*, 9(6), 577–590. <http://www.jstor.org.proxy.lib.odu.edu/stable/2486691>
- Huff, J. O., Huff, A. S., & Thomas, H. (1992). Strategic Renewal and the Interaction of Cumulative Stress and Inertia. *Strategic Management Journal*, 13(1), 55–75. <https://doi.org/10.1002/smj.4250131006>
- Ilinitch, A. Y., D'Aveni, R. A., & Lewin, A. Y. (1996). New Organizational Forms and Strategies for Managing in Hypercompetitive Environments. *Organization Science*, 7(3), 211–220. <https://doi.org/10.1287/orsc.7.3.211>
- Jacquemin, A. P., & Berry, C. H. (1979). Entropy Measure of Diversification and Corporate Growth. *The Journal of Industrial Economics*, 27(4), 359. <https://doi.org/10.2307/2097958>
- Kang, J., & Kim, S. J. (2020). Performance Implications of Incremental Transition and Discontinuous Jump between Exploration and Exploitation. *Strategic Management Journal*, 41(6), 1083–1111. <https://doi.org/10.1002/smj.3119>
- Karaevli, A., & Zajac, E. J. (2013). When Do Outsider CEOs Generate Strategic Change? The Enabling Role of Corporate Stability. *Journal of Management Studies*, 50(7), 1267–1294. <https://doi.org/10.1111/joms.12046>
- Karim, S. (2006). Modularity in Organizational Structure: The Reconfiguration of Internally Developed and Acquired Business Units. *Strategic Management Journal*, 27, 799–823. <https://doi.org/10.1002/smj.547>
- Kelly, D., & Amburgey, T. L. (1991). Organizational Inertia and Momentum. *Academy of*

- Management Journal*, 34(3), 591–612. <https://doi.org/10.5465/256407>
- Kiss, A. N., & Barr, P. S. (2015). New Venture Strategic Adaptation: The Interplay of Belief Structures and Industry Context. *Strategic Management Journal*, 36(8), 1245–1263. <https://doi.org/10.1002/smj.2285>
- Kor, Y. Y. (2006). Direct and Interaction Effects of Top Management Team and Board Compositions on R&D Investment Strategy. *Strategic Management Journal*, 27(11), 1081–1099. <https://doi.org/10.1002/smj.554>
- Leonard-Barton, D. (1992). Core Capabilities and Core Rigidities. *Strategic Management Journal*, 13(S1), 111–125. <https://doi.org/10.1002/smj.4250131009>
- Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*, 14, 95–112. <http://www.jstor.org.proxy.lib.odu.edu/stable/2486499>
- Levitt, B., & March, J. G. (1988). Organizational Learning. *Annual Review of Sociology*, 14(1), 319–338. <https://doi.org/10.1146/annurev.so.14.080188.001535>
- Lieberman, M. B., & Montgomery, D. B. (1988). First-mover Advantages. *Strategic Management Journal*, 9(1), 41–58. <https://doi.org/10.1002/smj.4250090706>
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *Academy of Management Review*, 21(1), 135–172. <https://doi.org/10.2307/258632>
- Martin, X., Swaminathan, A., & Mitchell, W. (1998). Organizational Evolution in the Interorganizational Environment: Incentives and Constraints on International Expansion Strategy. *Administrative Science Quarterly*, 43(3), 566–601. <https://doi.org/10.2307/2393676>
- Miles, M. P., & Covin, J. G. (2002). Exploring the Practice of Corporate Venturing: Some Common Forms and their Organizational Implications. *Entrepreneurship Theory and Practice*, 26(3), 21–40. <https://doi.org/10.1177/104225870202600302>
- Miller, D., & Friesen, P. H. (1980). Momentum and Revolution in Organizational Adaptation. *Academy of Management Journal*, 23(4), 591–614. <https://doi.org/10.5465/255551>
- Miller, Danny, & Chen, M.-J. (1996). The Simplicity of Competitive Repertoires. *Strategic Management Journal*, 17(6), 419–439. [https://doi.org/10.1002/\(SICI\)1097-0266\(199606\)17:6<419::AID-SMJ818>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199606)17:6<419::AID-SMJ818>3.0.CO;2-Z)
- Miller, Danny, & Friesen, P. H. (1982). Innovation in Conservative and Entrepreneurial Firms. *Strategic Management Journal*, 3(1), 1–25. <https://doi.org/10.1002/smj.4250030102>
- Mintzberg, H. (1987). Crafting strategy. *Harvard Business Review*, 66–75.
- Ndofor, H. A., Sirmon, D. G., & He, X. (2011). Firm Resources, Competitive Actions and Performance: Investigating a Mediated Model with Evidence from the in-vitro Diagnostics Industry. *Strategic Management Journal*, 32(6), 640–657. <https://doi.org/10.1002/smj.901>
- Nelson, R. R., & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. The Belknap Press of Harvard Univ. Press.
- Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). *Applied Linear Statistical Models*. Irwin Chicago.
- Ng, V. K. Y., & Cribbie, R. A. (2017). Using the Gamma Generalized Linear Model for Modeling Continuous, Skewed and Heteroscedastic Outcomes in Psychology. *Current Psychology*, 36(2), 225–235. <https://doi.org/10.1007/s12144-015-9404-0>
- Romanelli, E., & Tushman, M. L. . (1994). Organizational Transformation as Punctuated Equilibrium: An Empirical Test. *Academy of Management Journal*, 37(5), 1141–1166. <https://doi.org/10.1007/s00792-006-0056-8>
- Rothaermel, F. T., Hitt, M. A., & Jobe, L. A. (2006). Balancing Vertical Integration and Strategic Outsourcing: Effects on Product Portfolio, Product Success, and Firm Performance. *Strategic Management Journal*, 27(11), 1033–1056.

- <https://doi.org/10.1002/smj.559>
- Rumelt, R. P. (1974). *Strategy, Structure, and Economic Performance*. Harvard University
- Sáez-Martínez, F. J., & González-Moreno, Á. (2011). Strategic Renewal, Cooperation, and Performance: A Contingency Approach. *Journal of Management and Strategy*, 2(4), 43. <https://doi.org/10.5430/jms.v2n4p43>
- Schmitt, A., Barker, V. L., Raisch, S., & Whetten, D. (2016). Strategic Renewal in Times of Environmental Scarcity. *Long Range Planning*, 49(3), 361–376. <https://doi.org/10.1016/j.lrp.2015.08.004>
- Schmitt, A., Raisch, S., & Volberda, H. W. (2018). Strategic Renewal: Past Research, Theoretical Tensions and Future Challenges. *International Journal of Management Reviews*, 20(1), 81–98. <https://doi.org/10.1111/ijmr.12117>
- Schommer, M., Richter, A., & Karna, A. (2019). Does the Diversification–Firm Performance Relationship Change Over Time? A Meta-Analytical Review. *Journal of Management Studies*, 56(1), 270–298. <https://doi.org/10.1111/joms.12393>
- Sharma, P., & Chrisman, J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 11–27. https://doi.org/10.1007/3-540-48543-0_4
- Shi, W., & Prescott, J. E. (2012). Rhythm and Entrainment of Acquisition and Alliance Initiatives and Firm Performance: A Temporal Perspective. *Organization Studies*, 33(10), 1281–1310. <https://doi.org/10.1177/0170840612453530>
- Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational Path Dependence: Opening the Black Box. *Academy of Management Review*, 34(4), 689–709. <https://doi.org/10.5465/amr.34.4.zok689>
- Tushman, M. L., Newman, W. H., & Romanelli, E. (1986). Convergence and Upheaval: Managing the Unsteady Pace of Organizational Evolution. *California Management Review*, 29(1), 29–44. <https://doi.org/10.2307/41165225>
- Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. *California Management Review*, 4, 8–30. <https://doi.org/10.2307/41165852>
- Volberda, H. W. (1997). Strategic Renewal in Large Multiunit Firms: Four Dynamic Mechanisms. *Rotterdam School of Management, Erasmus University Press, 1997(OECD Workshop)*, 1–30.
- Volberda, H. W., Baden-Fuller, C., & Van Den Bosch, F. A. (2001). Mastering Strategic Renewal. Mobilising Renewal Journeys in Multi-unit Firms. *Long Range Planning*, 34, 159–178. [https://doi.org/10.1016/S0024-6301\(01\)00032-2](https://doi.org/10.1016/S0024-6301(01)00032-2)
- Wibbens, P. D., & Siggelkow, N. (2020). Introducing LIVA to measure long-term firm performance. *Strategic Management Journal*, 41(5), 867–890. <https://doi.org/10.1002/smj.3114>
- Winter, S. G. (2003). Understanding Dynamic Capabilities. *Strategic Management Journal*, 24(10), 991–995. <https://doi.org/10.1002/smj.318>
- Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. MIT Press. <http://www.worldcat.org/oclc/940556520>
- Zahra, S. A. (1993). Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach. *Journal of Business Venturing*, 8(4), 319–340. [https://doi.org/10.1016/0883-9026\(93\)90003-N](https://doi.org/10.1016/0883-9026(93)90003-N)
- Zahra, S. A. (1995). Corporate Entrepreneurship and Financial Performance. *Journal of Business Venturing*, 10(3), 225–247. [https://doi.org/10.1016/0883-9026\(94\)00024-O](https://doi.org/10.1016/0883-9026(94)00024-O)
- Zahra, S. A., & Covin, J. G. (1995). Contextual Influences on the Corporate Entrepreneurship-performance Relationship: A Longitudinal Analysis. *Journal of Business Venturing*, 10(1), 43–58. [https://doi.org/10.1016/0883-9026\(94\)00004-E](https://doi.org/10.1016/0883-9026(94)00004-E)
- Zahra, S. A., Jennings, D. F., & Kuratko, D. F. (1999). The Antecedents and Consequences of

Firm-Level Entrepreneurship: The State of the Field. *Entrepreneurship Theory and Practice*, 24(2), 45–65. <https://doi.org/10.1177/104225879902400205>

Zajac, E. J., Kraatz, M. S., & Bresser, R. K. F. (2000). Modeling the Dynamics of Strategic Fit: A Normative Approach to Strategic Change. *Strategic Management Journal*, 21(4), 429–453. [https://doi.org/10.1002/\(SICI\)1097-0266\(200004\)21:4<429::AID-SMJ81>3.0.CO;2-%23](https://doi.org/10.1002/(SICI)1097-0266(200004)21:4<429::AID-SMJ81>3.0.CO;2-%23)

**CHAPTER 3 | FOSTERING EMPLOYEES’
ENTREPRENEURIAL ACTIVITY: A QUASI-
EXPERIMENTAL FIELD STUDY ON INTERNAL
CORPORATE VENTURING**

Chapter 3:

Fostering Employees' Entrepreneurial Activity: A Quasi-Experimental Field Study on Internal Corporate Venturing

AUTHORS

Slawa Tomin, Paderborn University

Holger Steinmetz, Trier University

Bernhard A. Wach, Bielefeld University of Applied Sciences

Rodrigo Isidor, Bayreuth University

Rüdiger Kabst, Paderborn University

References

- Alwin, D. F., & Jackson, D. J. (1980). Measurement Models for Response Errors in Surveys: Issues and Applications. *Sociological Methodology*, 11, 68–119. <https://doi.org/10.2307/270860>
- Antonakis, J., & House, R. J. (2014). Instrumental Leadership: Measurement and Extension of Transformational–Transactional Leadership Theory. *The Leadership Quarterly*, 25(4), 746–771. <https://doi.org/10.1016/j.leaqua.2014.04.005>
- Bandura, A. (1986). *Social Foundations of Thought and Action*.
- Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organizational Behavior and Human Decision Processes*, 50(2), 248–287. [https://doi.org/10.1016/0749-5978\(91\)90022-L](https://doi.org/10.1016/0749-5978(91)90022-L)
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. Freeman.
- Baron, R. A. (2006). Opportunity Recognition as Pattern Recognition: How Entrepreneurs “connect the dots” to Identify New Business Opportunities. *Academy of Management Perspectives*, 20(1), 104–119. <https://doi.org/10.5465/AMP.2006.19873412>
- Baron, R. A., & Ensley, M. D. (2006). Opportunity Recognition as the Detection of Meaningful Patterns: Evidence from Comparisons of Novice and Experienced Entrepreneurs. *Management Science*, 52(9), 1331–1344. <https://doi.org/10.1287/mnsc.1060.0538>
- Bell, B. S., & Kozlowski, S. W. J. (2008). Active Learning: Effects of Core Training Design Elements on Self-Regulatory Processes, Learning, and Adaptability. *Journal of Applied Psychology*, 93(2), 296–316. <https://doi.org/10.1037/0021-9010.93.2.296>
- Bentler, P. M., & Yuan, K.-H. (1999). Structural Equation Modeling with Small Samples: Test Statistics. *Multivariate Behavioral Research*, 34(2), 181–197. <https://doi.org/10.1207/S15327906Mb340203>
- Blank, S. G. (2006). *The Four Steps to the Epiphany: Successful Strategies for Products that Win* (2nd ed.). CafePress.com.
- Blank, S. G., Engel, J., & Hornthal, J. (2014). *Lean LaunchPad: Evidence-based Entrepreneurship Educators Guide*. VentureWell.
- Bloodgood, J. M., Hornsby, J. S., Burkemper, A. C., & Sarooghi, H. (2015). A System Dynamics Perspective of Corporate Entrepreneurship. *Small Business Economics*, 45(2), 383–402. <https://doi.org/10.1007/s11187-015-9634-4>
- Bocken, N., & Snihur, Y. (2020). Lean Startup and the Business Model: Experimenting for Novelty and Impact. *Long Range Planning*, 53(4), 101953. <https://doi.org/10.1016/j.lrp.2019.101953>
- Bollen, K. A. (1987). Total, Direct, and Indirect Effects in Structural Equation Models. *Sociological Methodology*, 17(4), 37–69. <https://doi.org/10.2307/271028>
- Bosma, N., Wenneker, S., Guerrero, M., Amorós, J., Martiarena, A., & Singer, S. (2013). *Global Entrepreneurship Monitor: Special Report on Entrepreneurial Employee Activity*. Global Entrepreneurship Research Association.
- Busenitz, L. W. (1996). Research on Entrepreneurial Alertness. *Journal of Small Business Management*, 34(4), 35–44. <https://doi.org/10.1097/00006247-198002000-00005>
- Byrne, J., Delmar, F., Fayolle, A., & Lamine, W. (2016). Training Corporate Entrepreneurs: An Action Learning Approach. *Small Business Economics*, 47(2), 479–506. <https://doi.org/10.1007/s11187-016-9734-9>
- Camuffo, A., Cordova, A., Gambardella, A., & Spina, C. (2020). A Scientific Approach to Entrepreneurial Decision Making: Evidence from a Randomized Control Trial. *Management Science*, 66(2), 564–586. <https://doi.org/10.1287/mnsc.2018.3249>
- Cho, E., & Kim, S. (2015). Cronbach's Coefficient Alpha: Well known but poorly

- understood. *Organizational Research Methods*, 18(2), 207–230.
<https://doi.org/10.1177/1094428114555994>
- Contigiani, A., & Levinthal, D. (2019). Situating the Construct of Lean Startup: Adjacent' Conversations' and Possible Future Directions. *Industrial and Corporate Change*, 28(3), 551–564. <http://dx.doi.org/10.2139/ssrn.3174799>
- Cooper, G., & Sweller, J. (1987). Effects of Schema Acquisition and Rule Automation on Mathematical Problem-Solving Transfer. *Journal of Educational Psychology*, 79(4), 347–362. <https://doi.org/10.1037/0022-0663.79.4.347>
- Cope, J. (2003). Entrepreneurial Learning and Critical Reflection: Discontinuous Events as Triggers for 'Higher-Level' Learning. *Management Learning*, 34(4), 429–450.
<https://doi.org/10.1177/1350507603039067>
- Cope, J. (2005). Toward a Dynamic Learning Perspective of Entrepreneurship. *Entrepreneurship Theory and Practice*, 29(4), 373–397. <https://doi.org/10.1111/j.1540-6520.2005.00090.x>
- Corbett, A. C., Covin, J. G., O'Connor, G. C., & Tucci, C. L. (2013). Corporate Entrepreneurship: State-of-the-art Research and a Future Research Agenda. *Journal of Product Innovation Management*, 30(5), 812–820. <https://doi.org/10.1111/jpim.12031>
- Corbett, A. C., & Hmieleski, K. M. (2007). The Conflicting Cognitions of Corporate Entrepreneurs. *Entrepreneurship Theory and Practice*, 31(1), 103–121.
<https://doi.org/10.1111/j.1540-6520.2007.00165.x>
- Corbett, A. C., Neck, H. M., & DeTienne, D. R. (2007). How Corporate Entrepreneurs Learn from Fledgling Innovation Initiatives: Cognition and the Development of a Termination Script. *Entrepreneurship Theory and Practice*, 31(6), 829–852.
<https://doi.org/10.1111/j.1540-6520.2007.00208.x>
- Covin, J. G., Garrett, R. P., Gupta, J. P., Kuratko, D. F., & Shepherd, D. A. (2018). The Interdependence of Planning and Learning among Internal Corporate Ventures. *Entrepreneurship Theory and Practice*, 42(4), 537–570.
<https://doi.org/10.1177/1042258718783430>
- Covin, J. G., Garrett, R. P., Kuratko, D. F., & Shepherd, D. A. (2020). Short Leash or Long Leash? Parenting Style, Initial Strategic Clarity, and the Development of Venture Learning Proficiency. *Journal of Business Venturing*, 35(4).
<https://doi.org/10.1016/j.jbusvent.2019.105951>
- Davidsson, P., & Gruenhagen, J. H. (2021). Fulfilling the Process Promise: A Review and Agenda for New Venture Creation Process Research. *Entrepreneurship Theory and Practice*, 45(5), 1083–1118. <https://doi.org/10.1177/1042258720930991>
- Eden, D. (2017). Field Experiments in Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 4, 91–122. <https://doi.org/10.1146/annurev-orgpsych-041015-062400>
- Edwards, J. R. (2001). Multidimensional Constructs in Organizational Behavior Research: An Integrative Analytical Framework. *Organizational Research Methods*, 4(2), 144–192.
<https://doi.org/10.1177/109442810142004>
- Elwert, F., & Winship, C. (2014). Endogenous Selection Bias: The Problem of Conditioning on a Collider Variable. *Annual Review of Sociology*, 40(1), 31–53.
<https://doi.org/10.1146/annurev-soc-071913-043455>
- Ericsson, K. A. (2008). Deliberate Practice and Acquisition of Expert Performance: A General Overview. *Academic Emergency Medicine*, 15(11), 988–994.
<https://doi.org/10.1111/j.1553-2712.2008.00227.x>
- Ericsson, K. A., & Charness, N. (1994). Expert Performance: Its Structure and Acquisition. *American Psychologist*, 49(8), 725–747. <https://doi.org/10.1037//0003-066x.49.8.725>
- Farmer, S. M., Yao, X., & Kung-Mcintyre, K. (2011). The Behavioral Impact of Entrepreneur Identity Aspiration and Prior Entrepreneurial Experience. *Entrepreneurship Theory and*

- Practice*, 35(2), 245–273. <https://doi.org/10.1111/j.1540-6520.2009.00358.x>
- Felin, T., Gambardella, A., Stern, S., & Zenger, T. (2020). Lean Startup and the Business Model: Experimentation Revisited. *Long Range Planning*, 53(4), 101889. <https://doi.org/10.1016/j.lrp.2019.06.002>
- Floyd, S. W., & Lane, P. J. (2000). Strategizing throughout the Organization: Managing Role Conflict in Strategic Renewal. *Academy of Management Review*, 25(1), 154–177. <https://doi.org/10.5465/amr.2000.2791608>
- Frese, M., & Zapf, D. (1994). Action as the Core of Work Psychology: A German Approach. In H. C. Triandis, M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (4th ed., pp. 271–340). Consulting Psychologists Press.
- Frese, Michael, Garst, H., & Fay, D. (2007). Making Things Happen: Reciprocal Relationships between Work Characteristics and Personal Initiative in a Four-Wave Longitudinal Structural Equation Model. *Journal of Applied Psychology*, 92(4), 1084–1102. <https://doi.org/10.1037/0021-9010.92.4.1084>
- Gaglio, C. M., & Katz, J. A. (2001). The Psychological Basis of Opportunity Identification: Entrepreneurial Alertness. *Small Business Economics*, 16, 95–111. <https://doi.org/10.1023/A:1011132102464>
- Garrett, R. P., & Covin, J. G. (2015). Internal Corporate Venture Operations Independence and Performance: A Knowledge-based Perspective. *Entrepreneurship Theory and Practice*, 39(4), 763–790. <https://doi.org/10.1111/etap.12059>
- Gielnik, M. M., Bledow, R., & Stark, M. S. (2020). A Dynamic Account of Self-Efficacy in Entrepreneurship. *Journal of Applied Psychology*, 105(5), 487–505. <https://doi.org/10.1037/apl0000451>
- Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Wasswa Katono, I., Kyejjusa, S., Ngoma, M., Munene, J., Namatovu-Dawa, R., Nansubuga, F., Orobia, L., Oyugi, J., Sejjaaka, S., Sserwanga, A., Walter, T., Bischoff, K. M., & Dlugosch, T. J. (2015). Action and Action-Regulation in Entrepreneurship: Evaluating a Student Training for Promoting Entrepreneurship. *Academy of Management Learning & Education*, 14(1), 69–94. <https://doi.org/10.5465/amle.2012.0107>
- Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and Sustaining Passion: A Long-Term Perspective on the Effects of Entrepreneurship Training. *Journal of Business Venturing*, 32(3), 334–353. <https://doi.org/10.1016/j.jbusvent.2017.02.003>
- Gigerenzer, G. (2004). Mindless Statistics. *The Journal of Socio-Economics*, 33(5), 587–606. <https://doi.org/10.1016/j.socec.2004.09.033>
- Golembiewski, R. T., Billingsley, K., & Yeager, S. (1976). Measuring Change and Persistence in Human Affairs: Types of Change Generated by OD Designs. *The Journal of Applied Behavioral Science*, 12(2), 133–157. <https://doi.org/10.1177/002188637601200201>
- Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee Learning Orientation, Transformational Leadership, and Employee Creativity: The Mediating Role of Employee Creative Self-Efficacy. *Academy of Management Journal*, 52(4), 765–778. <https://doi.org/10.5465/AMJ.2009.43670890>
- Greiff, S., & Heene, M. (2017). Why Psychological Assessment Needs to Start Worrying About Model Fit. *European Journal of Psychological Assessment*, 33(5), 313–317. <https://doi.org/10.1027/1015-5759/a000450>
- Harms, R., & Schwery, M. (2020). Lean Startup: Operationalizing Lean Startup Capability and Testing its Performance Implications. *Journal of Small Business Management*, 58(1), 200–223. <https://doi.org/10.1080/00472778.2019.1659677>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical Mediation Analysis in the New Millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>

- Herzog, W., & Boomsma, A. (2009). Small-Sample Robust Estimators of Noncentrality-based and Incremental Model Fit. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(1), 1–27. <https://doi.org/10.1080/10705510802561279>
- Holcomb, T. R., Ireland, R. D., Holmes Jr., R. M., & Hitt, M. A. (2009). Architecture of Entrepreneurial Learning: Exploring the Link among Heuristics, Knowledge, and Action. *Entrepreneurship Theory and Practice*, 33(1), 167–192. <https://doi.org/10.1111/j.1540-6520.2008.00285.x>
- 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. <https://doi.org/10.1016/j.jbusvent.2008.03.002>
- 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. [https://doi.org/10.1016/S0883-9026\(00\)00059-8](https://doi.org/10.1016/S0883-9026(00)00059-8)
- Hsu, D. K., Simmons, S. A., & Wieland, A. M. (2017). Designing Entrepreneurship Experiments: A Review, Typology, and Research Agenda. *Organizational Research Methods*, 20(3), 379–412. <https://doi.org/10.1177/1094428116685613>
- Kaish, S., & Gilad, B. (1991). Characteristics of Opportunities Search of Entrepreneurs versus Executives: Sources, Interests, General Alertness. *Journal of Business Venturing*, 6(1), 45–61. [https://doi.org/10.1016/0883-9026\(91\)90005-X](https://doi.org/10.1016/0883-9026(91)90005-X)
- Kerr, W. R., Nanda, R., & Rhodes-Kropf, M. (2014). Entrepreneurship as Experimentation. *Journal of Economic Perspectives*, 28(3), 25–48. <https://doi.org/10.1257/jep.28.3.25>
- Kraiger, K., Ford, J. K., & Salas, E. (1993). Application of Cognitive, Skill-based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation. *Journal of Applied Psychology*, 78(2), 311–328. <https://doi.org/10.1037/0021-9010.78.2.311>
- Kuratko, D. F., Hornsby, J. S., & McKelvie, A. (2021). Entrepreneurial Mindset in Corporate Entrepreneurship: Forms, Impediments, and Actions for Research. *Journal of Small Business Management*, 1–23. <https://doi.org/10.1080/00472778.2021.1907585>
- Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship Theory and Practice*, 29(6), 699–716. <https://doi.org/10.1111/j.1540-6520.2005.00103.x>
- Leatherbee, M., & Katila, R. (2020). The Lean Startup Method: Early-stage Teams and Hypothesis-based Probing of Business Ideas. *Strategic Entrepreneurship Journal*, 14(4), 570–593. <https://doi.org/10.1002/sej.1373>
- Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*, 14(S2), 95–112. <https://doi.org/10.1002/smj.4250141009>
- Lex, M., Gielnik, M. M., Spitzmuller, M., Jacob, G. H., & Frese, M. (2020). How Passion in Entrepreneurship Develops Over Time: A Self-Regulation Perspective. *Entrepreneurship Theory and Practice*. <https://doi.org/10.1177/1042258720929894>
- Lynch, M. P., & Corbett, A. C. (2021). Entrepreneurial Mindset Shift and the Role of Cycles of Learning. *Journal of Small Business Management*, 1–22. <https://doi.org/10.1080/00472778.2021.1924381>
- Martin, B. C., McNally, J. J., & Kay, M. J. (2013). Examining the Formation of Human Capital in Entrepreneurship: A Meta-Analysis of Entrepreneurship Education Outcomes. *Journal of Business Venturing*, 28(2), 211–224. <https://doi.org/10.1016/j.jbusvent.2012.03.002>
- Marvel, M. R., Wolfe, M. T., & Kuratko, D. F. (2020). Escaping the Knowledge Corridor: How Founder Human Capital and Founder Coachability Impacts Product Innovation in New Ventures. *Journal of Business Venturing*, 35(6), 106060. <https://doi.org/10.1016/j.jbusvent.2020.106060>

- McGrath, R. G., & MacMillan, I. C. (1995). *Discovery Driven Planning*. Wharton School, Snider Entrepreneurial Center.
- McKnight, P. E., McKnight, K. M., Sidani, S., & Figueredo, A. J. (2007). *Missing Data: A Gentle Introduction*. Guilford Press.
- McNeish, D. (2018). Thanks Coefficient Alpha, We'll Take it from Here. *Psychological Methods*, 23(3), 412–433. <https://doi.org/10.1037/met0000144>
- Millsap, R. E., & Hartog, S. B. (1988). Alpha, Beta, and Gamma Change in Evaluation Research: A Structural Equation Approach. *Journal of Applied Psychology*, 73(3), 574–584. <https://doi.org/10.1037/0021-9010.73.3.574>
- Minniti, M., & Bygrave, W. (2001). A Dynamic Model of Entrepreneurial Learning. *Entrepreneurship Theory and Practice*, 25(3), 5–16. <https://doi.org/10.1177/104225870102500301>
- Mom, T. J. M., Van Den Bosch, F. A. J., & Volberda, H. W. (2007). Investigating Managers' Exploration and Exploitation Activities: The Influence of Top-Down, Bottom-Up, and Horizontal Knowledge Inflows. *Journal of Management Studies*, 44(6), 910–931. <https://doi.org/10.1111/j.1467-6486.2007.00697.x>
- Oosterbeek, H., van Praag, M., & Ijsselstein, A. (2010). The Impact of Entrepreneurship Education on Entrepreneurship Skills and Motivation. *European Economic Review*, 54(3), 442–454. <https://doi.org/10.1016/j.euroecorev.2009.08.002>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons.
- Podsakoff, P. M., & Podsakoff, N. P. (2019). Experimental Designs in Management and Leadership Research: Strengths, Limitations, and Recommendations for Improving Publishability. *Leadership Quarterly*, 30(1), 11–33. <https://doi.org/10.1016/j.leaqua.2018.11.002>
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing Group.
- Rigtering, J. P. C. (Coen), Weitzel, G. U. U., & Muehlfeld, K. (Katrin). (2019). Increasing Quantity Without Compromising Quality: How Managerial Framing Affects Intrapreneurship. *Journal of Business Venturing*, 34(2), 224–241. <https://doi.org/10.1016/j.jbusvent.2018.11.002>
- Roundy, P. T., Harrison, D. A., Khavul, S., Pérez-Nordtvedt, L., & McGee, J. E. (2018). Entrepreneurial Alertness as a Pathway to Strategic Decisions and Organizational Performance. *Strategic Organization*, 16(2), 192–226. <https://doi.org/10.1177/1476127017693970>
- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The Science of Training and Development in Organizations: What Matters in Practice. *Psychological Science in the Public Interest*, 13(2), 74–101. <https://doi.org/10.1177/1529100612436661>
- Savalei, V. (2019). A Comparison of Several Approaches for Controlling Measurement Error in Small Samples. *Psychological Methods*, 24(3), 352–370. <https://doi.org/10.1037/met0000181>
- Shadish, W. R., Cook, T. D., & Campbell, D. (2002). *Experimental and Quasi-Experimental for Generalized Designs for Generalized Causal Inference*. Houghton Mifflin.
- Sharma, P., & Chrisman, S. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3), 11–27. <https://doi.org/10.1177/104225879902300302>
- Shepherd, D. A., & Gruber, M. (2021). The Lean Startup Framework: Closing the Academic–Practitioner Divide. *Entrepreneurship Theory and Practice*, 45(5), 967–998. <https://doi.org/10.1177/1042258719899415>
- Shepherd, D. A., Souitaris, V., & Gruber, M. (2021). Creating New Ventures: A Review and

- Research Agenda. *Journal of Management*, 47(1), 11–42.
<https://doi.org/10.1177/0149206319900537>
- Steinmetz, H., Schmidt, P., Tina-Booh, A., Wieczorek, S., & Schwartz, S. H. (2009). Testing Measurement Invariance Using Multigroup CFA: Differences Between Educational Groups in Human Values Measurement. *Quality and Quantity*, 43(4), 599–616.
<https://doi.org/10.1007/s11135-007-9143-x>
- Tang, J., Kacmar, K. M. M., & Busenitz, L. (2012). Entrepreneurial Alertness in the Pursuit of New Opportunities. *Journal of Business Venturing*, 27(1), 77–94.
<https://doi.org/10.1016/j.jbusvent.2010.07.001>
- Tierney, P., & Farmer, S. M. (2002). Creative Self-Efficacy: Its Potential Antecedents and Relationship to Creative Performance. *Academy of Management Journal*, 45(6), 1137–1148. <https://doi.org/10.5465/3069429>
- Tierney, P., & Farmer, S. M. (2011). Creative Self-Efficacy Development and Creative Performance Over Time. *Journal of Applied Psychology*, 96(2), 277–293.
<https://doi.org/10.1037/a0020952>
- Valliere, D. (2013). Towards a Schematic Theory of Entrepreneurial Alertness. *Journal of Business Venturing*, 28(3), 430–442. <https://doi.org/10.1016/j.jbusvent.2011.08.004>
- Vandenberg, R. J., & Self, R. M. (1993). Assessing Newcomers' Changing Commitments to the Organization During the First 6 Months of Work. *Journal of Applied Psychology*, 78(4), 557–568. <https://doi.org/10.1037/0021-9010.78.4.557>
- Young, J. E., & Sexton, D. L. (1997). Entrepreneurial Learning: A Conceptual Framework. *Journal of Enterprising Culture*, 05(03), 223–248.
<https://doi.org/10.1142/S0218495897000144>

**CHAPTER 4 | HOW NON-MANAGERIAL EMPLOYEES
NAVIGATE IDEA ELABORATION: A COGNITIVE FRAME
PERSPECTIVE ON CORPORATE ENTREPRENEURSHIP**

Chapter 4:

**How Non-Managerial Employees Navigate Idea Elaboration: A Cognitive Frame
Perspective on Corporate Entrepreneurship**

AUTHORS

Slawa Tomin, Paderborn University

Mirko Brunk, Heinrich-Heine University Düsseldorf

Katrin Burmeister-Lamp, EBS University

Rüdiger Kabst, Paderborn University

References

- Berg, J. M. (2016). Balancing on the Creative Highwire: Forecasting the Success of Novel Ideas in Organizations. *Administrative Science Quarterly*, 61(3), 433–468. <https://doi.org/10.1177/0001839216642211>
- Bergami, M., & Bagozzi P, R. (2000). Self-Categorization and Commitment as Distinct Aspects of Social Identity in the Organization: Conceptualization, Measurement, and Relation to Antecedents and Consequences. *British Journal of Social Psychology*, 39(4), 555–577. <https://doi.org/10.1348/014466600164633>
- Biniari, M. G. (2012). The Emotional Embeddedness of Corporate Entrepreneurship: The Case of Envy. *Entrepreneurship Theory and Practice*, 36(1), 141–170. <https://doi.org/10.1111/j.1540-6520.2010.00437.x>
- Birkinshaw, J., & Gibson, C. (2004). Building Ambidexterity into an Organization. *MIT Sloan Management*, 45(4), 47–55.
- Bower, J. L. (1970). *Managing the Resource Allocation Process: A Study of Corporate Planning and Investment*. Harvard Business School, Division of Research.
- Burgelman, R. A. (1983). A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*, 28(2), 223. <https://doi.org/10.2307/2392619>
- Corbett, A. C., Covin, J. G., O'Connor, G. C., & Tucci, C. L. (2013). Corporate Entrepreneurship: State-of-the-Art Research and a Future Research agenda. *Journal of Product Innovation Management*, 30(5), 812–820. <https://doi.org/10.1111/jpim.12031>
- Corbett, A. C., & Hmieleski, K. M. (2007). The Conflicting Cognitions of Corporate Entrepreneurs. *Entrepreneurship Theory and Practice*, 31(1), 103–121. <https://doi.org/10.1111/j.1540-6520.2007.00165.x>
- Corbett, A. C., Neck, H. M., & DeTienne, D. R. (2007). How Corporate Entrepreneurs Learn from Fledgling Innovation Initiatives: Cognition and the Development of a Termination Script. *Entrepreneurship Theory and Practice*, 31(6), 829–852. <https://doi.org/10.1111/j.1540-6520.2007.00208.x>
- Covin, J. G., & Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*, 16(1), 7–26. <https://doi.org/10.1177/104225879101600102>
- Davidsson, P. (2015). Entrepreneurial Opportunities and the Entrepreneurship Nexus: A Re-conceptualization. *Journal of Business Venturing*, 30(5), 674–695. <https://doi.org/10.1016/j.jbusvent.2015.01.002>
- Dess, G. G., Ireland, R. D., Zahra, S. A., Floyd, S. W., Janney, J. J., & Lane, P. J. (2003). Emerging Issues in Corporate Entrepreneurship. *Journal of Management*, 29(3), 351–378. [https://doi.org/10.1016/S0149-2063\(03\)00015-1](https://doi.org/10.1016/S0149-2063(03)00015-1)
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), 532. <https://doi.org/10.2307/258557>
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory Building From Cases: Opportunities And Challenges. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/amj.2007.24160888>
- Elsbach, K. (2020). Giving Ideas that Won't Get Rejected: How Personal Identity Relates to Idea-taking in Creative Collaboration. *Innovation: Organization and Management*, 22(1), 12–38. <https://doi.org/10.1080/14479338.2019.1626239>
- Elsbach, K., & Stigliani, I. (2018). Design Thinking and Organizational Culture: A Review and Framework for Future Research. *Journal of Management*, 44(6), 2274–2306. <https://doi.org/10.1177/0149206317744252>
- Floyd, S. W., & Lane, P. J. (2000). Strategizing throughout the Organization: Managing Role

- Conflict in Strategic Renewal. *Academy of Management Review*, 25(1), 154–177.
<https://doi.org/10.5465/amr.2000.2791608>
- Frederiks, A. J., Englis, B. G., Ehrenhard, M. L., & Groen, A. J. (2019). Entrepreneurial Cognition and the Quality of New Venture Ideas: An Experimental Approach to comparing Future-oriented Cognitive Processes. *Journal of Business Venturing*, 34(2), 327–347. <https://doi.org/10.1016/j.jbusvent.2018.05.007>
- George, J. M. (2007). Creativity in Organizations. *Academy of Management Annals*, 1(1), 439–477. <https://doi.org/10.5465/078559814>
- Gibson, C. B., Birkinshaw, J., McDaniel Sumpter, D., & Ambos, T. (2019). The Hierarchical Erosion Effect: A New Perspective on Perceptual Differences and Business Performance. *Journal of Management Studies*, 56(8), 1713–1747.
<https://doi.org/10.1111/joms.12443>
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research. *Organizational Research Methods*, 16(1), 15–31.
<https://doi.org/10.1177/1094428112452151>
- Giorgi, S. (2017). The Mind and Heart of Resonance: The Role of Cognition and Emotions in Frame Effectiveness. *Journal of Management Studies*, 54(5), 711–738.
<https://doi.org/10.1111/joms.12278>
- Giorgi, S., & Weber, K. (2015). Marks of Distinction: Framing and Audience Appreciation in the Context of Investment Advice. *Administrative Science Quarterly*, 60(2), 333–367.
<https://doi.org/10.1177/0001839215571125>
- Goffmann, E. (1974). *Frame Analysis: An Essay on the Organization of Experience* (2nd (1986)). Northeastern University Press.
- Gray, S. M., Knight, A. P., & Baer, M. (2020). On the Emergence of Collective Psychological Ownership in New Creative Teams. *Organization Science*, 31(1), 141–164.
<https://doi.org/10.1287/orsc.2019.1307>
- Grimes, M. G. (2018). The Pivot: How Founders Respond to Feedback through Idea and Identity Work. *Academy of Management Journal*, 61(5), 1692–1717.
<https://doi.org/10.5465/amj.2015.0823>
- Gruber, M., MacMillan, I. C., & Thompson, J. D. (2012). From Minds to Markets: How Human Capital Endowments Shape Market Opportunity Identification of Technology Start-Ups. *Journal of Management*, 38(5), 1421–1449.
<https://doi.org/10.1177/0149206310386228>
- Harrison, S. H., & Rouse, E. D. (2015). An Inductive Study of Feedback Interactions over the Course of Creative Projects. *Academy of Management Journal*, 58(2), 375–404.
<https://doi.org/10.5465/amj.2012.0737>
- Harvey, S. (2014). Creative Synthesis: Exploring the Process of Extraordinary Group Creativity. *Academy of Management Review*, 39(3), 324–343.
<https://doi.org/10.5465/amr.2012.0224>
- Harvey, S., & Kou, C. Y. (2013). Collective Engagement in Creative Tasks: The Role of Evaluation in the Creative Process in Groups. *Administrative Science Quarterly*, 58(3), 346–386. <https://doi.org/10.1177/0001839213498591>
- 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. <https://doi.org/10.1016/j.jbusvent.2008.03.002>
- 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. [https://doi.org/10.1016/S0883-9026\(00\)00059-8](https://doi.org/10.1016/S0883-9026(00)00059-8)
- Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing Corporate Entrepreneurship Strategy. *Entrepreneurship Theory and Practice*, 33(1), 19–46.

- <https://doi.org/10.1111/j.1540-6520.2008.00279.x>
- Kaplan, S. (2008). Framing Contests: Strategy Making Under Uncertainty. *Organization Science*, 19(5), 729–752. <https://doi.org/10.1287/orsc.1070.0340>
- Kaplan, S., & Tripsas, M. (2008). Thinking about Technology: Applying a Cognitive Lens to Technical Change. *Research Policy*, 37(5), 790–805. <https://doi.org/10.1016/j.respol.2008.02.002>
- Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship Theory and Practice*, 29(6), 699–716. <https://doi.org/10.1111/j.1540-6520.2005.00103.x>
- Langley, A. (1999). Strategies for Theorizing from Process Data. *Academy of Management Review*, 24(4), 691–710. <https://doi.org/10.5465/amr.1999.2553248>
- Leatherbee, M., & Katila, R. (2020). The Lean Startup Method: Early-stage Teams and Hypothesis-based Probing of Business Ideas. *Strategic Entrepreneurship Journal*, 14(4), 570–593. <https://doi.org/10.1002/sej.1373>
- Leonardi, P. M. (2011). Innovation Blindness: Culture, Frames, and Cross-Boundary Problem Construction in the Development of New Technology Concepts. *Organization Science*, 22(2), 347–369. <https://doi.org/10.1287/orsc.1100.0529>
- March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, 2(1), 71–87. <https://doi.org/10.1287/orsc.2.1.71>
- March, J. G., & Simon, H. A. (1958). *Organizations*. Wiley.
- Micheli, P., Wilner, S. J. S., Bhatti, S. H., Mura, M., & Beverland, M. B. (2019). Doing Design Thinking: Conceptual Review, Synthesis, and Research Agenda. *Journal of Product Innovation Management*, 36(2), 124–148. <https://doi.org/10.1111/jpim.12466>
- Miles, M. B., & Huberman, M. A. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Sage.
- Miron-Spektor, E., Gino, F., & Argote, L. (2011). Paradoxical Frames and Creative Sparks: Enhancing Individual Creativity through Conflict and Integration. *Organizational Behavior and Human Decision Processes*, 116(2), 229–240. <https://doi.org/10.1016/j.obhdp.2011.03.006>
- Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 27(2), 93–104. <https://doi.org/10.1111/1540-8520.00001>
- Mueller, J., Melwani, S., Loewenstein, J., & Deal, J. J. (2018). Reframing the Decision-Makers' Dilemma: Towards a Social Context Model of Creative Idea Recognition. *Academy of Management Journal*, 61(1), 94–110. <https://doi.org/10.5465/amj.2013.0887>
- Mueller, J. S., Melwani, S., & Goncalo, J. A. (2012). The Bias Against Creativity: Why People Desire but Reject Creative Ideas. *Psychological Science*, 23(1), 13–17. <https://doi.org/10.1177/0956797611421018>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons.
- Patzelt, H., Preller, R., & Breugst, N. (2021). Understanding the Life Cycles of Entrepreneurial Teams and Their Ventures: An Agenda for Future Research. *Entrepreneurship Theory and Practice*, 45(5) 1119–1153. <https://doi.org/10.1177/1042258720978386>
- Perry-Smith, J. E., & Mannucci, P. V. (2017). From Creativity to Innovation: The Social Network Drivers of the Four Phases of the Idea Journey. *Academy of Management Review*, 42(1), 53–79. <https://doi.org/10.5465/amr.2014.0462>
- Phan, P. H., Wright, M., Ucbasaran, D., & Tan, W. L. (2009). Corporate Entrepreneurship: Current Research and Future Directions. *Journal of Business Venturing*, 24(3), 197–205. <https://doi.org/10.1016/j.jbusvent.2009.01.007>

- Plambeck, N. (2012). The Development of New Products: The Role of Firm Context and Managerial Cognition. *Journal of Business Venturing*, 27(6), 607–621. <https://doi.org/10.1016/j.jbusvent.2011.08.002>
- Raffaelli, R., Glynn, M. A., & Tushman, M. (2019). Frame Flexibility: The Role of Cognitive and Emotional Framing in Innovation Adoption by Incumbent Firms. *Strategic Management Journal*, 40(7), 1013–1039. <https://doi.org/10.1002/smj.3011>
- Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science*, 20(4), 685–695. <https://doi.org/10.1287/orsc.1090.0428>
- Raisch, S., & Tushman, M. L. (2016). Growing New Corporate Businesses: From Initiation to Graduation. *Organization Science*, 27(5), 1237–1257. <https://doi.org/10.1287/orsc.2016.1081>
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing Group.
- Rigtering, J. P. C. (Coen), Weitzel, G. U. U., & Muehlfeld, K. (Katrin). (2019). Increasing Quantity Without Compromising Quality: How Managerial Framing Affects Intrapreneurship. *Journal of Business Venturing*, 34(2), 224–241. <https://doi.org/10.1016/j.jbusvent.2018.11.002>
- Schön, D. A., & Rein, M. (1994). *Frame Reflection: Toward The Resolution Of Intractable Policy Controversies*. Basic Books.
- Sharma, P., & Chrisman, S. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3), 11–27. <https://doi.org/10.1177/104225879902300302>
- Shepherd, D. A., & Gruber, M. (2021). The Lean Startup Framework: Closing the Academic–Practitioner Divide. *Entrepreneurship Theory and Practice*, 45(5), 967–998. <https://doi.org/10.1177/1042258719899415>
- Simon, H. A. (1962). The Architecture of Complexity. *Proceedings of the American Philosophical Society*, 106(6), 467–482.
- Strauss, A. L., & Corbin, J. M. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd ed.). Sage Publications.
- Suddaby, R. (2006). From the Editors: What Grounded Theory is Not. *Academy of Management Journal*, 49(4), 633–642. <https://doi.org/10.5465/amj.2006.22083020>
- Vogel, P. (2017). From Venture Idea to Venture Opportunity. *Entrepreneurship Theory and Practice*, 41(6), 943–971. <https://doi.org/10.1111/etap.12234>
- Zimmermann, A., Raisch, S., & Cardinal, L. B. (2018). Managing Persistent Tensions on the Frontline: A Configurational Perspective on Ambidexterity. *Journal of Management Studies*, 55(5), 739–769. <https://doi.org/10.1111/joms.12311>

**CHAPTER 5 | NEW VENTURE TEAMS' CAPACITY FOR
IDEA GENERATION AND EXECUTION IN LIGHT OF
HIERARCHICAL CULTURAL VALUES**

Chapter 5:

New Venture Teams' Capacity for Idea Generation and Execution in light of Hierarchical Cultural Values

AUTHORS

Marieke Funck, Paderborn University

Benjamin P. Krebs, Paderborn University

Slawa Tomin, Paderborn University

Bernhard A. Wach, Bielefeld University of Applied Sciences

Rüdiger Kabst, Paderborn University

References

- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the Work Environment for Creativity. *Academy of Management Journal*, 39(5), 1154–1184. <https://doi.org/10.5465/256995>
- Anderson, C., & Brown, C. E. (2010). The Functions and Dysfunctions of Hierarchy. *Research in Organizational Behavior*, 30, 55–89. <https://doi.org/10.1016/j.riob.2010.08.002>
- Anicich, E. M., Swaab, R. I., & Galinsky, A. D. (2015). Hierarchical Cultural Values Predict Success and Mortality in High-Stakes Teams. *Proceedings of the National Academy of Sciences*, 112(5), 1338–1343. <https://doi.org/10.1073/pnas.1408800112>
- Appelbaum, N. P., Lockeman, K. S., Orr, S., Huff, T. A., Hogan, J., Queen, B. A., & Dow, A. W. (2020). Perceived Influence of Power Distance, Psychological Safety, and Team Cohesion on Team Effectiveness. *Journal of Interprofessional Care*, 34(1), 1–7. <https://doi.org/10.1080/13561820.2019.1633290>
- Berger, J., Rosenholtz, S. J., & Zelditch, M. (1980). Status Organizing Processes. *Annual Review of Sociology*, 6(1), 479–508. <https://doi.org/10.1146/annurev.so.06.080180.002403>
- Bliese, P. D., Maltarich, M. A., & Hendricks, J. L. (2018). Back to Basics with Mixed-Effects Models: Nine Take-Away Points. *Journal of Business and Psychology*, 33(1), 1–23. <https://doi.org/10.1007/s10869-017-9491-z>
- Bloom, N., Genakos, C., Sadun, R., & Van Reenen, J. (2012). Management Practices across Firms and Countries. *Academy of Management Perspectives*, 26(1), 12–33. <https://doi.org/10.5465/amp.2011.0077>
- Bocken, N., & Snihur, Y. (2020). Lean Startup and the Business Model: Experimenting for Novelty and Impact. *Long Range Planning*, 53(4), 101953. <https://doi.org/10.1016/j.lrp.2019.101953>
- Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open Innovation: Research, Practices, and Policies. *California Management Review*, 60(2), 5–16. <https://doi.org/10.1177/0008125617745086>
- Brown, T., & Katz, B. (2019). *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation* (Vol. 20091). New York, NY: HarperBusiness.
- Bunderson, J. S., & Reagans, R. E. (2011). Power, Status, and Learning in Organizations. *Organization Science*, 22(5), 1182–1194. <https://doi.org/10.1287/orsc.1100.0590>
- Bunderson, J. S., Van Der Vegt, G. S., Cantimur, Y., & Rink, F. (2016). Different Views of Hierarchy and Why they Matter: Hierarchy as Inequality or as Cascading Influence. *Academy of Management Journal*, 59(4), 1265–1289. <https://doi.org/10.5465/amj.2014.0601>
- Carland, J. C., & Carland Jr., J. W. (2012). A Model of Shared Entrepreneurial Leadership. *Academy of Entrepreneurship Journal*, 18(2), 71–81.
- Cohen, B. P., & Zhou, X. (1991). Status Processes in Enduring Work Groups. *American Sociological Review*, 56(2), 179–188. <https://doi.org/10.2307/2095778>
- Cunningham, J. L., Gino, F., Cable, D., & Staats, B. (2021). Seeing Oneself as a Valued Contributor: Social Worth Affirmation Improves Team Information Sharing. *Academy of Management Journal*, 64(6), 1816–1841. <https://doi.org/10.5465/amj.2018.0790>
- Davidsson, P., & Gruenhagen, J. H. (2021). Fulfilling the Process Promise: A Review and Agenda for New Venture Creation Process Research. *Entrepreneurship Theory and Practice*, 45(5), 1083–1118. <https://doi.org/10.1177/1042258720930991>
- De Clercq, D., Lim, D. S. K., & Oh, C. H. (2013). Individual-level Resources and New Business Activity: The Contingent Role of Institutional Context. *Entrepreneurship*

- Theory and Practice*, 37(2), 303–330. <https://doi.org/10.1111/j.1540-6520.2011.00470.x>
- Diehl, M., & Stroebe, W. (1987). Productivity Loss in Brainstorming Groups: Toward the Solution of a Riddle. *Journal of Personality and Social Psychology*, 53(3), 497–509. <https://doi.org/10.1037/0022-3514.53.3.497>
- Drori, G. S., Yong, S. Y., & Meyer, J. W. (2006). Sources of Rationalized Governance: Cross-National Longitudinal Analyses, 1985–2002. *Administrative Science Quarterly*, 51(2), 205–229. <https://doi.org/10.2189/asqu.51.2.205>
- Fayard, A. L., Gkeredakis, E., & Levina, N. (2016). Framing Innovation Opportunities while Staying Committed to an Organizational Epistemic Stance. *Information Systems Research*, 27(2), 302–323. <https://doi.org/10.1287/isre.2016.0623>
- Fisher, G., Lahiri, A., & Kotha, S. (2016). Changing with the Times: An Integrated View of Legitimacy, Logics and New Venture Lifecycles. *Academy of Management Review*, 41(3), 383–409. <https://doi.org/10.5465/ambpp.2013.17126abstract>
- Flores, M., Golob, M., Maklin, D., & Tucci, C. (2019). Speeding-up Innovation with Business Hackathons. *Conference Proceedings of the Academy for Design Innovation Management*, 2(1). <https://doi.org/10.33114/adim.2019.11.263>
- Foo, M. Der, Sin, H. P., & Yiong, L. P. (2006). Effects of Team Inputs and Intrateam Processes on Perceptions of Team Viability and Member Satisfaction in Nascent Ventures. *Strategic Management Journal*, 27(4), 389–399. <https://doi.org/10.1002/smj.514>
- Foss, N. J., Klein, P. G., Kor, Y. Y., & Mahoney, J. T. (2008). Entrepreneurship, Subjectivism, and the Resource-based View: Toward a New Synthesis. *Strategic Entrepreneurship Journal*, 2(1), 73–94. <https://doi.org/10.1002/sej.41>
- Frederiks, A. J., Englis, B. G., Ehrenhard, M. L., & Groen, A. J. (2019). Entrepreneurial Cognition and the Quality of New Venture Ideas: An Experimental Approach to comparing Future-oriented Cognitive Processes. *Journal of Business Venturing*, 34(2), 327–347. <https://doi.org/10.1016/j.jbusvent.2018.05.007>
- Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 413–438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>
- Gallupe, R. B., Dennis, A. R., Cooper, W. H., Valacich, J. S., Bastianutti, L. M., & Nunamaker, J. F. (1992). Electronic Brainstorming and Group Size. *Academy of Management Journal*, 35(2), 350–369. <https://doi.org/10.5465/256377>
- Gartner, W. B., & Teague, B. T. (2020). *Research Handbook on Entrepreneurial Behavior, Practice and Process*. Edward Elgar Publishing. <https://doi.org/10.4337/9781788114523>
- Gerhart, B., & Fang, M. (2005). National Culture and Human Resource Management: Assumptions and Evidence. *International Journal of Human Resource Management*, 16(6), 971–986. <https://doi.org/10.1080/09585190500120772>
- Global Entrepreneurship and Development Institute. (2019). *Global Entrepreneurship Index 2018*. <http://thegedi.org/global-entrepreneurship-and-development-index/>
- Grant, A. M., & Berry, J. W. (2011). The Necessity of Others is the Mother of Invention: Intrinsic and Prosocial Motivations, Perspective Taking, and Creativity. *Academy of Management Journal*, 54(1), 73–96. <https://doi.org/10.5465/amj.2011.59215085>
- Greer, L. L., de Jong, B. A., Schouten, M. E., & Dannals, J. (2018). Why and When Hierarchy Impacts Team Effectiveness: A Meta-Analytic Integration. *Journal of Applied Psychology*, 103(6), 591–613. <https://doi.org/10.1037/apl0000291>
- Greer, L. L., & Kleef, G. A. Van. (2010). Equality versus Differentiation: The Effects of Power Dispersion on Group Interaction. *Journal of Applied Psychology*, 95(6), 1032–1044. <https://doi.org/10.1037/a0020373>
- Grégoire, D. A., Shepherd, D. A., & Lambert, L. S. (2010). Measuring Opportunity-Recognition Beliefs: Illustrating and Validating an Experimental Approach.

- Organizational Research Methods*, 13(1), 114–145.
<https://doi.org/10.1177/1094428109334369>
- Gruenfeld, D. H., & Tiedens, L. Z. (2010). Organizational Preferences and their Consequences. In S. T. Fiske, D. T. Gilbert, & G. Lindsay (Eds.), *Handbook of Social Psychology* (5th ed., pp. 1252–1287). New York, NY: Wiley.
- Halevy, N., Chou, E. Y., & Galinsky, A. D. (2011). A Functional Model of Hierarchy: Why, How, and When Vertical Differentiation Enhances Group Performance. *Organizational Psychology Review*, 1(1), 32–52. <https://doi.org/10.1177/2041386610380991>
- Halevy, N., Chou, E. Y., Galinsky, A. D., & Murnighan, J. K. (2012). When Hierarchy Wins: Evidence from the National Basketball Association. *Social Psychological and Personality Science*, 3(4), 398–406. <https://doi.org/10.1177/1948550611424225>
- Harvey, S. (2014). Creative Synthesis: Exploring the Process of Extraordinary Group Creativity. *Academy of Management Journal*, 39(3), 324–343.
<https://doi.org/10.5465/amr.2012.0224>
- Hayton, J. C., George, G., & Zahra, S. A. (2002). National Culture and Entrepreneurship: A Review of Behavioral Research. *Entrepreneurship Theory and Practice*, 26(4), 509–512.
<https://doi.org/10.1177/104225870202600403>
- He, J., & Huang, Z. (2011). Board Informal Hierarchy and Firm Financial Performance: Exploring a Tacit Structure Guiding Boardroom Interactions. *Academy of Management Journal*, 54(6), 1119–1139. <https://doi.org/10.5465/amj.2009.0824>
- Henderson, A. D., & Fredrickson, J. W. (2001). Top Management Team Coordination Needs and the CEO Pay Gap: A Competitive Test of Economic and Behavioral Views. *Academy of Management Journal*, 44(1), 96–117. <https://doi.org/10.2307/3069339>
- Hmieleski, K. M., & Ensley, M. D. (2007). A Contextual Examination of New Venture Performance: Entrepreneur Leadership Behavior, Top Management Team Heterogeneity, and Environmental Dynamism. *Journal of Organizational Behavior*, 28(7), 865–889.
<https://doi.org/10.1002/job.479>
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations* (2nd ed.). Sage publications.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Sage publications.
- Jin, L., Madison, K., Kraiczy, N. D., Kellermanns, F. W., Crook, T. R., & Xi, J. (2017). Entrepreneurial Team Composition Characteristics and New Venture Performance: A Meta-Analysis. *Entrepreneurship Theory and Practice*, 41(5), 743–771.
<https://doi.org/10.1111/etap.12232>
- Johnson, V. (2007). What is Organizational Imprinting? Cultural Entrepreneurship in the Founding of the Paris Opera. *American Journal of Sociology*, 113(1), 97–127.
<https://doi.org/10.1086/517899>
- Kautonen, T., Gelderen, M. Van, & Fink, M. (2015). Robustness of the Theory of Planned Behavior in Predicting Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 39(3), 655–674. <https://doi.org/10.1111/etap.12056>
- Kerr, N. L., Messé, L. A., Seok, D. H., Sambolec, E. J., Lount, R. B., & Park, E. S. (2007). Psychological Mechanisms underlying the Köhler Motivation Gain. *Personality and Social Psychology Bulletin*, 33(6), 828–841. <https://doi.org/10.1177/0146167207301020>
- Keum, D. D., & See, K. E. (2017). The Influence of Hierarchy on Idea Generation and Selection in the Innovation Process. *Organization Science*, 28(4), 653–669.
<https://doi.org/10.1287/orsc.2017.1142>
- Kier, A. S., & McMullen, J. S. (2020). Entrepreneurial Imaginativeness and New Venture Ideation in Newly Forming Teams. *Journal of Business Venturing*, 35(6), 106048.
<https://doi.org/10.1016/j.jbusvent.2020.106048>
- Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A Quarter Century of Culture's

- Consequences: A Review of Empirical Research Incorporating Hofstede's Cultural Values Framework. *Journal of International Business Studies*, 37(3), 285–320. <https://doi.org/10.1057/palgrave.jibs.8400202>
- Klotz, A. C., Hmieleski, K. M., Bradley, B. H., & Busenitz, L. W. (2014). New Venture Teams: A Review of the Literature and Roadmap for Future Research. *Journal of Management*, 40(1), 226–255. <https://doi.org/10.1177/0149206313493325>
- Knight, A. P., Greer, L. L., & Jong, B. De. (2020). Start-up Teams: A Multidimensional Conceptualization, Integrative Review of Past Research, and Future Research Agenda. *Academy of Management Annals*, 14(1), 231–266. <https://doi.org/10.5465/annals.2018.0061>
- Lazar, M., Miron-Spektor, E., Agarwal, R., Erez, M., Goldfarb, E., & Chen, G. (2020). Entrepreneurial Team Formation. *Academy of Management Annals*, 14(1), 29–59. <https://doi.org/10.5465/annals.2017.0131>
- Levie, J., Hunt, S., Zahra, S., Greene, P., Harrison, R., & Mason, C. (2005). Culture, Institutions and New Business Activity: Evidence from the Global Entrepreneurship Monitor. *Frontiers of Entrepreneurship Research 2004: Proceedings of the Twenty-Fourth Annual Entrepreneurship Research Conference*, 519–533.
- Lifshitz-Assaf, H. (2018). Dismantling Knowledge Boundaries at NASA: The Critical Role of Professional Identity in Open Innovation. *Administrative Science Quarterly*, 63(4), 746–782. <https://doi.org/10.1177/0001839217747876>
- Lifshitz-Assaf, H., Lebovitz, S., & Zalmanson, L. (2021). Minimal and Adaptive Coordination: How Hackathons' Projects Accelerate Innovation without Killing it. *Academy of Management Journal*, 64(3), 684–715. <https://doi.org/10.5465/amj.2017.0712>
- Liñán, F., & Chen, Y. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33(3), 593–617. <https://doi.org/10.1111/j.1540-6520.2009.00318.x>
- Liñán, F., & Fernandez-Serrano, J. (2014). National Culture, Entrepreneurship and Economic Development: Different Patterns across the European Union. *Small Business Economics*, 42(4), 685–701. <https://doi.org/10.1007/s11187-013-9520-x>
- Lynn, G. S., Skov, R. B., & Abel, K. D. (1999). Practices that Support Team Learning and their Impact on Speed to Market and New Product Success. *Journal of Product Innovation Management*, 16(5), 439–454. [https://doi.org/10.1016/S0737-6782\(98\)00071-X](https://doi.org/10.1016/S0737-6782(98)00071-X)
- Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The Self-Reinforcing Nature of Power and Status. *Academy of Management Annals*, 2(1), 351–398. <https://doi.org/10.1080/19416520802211628>
- Mahoney, J. (2000). Path Dependence in Historical Sociology. *Theory and Society*, 29(4), 507–548. <https://doi.org/10.1023/A:1007113830879>
- Mannix, E. A. (1993). Organizations as Resource Dilemmas: The Effects of Power Balance on Coalition Formation in Small Groups. *Organizational Behavior and Human Decision Processes*, 55(1), 1–22. <https://doi.org/10.1006/obhd.1993.1021>
- Marquis, C., & Tilcsik, A. (2013). Imprinting: Toward a Multilevel Theory. *Academy of Management Annals*, 7(1), 195–245. <https://doi.org/10.5465/19416520.2013.766076>
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology*, 27, 415–444. <https://doi.org/10.1146/annurev.soc.27.1.415>
- Osborn, A. F. (1963). *Applied Imagination: Principles and Procedures of Creative Thinking* (3rd ed.). New York, NY: Charles Scribner's Sons.
- Patzelt, H., Preller, R., & Breugst, N. (2021). Understanding the Life Cycles of Entrepreneurial Teams and Their Ventures: An Agenda for Future Research.

- Entrepreneurship Theory and Practice*, 45(5) 1119–1153.
<https://doi.org/10.1177/1042258720978386>
- Prandelli, E., Pasquini, M., & Verona, G. (2016). In User's Shoes: An Experimental Design on the Role of Perspective Taking in Discovering Entrepreneurial Opportunities. *Journal of Business Venturing*, 31(3), 287–301. <https://doi.org/10.1016/j.jbusvent.2016.02.001>
- Reinig, B. A., & Briggs, R. O. (2008). On the Relationship between Idea-Quantity and Idea-Quality during Ideation. *Group Decision and Negotiation*, 17(5), 403–420.
<https://doi.org/10.1007/s10726-008-9105-2>
- Reitzig, M., Maciejovsky, B., & Hall, A. (2015). Corporate Hierarchy and Vertical Information Flow Inside the Firm - A Behavioral View. *Strategic Management Journal*, 36(13), 1979–1999. <https://doi.org/10.1002/smj.2334>
- Ronay, R., Greenaway, K., Anicich, E. M., & Galinsky, A. D. (2012). The Path to Glory is Paved with Hierarchy: When Hierarchical Differentiation Increases Group Effectiveness. *Psychological Science*, 23(6), 669–677. <https://doi.org/10.1177/0956797611433876>
- Ruef, M. (2002). A Structural Event Approach to the Analysis of Group Composition. *Social Networks*, 24(2), 135–160. [https://doi.org/10.1016/S0378-8733\(01\)00054-5](https://doi.org/10.1016/S0378-8733(01)00054-5)
- Ruef, M., Aldrich, H. E., & Carter, N. M. (2003). The Structure of Founding Teams: Homophily, Strong Ties, and Isolation among U.S. Entrepreneurs. *American Sociological Review*, 68(2), 195–222. <https://doi.org/10.2307/1519766>
- Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 25, pp. 1–65). Academic Press.
- Schwartz, S. H. (2004). Mapping and Interpreting Cultural Differences Around the World. In H. Vinken, J. Soeters, & P. Ester (Eds.), *Comparing Cultures, Dimensions of Culture in a Comparative Perspective* (pp. 43–73). Leiden, The Netherlands: Brill.
- Schwartz, S. H. (2008). *The 7 Schwartz Cultural Value Orientation Scores for 80 Countries*. <https://doi.org/10.13140/RG.2.1.3313.3040>
- Shim, S.-H., Livingston, R. W., Phillips, K. W., & Lam, S. S. K. (2021). The Impact of Leader Eye Gaze on Disparity in Member Influence: Implications for Process and Performance in Diverse Groups. *Academy of Management Journal*, 64(6), 1873–1900. <https://doi.org/10.5465/amj.2017.1507>
- Silver, S. D., Cohen, B. P., & Rainwater, J. (1988). Group Structure and Information Exchange in Innovative Problem Solving. *Advances in Group Processes*, 5, 169–194.
- Silver, S. D., & Troyer, L. (1998). Judging the Consequences of Evaluation by Others in Status Heterogeneous Groups: Biases in the Microlevel Heuristics of Group Information Exchange. In E. J. Lawler, J. Skvoretz, & J. Szymanski (Eds.), *Advances in Group Processes* (Vol. 15, pp. 103–132). JAI Press.
- StataCorp. (2017). *Stata Statistical Software* (Release 15). College Station.
- Steffens, P., Terjesen, S., & Davidsson, P. (2012). Birds of a Feather Get Lost Together: New Venture Team Composition and Performance. *Small Business Economics*, 39(3), 727–743. <https://doi.org/10.1007/s11187-011-9358-z>
- Stephan, U., & Uhlaner, L. M. (2010). Performance-based vs Socially Supportive Culture: A Cross-National Study of Descriptive Norms and Entrepreneurship. *Journal of International Business Studies*, 41(8), 1347–1364. <https://doi.org/10.1057/jibs.2010.14>
- Swaab, R. I., & Galinsky, A. D. (2015). Egalitarianism Makes Organizations Stronger: Cross-National Variation in Institutional and Psychological Equality Predicts Talent Levels and the Performance of National Teams. *Organizational Behavior and Human Decision Processes*, 129, 80–92. <https://doi.org/10.1016/j.obhdp.2014.05.002>
- Talaulicar, T., Grundei, J., & Werder, A. (2005). Strategic Decision Making in Start-ups: The Effect of Top Management Team Organization and Processes On Speed and Comprehensiveness. *Journal of Business Venturing*, 20(4), 519–541.

- <https://doi.org/10.1016/j.jbusvent.2004.02.001>
- Tarakci, M., Greer, L. L., & Groenen, P. J. F. (2016). When Does Power Disparity Help or Hurt Group Performance? *Journal of Applied Psychology*, 101(3), 415–429. <https://doi.org/10.1037/apl0000056>
- Tsui, A. S., Nifadkar, S., & Ou, A. Y. (2007). Cross-National, Cross-Cultural Organizational Behavior Research: Advances, Gaps, and Recommendations. *Journal of Management*, 33(3), 426–478. <https://doi.org/10.1177/0149206307300818>
- Tyler, T. R. (2006). Psychological Perspectives on Legitimacy and Legitimation. *Annual Review of Psychology*, 57, 375–400. <https://doi.org/10.1146/annurev.psych.57.102904.190038>
- United Nations Development Program. (2021). *Mean Years of Schooling*. <http://hdr.undp.org/en/indicators/103006#>
- United Nations Industrial Development Organization. (2021). *Competitive Industrial Performance Index (score)*. [https://stat.unido.org/database/CIP 2020](https://stat.unido.org/database/CIP%2020)
- United Nations Office for the Coordination of Humanitarian Affairs. (2021). *Novel Coronavirus (COVID-19) Cases Data*. <https://data.humdata.org/dataset/novel-coronavirus-2019-ncov-cases>
- Wolfe, R. J., & McGinn, K. L. (2005). Perceived Relative Power and its Influence on Negotiations. *Group Decision and Negotiation*, 14(1), 3–20. <https://doi.org/10.1007/s10726-005-3873-8>
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a Theory of Organizational Implosion. *Academy of Management Review*, 18(2), 293–321. <https://doi.org/10.1177/0275074010381781>
- World Bank. (2020). *Population, total*. <https://data.worldbank.org/indicator/SP.POP.TOTL?view=chart>
- World Bank. (2021a). *GDP Per Capita (current US\$)*. <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>
- World Bank. (2021b). *Gini Index (World Bank estimate)*. <https://data.worldbank.org/indicator/SI.POV.GINI>
- World Bank. (2021c). *Political Stability and Absence of Violence/Terrorism: Estimate*. <https://databank.worldbank.org/reports.aspx?source=1181&series=P.V.EST>
- Xie, X. Y., Feng, W., & Hu, Q. (2020). Does New Venture Team Power Hierarchy Enhance or Impair New Venture Performance? A Contingency Perspective. *Journal of Business Venturing*, 35(6), 106059. <https://doi.org/10.1016/j.jbusvent.2020.106059>
- Yang, X., Sun, S. L., & Zhao, X. (2019). Search and Execution: Examining the Entrepreneurial Cognitions Behind the Lean Startup Model. *Small Business Economics*, 52(3), 667–679. <https://doi.org/10.1007/s11187-017-9978-z>
- Young, A., Selander, L., & Vaast, E. (2019). Digital Organizing for Social Impact: Current Insights and Future Research Avenues on Collective Action, Social Movements, and Digital Technologies. *Information and Organization*, 29(3), 100257. <https://doi.org/10.1016/j.infoandorg.2019.100257>
- Yuan, F., & Zhou, J. (2015). Effects of Cultural Power Distance on Group Creativity and Individual Group Member Creativity. *Journal of Organizational Behavior*, 36(7), 990–1007. <https://doi.org/10.1002/job>
- Yuan, Q., & Gasco-Hernandez, M. (2021). Open Innovation in the Public Sector: Creating Public Value through Civic Hackathons. *Public Management Review*, 23(4), 523–544. <https://doi.org/10.1080/14719037.2019.1695884>

CHAPTER 6 | GENERAL DISCUSSION AND OUTLOOK

6.1. Contributions and Theoretical Implications

The dissertation contributes to our understanding of corporate entrepreneurship (CE) and new venture creation (NVC), equipping established firms with the necessary instruments to become more innovative by means of generating and growing long-term profits in new market domains. Although CE research proliferated and built a cornerstone in research since the 1980s (Bierwerth et al., 2015; Phan et al., 2009), this dissertation seeks to answer three overarching research questions addressing important shortcomings in literature that refer to either distinct organizational-level performance effects, to an embedded individual-level and human side of internal corporate venturing, or to contextual factors that influence external corporate venturing. Overall, this dissertation accentuates both organizational- and individual-level effects across the three major manifestations of the CE construct: strategic renewal, internal corporate venturing, and external venturing.

More precisely, *Research Question 1* addressed the organizational-level performance implications of strategic renewal by integrating temporal dynamics into performance evaluations. *Chapter 2* investigated by means of a 28-years panel data the time-related performance effects embedded in strategic renewal (Albert et al., 2015), revealing the existence of both curvilinear (i.e., inverted u-shape) and negative performance effects over time that remained previously obscured in literature (cf. Bierwerth et al., 2015). Particularly, I found that strategic persistence (as a time dimension representing stability in business operations and routines) is related to firm performance in a curvilinear manner, initially enhancing performance but decreasing over time. In the first place, organizations derive performance increases from strategic persistence by reducing variance in operating activities, increasing efficiency in operations, circumventing uncertainty, and producing economies of scale (Bingham et al., 2019; Fang et al., 2021; Sydow et al., 2009). Thereby, I extend CE

literature in terms of shifting the focus towards a debate of studying stability rather than radical change events in isolation (e.g., Basu & Wadhwa, 2013; Fang et al., 2021).

Furthermore, by decomposing strategic renewal into two idiosyncratic sub-types, namely incremental renewal and discontinuous transformation (Agarwal & Helfat, 2009), I uncovered that incremental renewal moderates the relationship of strategic persistence and firm performance, amplifying both the positive and negative consequences. Complementary, discontinuous transformation showed strong negative performance effects. This means that with progressing strategic persistence, existing routines and capabilities might turn into deadly structures that nurture escalating commitment, organizational inertia and obsolescence ultimately threatening organizational survival (Albert et al., 2015; Fang et al., 2021; Leonard-Barton, 1992; Sydow et al., 2009). Thus, radical change in terms of discontinuous transformation becomes inevitable to re-adapt to environmental demands (Albert et al., 2015; Tushman et al., 1986), however, producing negative performance implications at least on short-term basis. Therefore, the answer to *Research Question 1* is that by adopting a time-related perspective on strategic renewal, this dissertation corroborates distinct performance effect that go beyond current knowledge in the field. Particularly, I accentuate curvilinear and negative performance effects that complement existing research that predominantly proposed positive performance effects of CE (e.g., Bierwerth et al., 2015).

Complementary to organizational-level performance effects, the individual-level perspective on CE remains less prominent in literature. Considering the growing need to understand the role of individuals within CE, scholars have started to investigate the human side of CE by adopting an individual-level perspective (e.g., Biniari, 2012; Fini et al., 2012; Rigtering et al., 2019). Hence, this dissertation seeks to answer *Research Question 2*, asking how and why individual-level characteristics contribute to employees' entrepreneurial activity (EEA). Particularly, as entrepreneurial behaviors are highly dependent on the existing situations and the environment individuals are embedded in, scholars call to understand

distinct entrepreneurial actions to exploit entrepreneurial opportunities (Shane & Venkataraman, 2000; Shook et al., 2003). Correspondingly, *Research Question 2* is addressed by two studies: *Chapter 3* investigated the role of lean startup-based training (LST) stimulating EEA via distinct individual learning outcomes, while *Chapter 4* analyzed the role of cognitive frames for internal corporate venturing activities and the initial elaboration of new venture ideas in new venture teams.

More precisely, *Chapter 3* investigated internal corporate venturing from an individual-level perspective by examining how lean startup training (LST) transmits its effects on EEA via distinct cognitive, skill-based, and affective learning outcomes (Kraiger et al., 1993). A subsequent quasi-experimental field study revealed that employees learn primarily via two learning outcomes (i.e., cognitive and skill-based learning) that sustainably nurtured EEA. We observed that LST stimulated a flow of learning processes, accentuating a nexus of cognitive and skill-based learning mechanisms. Herein, cognitive learning (i.e., lean startup knowledge) turned out to be the catalyst in the learning process, setting in motion the development of skill-based learning (i.e., entrepreneurial alertness) and ultimately affective learning (i.e., creative self-efficacy). However, affective learning did not transmit further to EEA, thereby bearing potential for future research.

The findings in *Chapter 3* extend our knowledge in three ways: First, we strengthen empirically the academic value of the lean startup framework in a recently growing debate (e.g., Bocken & Snihur, 2020; Contigiani & Levinthal, 2019; Felin et al., 2020; Harms & Schwery, 2020; Leatherbee & Katila, 2020; Shepherd & Gruber, 2021). Thereby, we provide scientific knowledge on the effectiveness of LST for training corporate entrepreneurs, adding important insights to develop a theory of lean startup in academia. Second, we contribute to CE research by elaborating on the detailed composition of venture learning proficiency that is precursive to venture performance (Covin et al., 2018, 2020; Garrett & Covin, 2015). Cognitive learning proved to be the central mediator to stimulate EEA. Thereby, we

corroborate the importance of psychological and cognitive determinants for EEA within the NVC process and CE activities, going beyond the investigation of hypothetical entrepreneurial intentions towards concrete entrepreneurial actions (e.g., Bird, 1992; Boyd & Vozikis, 1994; Fini et al., 2012; Krueger & Carsrud, 1993). Our findings showed that mental processes of corporate entrepreneurs are imperative to assess entrepreneurial opportunities and making sound entrepreneurial decisions (e.g., Corbett et al., 2007; Corbett & Hmieleski, 2007). Third, we contribute on the practical usefulness of LST for training corporate entrepreneurs (Byrne et al., 2016), generating sustainable learning transfer towards the employees' operating job (Salas et al., 2012), thus providing an instrument for established firms to motivate and encourage key personnel to engage entrepreneurially beside their regular job (Rigtering et al., 2019).

In addition, *Chapter 4* describes another prevalent case studying the role of individual-level determinants in internal corporate venturing on a nuanced level. By means of an inductive case study, *Chapter 4* revealed that employees that are engaging in internal venturing projects draw on idiosyncratic cognitive frames to decompose new venture ideas (Goffmann, 1974; Kaplan, 2008). For simplicity, we assessed two types of frames that take on opposed peculiarities, namely contracted and expanded cognitive frames. Employees with a contracted frame primarily evaluated new venture ideas based on a short-term perspective, applied a technology-focused problem solving and concentrated on adjacent competitors. In contrary, employees with an expanded frame adopted a customer-centric problem solving, promoted distinct business models for novel products and anticipated competitors from other (unknown) industries.

Following a call by Patzelt and colleagues (2021), we investigated the idea elaboration (i.e., evaluation of opportunities) among early-stage venture teams (Perry-Smith & Mannucci, 2017), assessing how a group of individuals strives from dispatched individual judgement towards a collective judgement regarding the new venture idea. In our frame-based process

model, we found that venture teams are encountering different degrees of frame resonance in the inception of venture projects, either leading to frame convergence (i.e., mutual understanding about a new venture idea) or frame divergence (i.e., continuing misalignment about a new venture idea) among the group of individuals. In both cases, we found that employees engaged in specific bottom-up behavioral practices to influence the judgement of the others (Kaplan, 2008). Herein, we uncovered practices corresponding to recognizing of others' perspective, expanding of these perspectives, or bridging insights by using linguistic tools or metaphors that nurtured a higher probability of frame convergence (i.e., the creative synthesis among the venture team on a specific venture idea) that is followed by the championing of a new venture idea. In contrary, behavioral practices such as defense of the own understanding, confusion of others, or bypassing specific stakeholders increasingly led to frame divergence, leaving employees behind with their ideas searching for other sponsors within the organization, ultimately failing in championing new venture ideas that leads to project termination.

The findings of *Chapter 4* contribute on individual-level determinants (Rigtering et al., 2019) that influence the new venture idea elaboration process, in which individuals seek to decide on a joint new venture idea to champion (Patzelt et al., 2021; Perry-Smith & Mannucci, 2017). Thereby, we position cognitive frames as an important antecedent of EEA, complementary to the previously identified structural organizational factors (Hornsby et al., 2002; Kuratko et al., 2005). The interaction between employees' cognitive frames during the venture inception phase determined if a new venture team can find congruence among team members and mutually champion their ideas to the senior management to receive additional funding or remain separated in their interpretations regarding ideas and therefore failing to act mutually. Particularly, we examined the entrepreneurial behavior of employees below the senior or middle management, thereby shedding light on the importance on non-managerial

employees (NMEs) within CE (e.g., Gibson et al., 2019; Zimmermann et al., 2018), that are an important source of innovative ideas (e.g., Corbett et al., 2013; Hornsby et al., 2002, 2009).

Based on the findings from *Chapter 3 and 4*, the answer to *Research Question 2* is that individual-level studies are imperative to understand CE and NVC holistically. More precisely, the findings of this dissertation pinpoint towards an increased importance of (entrepreneurial) cognition. As individuals within a corporate setting are rather rewarded by risk-aversion than risk-taking and tolerate less risk than independent entrepreneurs (Bloodgood et al., 2015; Busenitz & Barney, 1997; Levinthal & March, 1993), specific decision-making rules may help them to become entrepreneurially active and overcome organizational rigidity. Herein, *Chapter 3* corroborated that corporate entrepreneurs need to gain sufficient lean startup knowledge (i.e., cognitive learning) and entrepreneurial alertness (i.e., skill-based learning) to sustain EEA over time. Moreover, investigating cognitive underpinnings of CE in greater detail showed that individuals' cognition plays a major role for successful CE initiatives (Corbett et al., 2007; Corbett & Hmieleski, 2007). Thereby, we complement research that increasingly studied organizational-level factors (i.e., management support, rewards, or supportive organizational structures) as the primary amplifiers or rigidity for EEA (Corbett et al., 2013; Hornsby et al., 2002, 2009) by accentuating how and why individual-level determinants (i.e., cognition) influence EEA. Consequently, the findings of this dissertation highlight that individual learning outcomes enable employees to sustain EEA over time even though being back on the daily job. However, *Chapter 4* showed that individual factors such as cognitive frames may function as a double-edged sword, having both impeding and amplifying effects once it comes towards a collective understanding of a new venture idea. It becomes apparent, that the human side of CE and NVC must be investigated carefully, as individual-level determinants carry a great proportion in explaining entrepreneurial actions and ultimately firm performance.

Finally, *Chapter 5* addressed *Research Question 3* that seek to understand the role of contextual factors for the collaboration of employees within new venture teams (NVTs) and how these contextual factors influence the quality of their work. Herein, our findings contribute towards understanding team-based new venture creation by highlighting the role of hierarchical cultural values in NVTs' idea generation and execution. By means of an international hackathon (i.e., #EUvsVirus), *Chapter 5* adopted a dysfunctional (Bunderson et al., 2016; Bunderson & Reagans, 2011; Greer & Kleef, 2010; Tarakci et al., 2016) and functional perspective of hierarchy (i.e., hierarchical cultural values) (Greer et al., 2018; Halevy et al., 2012; Magee & Galinsky, 2008). We found that hierarchical cultural values reduced information-sharing among team members and decreased team coordination contrary to our expectation. Thus, we confirm that NVTs from hierarchical cultures suffer a liability to hierarchy as both, the quality of the venture idea as well as the implementation speed is negatively affected. Therefore, we shed light on the role of the socio-cultural environment for the new venture idea elaboration, determining the outcomes of new venture inception phase. As we were able to access real-world data from the #EUvsVirus hackathon, our findings accentuate social dynamics in NVTs within the new venture inception phase that significantly and negatively influenced early-stage venture outcomes (Patzelt et al., 2021). In order to overcome detrimental effects of hierarchy, NVTs are obliged to establish compensating routines, such as techniques related to self-worth affirmation (Cunningham et al., 2021) or that high-status members actively integrate low-status members (Shim et al., 2021). By means of our highly controlled research setting, we were able to overcome the existing sampling bias that is encountered due to primarily focus of research on successful ventures from a retrospective standpoint rather than assessing ventures during their emergence (e.g., Davidsson & Gruenhagen, 2021; Patzelt et al., 2021).

6.2. Practical Implications

The findings of the four research projects additionally offer implications for practitioners. *Chapter 2* promotes the benefits of incremental renewal activities that potentially extend the time of strategic persistence by constantly re-adapting towards environmental demands and reducing coordination costs. However, even though the prevailing strategy remains longer in place and high investments are abandoned, inevitable punctuated discontinuous transformation might absorb prior savings. Practitioners are prompted to prepare anticipatorily to discontinuous transformation by allocating sufficient resources for error-correction and the creation of capabilities and routines. By constantly re-evaluating the environmental landscape and reacting to linear changes with incremental renewal, the size of punctuated radical changes may be diminished ensuring long-term survival.

The findings of *Chapter 3* corroborated that LST eventually is the starting point for NVC and the corresponding emergence of corporate ventures. Based on multi-dimensional learning outcomes, employees are able to sustain EEA over time, making use of distinct decision-making heuristics that help particularly to cope with entrepreneurial setbacks in the inception of every venture journey. Thus, LST proved as a valuable instrument for established firms to foster EEA and venture emergence, enabling organizations to seize novel entrepreneurial opportunities beyond the beaten path.

Chapter 4 holds implication for senior management of established firms. To engage successfully in CE and NVC, established firms are encouraged to cautiously pay attention to the human side of CE in addition to structural requirements. We argue that frame-based interactions embedded in the venture inception phase need to be considered in setting up internal corporate venture projects, paying attention to the composition of the NVT regarding the hired key personnel. However, as diverse team members may bring advantages to the

NVT, these peculiarities might promote chaos and incongruence among team members. To alleviate potential cognitive (frame-based) biases, practitioners may train key personnel equally a priori in entrepreneurship methodologies such as lean startup, design thinking and the business model canvas that have gained increasing attention in academia and entrepreneurship practice (e.g., Leatherbee & Katila, 2020; Micheli et al., 2019; Osterwalder & Pigneur, 2010; Ries, 2011).

Finally, *Chapter 5* has implications for practitioners and hackathon organizers around the world as it carved out two central mechanisms, namely information-sharing and team coordination, that influence the quality of results and future prospects of NVTs. To diminish the liability of hierarchy that NVTs from hierarchical cultures are facing, hackathon organizers should ensure equal conditions for NVTs across the globe by arranging working phases to cultural circumstances. Particularly, hackathon organizers should provide the right context (i.e., technological requirements, safe space, and psychological safety) and sufficient time for discussion that potentially enhance information-sharing and team coordination among NVTs. Especially in a digital environment as the #EUvsVirus hackathon, extended working phases could contribute towards equalizing the chances for global NVTs and improve the overall quality of venture ideas, their implementation speed and survival rates.

6.3. Outlook

Overall, this dissertation offered new contributions related to the relevance of CE and NVC for established firms to explore novel markets and exploit existing resources, however, additional questions arose that need to be addressed by future research. To complement the generated insights from this dissertation, more in-depth and comprehensive longitudinal research is necessary to assess the role of individuals and NVTs in CE holistically.

Particularly, this dissertation uncovered that strategic persistence and discontinuous transformation (i.e., describing a radical change event) carry a great proportion explaining

organizational-level firm performance. Despite the new contribution regarding temporal dynamics and distinct performance effects embedded in different sub-types of strategic renewal, hardly any research covered cross-level investigations that may trigger or impede the resolution of strategic persistence by means of radical change. We prompt future research to integrate individual-level decision-making biases to understand the initiation of either incremental renewal or discontinuous transformation. While this dissertation addressed negative performance implications as the trigger for discontinuous transformation in the overall business portfolio, the role of managers' cognition that may play an important role for initiating changes was not integrated. Scholars argued that managers' cognitive models translate and process environmental signals into firm-level activities (e.g., Huff et al., 1992; Kiss & Barr, 2015; Tushman et al., 1986), thereby potentially explaining the occurrence of punctuated discontinuous transformation or strategic persistence. Consequently, future research should integrate the role of managers' cognition into investigations to study managerial decision-making in favor of strategic persistence or discontinuous transformation.

Another facet of CE that needs further examinations in future research is the individual- and team-level. This dissertation primarily adopted a between-person perspective on CE and NVC to shed light on self-regulated learning and entrepreneurial behavior. However, within-person changes that potentially explain the stepwise development of EEA and entrepreneurial outcomes have only been captured vaguely. Particularly, we prompt future research to adopt a within-person perspective to further advance our understanding related to venture learning proficiency (e.g., Covin et al., 2018, 2020; Garrett & Covin, 2015). Although *Chapter 3* provided valuable insights on the composition of venture learning proficiency, future research shall investigate individual learning by means of a comprehensive longitudinal research design to capture systematic within-person growth curves. Such an approach may advance our understanding regarding what and how much is learnt by

individuals that engage in CE within established firms (e.g., Covin et al., 2018; Hardy et al., 2019).

Finally, in-depth research on social dynamics alongside the NVC process is needed across the new venture creation lifecycles (Patzelt et al., 2021), from initiation to completion. While *Chapter 4* corroborated the importance of cognitive frames of NMEs to manifest a mutual creative synthesis by integrating team members' unrelated ideas into a bigger picture, additional in-depth research is needed to assess team cognition and interpersonal team processes (Patzelt et al., 2021). Moreover, *Chapter 5* corroborated that NVTs from hierarchical cultures suffered a liability to hierarchy, however, important mechanisms such as information-sharing and team coordination seem to be the central mediators but have not been captured quantitatively. Consequently, future research shall quantitatively and qualitatively assess interpersonal processes that influence NVTs outcomes. Particularly, we propose to study the role of trust and communication within NVTs in order to investigate if coalition of team members emerge alongside the process of creative synthesis that may bias the collective judgement (Patzelt et al., 2021). Moreover, as venture creation is increasingly gaining attention, further empirical studies addressing the new venture inception are welcome to reduce the pre-existing sample bias that result from over-studying successful ventures in contrary to focus on early-stage NVTs or creative teams (e.g., Davidsson & Gruenhagen, 2021; Gray et al., 2020; Patzelt et al., 2021; Shepherd et al., 2021). Hence, a thorough understanding of the NVC process especially within a corporate entrepreneurial context is a fruitful avenue for future research.

References

- Agarwal, R., & Helfat, C. E. (2009). Strategic Renewal of Organizations. *Organization Science*, 20(2), 281–293. <https://doi.org/10.1287/orsc.1090.0423>
- Albert, D., Kreutzer, M., & Lechner, C. (2015). Resolving the Paradox of Interdependency and Strategic Renewal in Activity Systems. *Academy of Management Review*, 40(2), 210–234. <https://doi.org/10.5465/amr.2012.0177>
- Basu, S., & Wadhwa, A. (2013). External Venturing and Discontinuous Strategic Renewal: An Options Perspective. *Journal of Product Innovation Management*, 30(5), 956–975. <https://doi.org/10.1111/jpim.12039>
- Bierwerth, M., Schwens, C., Isidor, R., & Kabst, R. (2015). Corporate Entrepreneurship and Performance: A Meta-Analysis. *Small Business Economics*, 45(2), 255–278. <https://doi.org/10.1007/s11187-015-9629-1>
- Bingham, C. B., Howell, T., & Ott, T. E. (2019). Capability Creation: Heuristics as Microfoundations. *Strategic Entrepreneurship Journal*, 13(2), 121–153. <https://doi.org/10.1002/sej.1312>
- Biniari, M. G. (2012). The Emotional Embeddedness of Corporate Entrepreneurship: The Case of Envy. *Entrepreneurship Theory and Practice*, 36(1), 141–170. <https://doi.org/10.1111/j.1540-6520.2010.00437.x>
- Bird, B. J. (1992). The Operation of Intentions in Time: The Emergence of the New Venture. *Entrepreneurship Theory and Practice*, 17(1), 11–20. <https://doi.org/10.1177/104225879201700102>
- Bloodgood, J. M., Hornsby, J. S., Burkemper, A. C., & Sarooghi, H. (2015). A System Dynamics Perspective of Corporate Entrepreneurship. *Small Business Economics*, 45(2), 383–402. <https://doi.org/10.1007/s11187-015-9634-4>
- Bocken, N., & Snihur, Y. (2020). Lean Startup and the Business Model: Experimenting for Novelty and Impact. *Long Range Planning*, 53(4), 101953. <https://doi.org/10.1016/j.lrp.2019.101953>
- Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 18(4), 63–77. <https://doi.org/10.1177/104225879401800404>
- Bunderson, J. S., & Reagans, R. E. (2011). Power, Status, and Learning in Organizations. *Organization Science*, 22(5), 1182–1194. <https://doi.org/10.1287/orsc.1100.0590>
- Bunderson, J. S., Van Der Vegt, G. S., Cantimur, Y., & Rink, F. (2016). Different Views of Hierarchy and Why they Matter: Hierarchy as Inequality or as Cascading Influence. *Academy of Management Journal*, 59(4), 1265–1289. <https://doi.org/10.5465/amj.2014.0601>
- Busenitz, L. W., & Barney, J. B. (1997). Differences between Entrepreneurs and Managers in Large Organizations: Biases and Heuristics in Strategic Decision-Making. *Journal of Business Venturing*, 12(1), 9–30. [https://doi.org/10.1016/S0883-9026\(96\)00003-1](https://doi.org/10.1016/S0883-9026(96)00003-1)
- Byrne, J., Delmar, F., Fayolle, A., & Lamine, W. (2016). Training Corporate Entrepreneurs: An Action Learning Approach. *Small Business Economics*, 47(2), 479–506. <https://doi.org/10.1007/s11187-016-9734-9>
- Contigiani, A., & Levinthal, D. (2019). Situating the Construct of Lean Startup: Adjacent ‘Conversations’ and Possible Future Directions. *Industrial and Corporate Change*, 28(3), 551–564. <http://dx.doi.org/10.2139/ssrn.3174799>
- Corbett, A. C., Covin, J. G., O’Connor, G. C., & Tucci, C. L. (2013). Corporate Entrepreneurship: State-of-the-Art Research and a Future Research Agenda. *Journal of Product Innovation Management*, 30(5), 812–820. <https://doi.org/10.1111/jpim.12031>
- Corbett, A. C., & Hmieleski, K. M. (2007). The Conflicting Cognitions of Corporate

- Entrepreneurs. *Entrepreneurship Theory and Practice*, 518, 103–121.
<https://doi.org/10.1111/j.1540-6520.2007.00165.x>
- Corbett, A. C., Neck, H. M., & DeTienne, D. R. (2007). How Corporate Entrepreneurs Learn from Fledgling Innovation Initiatives: Cognition and the Development of a Termination Script. *Entrepreneurship Theory and Practice*, 31(6), 829–852.
<https://doi.org/10.1111/j.1540-6520.2007.00208.x>
- Covin, J. G., Garrett, R. P., Gupta, J. P., Kuratko, D. F., & Shepherd, D. A. (2018). The Interdependence of Planning and Learning among Internal Corporate Ventures. *Entrepreneurship Theory and Practice*, 42(4), 537–570.
<https://doi.org/10.1177/1042258718783430>
- Covin, J. G., Garrett, R. P., Kuratko, D. F., & Shepherd, D. A. (2020). Short Leash or Long Leash? Parenting Style, Initial Strategic Clarity, and the Development of Venture Learning Proficiency. *Journal of Business Venturing*, 35(4).
<https://doi.org/10.1016/j.jbusvent.2019.105951>
- Cunningham, J. L., Gino, F., Cable, D., & Staats, B. (2021). Seeing Oneself as a Valued Contributor: Social Worth Affirmation Improves Team Information Sharing. *Academy of Management Journal*, 64(6), 1816–1841. <https://doi.org/10.5465/amj.2018.0790>
- Davidsson, P., & Gruenhagen, J. H. (2021). Fulfilling the Process Promise: A Review and Agenda for New Venture Creation Process Research. *Entrepreneurship Theory and Practice*, 45(5), 1083–1118. <https://doi.org/10.1177/1042258720930991>
- Fang, H. C., Chrisman, J. J., & Holt, D. T. (2021). Strategic Persistence in Family Business. *Entrepreneurship Theory and Practice*, 45(4), 931–950.
<https://doi.org/10.1177/10422587211001806>
- Felin, T., Gambardella, A., Stern, S., & Zenger, T. (2020). Lean Startup and the Business Model: Experimentation Revisited. *Long Range Planning*, 53(4), 101889.
<https://doi.org/10.1016/j.lrp.2019.06.002>
- Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2012). The Determinants of Corporate Entrepreneurial Intention Within Small and Newly Established Firms. *Entrepreneurship Theory and Practice*, 36(2), 387–414. <https://doi.org/10.1111/j.1540-6520.2010.00411.x>
- Garrett, R. P., & Covin, J. G. (2015). Internal Corporate Venture Operations Independence and Performance: A Knowledge-Based Perspective. *Entrepreneurship Theory and Practice*, 39(4), 763–790. <https://doi.org/10.1111/etap.12059>
- Gibson, C. B., Birkinshaw, J., McDaniel Sumpter, D., & Ambos, T. (2019). The Hierarchical Erosion Effect: A New Perspective on Perceptual Differences and Business Performance. *Journal of Management Studies*, 56(8), 1713–1747.
<https://doi.org/10.1111/joms.12443>
- Goffmann, E. (1974). *Frame Analysis: An Essay on the Organization of Experience* (2nd (1986)). Northeastern University Press.
- Gray, S. M., Knight, A. P., & Baer, M. (2020). On the Emergence of Collective Psychological Ownership in New Creative Teams. *Organization Science*, 31(1), 141–164.
<https://doi.org/10.1287/orsc.2019.1307>
- Greer, L. L., de Jong, B. A., Schouten, M. E., & Dannals, J. (2018). Why and When Hierarchy Impacts Team Effectiveness: A Meta-Analytic Integration. *Journal of Applied Psychology*, 103(6), 591–613. <https://doi.org/10.1037/apl0000291>
- Greer, L. L., & Kleef, G. A. Van. (2010). Equality versus Differentiation: The Effects of Power Dispersion on Group Interaction. *Journal of Applied Psychology*, 95(6), 1032–1044. <https://doi.org/10.1037/a0020373>
- Halevy, N., Chou, E. Y., Galinsky, A. D., & Murnighan, J. K. (2012). When Hierarchy Wins: Evidence From the National Basketball Association. *Social Psychological and Personality Science*, 3(4), 398–406. <https://doi.org/10.1177/1948550611424225>

- Hardy, J. H., Day, E. A., & Steele, L. M. (2019). Interrelationships Among Self-Regulated Learning Processes: Toward a Dynamic Process-Based Model of Self-Regulated Learning. *Journal of Management*, 45(8), 3146–3177. <https://doi.org/10.1177/0149206318780440>
- Harms, R., & Schwery, M. (2020). Lean Startup: Operationalizing Lean Startup Capability and Testing its Performance Implications. *Journal of Small Business Management*, 58(1), 200–223. <https://doi.org/10.1080/00472778.2019.1659677>
- 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. <https://doi.org/10.1016/j.jbusvent.2008.03.002>
- 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. [https://doi.org/10.1016/S0883-9026\(00\)00059-8](https://doi.org/10.1016/S0883-9026(00)00059-8)
- Huff, J. O., Huff, A. S., & Thomas, H. (1992). Strategic Renewal and the Interaction of Cumulative Stress and Inertia. *Strategic Management Journal*, 13(1), 55–75.
- Kaplan, S. (2008). Framing Contests: Strategy Making Under Uncertainty. *Organization Science*, 19(5), 729–752. <https://doi.org/10.1287/orsc.1070.0340>
- Kiss, A. N., & Barr, P. S. (2015). New Venture Strategic Adaptation: The Interplay of Belief Structures and Industry Context. *Strategic Management Journal*, 36(8), 1245–1263. <https://doi.org/10.1002/smj.2285>
- Kraiger, K., Ford, J. K., & Salas, E. (1993). Application of Cognitive, Skill-Based, and Affective Theories of Learning Outcomes to New Methods of Training Evaluation. *Journal of Applied Psychology*, 78(2), 311–328. <https://doi.org/10.1037/0021-9010.78.2.311>
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial Intentions: Applying the Theory of Planned Behaviour. *Entrepreneurship and Regional Development*, 5(4), 315–330. <https://doi.org/10.1080/08985629300000020>
- Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship Theory and Practice*, 29(6), 699–716. <https://doi.org/10.1111/j.1540-6520.2005.00103.x>
- Leatherbee, M., & Katila, R. (2020). The Lean Startup Method: Early-stage Teams and Hypothesis-based Probing of Business Ideas. *Strategic Entrepreneurship Journal*, 14(4), 570–593. <https://doi.org/10.1002/sej.1373>
- Leonard-Barton, D. (1992). Core Capabilities and Core Rigidities. *Strategic Management Journal*, 13(S1), 111–125. <https://doi.org/10.1002/smj.4250131009>
- Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*, 14, 95–112. <http://www.jstor.org.proxy.lib.odu.edu/stable/2486499>
- Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The Self-Reinforcing Nature of Power and Status. *The Academy of Management Annals*, 2(1), 351–398. <https://doi.org/10.1080/19416520802211628>
- Micheli, P., Wilner, S. J. S., Bhatti, S. H., Mura, M., & Beverland, M. B. (2019). Doing Design Thinking: Conceptual Review, Synthesis, and Research Agenda. *Journal of Product Innovation Management*, 36(2), 124–148. <https://doi.org/10.1111/jpim.12466>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons.
- Patzelt, H., Preller, R., & Breugst, N. (2021). Understanding the Life Cycles of Entrepreneurial Teams and Their Ventures: An Agenda for Future Research. *Entrepreneurship Theory and Practice*, 45(5) 1119–1153. <https://doi.org/10.1177/1042258720978386>
- Perry-Smith, J. E., & Mannucci, P. V. (2017). From Creativity to Innovation: The Social

- Network Drivers of the Four Phases of the Idea Journey. *Academy of Management Review*, 42(1), 53–79. <https://doi.org/10.5465/amr.2014.0462>
- Phan, P. H., Wright, M., Ucbasaran, D., & Tan, W. L. (2009). Corporate Entrepreneurship: Current Research and Future Directions. *Journal of Business Venturing*, 24(3), 197–205. <https://doi.org/10.1016/j.jbusvent.2009.01.007>
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*.
- Rigtering, J. P. C. (Coen), Weitzel, G. U. U., & Muehlfeld, K. (Katrin). (2019). Increasing Quantity without compromising Quality: How Managerial Framing affects Intrapreneurship. *Journal of Business Venturing*, 34(2), 224–241. <https://doi.org/10.1016/j.jbusvent.2018.11.002>
- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The Science of Training and Development in Organizations: What Matters in Practice. *Psychological Science in the Public Interest, Supplement*, 13(2), 74–101. <https://doi.org/10.1177/1529100612436661>
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25(1), 217–226. <https://pdfs.semanticscholar.org/e777/71389077a13c680c124a005da85fbb5b3742.pdf>
- Shepherd, D. A., & Gruber, M. (2021). The Lean Startup Framework: Closing the Academic–Practitioner Divide. *Entrepreneurship Theory and Practice*, 45(5), 967–998. <https://doi.org/10.1177/1042258719899415>
- Shepherd, D. A., Souitaris, V., & Gruber, M. (2021). Creating New Ventures: A Review and Research Agenda. *Journal of Management*, 47(1), 11–42. <https://doi.org/10.1177/0149206319900537>
- Shim, S.-H., Livingston, R. W., Phillips, K. W., & Lam, S. S. K. (2021). The Impact of Leader Eye Gaze on Disparity in Member Influence: Implications for Process and Performance in Diverse Groups. *Academy of Management Journal*, 64(6), 1873–1900. <https://doi.org/10.5465/amj.2017.1507>
- Shook, C. L., Priem, R. L., & McGee, J. E. (2003). Venture Creation and the Enterprising Individual: A Review and Synthesis. *Journal of Management*, 29(3), 379–399. [https://doi.org/10.1016/S0149-2063\(03\)00016-3](https://doi.org/10.1016/S0149-2063(03)00016-3)
- Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational Path Dependence: Opening the Black Box. *Academy of Management Review*, 34(4), 689–709.
- Tarakci, M., Greer, L. L., & Groenen, P. J. F. (2016). When Does Power Disparity Help or Hurt Group Performance? *Journal of Applied Psychology*, 101(3), 415–429. <https://doi.org/10.1037/apl0000056>
- Tushman, M. L., Newman, W. H., & Romanelli, E. (1986). Convergence and Upheaval: Managing the Unsteady Pace of Organizational Evolution. *California Management Review*, 29(1), 29–44. <https://doi.org/10.2307/41165225>
- Zimmermann, A., Raisch, S., & Cardinal, L. B. (2018). Managing Persistent Tensions on the Frontline: A Configurational Perspective on Ambidexterity. *Journal of Management Studies*, 55(5), 739–769. <https://doi.org/10.1111/joms.12311>