
Corporate Incubation:

How centralized, employee-focused innovation activities
enhance the hosting companies' innovativeness.



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Dem Fachbereich Rechts- und Wirtschaftswissenschaften
der Technischen Universität Darmstadt

zur Erlangung des akademischen Grades
Doctor rerum politicarum (Dr. rer. pol.) vorgelegte

Dissertation

von

Tobias Kruft, M.Sc.
geboren in Tübingen

Erstgutachter: Prof. Dr. Alexander Kock
Zweitgutachterin: Prof. Dr. Dr. Ruth Stock-Homburg
Darmstadt 2019 (D17)



Kruft, Tobias: *“Corporate Incubation: How centralized, employee-focused innovation activities enhance the hosting companies’ innovativeness.”*

Darmstadt, Technische Universität Darmstadt,

Jahr der Veröffentlichung der Dissertation auf TUprints: 2020

Tag der mündlichen Prüfung: 05.02.2020

Veröffentlicht unter CC BY-SA 4.0 International

<https://creativecommons.org/licenses/>

Abstract

Companies in a wide range of industries increasingly build corporate incubators to meet the growing challenge of exploration and innovation while remaining efficient and productive on existing products. Particularly important for these incubators is ensuring and maintaining the relationship with the hosting company without compromising the incubator's exploration capabilities, which is a particular challenge, owing to the structural separation of the two entities. As a result, incubators try not only to achieve the highest possible benefit for the hosting company through a wide variety of objectives and strategies, but also through a combination of different activities, which has led to a myriad of different incubation concepts. In addition to the promotion of business model innovations and the maximization of revenues, the activities mainly serve the exchange of knowledge and values, as well as the promotion of innovation behavior and the hosting company's innovation culture and climate. All these activities are of the greatest relevance for the success of corporate incubators, but they involve many risks, causing a large number of corporate incubators to shut down or restructure continuously.

In particular, researchers have, thus far, hardly investigated the activities directly aimed at the hosting company, such as knowledge and value exchange, the stimulation of innovation behavior, and the improvement of the innovation culture and climate. Especially lacking is a comprehensive classification of corporate incubators according to their different goals and strategies, such that scholars can compare them from a research perspective. It is not clear how incubators can find and promote ideas and select those with the most potential. In this context, there has been insufficient research into innovation platforms in particular how to stimulate innovation behavior. Moreover, it is not clear how a cultural change in the hosting company could materialize if its supervisors do not support it.

This dissertation contributes to close these research gaps by analyzing corporate incubators' most essential activities from a postpositivist perspective. Using three different data sets on individual, group, and incubator level including platform, longitudinal, multi-level, as well as quantitative and qualitative data, this dissertation contributes to the understanding of, first, what constitutes corporate incubators and their performance, second, how corporate incubators affect employees' motivational processes and their subsequent innovative behavior, third, how corporate incubators can support idea generation and reflective idea selection processes, and fourth, how corporate incubators contribute to a behavioral change of innovation climate. This dissertation's overall findings, moreover, lead to a generic model of centralized incubation. Its effects on various other research areas with similar incubation processes are discussed.

Content Overview

List of Figures.....	vii
List of Tables	viii
1. Introduction.....	1
2. A: Towards a comprehensive categorization of corporate incubators: Evidence from cluster analysis	28
3. B: Substitutes or Complements? The Role of Corporate Incubator Support and Innovation Climate for Innovative Behavior in the Hosting Firm.	55
4. C: Digital Platforms: Toward an Efficient Way to Trigger Employees' Innovative Behavior.....	81
5. D: Persuasion in Corporate Idea Contests: The Moderating Role of Content Scarcity on Decision Making.	111
6. E: Behavioral change of innovation climate: How employee-focused, centralized innovation activities affect organizational innovation climate.....	149
7. Superordinate Discussion	168
References.....	I
Declaration of Authorship	XXVII

Table of Content

List of Figures.....	vii
List of Tables.....	viii
1. Introduction.....	1
1.1. Motivation.....	1
1.2. Research Gap and Research Questions.....	5
1.3. Scope of Corporate Incubator Activities.....	9
1.3.1. Corporate Incubators in the Context of Business Incubation.....	9
1.3.2. Corporate Incubator Activities in the Hosting Company’s Context.....	11
1.4. Alignment of Dissertation.....	18
1.4.1. Contextual Alignment towards Corporate Incubator Activities.....	18
1.4.2. Methodological Alignment towards Paradigmatic Perspectives.....	22
1.4.3. Alignment of Methods and Data.....	26
2. A: Towards a comprehensive categorization of corporate incubators: Evidence from cluster analysis.....	28
2.1. Introduction.....	29
2.2. Conceptual Background.....	31
2.2.1. Towards a Comprehensive Definition of Corporate Incubators.....	31
2.2.2. Previous Categorization Approaches.....	33
2.2.3. Incubator Performance and Success.....	34
2.3. Methodology.....	34
2.4. Results.....	40
2.4.1. Results of Cluster Analysis.....	40
2.4.2. Results of Regression Analyses.....	44
2.5. Discussion.....	45
2.5.1. Transactional Distance Theory.....	46
2.5.2. Explanation of Variable Preselection.....	48
2.5.3. Cluster Interpretation.....	51
2.5.4. Incubator Performance.....	52
2.5.5. Contribution.....	53
2.5.6. Managerial Implications.....	54
2.5.7. Limitations and Further Research.....	54
3. B: Substitutes or Complements? The Role of Corporate Incubator Support and Innovation Climate for Innovative Behavior in the Hosting Firm.....	55

3.1.	Introduction	56
3.2.	Theoretical Investigation	57
3.2.1.	Corporate Incubators	57
3.2.2.	Shared and Individual Perceptions of Innovation Climate.....	58
3.3.	Hypothesis Development.....	59
3.3.1.	The Role of Shared Perceptions of Innovation Climate.....	61
3.3.2.	The Role of Individual Perceptions of Innovation Climate	63
3.3.3.	The Role of Corporate Incubators	64
3.4.	Method.....	67
3.4.1.	Sample.....	67
3.4.2.	Measures.....	67
3.4.3.	Common Method Bias	71
3.5.	Results	72
3.6.	Discussion.....	75
3.6.1.	Theoretical Implications.....	76
3.6.2.	Managerial Implications.....	77
3.6.3.	Limitations and Further Research	78
3.7.	Appendix	79
4.	C: Digital Platforms: Toward an Efficient Way to Trigger Employees' Innovative Behavior.....	81
4.1.	Introduction	82
4.2.	Theoretical Background	84
4.2.1.	Digital Platforms, Innovative Work Behavior, and Innovation Climate.....	84
4.2.2.	Expectancy Theory.....	86
4.2.3.	Toward a Comprehensive Set of Motives for Innovative Behavior.....	88
4.3.	Hypothesis Development.....	92
4.4.	Method.....	97
4.4.1.	Sample and Case Company.....	97
4.4.2.	Measures.....	98
4.4.3.	Common Method Bias	101
4.5.	Results	102
4.5.1.	Robustness Tests	106
4.6.	Discussion.....	106
4.6.1.	Implications for Theory.....	107

4.6.2.	Implications for Practice	108
4.6.3.	Limitations and Further Research	109
5.	D: Persuasion in Corporate Idea Contests: The Moderating Role of Content Scarcity on Decision Making.	111
5.1.	Introduction	112
5.2.	Theoretical Background	115
5.2.1.	Corporate Online Ideation Platforms	115
5.2.2.	Decision Making Theories	116
5.2.3.	Persuasiveness of Issue-Irrelevant Information in Online Ideation	117
5.2.4.	Literature Review on Biases in Corporate Idea Selection.....	119
5.3.	Research Model and Hypothesis Development.....	121
5.3.1.	The Persuasive Role of the Ideator	122
5.3.2.	The Persuasive Role of the Message.....	122
5.3.3.	The Persuasive Role of the Community.....	124
5.3.4.	The Moderating Role of Content Scarcity	125
5.4.	Methodology.....	126
5.4.1.	Sample.....	126
5.4.2.	Measures.....	127
5.4.3.	Estimation Strategy	130
5.5.	Results	133
5.5.1.	Robustness Tests	138
5.6.	Discussion.....	139
5.6.1.	Effects of the Ideator Dimension	140
5.6.2.	Effects of the Message Dimension.....	141
5.6.3.	Effects of the Community Dimension.....	142
5.6.4.	Implications for Theory.....	143
5.6.5.	Implications for Practice	144
5.6.6.	Limitations and further research	147
6.	E: Behavioral change of innovation climate: How employee-focused, centralized innovation activities affect organizational innovation climate.....	149
6.1.	Introduction	150
6.2.	Theoretical background	152
6.2.1.	Ontological perspectives of climate and culture	152
6.2.2.	Behavioral change of innovation climate.....	153
6.2.3.	Centralized innovation activities.....	154

6.3.	Conceptual Model and Hypothesis Development	155
6.3.1.	Step 1: Mechanisms to affect the participant	156
6.3.2.	Step 2: Mechanisms to affect the innovation climate	157
6.4.	Method.....	158
6.4.1.	Sample.....	158
6.4.2.	Measures.....	160
6.4.3.	Statistical analyses.....	162
6.5.	Results	163
6.6.	Discussion.....	165
6.6.1.	Implications for theory	165
6.6.2.	Implications for practice.....	166
6.6.3.	Limitations and further research	166
7.	Superordinate Discussion	168
7.1.	Implications for Research.....	168
7.2.	Implications for Practice.....	171
7.3.	Future Research	174
7.3.1.	Toward Further Management Research Topics	174
7.3.2.	Toward a Theory of Centralized Incubation	176
	References.....	I
	Declaration of Authorship	XXVII

List of Figures

Figure 1: Corporate incubators' positioning in the context of other business incubators	11
Figure 2: Corporate incubator's scope of activities	12
Figure 3: Dissertation's scope of research	20
Figure 4: Overview of research articles	22
Figure 5: Results of hierarchical cluster analyses.	41
Figure 6: Perspectives of transactional distance related to objectives and strategies	47
Figure 7: Research model of article B.	61
Figure 8: The interaction of shared perceptions of innovation climate	74
Figure 9: The interaction of individual perceptions of innovation climate	74
Figure 10: The conceptual model	92
Figure 11: Information and content scarcity in the process of decision making	118
Figure 12: Research model of article D	121
Figure 13: Simple Slopes and Z-Statistics (article D)	137
Figure 14: Morphogenetic cycle between t_0 and t_1 ,	153
Figure 15: Conceptual model	155
Figure 16: Generic model of centralized incubation	177

List of Tables

Table 1: Promotion process depending on innovation direction and equity involvement	15
Table 2: Research articles' contextual and methodological alignment	19
Table 3: Overview of paradigmatic perspectives	23
Table 4: Categorization constructs and measures.....	35
Table 5: Incubator Study overview.	37
Table 6: Descriptive statistics of research article A.	39
Table 7: Results of bicluster analysis.	40
Table 8: Clusters' regression model of performance.....	44
Table 9: Variables' regression model of performance.	45
Table 10: Dimensions of innovation climate.....	60
Table 11: Innovator Study (first wave) overview.....	68
Table 12: Construct measures of Corporate Incubator Influence.....	70
Table 13: Individual level correlations of research article B.....	71
Table 14: Regression models of innovative work behavior (article B).....	73
Table 15: Construct measures and sources of research article B.	79
Table 16: Desires that affect innovative behavior	90
Table 17: Study overview of research article C	98
Table 18: The results of valences' (V) and expectancy's exploratory factor analysis	100
Table 19: Descriptive statistics of research article C	101
Table 20: Regression results of motivational forces	103
Table 21: Regression results of innovative work behavior	104
Table 22: Results of the bootstrapped mediation analysis	105
Table 23: Results of bootstrapped moderated mediation analysis	105
Table 24: Empirical studies on biases in corporate idea selection	120
Table 25: Definition and measurement of research article D's variables.....	131
Table 26: Descriptive statistics of research article D	134
Table 27: Probit regression models predicting idea selection (article D).....	135
Table 28: Study overview of research article E.....	160
Table 29: Descriptive statistics of research article E.....	162
Table 30: Regression models of participation (1 st stages) and climate (2 nd stages)	164

Chapter 1

Introduction

1.1. Motivation

Established companies increasingly face challenges to expand their innovative power and align it to the increasingly ambidextrous requirements. These challenges result from the companies' need to improve their existing products' quality while maintaining attractive prices and the simultaneous need to continuously explore and innovate in order to be adequately prepared for the future (Raisch et al. 2009). In order to meet this challenge by means of structural measures, many medium-sized and well established companies have set up corporate incubators in recent years not only as business units to accelerate new product development in a structurally ambidextrous way, but also to transform their corporate culture towards greater agility and innovation (Leifer, Colarelli O'Connor, and Rice 1993; Dushnitsky and Lenox 2005). This trend, thereby, goes far beyond high-tech companies and has gained importance worldwide and across industries. For example, companies from health, manufacturing, consumer goods, insurance, banking, and entertainment sectors, such as Merck, Daimler, Coca-Cola, Allianz, HSBC, and Disney, operate corporate incubators and continuously strive to improve them, since researchers has not yet found a universal recipe for corporate incubator success that meet all demands (Kohler 2016). In contrast to sequentially and contextually ambidextrous measures, structural measures, such as corporate incubators, do not initially influence the company's day-to-day business operations and at the same time represent a quite publicly effective instrument to improve the company's reputation (O'Reilly and Tushman 2004; Barone and Jewell 2013). However, the resulting structural independence does not protect corporate incubators from, or may even increase the risk of, failure on a regular basis up to the point of shutting down incubator programs, as far too many aspects are still unknown or misunderstood (Gibson and Birkinshaw 2004; Dutt et al. 2016).

In particular, corporate incubators must overcome five challenges which potentially inhibits the successful work of corporate incubators: first, the alignment of the incubator with the hosting company; second, the selection and execution of appropriate activities to best achieve the goals set and, third, the establishment of knowledge transfer from the new businesses to the hosting company, not least to, fourth, motivate employees to implement innovative behavior. Fifth, the incubator must then select suitable ideas from the resulting innovation behavior so as

to, sixth, be able to improve the hosting company's overall innovativeness in the long term by means of the promoted innovation activities.

First, a particular challenge of corporate incubators is ensuring and maintaining the relationship with their hosting company. Unlike other business incubators, which, for example, are government funded or operated by private investors (Grimaldi and Grandi 2005), corporate incubators do not only exchange financial resources between the funded new businesses and the operating unit in return for the operating unit's support. Instead, the hosting company seeks to obtain maximum benefits from corporate incubators by exchanging knowledge, skills, and values (Gassmann and Becker 2006). This additional exchange, which goes beyond mere financial exchange, is characteristic of all corporate incubators, even if they may differ more strongly from each other through their very own, specific concepts. However, this additional exchange makes it even more difficult for corporate incubators to be successful, since, compared to other business incubators, not only new businesses need to be incubated, but also the hosting company (Kötting 2019). For this reason, many companies host more than one corporate incubator to share roles, responsibilities, and risks – for example, a corporate venture capital unit for external incubation and an innovation lab for the internal. However, this approach may entail further challenges for exchange and coordination between the incubators, as they ideally should complement and, most importantly, benefit from each other's perspective and knowledge.

Due to the aforementioned challenge, a multitude of different incubation concepts with disparate sets of objectives and strategies have emerged and they all differ from each other in various dimensions (Miles and Covin 2002; Hill and Birkinshaw 2008; Weiblen and Chesbrough 2015; Kohler 2016; Schöll and Hirte 2018), which results in the second challenge: Due to different objectives and strategies, corporate incubators carry out numerous different activities to transfer external innovation potential to the hosting company, to stimulate internal potential from within the hosting company, and to further promote internal innovation potential within the incubator in order to maximize the exchange's benefits with the hosting company (Blindenbach-Driessen and Van Den Ende 2014; Kötting 2019). This group of very different incubation concepts and activities is not only very complex and difficult to manage from a practical perspective, since companies can only transfer lessons learned from other incubators to a very limited extent; it is also difficult to reliably explore from a research perspective (Gassmann and Becker 2006; Weiblen and Chesbrough 2015; Kohler 2016; Makarevich 2017).

Particularly critical in this regard are the corporate incubators' inward-facing activities, which focus on, first, transferring knowledge to the hosting company, second, motivating employees and stimulating their innovative behavior, third, selecting and promoting the resulting promising ideas, and fourth, generally contributing to a better working environment in the hosting company.

The third challenge, knowledge transfer to the hosting company, is particularly demanding, because the most valuable knowledge is often intangible (Grant 1996), which is why it cannot simply be stored, but has to be transferred from employee to employee via learning processes (Honig 2001; Lane, Salk, and Lyles 2001; Edmondson 2002). If, however, an entire organization needs to learn, the organization must overcome a large purported transactional distance (Moore 1993), since management must integrate many employees into this learning process, such that a face-to-face exchange for all is only possible with great effort over a long period of time (Gassmann and Becker 2006). In order to establish a continuous learning process, corporate incubators need to set up and maintain structures and processes that are capable of reaching all employees and transferring general knowledge relevant to all employees and specific knowledge relevant to certain employees only (Easterby-Smith, Lyles, and Tsang 2008; Ahuja and Novelli 2011). Setting up these structures, first, requires the right corporate incubator's objectives and strategies and, subsequently, extensive attention to detail, whereby the risk of failure is not negligible (Weiblen and Chesbrough 2015; Kanbach and Stubner 2016; Schöll and Hirte 2018; Selig, Gasser, and Baltes 2018). In order to facilitate general knowledge transfer, corporate incubators may establish digital learning platforms, which any employee can access easily (Olleros 2008; De Reuver, Sørensen, and Basole 2018), that are also resource-friendly and convenient to operate (Sedera et al. 2016). However, it is then all the more difficult to motivate employees to actually use this platform, as this is usually not part of their job description (Chatman 1989).

Fourth, motivating employees and stimulating their innovative behavior is another challenge corporate incubators have to overcome, since successful innovations typically follow invisible development paths and require individual promoters and a big portion of serendipity (Rost, Hölzle, and Gemünden 2007; Anthony, Duncan, and Siren 2014). Since firms increasingly encounter an uncertain, unstable, and turbulent economic environment, both company and employee innovativeness have become crucial for organizational success (West 2002; Ramamoorthy et al. 2005) by guaranteeing a company's sustainable competitive advantage

(Leifer, Colarelli O'Connor, and Rice 1993; Engelen et al. 2017; Shanker et al. 2017). Corporate incubators provide employees the opportunity to innovate independently from company constraints and to also profit from the entrepreneurial spirit of fostered external start-ups (Ford, Garnsey, and Probert 2010; Weiblen and Chesbrough 2015; Mian, Lamine, and Fayolle 2016). However, merely providing an opportunity is usually not enough to stimulate innovative behavior. Incubator activities must address employees' values (Klein and Sorra 1996) and fulfill their inherent desires (Reiss 2004) to be successful. Since each employee has a different value system and distinct desires, the challenges for incubators continue to rise.

If corporate incubators have managed to encourage employees adopt innovative behavior, it is necessary to collect and enrich the resulting ideas, and then to select the most promising ones for promotion in the incubator, which imposes the fifth challenge. As long as an ideation platform is available, the collection and refinement of ideas is, thereby, less problematic than the actual selection of ideas. When employees submit many ideas, which easily happens in large companies, the variety of ideas from which to select soon overwhelms the evaluators – a state known as crowding (Piezunka and Dahlander 2015). Without the right idea selection, however, the entire ideation and promotion process of the corporate incubator would suffer a major loss of potential. In order to ensure the selection of ideas with the greatest potential, the evaluators need to make reflective instead of intuitive decisions. Decisive for whether a reflective process is initiated at all within evaluators is, on the one hand, its cognitive capacity, such as motivation and expertise (Reitzig and Sorenson 2013; Criscuolo et al. 2017), as well as cognitive strain, such as the time available for evaluation (Piezunka and Dahlander 2015; Criscuolo et al. 2017). On the other hand, also the available information about the ideas plays a significant role (Di Gangi, Wasko, and Hooker 2010; Evans 2011; Young et al. 2012; Beretta 2019). However, especially in innovation processes, time plays a central role, which is why employees rarely invest enough effort in their ideas' detailed and understandable description, while evaluators usually do not have enough time and are unable to provide the necessary expertise to understand the entire spectrum of ideas (Piezunka and Dahlander 2015; Criscuolo et al. 2017). Thus, even when selecting ideas, the corporate incubator faces extraordinary challenges, which significantly influence the success of the subsequently promoted ideas (Kohler 2016). A more comprehensive understanding of the interrelationships involved in the selection of ideas is, therefore, of utmost importance.

Sixth, all inward-facing activities that help transfer knowledge, initiate learning processes, motivate employees, stimulate their innovative behavior, and select the most promising ideas, mainly serve two purposes: a successful business model development within the incubator and an effective increase of the hosting company's overall innovativeness. For both purposes, the hosting company's innovation climate plays a decisive role, since it can essentially nip any innovation in the bud or directly foster even the weakest ideas during their development (Amabile et al. 1996; Oldham and Cummings 1996; Büschgens, Bausch, and Balkin 2013; Hogan and Coote 2014; Zhu, Gardner, and Chen 2018). The biggest inward-facing challenge is, therefore, presumably improving the innovation climate of the hosting company's business units', as this requires a shift in the mindset of each employee, which is only achievable over a long period of time, if at all (Archer 1995; Magadley and Birdi 2009).

1.2. Research Gap and Research Questions

In this section, four overarching research questions are derived from different research directions' research gaps and the aforementioned six challenges, corporate incubators have to overcome. From these overarching research questions, the specific research questions for each research article are then derived in Section 1.4.

While scholars have studied business incubators intensively in literature, corporate incubator literature is still rare. Yet, corporate incubators form part of many typologies of business incubators and the applicable business incubator literature might also explain the support of new business in corporate incubators. However, literature on the outside-in processes of corporate incubators (Weiblen and Chesbrough 2015) still provides only a limited and high-level understanding. Researchers have studied general mechanisms about the resource flow and knowledge exchange between a corporate incubator and its hosting company. For example, Gassmann and Becker (2006) proposed an exchange of resources, knowledge, intellectual property, and services not only from the incubator to the new venture, but also to the hosting company. Especially the differentiation and application of several knowledge modes help manage knowledge flows effectively. In another study, corporate venture capital has proved to foster the investing company's innovation rate in weak intellectual property regimes if their absorptive capacity is high (Dushnitsky and Lenox 2005), which implies the importance of knowledge transfer to the incumbent. Furthermore, Weiblen and Chesbrough (2015) proposed basic mechanisms and best practice of how corporate incubators can drive product and business model innovation. Overall, however, literature that empirically, especially quantitatively,

investigates the influences and underlying mechanisms of corporate incubators on individuals in the hosting company, is scarce.

Knowledge exchange and learning processes between the hosting company, incubator, and new businesses strongly depend on the incubator's objectives and resulting strategies (Hill and Birkinshaw 2008; Kötting 2019). In order to distinguish between various types of corporate incubators, which arise in practice and, as previously outlined in the first two challenges, differ significantly from one another in terms of their objectives and strategies, it is first necessary to categorize corporate incubators. Several suggestions exist in literature (Weiblen and Chesbrough 2015; Kanbach and Stubner 2016; Schöll and Hirte 2018; Selig, Gasser, and Baltes 2018). However, scholars have not yet categorized and tested corporate incubator types comprehensively; instead, current research justifies its approaches more conceptually than empirically, in which academics only take a few distinguishing aspects into account (Kötting 2019). Moreover, scholars have also investigated the objectives' and strategies' influence on corporate incubators' performance only on the basis of a small number of criteria (Becker and Gassmann 2006a; Hill and Birkinshaw 2008). The first overarching research question is therefore:

RQ1: What constitutes corporate incubators and their performance?

Researchers have already examined the employees' motivation and the promotion of their innovative behavior several times in the literature (Scott and Bruce 1994; Janssen 2001; Birdi, Leach, and Magadley 2016), which could already help overcome the fourth corporate incubator challenge. In particular, the researchers investigated, on an individual level, aspects like propensity to innovate (Bunce and West 1995), mastery orientation (Janssen and van Yperen 2004), intrinsic interest (Yuan and Woodman 2010), problem-solving style (Scott and Bruce 1994), and problem ownership (Dorenbosch, Engen, and Verhagen 2005). However, the researchers also examined certain organizational factors, such as supervisory behavior (Scott and Bruce 1994; Tierney, Farmer, and Graen 1999; Mumford et al. 2002), transformational leadership and leader-member exchange (Basu and Green 1997; Yuan and Woodman 2010; Pieterse et al. 2012; Sethibe and Steyn 2017), as well as support for innovation (Chandler, Keller, and Lyon 2000; Engelen et al. 2017), job autonomy (Axtell et al. 2000), and job challenge (De Jong and Kemp 2003). However, the corporate support systems' impact on innovative work behavior has only rarely been investigated (Engelen et al. 2017). Specifically,

there is no evidence if corporate incubators can increase innovative behavior and which mechanisms might play a role. According to Kolympiris and Klein (2017), university incubators can even worsen the quality of a university's innovation activities, since incubators compete with other innovation-related activities and resources of the university. The incubator's impact on the hosting unit's innovation behavior is, therefore, not clear in the literature. Likewise, for digital platforms, which corporate incubators can use to reach employees effectively and efficiently, evidence on the innovative behavior's effects is scarce. Although there has been a considerable amount of research on how digital platforms can stimulate innovation, scholars have mainly considered this effect at the institutional level instead of the individual level (Rai and Tang 2010; Chakravarty and Grewal 2013; Nambisan 2013; Nylén and Holmström 2015; Sedera et al. 2016). Hence, the second overarching research question is:

RQ2: How do corporate incubators affect employees' innovative behavior?

While researchers have already examined the influence of the innovation climate on innovation behavior to a certain extent (Amabile 1988; Scott and Bruce 1994), they have not yet examined how a social system, such as innovation climate, combined with a structural system, such as a corporate incubator, affects innovative behavior. Depending on the innovation climate's characteristics in certain areas of an organization, the incubator initiatives may have different effects, which could be the reasons for the sixth corporate incubator challenge, namely, how to improve the hosting company's overall innovativeness. One can argue that corporate incubators complement innovation climate in that they enhance the innovation climate's positive effect on innovative work behavior and vice versa (Eisenberger et al. 1986; Amabile et al. 1996; Armeli et al. 1998). However, corporate incubators may also serve as a substitute for innovation climate, such that the benefits of incubators are higher if the innovation climate is not yet well established. A more differentiated perspective on innovation climate might be an approach to resolve this contradiction. Usually, academics consider either the individual perception in terms of psychological climate or the shared perception of organizational climate (Schneider and Bartlett 1968; Glick 1985; Baltes, Zhdanova, and Parker 2009) in research models, although these perceptions indicate two different aspects and might, therefore, complement each other (Denison 1996). Furthermore, while the literature on climate, innovation, and creativity in general is huge (Abbey and Dickson 1983; Amabile 1988; Damanpour 1991; Janssen 2001; Büschgens, Bausch, and Balkin 2013), there is still some

potential for a holistic and operationalized view of the innovation climate that corresponds to the current state of research. Likewise, how incubators can influence innovation climate is also not clear in the literature. The Lewinian theory's prevailing perspective in organizational climate literature calls for a strict top-down influence of the innovation climate via the respective departments' supervisors (Lewin 1951; Denison 1996). The supervisors may play an important role in influencing the innovation climate (Zhang and Bartol 2010), but with the prevailing perspective it is theoretically not possible for employees to exert a bottom-up influence on the climate bottom-up in which they work (Denison 1996). However, these mechanisms seem to occur successfully in practice, arising from corporate incubators without research being able to explain them from a theoretical point of view which leads to the third overarching research question:

RQ3: How do corporate incubators impact innovation climate and how do they affect the relationship between innovation climate and innovative behavior?

In order to reduce innovation barriers, due to easily accessible innovation processes and structures, organizations increasingly try to leverage individual creativity (challenge four) and to promote knowledge exchange (challenge three) by implementing online ideation platforms (Poetz and Schreier 2012), which can function as a reliable supplier of innovative ideas from a corporate incubator's perspective. Literature on ideation platforms has recently gained much attention. Academics have analyzed several different kinds of ideation platforms and processes to gain a better understanding of the antecedents of idea quality, quantity, and selection. Scholars have studied antecedents on individual (Füller, Hutter, and Faullant 2011; Bayus 2013) and idea level (Beretta 2015; Schemmann et al. 2016), as well as organizational and campaign level (e.g., Piezunka and Dahlander 2015). While many studies have investigated external crowdsourcing of ideas (e.g., Schemmann et al. 2016; Gatzweiler, Blazevic, and Piller 2017), relatively few studies have investigated corporate online ideation platforms that tap into the creativity and knowledge of employees in closed corporate settings (e.g., Beretta, Björk, and Magnusson 2017). From an evaluator's perspective, research increasingly focuses on which factors influence evaluators in their decision-making and whether evaluators, consequently, tend to make intuitive or reflective decisions, which may explain, why the sixth challenge of corporate incubators, choosing the right ideas, could be such a difficult challenge. Reitzig and Sorenson (2013) find that evaluators prefer submissions from inside their own unit, due to motivational reasons. Piezunka and Dahlander (2015) argue that too many submitted

ideas narrow the attention of organizations and for this reason evaluators are more likely to pay attention to submissions that they find more familiar in order to reduce the idea selection workload. Criscuolo et al.'s (2017) finding show similar results. Here, the evaluators' workload reduces the preference for novel ideas. One should avoid such biases wherever possible, such that only the ideas with the greatest objective potential are selected. However, it is still difficult to determine what influences decision-making towards intuitive and reflective decisions in idea competitions. The fourth overarching research question, therefore, arises:

RQ4: Under which circumstances do evaluators in corporate idea contests make intuitive or reflective decisions?

1.3. Scope of Corporate Incubator Activities

As the research questions have been identified, it is important to first build an understanding of what activities corporate incubators can involve and how corporate incubators may differ from business incubators.

1.3.1. Corporate Incubators in the Context of Business Incubation

Business incubators generally intend to assist emerging ventures by helping them realize their vision to survive, scale up, and grow, and researchers term them with names, such as technology incubators, science/research/technology parks, innovation/technology centers, and business/seed accelerators (Grimaldi and Grandi 2005; Mian, Lamine, and Fayolle 2016). Although the evolution of business incubators first occurred in the USA, incubation roots etymologically in Europe. In ancient times, Roman and Greek temples served as locations for a practice called *incubatio* (lat: breeding; lie on sth.), during which people lay down on the fresh hides of sacrificed animals in order to receive visionary dreams (Aernoudt 2004). Even if the primary use of this practice was to gain insights into how to overcome diseases and survive, already in ancient time people tried to anticipate future developments with this practice. For certain fields of application, this practice's medical focus remained the same until today, since the term "incubator" nowadays also refers to facilities in which premature infants survive and grow in order to develop successfully in later years (Smilor and Gill 1986).

Business incubators became widespread in the 1980s, primarily to provide office space for many emerging ventures under the same roof (Bruneel et al. 2012). Later, they additionally provided services to start-ups in order to reduce their costs for new ventures and provide local visibility for emerging business (Grimaldi and Grandi 2005). Since then, researchers have

observed a constant, worldwide growth of business incubators (Gassmann and Becker 2006; Mian, Lamine, and Fayolle 2016), but due to a distinct increase of high-tech and knowledge-based companies with fast and diverse business models, business incubators have adapted their concepts. Meanwhile, emerging private incubators focus on shortening clients' time to market, offering high-quality and specialised services and bringing emerging businesses and big players into a common network (Grimaldi and Grandi 2005). With the rise of corporate incubators as a subset of business incubators and the growing importance of intrapreneurship (Antoncic and Hisrich 2001), the focus of the incubators' objectives extended to a more internal perspective. Besides independent start-ups, corporate incubators also nurture the growth of internal corporate ventures (Gassmann and Becker 2006). Therefore, additional objectives like improving the hosting company's own innovation climate gain increased access to the center stage. These incubators have only recently emerged as a prominent organisational form of research and development management (Hansen, Berger, and Nohria 2000).

As a result of the manifold characteristics that business incubators developed over time (Heinrichs, Tischler, and Kiel 2016), one can find many typology approaches in literature (Allen and McCluskey 1990; Grimaldi and Grandi 2005; Gassmann and Becker 2006; Pauwels et al. 2016). Typology criteria are, for example, the business model, the owning institution, the strategic goals, and the development phase of the new ventures that the business incubator fosters (Heinrichs, Tischler, and Kiel 2016). In order to distinguish corporate incubators from other business incubators, the typology by Gassmann and Becker (2006) is an appropriate option (see Figure 1: p.11).

According to this typology, Gassmann and Becker (2006) further distinguish corporate incubators from incubators that universities, the government, or independent individuals set up (Grimaldi and Grandi 2005). While non-profit incubators set up with public funds rather aim for encouraging technology transfer and entrepreneurial initiatives, privately funded incubators, instead, aim for promoting profit maximization, the emergence of new independent business units, and the commercialization of radical technologies (Bøllingtoft and Ulhøi 2005; Grimaldi and Grandi 2005; Aerts, Matthyssens, and Vandenbempt 2007; Ford, Garnsey, and Probert 2010; Heinrichs, Tischler, and Kiel 2016). In the context of this dissertation, corporate incubators encompass for-profit facilities with a focus on their hosting company's technology and innovation development. "The object of support [thereby] can be external or internal start-ups or entrepreneurs with a promising business idea or technology" (Gassmann and Becker

2006: 21). The further distinction between different types of corporate incubators is widely heterogeneous in the literature and requires a more intensive investigation, which is carried out in chapter 2.2 (p.31).

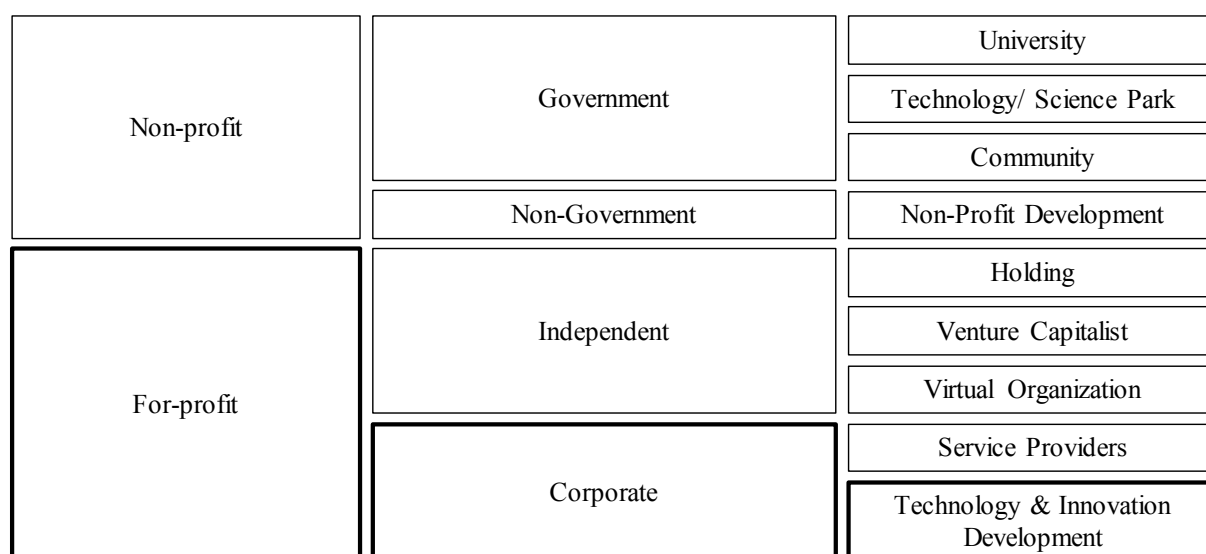


Figure 1: Corporate incubators' positioning in the context of other business incubators (Own figure based on Gassmann and Becker 2006)

1.3.2. Corporate Incubator Activities in the Hosting Company's Context

In order to ensure effective support for the development of the hosting company's technology base and innovation capabilities, corporate incubators use a multitude of different activities (see Figure 2: p.12), which result from corporate incubator research (Gassmann and Becker 2006; Hill and Birkinshaw 2008; Weiblen and Chesbrough 2015; Kanbach and Stubner 2016; Hirte 2018; Selig, Gasser, and Baltes 2018; Kötting 2019), and which one can subdivide into eight groups. First, incubators interact with the hosting company's top management to align the incubator's goals and strategies with the company's vision and mission. Second, incubators can stimulate the innovative work behavior of all employees in the company and improve the hosting company's innovation climate through appropriate processes and structures. Third, incubators collect the ideas and innovation projects resulting from the stimulated innovative work behavior via idea platforms and trigger further improvement processes through an intensive exchange amongst employees on these platforms. Fourth, incubators also seek out suitable start-ups and entrepreneurs outside of the hosting company in order to promote them in the incubator and benefit from the initiated exchange. Fifth, selected ideas, innovation projects, start-ups, and entrepreneurs then usually move into the incubator and receive support during the promotion period; in the incubator, they undergo dedicated promotion according to their origin (internal or external) and their objective (integration or spin-off). After the promotion phase, the new businesses, sixth, integrate or reintegrate into the hosting company

or evolve outside of the company's boundaries with more or less interaction with the hosting company. In particular, seventh, exerting influence on the environment's social and entrepreneurial aspects can improve corporate awareness and reputation.

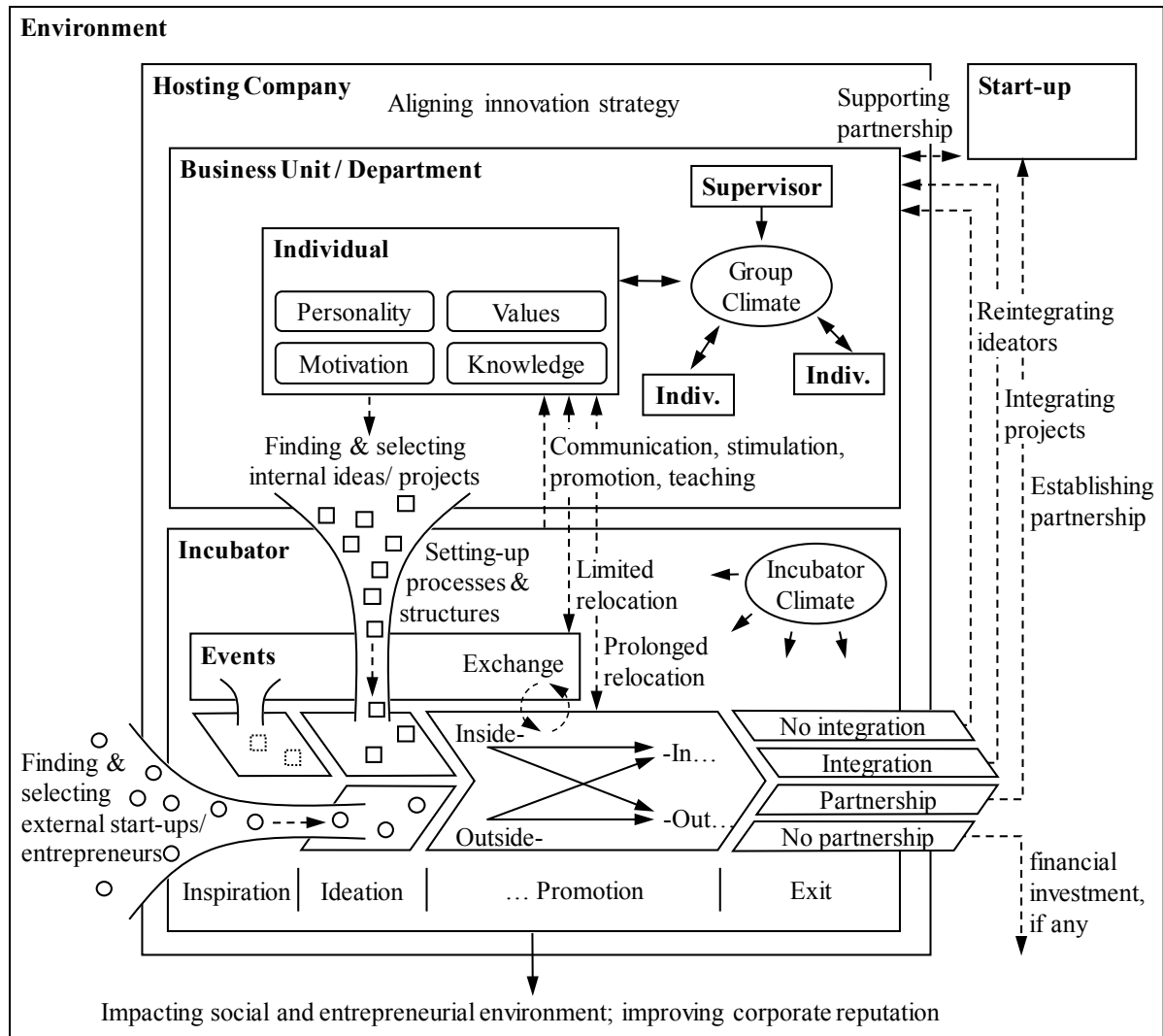


Figure 2: Corporate incubator's scope of activities

One important aspect for the effective operation of corporate incubators is their alignment with the hosting company's innovation strategy (Salomo, Talke, and Strecker 2008; Hartmann 2014). On the one hand, the corporate incubator must promote innovations that fit the company's goals, which means that the search for new businesses, the selection, and the type of support are aligned such that the successful new businesses have a maximum benefit for the hosting company (Shankar and Shepherd 2018). On the other hand, alignment with the hosting company's innovation strategy is important, as it defines the corporate incubator's ambidextrous role (O'Reilly and Tushman 2004; Raisch et al. 2009). Depending on the extent to which the corporate incubator can perform exploration activities independently, the

incubator has to arrange its scope of exchange with top management and middle management to successfully align its activities with the hosting company's needs (Balogun 2007; Cao, Gedajlovic, and Zhang 2009; Blindenbach-Driessen and Van Den Ende 2014).

To successfully promote innovations from within the company in the incubator, the incubator has to perform a series of activities in the first place. First and foremost, it has to ensure that employees are willing to share their ideas. This requires a proper innovation climate in which employees perceive their colleagues' behaviors and values to allow for new ideas, changes, and mistakes (Abbey and Dickson 1983; Ekvall 1996; Baer and Frese 2003). The incubator then has to stimulate the employees' motivation in order for the employees to actually become innovative. Here the employees' personality, values, and existing knowledge play a decisive role (Woodman, Sawyer, and Griffin 1993). A method to improve the employees' innovative work behavior is digital platforms where they can learn and exchange (Leimeister et al. 2009; Haller, Bullinger, and Möslein 2011; Beretta 2019). Another method to improve the innovation climate and stimulate the innovative work behavior is events, such as talk sessions, failure culture workshops, and method trainings in the incubator, where participants absorb new knowledge and adapt to values they are exposed to (Bandura 1962; Bandura 1977; Shalley and Perry-Smith 2001; Zhou 2003; Kosonen et al. 2014). Thereby, the incubator can also consciously promote an exchange with new businesses that are already in the incubator, which represent the incubator's innovative working climate and can stimulate new ideas. Particularly during more intensive events, such as think tanks lasting several weeks, the participants deliberately develop ideas that can mature into new businesses in the first phases of the incubation process.

In order to find employees' emerging ideas at their workplace, incubators use various structures and processes, which they specifically set up for this purpose. An example is corporate idea contests where management invites employees to submit and improve their ideas (Björk and Magnusson 2009; Beretta 2019). In contrast to externally oriented crowdsourcing contests (Chesbrough 2003; Surowiecki 2004), internal ideation contests mainly promote ideas that are novel and could reveal internal competencies, which is why these ideation contests may not take place openly for reasons of secrecy (Poetz and Schreier 2012). Given that employees submitted ideas, it is necessary to meet two important conditions in order for idea contest to successfully identify ideas with high potential for further promotion in the incubator. First, it is necessary to reveal the idea's potential in the course of the idea contest. Therefore, an

interactive and continuous exchange with other ideators is of great importance, since knowledge building can improve the submitted ideas and enables a valid evaluation of each idea (Bandura 1963; Leonard-Barton 1985; Frey, Lüthje, and Haag 2011). Second, it is necessary to ensure that the evaluators select the ideas that actually have the greatest potential. Especially the idea selection is a major challenge, as many factors like the evaluators' lack of motivation (Reitzig and Sorenson 2013), time (Piezunka and Dahlander 2015; Criscuolo et al. 2017), and expertise (Criscuolo et al. 2017) can negatively affect it. The less potential the selected ideas have, the more limited the incubator is in its promotion possibilities. The idea selection process is, therefore, crucially important for the incubator's effectiveness.

Corporate incubators use their knowledge of market trends and new technologies to successfully find external new business through open calls and scouting processes (Pauwels et al. 2016; Köttig 2019). In order to ensure a successful exchange with the hosting company during the subsequent promotion phase, the corporate incubator may already involve the hosting company's business units in this stage's decisions (Ford, Garnsey, and Probert 2010; Chen and Kannan-Narasimhan 2015). One can basically use two types of selection, each with two variants, to select external new businesses (Bergek and Norrman 2008). The first selection type consists of an ex-ante attempt to identify and select only potentially successful new businesses (Hackett and Dilts 2004), whereby the evaluation of the potential performance can either base on the idea or the entrepreneurs. Evaluators also use the former variant frequently in the selection of corporate idea contests in an attempt to select the potentially best ideas. If the focus is on entrepreneurs, the evaluators will only evaluate the potential and skills of those who will lead the new business to success are evaluated. The second selection type has much more flexible admission criteria. The aim here is for the market to take over the selection process. Accordingly, significantly more new businesses gain admission into the first stage and sorting out follows over time. Here, too, the incubator can focus on composing the portfolio from potential ideas or capable entrepreneurs (Clarysse et al. 2005; Bergek and Norrman 2008).

The selected ideas usually move into the incubator over a prolonged period of time and management promotes them intensively. In this promotion phase, the incubator supports each new business according to the outcomes that the promotion needs to achieve. Whether the new business originates from the hosting company or from outside and whether the goal is to integrate the new business into the hosting company or to promote it as a legally independent structure outside of the company determine the outcome (Miles and Covin 2002; Hill and

Birkinshaw 2008; Weiblen and Chesbrough 2015). This distinction results in four possible paths of promotion that are conceivable for a new business: inside-in, inside-out, outside-in, and outside-out (see Table 1). Thereby, the incubator's financial involvement has a major influence on the type of support, as this especially determines the extent of co-determination the incubator acquires and how much responsibility the new business still has to bear itself (Weiblen and Chesbrough 2015). While the inside-in process promotes internal new businesses outside of the hosting company's potentially obstructive influence with the goal of reintegrating them (Selig, Gasser, and Baltes 2018), the inside-out process serves mainly to spin off internal new businesses from the company that do not match the hosting company's core strategy (Roberts 1980; Clarysse et al. 2005; Grimaldi and Grandi 2005). The outside-in and outside-out processes, in contrast, help integrate knowledge from external new businesses into the hosting company. While the outside-in process primarily integrates the entire new business or a considerable part, the outside-out process aims at a mostly temporary intensive exchange with the incubator (Narayanan, Yang, and Zahra 2009; Weiblen and Chesbrough 2015).

Table 1: Promotion process depending on innovation direction and equity involvement (supplemented based on Weiblen and Chesbrough 2015)

		Direction of innovation flow			
		<i>Inside-in</i>	<i>Inside-out</i>	<i>Outside-in</i>	<i>Outside-out</i>
Equity involvement	<i>No</i>	Temporarily exempt internal innovations from organizational obligations to successfully promote and re-integrate them.	Spur complementary external innovation to push an existing corporate innovation.	Insource external innovation to stimulate and generate corporate innovation.	Encourage exchange with external innovations to facilitate the development of internal innovations.
	<i>Yes</i>	Involve internal innovators in innovations to promote motivation and spread risk.	Provide a viable path to market for promising corporate non-core innovations.	Participate in external innovations' success and use new technologies in corporate innovation.	Participate in external innovations' success and gain strategic insights into non-core markets.

Even if the evaluators selected the new businesses thoroughly, the likelihood of failure for the new businesses is still fairly high (Mcgrath 1999; Shepherd, Covin, and Kuratko 2009). Corporate incubators usually spread their risk with a portfolio approach (McGrath, Keil, and Tukiainen 2006), but the failing new businesses cannot change the reality that their plans were unsuccessful and the entrepreneurs have to search for another occupation. Particularly in new businesses that originate from the hosting company and for which the corporate incubator has a higher commitment, the reintroduction of failed entrepreneurs is a critical process, since

handling these entrepreneurs incorrectly may result in them no longer feeling willing to innovate (Bandura 1993; Baer and Frese 2003; Shepherd, Covin, and Kuratko 2009) or they may even vent their displeasure and bad-mouth the corporate incubator in the hosting company. However, research shows that, during the idea submission phase, potential entrepreneurs can deal fairly well with rejection as long as they receive definite and constructive feedback using the linguistic style of the idea text (Piezunka and Dahlander 2018). Moreover, through the incubator providing social support and a strengthening of coping self-efficacy, even negative emotions may stimulate learning from failure and increasing the commitment to subsequent entrepreneurial activities (Shepherd, Covin, and Kuratko 2009).

Not only failed new businesses pose challenges for the incubator. Even if new businesses have successfully undergone the promotion phase, the chance of failure is still considerable (Chen and Kannan-Narasimhan 2015). Especially new businesses after the inside-in or outside-in process are still to be integrated into business units. While the corporate incubator's structural separation from the hosting company increases its ability to explore (O'Reilly and Tushman 2004; Raisch et al. 2009), it also restricts any opportunity for exchange and, thus, also the integration of new businesses (Burgers et al. 2009). Exemplary mechanisms to facilitate integration are maintaining lateral or cross-departmental relations, encouraging informal communication, having a shared organizational vision, and performing socialization techniques, such as conveying corporate culture and values by means of training and reward systems (Ouchi 1977; Burgers et al. 2009; Chen and Kannan-Narasimhan 2015). Furthermore, Gassmann et al. (2012) discovered that the search for external validation, showcasing of innovations, network channeling, collaborative decision making, and liaison building can also support the integration of new businesses into the hosting company. But spin-offs also face challenges. If the spin-off takes place too early, there are still too many technological and market risks. If, instead, the spin-off takes place too late, the new business may have difficulties asserting itself successfully against other competitors (van Burg et al. 2012; Chen and Kannan-Narasimhan 2015)

If the intrapreneurs spin the internal new business out successfully or the external new business leaves the corporate incubator after a successful incubation phase, the best course of action to maintain a beneficial knowledge exchange may be to continue established relationships with business units through strategic partnerships. In order to encourage strategic partnerships, the incubator can prepare these partnerships already during the incubation phase, for example, by

comparing the requirements of new businesses and business units (Niederkofler 1991; Alvarez and Barney 2011), identifying suitable cooperation partners and assessing the risk (Marxt and Link 2002; Alvarez and Barney 2011; Basu, Phelps, and Kotha 2016), assisting in the communication and development of common goals (Weber and Weber 2011; Hogenhuis, Hende, and Hultink 2016), and supporting the conclusion of contracts (Basu, Phelps, and Kotha 2016; Hogenhuis, Hende, and Hultink 2016). Corporate incubators can also contribute to a strategic partnership's maintenance and success during its existence, for example, by providing and maintaining a diverse network, as well as promoting feedback processes, reciprocity, and networking within each strategic partnership (Weber and Weber 2011; West and Bogers 2014). If no strategic partnership appears suitable, there is still the possibility of a financial participation in the new business if such a participation turned out to be promising during the incubation process (Weiblen and Chesbrough 2015).

One of the corporate incubators' goals is the development of external ecosystems and the establishment of networks (Weiblen and Chesbrough 2015; Kohler 2016; Schöll and Hirte 2018). In pursuing this goal, the incubator inevitably becomes more visible outside the company, which may be harmful if the incubator simultaneously pursues a strategy of high privacy and secrecy (Cohen, Bingham, and Hallen 2018). However, hosting companies often deliberately aim to achieve greater public visibility by setting up a corporate incubator (Weiblen and Chesbrough 2015). In this context, hosting companies may advertise the development and progress of the incubator in newspaper articles or on other platforms, or they host public events. These activities not only potentially benefit the search processes for external new businesses (Pauwels et al. 2016; Kötting 2019), but also the reputation of the hosting company. A better reputation can have many advantages for the hosting company, such as an increased willingness to buy among customers (Yoon, Guffey, and Kijewski 1993), a higher quality of applicants for open positions (Turban and Cable 2003), or an improvement in long-term success (Roberts and Dowling 2002). First and foremost, a corporate incubator can enhance the company's innovative reputation via thoroughly conducted activities, which can obtain them an Innovator's License, enabling them to apply deviating strategies without the customer penalizing the company, as usual (Barone and Jewell 2013).

All these activities form the contextual scope of corporate incubators. In the following section, this contextual scope serves as the basis for the contextual alignment of the dissertation.

1.4. Alignment of Dissertation

This section covers the dissertation's contextual and methodological alignment. Initially, the first subsection focuses on the contextual scope of corporate incubators' activities from section 1.3.2 by deriving all dissertations' research articles with their research questions and theories based on the context of incubator activities. Subsequently, the second and third subsections encompass the derivation of the dissertation's paradigmatic perspective and the corresponding alignment of methodologies, methods, and data sets. Table 2 (p.19) provides an overview of the dissertation's contextual and methodological alignment.

1.4.1. Contextual Alignment towards Corporate Incubator Activities

The activities shown in Figure 2 (p.12) represent the overall scope of activities that corporate incubators may undertake. Scholars have already investigated many of the external activities, such as the search for and successful promotion of external new businesses, extensively in literature and it is also possible to apply many of these findings to the promotion of internal new businesses within the corporate incubator (Hackett and Dilts 2008; Bøllingtoft 2012; Soetanto and Jack 2013; Dutt et al. 2016; Mian, Lamine, and Fayolle 2016; Pauwels et al. 2016). However, academics have done very little research on the hosting company's advantages of setting up a corporate incubator, besides the rather common advantages like business model development or establishing new partnerships and external ecosystems (Kötting 2019). They rarely consider explicit support mechanisms for the hosting company, and if so, then rather from a qualitative perspective (O'Connor and Ayers 2001; Uittenbogaard, Broens, and Groen 2005; Robeson and O'Connor 2007; Maine 2008; Ford, Garnsey, and Probert 2010). This dissertation, therefore, focuses on the inward-facing support activities of corporate incubators, in particular how the hosting company's employees can receive support within their working environment to strengthen the innovation climate, become more innovative, and, thus, submit ideas that the incubator could potentially promote (see Figure 3: p.20).

These employee-focused corporate incubator activities, thereby, differentiate from the activities of the hosting company employees' direct supervisors (Mumford et al. 2002; Maine 2008; Chen and Kannan-Narasimhan 2015; Hirte 2018). In contrast to the promotional activities that the supervisors carry out, those of corporate incubators have the advantage of

Table 2: Research articles' contextual and methodological alignment

<i>Article</i>	<i>Research questions</i>	<i>Theory</i>	<i>Reasoning</i>	<i>Methodology</i>	<i>Methods</i>	<i>Data</i>
A	How can corporate incubators be categorized comprehensively? Which incubators in these categories perform better than those in other categories?	Transactional distance theory (Moore 1993)	Induction	Clustering and classification	Bicluster analysis, single-linkage, wards-linkage, k-means, OLS regression	Incubator Dataset
B	How does a corporate incubator affect the innovative work behavior of employees? How does the innovation climate moderate the relationship between corporate incubators and innovative work behavior?	Interactionists theory (Woodman and Schoenfeldt 1990; Woodman, Sawyer, and Griffin 1993)	Deduction	Construct development and hypothesis testing	Factor analyses and multilevel, moderated OLS regression	Innovator Dataset (first wave)
C	How can employees' awareness and perceived support of digital platforms' inherent characteristics and opportunities motivate them towards innovative work behavior?	Expectancy theory (Vroom 1964) and theory of 16 basic desires (Reiss 2004)	Deduction	Construct development and hypothesis testing	Factor analyses and mediated OLS regression	Innovator Dataset (second wave)
D	What issue-irrelevant information has a persuasive effect on evaluation teams regarding selecting certain ideas on corporate online ideation platforms? To which extent do evaluation teams of online ideation contests rely on issue-irrelevant information when faced with content scarcity?	Yale Attitude Change Approach (Hovland, Janis, and Kelly 1953) and Default-Interventionist model (Evans 2011)	Deduction	Critical multiplism	Logistic regression, semi-structured interviews	Ideator Dataset
E	How can employees' participation in centralized innovation activities of corporate incubators affect their department's innovation climate due to a behavioral change of these employees?	Social realist theory (Archer 1995)	Deduction	Hypothesis testing	IV-regression and Difference-in differences approach	Innovator Dataset (longitudinal)

transferring new knowledge (Becker and Gassmann 2006b; Rothaermel and Alexandre 2009; Kötting 2019) and values (Narayanan, Yang, and Zahra 2009; Euchner and Ganguly 2014) to the hosting company and promoting employees outside of their regular responsibility patterns (Blindenbach-Driessen and Van Den Ende 2014; Engelen et al. 2017). As soon as employees participate in activities within the corporate incubator, they can temporarily elude the hosting company's influence and develop without hindrance from their working environment, whereby they unbiasedly acquire new knowledge and absorb new values (Bandura 1977; Shalley and Perry-Smith 2001; Rhoades and Eisenberger 2002; Zhou 2003). By sharing these new experiences with their hosting company's working environment, they contribute to climate change differently than supervisors and even without their support by leveraging "value commitments and ultimate concerns" of their colleagues (Archer 1995; Porpora 2013: 28). However, employees do not have to enter the incubator in order for its activities to affect them.

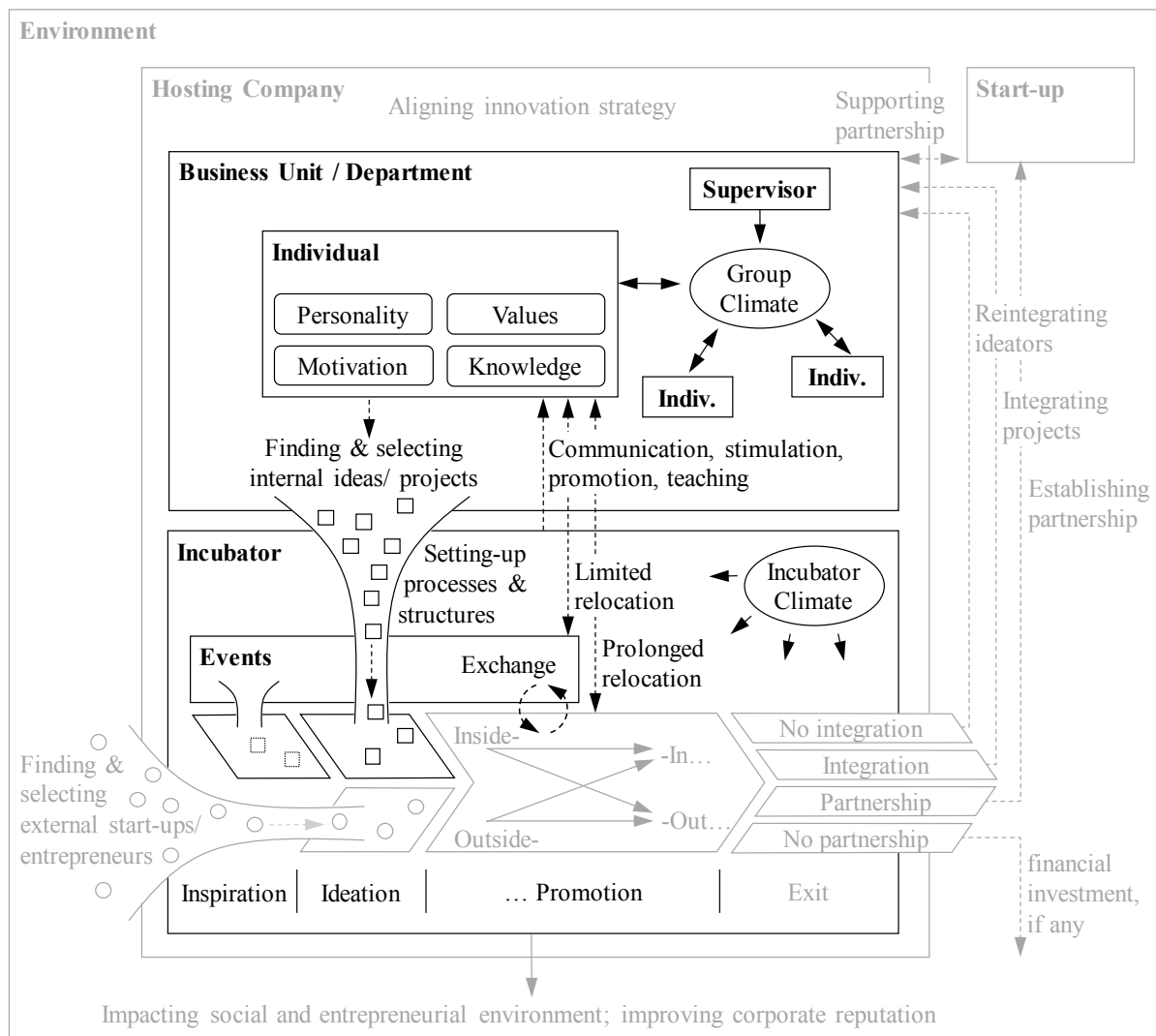


Figure 3: Dissertation's scope of research

For example, corporate incubators can provide exchange, learning, and idea platforms to support employees in different stages of their individual innovation process (Woodman, Sawyer, and Griffin 1993; Scott and Bruce 1994; Beretta 2019; Zhu et al. 2019). Exchange and learning platforms primarily support the initiation of innovative behavior through various motivational mechanisms (Honig 2001; Reiss 2004). Idea platforms, instead, help the actual support and particularly the collection of the employees' innovation activities in order to subsequently select them for promotion processes (Beretta 2019; Zhu et al. 2019). As soon as the evaluators select employees with their ideas, in the ideal case, the incubator's task is to negotiate the formalities with their supervisors in order to assist the employees in their project. In this manner, the employees experience an empowerment, which they probably would not have received from their supervisors, due to the innovation activities contradicting their job description's activities (Chatman 1989).

All research articles of this dissertation are arranged in the context of employee-centered corporate incubator activities (see Figure 4: p.22). Research article A adopts a cross-incubator perspective in order to identify how inward-facing, employee-focused incubators differ from outward-facing ones in terms of their objectives and strategies. In particular, the use of transactional distance theory (Moore 1993) helps to explain how the different objectives and strategies differ in their influence on the learning processes of new businesses, the incubator, the hosting company, and, subsequently, on the incubator's overall performance. Research article B assesses the innovation climate's influence on the employees' innovative work behavior and investigates how corporate incubators moderates this relation. The interactionists theory of creativity (Woodman and Schoenfeldt 1990; Woodman, Sawyer, and Griffin 1993) thereby provides a basis for considering the incubators' influence on an individual and group level in a more dedicated manner. Article C analyzes, in detail, the motivational mechanisms involved in a particular type of incubator support and the provision of digital innovation platforms. With the help of expectancy theory (Vroom 1964) and Reiss' (2004) theory of 16 basic desires, we gain insights into which motivational factors the digital platforms stimulate successfully in order to affect innovative work behavior. Research article D investigates an idea platform on which employees become engaged in order to submit and discuss their ideas after their innovative work behavior was successfully stimulated. Based on the Yale Attitude Change Approach (Hovland, Janis, and Kelly 1953) and the Default-Interventionist model (Evans 2011), we specifically investigate which factors stimulate evaluators' intuitive decisions over reflective ones and how these effects change when the ideas' content is scarce. Article E concludes by exploring the successful employee incubation's causal influence on the

change in the hosting company's innovation climate. Since it is not possible to causally explain this form of organizational climate change with current organizational climate theories (Lewin 1951; Denison 1996), we adapt Margret Archer's (1995) social realist theory to provide a theoretical basis for our investigation.

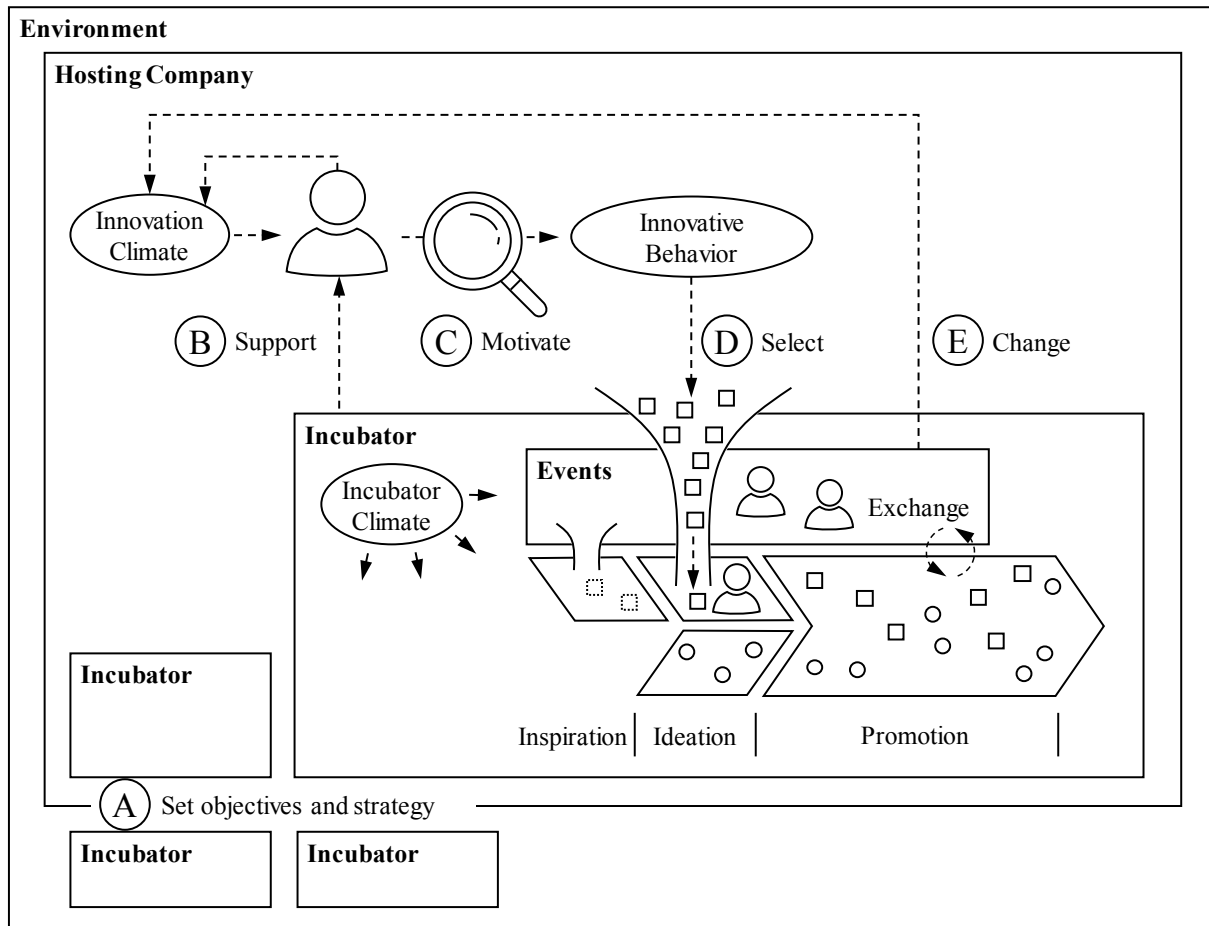


Figure 4: Overview of research articles

1.4.2. Methodological Alignment towards Paradigmatic Perspectives

One can basically explore the corporate incubator's activities shown in Figure 4 via five different, yet coequal, paradigms (basic manners of thinking) that subsume the landscape of social science. The adoption of a particular paradigm to investigate a research field strongly determines which methodology (cross-methodical research strategy) to apply, which data to collect, and how (Guba and Lincoln 2011). It is, therefore, imperative to first clarify which paradigm is applied in this dissertation in order to unambiguously derive the alignment of research. The five different paradigms are summarized in Table 3 (p.23).

Positivism is a philosophy direction that ontologically demands findings, which are supposed to have the character of knowledge, to be limited to the interpretation of positive, therefore real,

sensually perceptible, and verifiable findings – things are essentially just as they appear (Morvan 2004). For this reason, the corresponding research assumes complete objectivity,

*Table 3: Overview of paradigmatic perspectives
(summarized based on Guba and Lincoln 2011)*

<i>Paradigm</i>	<i>Ontology (What is reality?)</i>	<i>Epistemology (How to know reality?)</i>	<i>Methodological frame (How to acquire knowledge?)</i>
Positivism	Naïve realism: There is a single reality that can be measured and studied to predict and control nature.	Research needs to totally objectively and rigorously explain reality instead of focusing on social impact or research subjects.	Results and principles about reality are true until disproved. Data can be replicated and results should be generalizable.
Postpositivism	Critical realism: There is only one reality, but explaining and analysis possibilities are limited, so it may never be fully discoverable.	Research is an approximation to explain reality in order to make socially relevant decisions with incomplete data.	Statistics serve the visual interpretation of the approximated reality, which should be further examined/questioned.
Critical Theory	Historical realism: The one reality is in a constant conflict of struggle and power, which leads to privilege and oppression.	Research investigates social structures to change or remove existing oppressive structures.	Participatory research, which empowers the oppressed and supports social transformation.
Constructivism	Relativism: There are many realities that exist in the form of multiple mental constructions dependent on each individual.	Research is process-oriented to understand reality and arises from the fusion of researcher and researched subjects.	Interpretations based on dialectics and observation form a discourse about reality leading to different realities with consensus.
Participatory	Participative reality: Realities are socially constructed and exist only when shared by multiple individuals.	Research consists of not necessarily rational experiences of the participating researcher and the subjects studied.	Participation, application and action inquiry lead to an experience of reality.

which subsequently determines the researcher's attitude to be distanced from the research subject. The postpositivism that emerged from positivism, however, adopts a much more critical attitude toward the explainability of reality: Reality is considered complex and research methods limited, such that true reality will probably never be discovered, which is why the research approach is to approximate reality in the best possible manner (Wildemuth 1993). However, both paradigms share a similar methodological frame, which prefers statistical, objective, and generalizable methods (Guba and Lincoln 2011). As a counterpart to the

positivistic and postpositivistic paradigms, self-styled antipositivist perspectives have emerged. Fundamental to this antipositivist perspective is the belief that the concepts and methods researchers use influence and, from an objective point of view, bias their perception of the social world they investigate (Doğan 2013). In the opinion of constructivists, for example, research by humans on humans cannot be objective, which is why the goal of their research is to search for meaning in their subjective experiences. The constructivists, therefore, immerse themselves in their research's social context and try to understand the interrelationships of communities or groups of individuals (Bunge 1993; Guba and Lincoln 2011). Constructivism bases on several possible realities that already are valid if constructible within an individual. The participatory paradigm, in contrast, understands reality differently. Reality, thus, arises not only from one individual, but from the reality's social context and only exists if many others share it. The methodological frame differs accordingly. While in constructivism, dialectics and observations primarily help explore realities, in the participatory paradigm it is the researcher's explicit participation and experience in the research context that help gain new insights from the field. Critical theory even go one step further with regard to the researcher's role in the research context. While most research paradigms aim to explain and understand reality, critical theory aims to change it, especially to alter or remove the reality's oppressive structures (Merriam 1991). At the same time, advocates of critical theory remain in the ontology of realism by assuming, unlike antipositivists, one single reality as a basis that must be changed (Guba and Lincoln 2011).

The various paradigms have become highly interwoven and, thus, form a complex system of knowledge from different perspectives where each paradigm seems to benefit from the others (Guba and Lincoln 2011). The example of incubator research shows that constructivist research currently dominates (Kötting 2019), since many papers use (multiple) use case study methodology (Chesbrough and Socolof 2000; Grimaldi and Grandi 2005; Vanhaverbeke and Peeters 2005; O'Connor and DeMartino 2006; Ferrary 2008; Maine 2008; Branstad 2010; Ford, Garnsey, and Probert 2010; van Burg et al. 2012; Pauwels et al. 2016) but also semantic structure analysis (Neck et al. 2004) or ethnography (Ahmad 2014). Researchers have applied significantly less generalizable methodologies of positivist or postpositivist paradigms like hypothesis-testing (Hill and Birkinshaw 2008; Barbero et al. 2014), cluster analysis (Hughes, Ireland, and Morgan 2007), or others (Ohe, Honjo, and Merrifield 1992; Barbero et al. 2012) thus far. Research on corporate incubators could, therefore, benefit methodologically from a positivist or postpositivist perspective. This work therefore adopts a postpositivist perspective,

and uses classification and clustering, hypothesis-testing, construct development, and critical multiplism methodology to adequately address the stated research questions.

Classification and clustering are fundamental processes to organize reality into different groups and, therefore, to support economy of memory, predictive power, and possible theory development (Milligan and Cooper 1987). While classification performs the sorting of observations based on known, predefined parameters, such as the classification of emails as spam or not, clustering divides observations into groups based on their inherent properties without assuming a priori knowledge to maximize similarity within groups and differences between groups (Ceri et al. 2013). It is possible to apply clustering and classification methodology both deductively and inductively, whereby the inductive perspective remains true to postpositivist standards (Milligan and Cooper 1987). In research article A we use, among others, various clustering methods to inductively identify the inherent properties of corporate incubators that can serve as a basis for future classification approaches.

Hypothesis-testing, or hypothetico-deductive modelling, is a basic methodology adopted from positivism to postpositivism (Merriam 1991). The methodology bases on the approach of formulating a hypothesis such that it is possible to falsify it using observable data of which the result is not yet known. From this hypothesis, attempts take place to derive predictions and consequences about how reality should behave under certain conditions, which are then followed by attempts to disprove these by the most generalizable evidence possible (Guba and Lincoln 2011). This methodology is applied in research articles B, C, and E. Research articles B and C are thereby complemented by a further methodology, namely construct development. This methodology deals with the question how to accurately assess phenomena in practice in order to derive solid data collection instruments, which, if lacking, would hinder the development of knowledge in research flows (Lewis, Templeton, and Byrd 2005). The basic iterative approach consists of specifying the construct's boundaries, generating items, improving the items by pretesting, collecting the final data, and finally assessing reliability and validity (Churchill 1979).

It is possible to understand critical multiplism, as a key methodology of postpositivism, as a kind of methodological pluralism that underlines the use of qualitative and quantitative methods to complement each other's fragmentary, imperfect perspectives (Wildemuth 1993; Williams 2007). Critical in this context means that research has to undertake rational, empirical, and, therefore, inherently social efforts in order to reduce the restrictive basic assumptions and

biases of various methods by supplementing them (Shadish 1993). Multiplism means that the whole research process can and should basically be investigated from different perspectives that relate to the development of research questions, the chosen methods and analyses, and the interpretation of the results (Houts, Cook, and Shadish 1986; Coward 1989). This methodology was adopted for research article D in the course of the research process in order to be able to explain the allegedly contradictory findings. Thus, multiple perspectives were applied to the adaptation of research questions, analytical methods and the interpretation of results.

1.4.3. Alignment of Methods and Data

To answer the research questions using the chosen methodologies, a total of six data sets were collected and merged into a total of three superordinate data sets. The first superordinate data set (Incubator Study) consists of a cross-incubator survey matched with objective company data. The second data set (Innovator Study) consists of two matched employee surveys spanning three years, and the third data set (Ideator Study) consists of a platform data set of 227 idea campaigns supplemented by interviews with various evaluators.

The Incubator Study, which was conducted in 2019 based on a survey of the corporate incubators' directors, bases on a unique data set of corporate incubators from established companies. The questionnaire was sent to a total of 209 corporate incubators, mainly from Europe, U.S.A., and China, from which we received a total of 55 responses, resulting in a good response rate of 26.3%. The survey's content includes objectives, strategies, composition of new businesses and the incubator staff, orientation toward the hosting company and the outside world, as well as characteristics of workplace and building architecture. Objective company data, such as industry (NAICS), sales, number of employees, and others supplement these data. Thus, this data set has all necessary data to provide an answer to the research questions of research article A (see Table 2: p.19). In particular, the incubators' objectives and strategies come into play in conjunction with objective company data in order to cluster the incubators and investigate the identified incubator types' influence on their performance.

The Innovator Study comprises data from a leading, international science and technology company with longitudinal data of employees' activities from 2016 and 2019. We collected data by surveying a comprehensive sample of employees at the company's main site where the company's corporate incubator is situated. In 2016, we conducted five exploratory interviews in advance to gain a better understanding of the corporate venture unit's composition and the related mechanisms to align the survey's content to the company's characteristics. In 2016, the

survey was sent to all employees working in different functions on the main site of the company, in total 5,605 employees. In 2019, we repeated the procedure. In 2016, we received 1,202 fully completed answers, resulting in a satisfactory response rate of 21.4%. In 2019, 1,742 employees fully answered our survey. With the help of a voluntary, anonymous identifier, we were able to match $n=248$ respondents who participated in both surveys. A comprehensive construct development phase preceded the two inquiries (Churchill 1979; Lewis, Templeton, and Byrd 2005) in order to assess constructs that are not available in the literature, but necessary for answering the research questions. The first inquiry focuses on a comprehensive assessment of the hosting company's innovation climate, the corporate incubator's influence on employees, and the employees' resulting innovative behavior as a basis for research article B. The second inquiry focuses more on the employees' motivational factors, which qualifies it to serve as the quantitative basis for the investigation of article C's research questions. Research article E is examined on the basis of the matched data set that, in conjunction with employees' participation information in incubator activities and instrument variables, is well suited to investigate the corporate incubator's causal influence on the hosting company's innovative climate.

The Ideator Study's platform data set consists of 3,025 ideas, 6,581 comments, and 6,619 votes that a total of 2,828 unique contributors of a company's idea platform submitted. The ideas were generated over four years in 227 idea campaigns that had different purposes and, therefore, vary regarding the idea selection rate. In total, 222 ideas were selected, which is a rate of 7%. Eight semi-structured interviews with different campaigns' evaluators expand the knowledge of the evaluation process. The following interviewee selection criteria allowed to obtain a diverse picture of the evaluation process: the evaluators' position, whether the evaluators were also executive sponsors of the campaign, the campaign's domain focus and size, whether ideas were treated as confidential within the business unit, and the year in which the campaign started. Using logistic regression analysis in connection with the interviews' findings, the research questions of research article D are answered on the basis of this data set.

Chapter 2 – Research Article A

Towards a comprehensive categorization of corporate incubators: Evidence from cluster analysis.

Abstract

Established companies are increasingly challenged to expand their innovation development capabilities and to align them to increasingly ambidextrous requirements. A currently popular way for companies to meet these requirements are corporate incubators. Successfully designing such units imposes specific challenges on companies, which results in large numbers of different corporate incubator types spanning a wide range of activities. This group of very different incubation concepts is not only very difficult to manage from a practical perspective; it is also complex to reliably explore from a research perspective. In this study, we therefore examine how incubators can be comprehensively categorized and how different objectives and strategies relate to corporate incubator performance. Results from cluster and regression analysis of a sample of incubators from 14 different industries reveal 16 clusters dependent of five objective and five strategy criteria. The criteria have a diverse relation to performance which can be explained using transactional distance theory.

Conferences and publication

Best Paper Nominee at ISPIM Innovation Conference, Florence, Italy on 16-19 June 2019.

Kruft, T., and A. Kock. 2019. Towards a comprehensive categorization of corporate incubators: Evidence from cluster analysis. *International Journal of Innovation Management*. In Press.

Classification

<i>Ontology</i>	<i>Reasoning</i>	<i>Theory</i>	<i>Methodology</i>	<i>Methods</i>	<i>Data</i>
Critical realism	Induction	Transactional distance theory ¹	Clustering and classification	Bicluster, single & wards-linkage, OLS regression	Incubator Dataset

¹ Moore (1993)

Chapter 3 – Research Article B

Substitutes or Complements? The Role of Corporate Incubator Support and Innovation Climate for Innovative Behavior in the Hosting Firm.

Abstract

Incubation of organizations by corporate incubators is currently regaining attention as a key way to foster innovation. However, understanding of how corporate incubators affect employee’s innovative behavior in the host company is still limited. This study aims to fill this gap by examining the relationship between corporate incubator influence and innovative work behavior and how this is moderated by innovation climate. Using a multi-level regression with 1,202 participants nested in 100 organizational units of a large, international company, the study shows that corporate incubators and innovation climate significantly affect innovative work behavior. Further, we found that shared and individual perceptions of innovation climate moderate incubator influence differently. In order to improve innovative work behavior, corporate incubators can compensate a weak innovation climate while strengthening the impact of individual perceptions of innovation climate on innovative behavior, which introduces new ways of how companies are able to improve their innovativeness.

Conferences and publication

Best Paper Nominee at ISPIM Innovation Forum, Boston, USA on 25-28 March 2018.

Kruft, T., M. Gamber, and A. Kock. 2018. Substitutes or Complements? The Role of Corporate Incubator Support and Innovation Climate for Innovative Behavior in the Hosting Firm. *International Journal of Innovation Management* 22 (5): 1840006: 1–29.

Classification

<i>Ontology</i>	<i>Reasoning</i>	<i>Theory</i>	<i>Methodology</i>	<i>Method</i>	<i>Data</i>
Critical realism	Deduction	Interactionists theory ³	Construct development and hypothesis testing	Factor analyses and multilevel OLS regression	Ideator Dataset (first wave)

³ Woodman and Schoenfeldt (1990); Woodman, Sawyer, and Griffin (1993)

Chapter 4 – Research Article C

Digital Platforms: Toward an Efficient Way to Trigger Employees' Innovative Behavior

Abstract

Innovation is being relentlessly digitalized, which strongly affects how companies and individuals perceive and deal with innovation. Yet companies have great difficulty motivating employees to become innovative. We take a complementing sociotechnical and sociocultural perspective on digital platforms to investigate how employee awareness and perceived support of digital platforms' inherent characteristics and opportunities can efficiently stimulate intrinsic motivational forces toward innovative work behavior in the context of an omnipresent innovation climate. As a theoretical foundation, we use Vroom's expectancy theory supplemented by Reiss's theory of 16 basic desires. To test our hypotheses, we use multilevel fixed-effects moderated mediation regression analysis of a dataset containing 1,614 employees nested in 136 departments of a leading international science and technology company conducted in 2019. To further validate our results, we supplement the analysis with a platform dataset of 270 employees with matched survey data. The results support our core argument that inherent characteristics and opportunities of digital platforms motivate employees to engage in innovative work behavior and that the innovation climate partially moderates this relationship. Our detailed results offer several contributions to the information systems literature and beyond.

Submitted to

Submitted to a VHB A-Ranked Journal.

Classification

<i>Ontology</i>	<i>Reasoning</i>	<i>Theory</i>	<i>Methodology</i>	<i>Methods</i>	<i>Data</i>
Critical realism	Deduction	Expectancy theory ⁴ and theory of 16 basic desires ⁵	Construct development and Hypothesis testing	Factor analyses and OLS regression	Ideator Dataset (second wave)

⁴ Vroom (1964)

⁵ Reiss (2004)

Chapter 5 – Research Article D

Persuasion in Corporate Idea Contests: The Moderating Role of Content Scarcity on Decision Making.

Abstract

Organizations increasingly use corporate online ideation platforms to foster individual innovativeness. Recent research, however, has shown the downside of such contests — the selection of ideas is not entirely rational. Analyzing the impact of content scarcity, which occurs when ideators provide very little issue-relevant information when submitting ideas, contributes to this new literature stream. The main argument is that evaluators increasingly rely on heuristics based on issue-irrelevant information when content scarcity obstructs reflective decision-making. The default-interventionist model of decision-making in combination with the Yale attitude change approach allows us to examine the mechanisms evaluators apply when content scarcity occurs. The hypotheses are tested on an extensive data set of 3025 ideas. The results show that content scarcity affects the evaluators’ decision-making process by preventing them from intervening their first intuitive decision. The scarcer the content of the submitted idea, the stronger the persuasiveness of issue-irrelevant aspects that affect idea selection: aspects of the ideator, message, and community.

Published in

Conference Best Paper Award at IPDMC Conference, Porto, Portugal on 10-13 June 2018.

Kruft, T., C. Tilsner, A. Schindler, and A. Kock. 2019. Persuasion in corporate idea contests: the moderating role of content scarcity on decision making. *Journal of Product Innovation Management* 36 (5): 560–585.

Classification

<i>Ontology</i>	<i>Reasoning</i>	<i>Theory</i>	<i>Methodology</i>	<i>Methods</i>	<i>Data</i>
Critical realism	Deduction	Default-Interventionist model ⁶ & Yale Attitude Change Approach ⁷	Hypothesis testing	Logistic regression	Ideator Dataset

⁶ Evans (2011)

⁷ Hovland, Janis, and Kelly (1953)

Chapter 6 – Research Article E

Behavioral change of innovation climate: How employee-focused, centralized innovation activities affect organizational innovation climate.

Abstract

Organizations’ innovative working climate is indispensable for promoting innovation and, therefore, it determines if companies continuously find new methods to generate and monetize value to avoid falling behind their competitors in the long run. To shape the working climate, companies have long used a top-down approach by influencing department supervisors to create a more innovative working climate. Likewise, research has also focused on this perspective of how supervisors construct the working climate in which employees work without influencing it themselves. However, due to the increasing pressure to innovate, certain companies now also try to influence the innovation climate through a bottom-up approach by trying to achieve a mindset and, subsequently, a behavioral change in employees regardless of their supervisor’s attitude toward innovation. However, research cannot map this bottom-up change in the working climate causally with conventional theories from the field of organizational climate and cultural research and, therefore, it is not possible to confirm that such bottom-up approaches work at all. By adapting social realist theory to the context of organizational climate, we propose a novel approach to explain the behavioral change of innovation climate through the dissemination of knowledge and values that the centralized innovation activities of corporate incubators trigger. To test our hypothesis, we use a longitudinal two-stage control function approach with 248 participants nested in 97 organizational units of a large, international science and technology company with several instrument variables to avoid selection bias. Results show that the activities are capable of affecting the department’s innovation climate via employees’ behavior. Thus, we contribute to the still unexplored field of climate and incubator research, especially regarding innovation climate change via employee behavior. Moreover, we contribute to broadening the social realist theory’s perspective and expand research on corporate incubators by investigating further effects to influence the hosting company’s innovativeness.

Submitted to

Submitted to a VHB A-Ranked Journal

Classification

<i>Ontology</i>	<i>Reasoning</i>	<i>Theory</i>	<i>Methodology</i>	<i>Methods</i>	<i>Data</i>
Critical realism	Deduction	Social realist theory ⁸	Hypothesis testing	IV-regression and Difference-in differences	Ideator Dataset (longitudinal)

⁸ Archer (1995)

Chapter 7

Superordinate Discussion

This dissertation provides a comprehensive basis for discussions that go beyond the implications of the single research articles presented. In particular, the combination of the research articles results in a number of superordinate implications for both, research and practice, which are discussed below. There are also superordinate considerations as to how the research streams described in this dissertation may further develop in the future based on this dissertation's findings, which is finally discussed in the section future research.

7.1. Implications for Research

In addition to the specific contributions described in each research article, this dissertation provides a series of superordinate contributions resulting from the overall merits of each research contribution. In addition to the specific contributions described in each research article, this dissertation also provides a series of superordinate contributions resulting from a combination of all research articles' findings and the total of seven theories introduced to the research field of corporate incubators, which originate from the domains of learning (Moore 1993), creativity (Woodman and Schoenfeldt 1990; Woodman, Sawyer, and Griffin 1993), desires (Reiss 2004) motivation (Vroom 1964), persuasion and attitude-change (Hovland, Janis, and Kelly 1953), reflective and intuitive decision making (Evans 2011), as well as social and socio-cultural interaction (Archer 1995). More specifically, this dissertation provides superordinate contributions to the understanding of what constitutes corporate incubators, how corporate incubators affect employees and innovation climate, and how corporate incubators can support idea generation and reflective selection. Moreover, a generic model of centralized incubation will be developed.

First, this dissertation contributes to the understanding of what constitutes corporate incubators by expanding the definitional base and providing quantitative evidence for complementing macro and micro level effects of corporate incubators based on their objectives, strategies, and activities with regard to their performance. Corporate incubators' inward-facing transactional distance to the hosting company, which determines how well new businesses, the corporate incubator, and the hosting company can learn from each other (Moore 1993; Giossos et al. 2009), characterizes corporate incubators decisively on macro level (Miles and Covin 2002;

Hill and Birkinshaw 2008; Weiblen and Chesbrough 2015; Kohler 2016; Schöll and Hirte 2018). On micro-level, the explicit activities carried out on the basis of the chosen goals and strategies in order to promote the hosting company's employees, further constitutes corporate incubators. For example, a number of incubators that all promote cultural change similarly, may enforce this objective very differently, while certain incubators offer events to promote each employee individually in order to achieve a behavior-based bottom-up adaptation of the hosting company's working environment (Bandura 1977; Archer 1995; Shalley and Perry-Smith 2001; Zhou 2003), others mainly rely on the benefits of digital platforms and good cooperation with the business units in order to make the working environment more innovative through behavioral adaptations of the supervisors top-down (Lewin 1951; Denison 1996; Zhang and Bartol 2010).

Second, this dissertation contributes to research on stimulation of employees' behavior, especially by providing evidence on specific psychological and social effects. On the one hand, corporate incubators can affect the employees' innovative behavior by setting up structures, establishing processes and providing resources which strengthen the employees' proclivity to act based on their increased expected performance capabilities in a given situation due to a decrease of their potential impediments of being innovative (Rhoades and Eisenberger 2002; Bandura 2012; Garcia et al. 2015) and stimulating their innovation-related desires of being challenged (Vroom 1964; Reiss 2004; Tu and Lu 2013; Nicholson 2015), fulfilling a personal purpose (Van Eerde and Thierry 1996; Sambamurthy and Zmud 2000; Baer and Frese 2003; Björk and Magnusson 2009; Zhu et al. 2019) and receiving appreciation (Fuller, Marler, and Hester 2006; Nicholson 2015; Nylén and Holmström 2015; Sedera et al. 2016; Zhu et al. 2019). On the other hand, corporate incubators can also moderate how employees perceive their work environment thereby deliberately stimulating a specific behavior. Thus, corporate incubator activities can substitute the influence of a department's weak or harmful shared innovation climate by establishing an own innovative environment in its own facilities which affects each employee participating in incubator activities (Scott and Bruce 1994; Atuahene-Gima 2003; Baer and Frese 2003; Patterson et al. 2005; Parker, Williams, and Turner 2006; Tu and Lu 2013; Montani, Odoardi, and Battistelli 2014; Hong et al. 2016). At the same time the corporate incubator is capable of improving the perception of each employee's individual innovation climate at their workplace by stimulating cognitive-emotional as well as value-based processes resulting in more innovative behavior (Eisenberger et al. 1986; Amabile et al. 1996; Armeli et

al. 1998; Riggle, Edmondson, and Hansen 2009; Arora, Haynie, and Laurence 2013; Montani, Odoardi, and Battistelli 2014).

Third, this dissertation contributes to organizational climate research by providing causal evidence of how the hosting company's innovation climate can be strengthened (Davis-Blake and Pfeffer 1989; Archer 1995; Porpora 2013) by means of an employee-centric stimulation of behavioral change from within corporate incubators (Bandura 1977; Shalley and Perry-Smith 2001; Zhou 2003; Wang and Wu 2008; Kosonen et al. 2014) as well as by analyzing the substitutional and complementing effects of corporate incubators on the relation between innovation climate and innovative behavior, like emphasized in the previous paragraph. The former contribution to organizational climate research is of particular relevance, since an employee-stimulated adaptation process of innovation climate is carried out in practice, but so far there has been no theory-based, explicit explanatory approach for this phenomenon in climate research. So far, according to the Lewinian theory, it has preferably been assumed that working climate is constructed top-down by supervisors (Lewin 1951; Denison 1996) rather than bottom-up by employees. This bottom-up effect could have been explained only from symbolic interaction (Mead 1934) and social construction (Berger and Luckmann 1966) rooted in the paradigmatic perspective of constructivism, but therefore neither causally nor objectively generalizable (Guba and Lincoln 2011). Through this complementary perspective using social realist theory (Archer 1995), this dissertation provides causal indications that this bottom-up process actually exists and expands the possibility to investigate bottom-up climate change from a postpositivist perspective.

Fourth, this dissertation contributes to understanding how ideas are generated and selected. We provide evidence how idea generation, as part of innovative behavior, can be affected by corporate incubators through setting up structures, establishing processes and providing resources as well as by stimulating motivational cognitive-emotional as well as value-based processes within the individual. Without the right idea selection, however, the entire ideation process would suffer a major loss of potential. Decisive for whether a reflective process is initiated at all within evaluators is, on the one hand, its cognitive capacity such as motivation or expertise (Reitzig and Sorenson 2013; Criscuolo et al. 2017) as well as cognitive strain such as the time available for evaluation (Piezunka and Dahlander 2015; Criscuolo et al. 2017). On the other hand, also the available information about the ideas plays a significant role (Di Gangi, Wasko, and Hooker 2010; Evans 2011; Young et al. 2012; Beretta 2019). By comprehensively

analyzing the influence of content scarcity on reflective and intuitive decision making, which has not yet been investigated before, we contribute to a better understanding of a new stream in ideation literature about evaluators' biases and ideators' persuasive behavior (Reitzig and Sorenson 2013; Piezunka and Dahlander 2015; Criscuolo et al. 2017), to knowledge exchange literature by examining how knowledge exchange works when little knowledge reaches the recipient (Menon and Blount 2003; Ko, Kirsch, and King 2005; Lyles, van Wijk, and Jansen 2008) as well as to various aspects of psychological research regarding the theories used (Hovland, Janis, and Kelly 1953; Evans 2011).

Fifth, the model of centralized incubation (see Figure 4: p.22) which was derived in Chapter 1.3, as well as all papers of this dissertation which are part of this model, may be generalizable. This generalization potentially makes this dissertation's findings transferable to other research areas, especially those of business incubators in general (Vanderstraeten and Matthyssens 2012). Thereby, this model also might contribute to the literature of clubs (Gable 2000; Algesheimer, Dholakia, and Herrmann 2005; Rein and Shields 2007; Kunz 2009; Meier and Saavedra 2009; Spaaij 2009; Vermeulen and Verweel 2009) and NGOs (Jasanoff 1997; Vachani, Doh, and Teegen 2009; Finkel and Smith 2011) to explain how new members are recruited, how they learn within these institutions and how they influence society. In addition, the process could contribute to research on schools to understand learning processes from a high-level perspective that takes into account the social environment of students outside school, especially family and friends, and how institutions can support their learning processes there (Hoover and Patton 2004; Winter and Firth 2007; Finkel and Smith 2011; Grant 2011). The model may also potentially contribute to explaining which mechanisms in churches or other religious institutions lead to followers adopting or not adopting the values of religion (Cipriani 2007). This reasoning is further elaborated in section 7.3.2 (p.176).

7.2. Implications for Practice

Basically, this dissertation provides a step-by-step process for managers on how to use corporate incubators to improve each employee's innovativeness and subsequently, the hosting company's overall innovativeness. Figure 4 (p.22) can serve as an overview for this process: First, managers need to define the objectives and strategies for the corporate incubator, then create a nurturing environment for innovation activities, subsequently, motivate employees to adopt innovative behavior, then select and further promote employees with the greatest

innovation potential or the best ideas, and ultimately use these employees to further stimulate all other employees again by improving the overall innovation climate in the hosting company.

First, managers need to define the objectives and strategies that the corporate incubator should follow – in other words, they must decide what type of corporate incubator to set up (see Figure 5: p.41). As described in research article A, managers should particularly concentrate on whether and to what extent the corporate incubator should, first, strive for external ecosystem development and network building, second, generate new revenue streams, third, accelerate innovation processes, fourth, promote explicit business units instead of the entire company, and fifth, achieve a cultural change within the hosting company (Weiblen and Chesbrough 2015; Kanbach and Stubner 2016; Schöll and Hirte 2018; Selig, Gasser, and Baltes 2018). In particular, it is important for managers to decide whether the corporate incubator should try to sustain the entire hosting company by focusing on revenue streams and cultural change, or whether it should mainly serve as a rather non-committal exploration unit for the hosting company. However, if managers decide to promote certain business units specifically, it is more important to determine whether this support should originate from within the company, that is, a diverse network of other employees, or whether the innovative capabilities of networks and ecosystems should be sourced outside the company. Once the objectives are set, managers should define the strategy with which they intend to achieve the objectives set. They, thereby, should in particular clarify, whether and to what extent the corporate incubator should, first, obtain ideas from within or outside the company (Hill and Birkinshaw 2008; Weiblen and Chesbrough 2015), second, carry out disruption or expansion of business activities (Schöll and Hirte 2018), third, provide financial or mentoring support (Selig, Gasser, and Baltes 2018), fourth, be located close to or far from company sites and (Gassmann and Becker 2006) and fifth, promote exchange or be more confidential (Cohen, Bingham, and Hallen 2018). Of these five strategic elements, however, the distance to the company site and the confidentiality of the incubator processes should prevail.

Once goals and strategy are set, managers should try to create a nurturing environment for innovation activities as described in research article B. In particular, they should set up activities that influence the innovation climate's effect on employees' innovative behavior within the departments, initially without necessarily changing the innovation climate itself. Corporate incubators, thereby, are capable of both compensating for the effects of a poor innovation climate and further increasing the influence of a strong innovation climate. The

compensation effect can be achieved at departmental level by the incubator primarily developing its own innovation climate in which it can promote employees with innovation potential, even if the innovation climate of these employees' department is poor (Woodman, Sawyer, and Griffin 1993; Patterson et al. 2005). At the same time, the incubator can also increase the positive innovation climate effects on each individual employee at the individual level, since each individual perceives the environment differently. The strengthening effect can be promoted primarily by conveying the feeling of organizational support to the employees, as this can influence the perception and interpretation of the employees' context (Eisenberger et al. 1986).

As soon as the working climate of each employee directly or indirectly enables innovative behavior, incubators should try to stimulate each employee's motivation to innovate by means of explicit activities, as derived in research article C. Digital platforms, in particular, offer an efficient yet effective way to reach every employee (Sedera et al. 2016) since they can stimulate the motivational forces competition, transformation, and appreciation which subsequently leads to an increase in the employees' innovative behavior (Vroom 1964; Reiss 2004). While competition comprises the employees' desire for challenge and efficacy (Begley and Boyd 1987; Hertel, Niedner, and Herrmann 2003), transformation represents the employees' desire for impact and self-determination (Nickerson 1985; Renko, Kroeck, and Bullough 2012). Appreciation, in turn, describes the employees' desire for self-importance and self-confidence (Eisenberger and Selbst 1994; Yuan and Woodman 2010). In order to adequately stimulate these three motivational forces and, subsequently, innovative behavior, digital learning, exchange, or idea platforms provide a good starting point.

If enough employees became motivated to work innovatively, the corporate incubator's management has to select suitable employees according to their ideas. Thereby, reflective evaluator decisions are of particular importance since otherwise innovation potential might get lost. As described in research article D, in addition to the evaluators' workload, expertise and motivation (Haas, Criscuolo, and George 2014; Piezunka and Dahlander 2015; Criscuolo et al. 2017), it is especially the idea's content scarcity that determines whether evaluators make intuitive or reflective decisions. If the evaluators do not have enough factual information about an idea at their disposal, but inevitably have to decide whether the idea should be accepted or rejected, then evaluators intuitively use issue-irrelevant information, such as the ideators' reputation or status or the apparent contribution of the idea based on the community mood

(Evans 2011). In order to identify and address intuitive and, thus, potentially irrational decisions, managers could use three combinable action strategies concerning the platform, idea content, and evaluators which are extensively described in subsection 5.6.5 (p.144).

Once the employees with the greatest innovation potential are selected, they can receive extensive support within the corporate incubator. However, having the company's most innovative employees all in one place also opens up valuable opportunities that can benefit every single employee as research article E explains. By means of talks, training courses and workshops, managers can impart knowledge and values to the employees (Bandura 1977; Shalley and Perry-Smith 2001; Kosonen et al. 2014), which the employees subsequently transfer to their department and disseminate consciously or unconsciously which may lead to a strengthening of the overall innovation climate (Davis-Blake and Pfeffer 1989; Archer 1995; Porpora 2013). In this way, the circle closes, is complete, because, as described in the research articles B and C, the innovation climate works together with the incubator activities, in order to enable and motivate employees to adopt innovative behavior in the first place.

7.3. Future Research

This section provides an overview of further research topics arising from the research articles' results in this dissertation. In the first subsection, this overview is focused mainly on organizational management literature, which is the main research focus of this dissertation. In the second subsection, the outlook then refers to several other literature streams in order to place this dissertation's generalizable findings in a broader context.

7.3.1. Toward Further Management Research Topics

From this dissertation, four paths of further research emerge which could help to gain a more comprehensive understanding of how corporate incubators behave. The first path involves the transfer of knowledge and values, the second the role of the incubator staff or facilitators, the third startup collaboration and the fourth the development paths of new businesses within the corporate incubator.

Although we were able to causally confirm the effects of corporate incubators on the innovation climate, the mechanisms that lead to this change may still be rather conceptual in nature. The incubators from our data sets have already tested several activities to transfer knowledge and values from the incubator to the hosting company, such as talks, F*ckup nights or workshops,

but whether they actually account for the transfer process up to an improvement of the innovation climate cannot be conclusively proven yet. Our results suggest that such activities have the greatest potential to transfer knowledge and values where regular employees and entrepreneurs, or intrapreneurs respectively, can come together and exchange ideas on innovation topics over a longer period of time. Especially for such activities, an experimental setup would be very suitable, since a workshop, for example, provides a controlled environment for the exchange process.

Without the employees who operate the incubator, the incubator itself might at the very best be a furnished building. In particular, those employees who are in direct contact with the new businesses or the employees to be promoted hold a special role. But as the results from research article D demonstrate, every role has to be performed by people who are not perfect, make mistakes and are potentially biased. In order to be able to explain which processes take place in incubators, it might be worthwhile to examine the incubator staff and the facilitators as well as their exchange with the new businesses and the hosting company.

For this dissertation, the focus was clearly on the mechanisms that serve to promote the innovativeness of the hosting company. All individuals who constitute the innovative climate within the corporate incubator were therefore subsumed and for the most part not further differentiated. In the particular mechanisms, however, exchange processes between the hosting company and innovative employees in the incubator may differ from those between the hosting company and innovative startups in the incubator. There is already a great deal of literature on how startups can be promoted in business incubators (Hansen et al. 2000; Bøllingtoft and Ulhøi 2005; Voisey et al. 2006; Hackett and Dilts 2008; Mian, Lamine, and Fayolle 2016), but a hosting company perspective, which is special to corporate incubators, is lacking. Further research could therefore take a closer look at collaboration processes as well as the exchange of knowledge and values between startups and the hosting company in particular.

Based on Weiblen and Chesbrough (2015), four new business development paths can be derived, which describe how new businesses pass through the incubation process of a corporate incubator (see also Table 1: p.15 and Figure 2: p.12): Internal new businesses can be either reintegrated after incubation or spun-off. External new businesses, for example startups, can be either integrated or just used for temporary exchange. These four ways potentially differ fundamentally from each other, although they all serve to promote new businesses. Thus

possibly, different contacts have to be initiated, different knowledge has to be imparted, different priorities have to be given to speed and quality and the balance between startup and entrepreneurs has to be balanced differently (Roberts 1980; Clarysse et al. 2005; Grimaldi and Grandi 2005; Narayanan, Yang, and Zahra 2009; Weiblen and Chesbrough 2015; Selig, Gasser, and Baltes 2018). In order to successfully carry out these four processes, they may be analyzed in further detail.

7.3.2. Toward a Theory of Centralized Incubation

During the abductive process of researching literature, collecting and analyzing data, and linking findings with theories for all research articles in this dissertation, it became increasingly apparent that the investigated, employee-centered incubation process may be generalizable to cover many other possible incubation processes from other research fields as well. In inward-facing incubation, which is the focus of this dissertation, the knowledge and value transfer plays a significant role. Transfer processes different from those of corporate incubation, which, however, also consider knowledge and value transfer as a central objective, could therefore also benefit from this dissertation's findings. To better illustrate the transferability of the model shown in Figure 4 (p.22), the model was generalized to a certain extent for this chapter (see Figure 16: p.177). The incubator is now named a generic institution and the hosting company or business unit is called the institution's environment. The support processes' outcome within the institution's surrounding is no longer merely innovative behavior, but a general desired outcome. The external start-ups' and entrepreneurs' promotion process, which proceeded alongside that of the internal innovation projects and intrapreneurs, is no longer a process, but a general zone consisting of self-styled intermediaries exclusively dedicated to the incubation of the previously internal innovation projects and intrapreneurs, which are now merely called individuals. The reduction of the start-up process, however, does not in the slightest mean that the incubation process can no longer be applied to (external) entrepreneurs. Instead, these entrepreneurs would now also be referred to as individuals and undergo the process like all others. The phases inspiration and ideation were combined, as were the activities support and motivate. Finally, a sixth phase was added that describes the passing on of the previously learned knowledge and values when this phase became an intermediary and replaced the exit phase shown in Figure 2 (p.12).

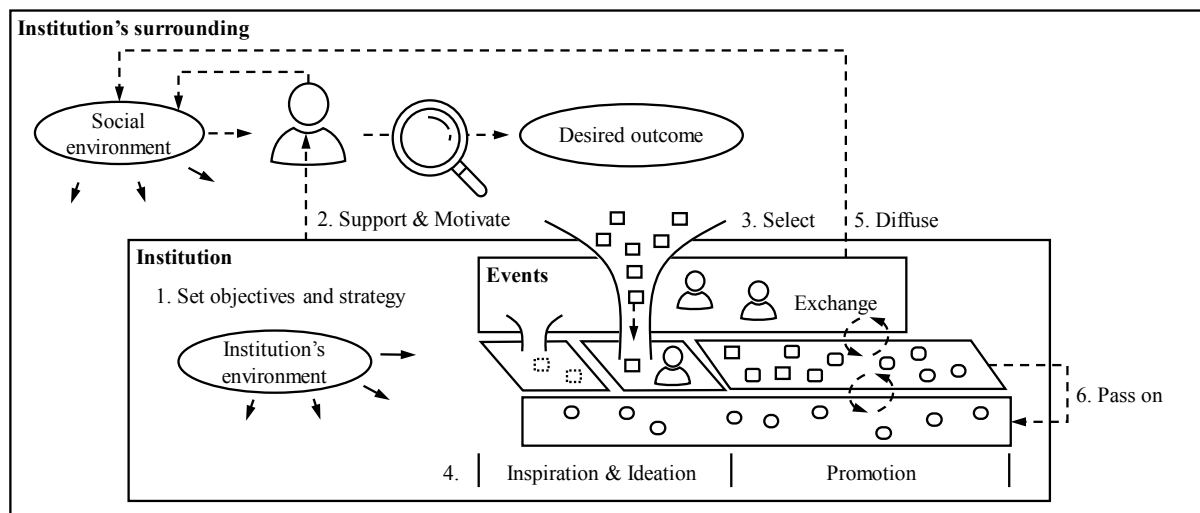


Figure 16: Generic model of centralized incubation

Generally, the process is divided into two domains, the one inside and the other one outside of the institution. While the institution's domain explains how knowledge and values are conveyed from the institution to individuals (Bandura 1977; Shalley and Perry-Smith 2001; Zhou 2003; Wang and Wu 2008; Kosonen et al. 2014), the domain outside of the institution describes how knowledge and values can transition into society (Archer 2010; Porpora 2013) where other individuals might potentially use both, knowledge and values, as a basis for their subsequent behavior (Vroom 1964; Reiss 2004). In order to support these individuals, institutions can support and motivate individuals in their social environment, as well as those who have already been promoted in the institution and need further support. As further elaborated in the next paragraphs, this process may be transferred to many other research fields in order to better explain or investigate the processes taking place there. Although certain phases of the process may be of different or minor importance in other research fields, the overall process should remain the same. In addition to the research subject of the established companies, small and medium-sized companies, where the process could be adopted and be relatively similar to those of the established companies, seem to be suitable in the first place. Moreover, the process may also be transferred to clubs and NGOs to explain how new members are recruited, how they learn within these institutions, and how they impact society. The process could be transferred to schools to understand learning processes from a high-level perspective, which accounts for the social environment of students outside of school, especially family and friends, as well as how institutions may support their learning processes there. It is even conceivable to transfer the process to churches or other religious institutions to explain, for example, which mechanisms lead to followers adopting the religion's values, or not.

Finally, the model might propose methods to facilitate and accelerate intercultural exchange between different countries by illustrating institutions that may provide interested citizens with knowledge and values of other countries' cultures.

The first phase represents the definition of objectives and strategies. As pointed out in research article A (p.26), incubating institutions differ with regard to their objectives and strategies, primarily in the manner that learning processes take place within and in exchange with the institution's environment (Moore 1993; McGrath 2001; Dushnitsky and Lenox 2005). In order to distinguish between incubation processes, it must be clear from a research perspective what objectives and strategies the examined institutions have, since it may determine how incubators behave. From a practical point of view, the objectives and strategies both decisively define how the subsequent phases affect the incubation process. This phase, thereby, not only seems to be important for corporate incubators (Hill and Birkinshaw 2008), but also for institutions outside of established companies, such as economic development incubators (Vanderstraeten and Matthyssens 2012), NGOs (Jasanoff 1997; Vachani, Doh, and Teegen 2009), sport clubs (Rein and Shields 2007; Spaaij 2009), and schools (Hoover and Patton 2004).

The second phase, entitled "support and motivate," includes all activities that institutions carry out not only to support and motivate potential or existing members, but also to enforce the institution's objectives against third parties. In addition to behavioural adaptation, institutions may also potentially impart knowledge and values directly, without each individual having previously been part of the institution. As described in research article B (p.55), institutions can, for example, establish processes and structures for this purpose. A study from England, for example, examined how digital technology usage to mediate the relationship between home and school influences student learning support and discovered the potential of using digital technologies to span the boundaries between school and home learning (Grant 2011). In particular, digital platforms can be used, as they offer a cost-efficient method of not only enabling exchanges between individuals and with the institution, but also stimulating motivational forces (see research article C: p.81) to induce certain behaviour (Vroom 1964; Reiss 2004). For example, Swigger (2013) analyzed how social media usage affects U.S.A. citizens' values of freedom of expression and privacy. Those more strongly affected by social media seem to value freedom of expression more and the value of privacy less, from which Swigger concludes that such technology could alter U.S.A. citizens' attitudes toward democratic values. Valente (2012) reviews that social networks can even affect the individuals'

subsequent behavior. However, knowledge and values can also be conveyed independently of structures explicitly set up for this purpose. For example, a study on boxing institutions in Africa examined how role models increase girls' participation in sport, while simultaneously altering gender roles and expectations of their social environment (Meier and Saavedra 2009). When individuals are motivated and seek to become involved in the institution, phase three represents the final threshold, which many, but not all, institutions set to decide which individuals may cross the boundary to the institution. Such a threshold might be regular application processes or, for example, idea competitions in the case of idea incubators (Frey, Lüthje, and Haag 2011; Schuurman et al. 2012). As investigated in research article D (p. 111), the decision-making processes, thereby, do not always have to be reflective and may be subject to biases (Hovland, Janis, and Kelly 1953; Evans 2011), which have to be overcome.

Phase four, which takes place within the institution itself, represents the presumably most effective manner to absorb knowledge and adapt to values either through joint activities that the institution's members carry out or through events, which, in principle, can also be open to the public. Ideally, new individuals in the institution are initially inspired and obtain an idea of the values and knowledge of the institution. Subsequently, the institution, either consciously or unconsciously, carries out a promotion process for the individual in which the individual is to acquire the habits of the institution and learn from it. As stated in research article E (p.149), knowledge and value transfer mainly bases on learning processes, such as learning by observation, also referred to as vicarious learning (Bandura 1962), and learning by active involvement. Through vicarious learning, individuals absorb new knowledge and impulses from role models within the institution and adopt their behavioral patterns (Bandura 1977; Shalley and Perry-Smith 2001; Zhou 2003). By questioning their own value conceptions in light of the new values to which the individual is exposed, the individual's values may be adapted to those of the institution (Archer 1995; Porpora 2013). Via active involvement and subsequent feedback, in contrast, it is possible to stimulate metacognitive processes and the reconstruction of knowledge (Bangert-Drowns et al. 1991; Johnson and Johnson 1993; Wang and Wu 2008; Kosonen et al. 2014). Similar processes also take place in schools whose task generally is the "transmission of valid knowledge, competencies and (moral) attitudes to a new generation" (Wardekker 2001: 106). Moreover, schools can also affect values. In a study by Winter and Firth (2007) on how education influences sustainable development in England, authors found evidence that facts, respect, emotions, and moral arguments teach students skills, knowledge, and values to build a sustainable society. Another study from the Netherlands

examined sport clubs' influence on competence development in social inclusion process. The study's findings were that sport offers approaches to be included, to gain recognition, and to gain self-esteem (Vermeulen and Verweel 2009). Moreover, Tomlinson and Sugden (1994) found that soccer clubs generate "a sense of communal identity and pride and a means for overcoming objective, socio-economic and political difficulties". However, other types of institutions show similar effects. A study on the democratic election in Kenya 2002, for example, provided many insights into how NGOs and schools could influence the propensity to participate in the elections by imparting democratic knowledge and values. Participants in the schools' and NGOs' civic education programs incorporated knowledge and values and became opinion leaders outside of these institutions by disseminating the new orientation within their social networks (Finkel and Smith 2011).

The aforementioned study on the democratic election in Kenya 2002 (Finkel and Smith 2011) also shows how diffusion into the social environment can take place by means of opinion leaders after the transfer of knowledge and values was successful, which illustrates the fifth phase of the generic model very well (see Figure 16: p.177). The basic process, as it was examined within business units of companies in research article E (p.149), is to enable individuals from the institution to challenge the status quo in their own social environment by sharing the newly gained insights and exemplifying behavior based on the newly gained knowledge and values (Davis-Blake and Pfeffer 1989; Archer 1995). This questioning of the status quo may subsequently "leverage value commitments and [...] concerns" within the social environment (Porpora 2013: 28) that can lead to a cultural conditioning of the new knowledge and values in society (Archer 1995). NGOs, for example, consider the diffusion of knowledge and values to be a central component of their activities: NGOs have a "clearly articulated set of values and ideological purpose" (Hailey 2000: 404). They transfer these together with knowledge, skills, and technology to places where they are needed most to disseminate them (Jasanoff 1997). Moreover, religions and their parishes embody values, which they try to spread in society. Cipriani (2007), thereby, interprets the promotion of religious values within an institution (phase 4) and the diffusion in society (phase 5) as follows: "Every performance of a ritual has multiple functions, but above all focuses the total values promoted and diffused by a particular religion through its members: the more these participate, the more they become convinced their choice was correct" (Cipriani 2007: 294). Nevertheless, diffusion processes also take place in clubs. In an ethnographic study, Gable (2000) illustrates how culture clubs in Guinea-Bissau may shape a society's value system by attempting to eradicate certain

traditions and, in turn, promote other cultural elements, such as cooperative labor. Algesheimer, Dholakia, and Herrmann (2005), in turn, discovered that car clubs in Germany attract members through their identification with certain brands. After a committed participation in the community, the members then tend to adopt recommendation behavior in which they try to persuade other individuals from outside to participate in the club's activities.

The last phase of the model consists of passing on the absorbed knowledge and values to other members of the institution. Individuals who have absorbed a certain amount of knowledge and values are likely to not only convey both to their own environment, but also to act within the institution as knowledge and value intermediaries toward new members. In this manner, they become part of the basis from which the incubation process emerges. These intermediaries play a central role in the incubation process, as a study project on sport and play from Iran shows: There, the researchers investigated the influence of sport as a psychosocial intervention of children after a natural disaster had occurred (Kunz 2009). The study found post-disaster psychosocial rehabilitation of children and youths to be improved through sport communities. In particular, coaches had a major influence on this positive effect, as they determine the social context and the value system within the sports group and provide guidance by practicing it. For example, a coach often was asked "whether something is a good thing to do or a bad thing to avoid" (Kunz 2009: 1156), which reflects the children's orientation to the coach's value system. In cases of conflict, the coaches even acted as mediators between the sports communities' environment and the children's home in order to support the children's development.

Theoretically, a single individual starting at phase 6 by challenging the status quo in society can initiate the whole incubation process (Archer 1995; Porpora 2013). If the individual is capable of convincing enough other people, an explicit or implicit institution may emerge whose diffusion process could be illustrated by the proposed model.

References

- Aalbers, R., W. Dolfsma, and O. Koppius. 2013. Individual connectedness in innovation networks: On the role of individual motivation. *Research Policy* 42 (3). Elsevier B.V.: 624–34.
- Abbey, A., and J. W. Dickson. 1983. R&D Work Climate and Innovation in Semiconductors. *Academy of Management Journal* 26 (2): 362–8.
- Aernoudt, R. 2004. Incubators: Tool for entrepreneurship? *Small Business Economics* 23 (2): 127–35.
- Aerts, K., P. Matthyssens, and K. Vandenbempt. 2007. Critical role and screening practices of European business incubators. *Technovation* 27 (5): 254–67.
- Ahmad, A. J. 2014. A mechanisms-driven theory of business incubation. *International Journal of Entrepreneurial Behaviour and Research* 20 (4): 375–405.
- Ahuja, G., and E. Novelli. 2011. Knowledge Structures and Innovation: Useful Abstractions and Unanswered Questions. In *Handbook of organizational learning and knowledge management*, ed. M. Easterby-Smith and M. A. Lyles, 551–78. Chichester, West Sussex: Wiley and Sons Ltd.
- Aiken, L. S., and S. G. West. 1991. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, California: Sage Publ Inc.
- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50 (2): 179–211.
- Algesheimer, R., U. M. Dholakia, and A. Herrmann. 2005. The social influence of brand community: Evidence from European car clubs. *Journal of Marketing* 69 (3): 19–34.
- Allen, D. N., and R. McCluskey. 1990. Structure, Policy, Services, and Performance in the Business Incubator Industry. *Entrepreneurship Theory and Practice* 15 (2): 61.
- Alvarez, S. A., and J. B. Barney. 2011. How entrepreneurial firms can benefit from alliances with large partners. *Academy of Management Executive* 15 (1): 139–48.
- Amabile, T. M. 1988. A Model of Creativity and Innovation in Organizations. *Research in Organizational Behavior* 10: 123.
- Amabile, T. M., K. G. Hill, B. a Hennessey, and E. M. Tighe. 1994. The Work Preference Inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology* 66 (5): 950–67.
- Amabile, T. M., R. Conti, H. Coon, J. Lazenby, and M. Herron. 1996. Assessing the Work Environment for Creativity. *The Academy of Management Journal* 39 (5): 1154–84.
- Amabile, T. M., S. G. Barsade, J. S. Mueller, and B. M. Staw. 2005. Affect and Creativity at Work. *Administrative Science Quarterly* 50 (3): 367–403.
- Amit, R., E. Muller, and I. Cockburn. 1995. Opportunity costs and entrepreneurial activity. *Journal of Business Venturing* 10 (2): 95–106.
- Anderson, N., K. Potočnik, and J. Zhou. 2014. Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management* 40 (5): 1297–333.

- Anthony, S. D., D. S. Duncan, and P. M. A. Siren. 2014. Build an innovation engine in 90 days. *Harvard Business Review* (December Issue).
- Antoncic, B., and R. D. Hisrich. 2001. Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing* 16 (5): 495–527.
- Antons, D., and F. Piller. 2015. Opening the Black Box of “Not Invented Here”: Attitudes, Decision Biases, and Behavioral Consequences. *The Academy of Management Perspectives* 29 (2): 193–217.
- Antons, D., M. Declerck, K. Diener, I. Koch, and F. T. Piller. 2017. Assessing the not-invented-here syndrome: Development and validation of implicit and explicit measurements. *Journal of Organizational Behavior* 38 (8): 1227–45.
- Antons, D., A. M. Joshi, and T. O. Salge. 2018. Content, Contribution, and Knowledge Consumption: Uncovering Hidden Topic Structure and Rhetorical Signals in Scientific Texts. *Journal of Management*: 1–42.
- Archer, M. 1998. Addressing the cultural system. In *Critical Realism - Essential reading*, ed. M. Archer, R. Bhaskar, A. Collier, T. Lawson, and A. Norrie, 53.
- Archer, M. S. 1995. *Realist Social Theory: The Morphogenetic Approach*. Cambridge: Cambridge University Press.
- Archer, M. S. 2010. Morphogenesis versus structuration: On combining structure and action. *British Journal of Sociology* 61 (SUPPL. 1): 225–52.
- Armeli, S., R. Eisenberger, P. Fasolo, and P. Lynch. 1998. Perceived organizational support and police performance: the moderating influence of socioemotional needs. *Journal of applied psychology* 83 (2): 288–97.
- Armstrong, J. S., and T. S. Overton. 1977. Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research* 14 (3): 396.
- Arora, P., J. M. Haynie, and G. A. Laurence. 2013. Counterfactual thinking and entrepreneurial self-efficacy: The moderating role of self-esteem and dispositional affect. *Entrepreneurship: Theory and Practice* 37 (2): 359–85.
- Atuahene-Gima, K. 2003. The Effects of Centrifugal and Centripetal Forces on Product Development Speed and Quality: How Does Problem Solving Matter? *Academy of Management Journal* 46 (3): 359–73.
- Autio, E., M. Kenney, P. Mustar, D. Siegel, and M. Wright. 2014. Entrepreneurial innovation: The importance of context. *Research Policy* 43 (7): 1097–108.
- Axtell, C. M., D. J. Holman, K. L. Unsworth, T. D. Wall, P. E. Waterson, and E. Harrington. 2000. Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology* 73 (3): 265–85.
- Baer, M. 2012. Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal* 55 (5): 1102–19.
- Baer, M., and M. Frese. 2003. Innovation is not enough: Climates for initiation and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior* 24 (1): 45–68.
- Baker, N. R., and J. R. Freeland. 1972. Structuring information flow to enhance innovation. *Management Decision* 19 (1): 105–16.
- Balogun, J. 2007. The Practice of Organizational Restructuring: From Design to Reality. *European Management Journal* 25 (2): 81–91.

- Baltes, B. B. B., L. S. Zhdanova, and C. P. Parker. 2009. Psychological climate: A comparison of organizational and individual level referents. *Human Relations* 62 (5): 669–700.
- Bandura, A. 1962. Social learning through imitation. In *Nebraska symposium of motivation*, ed. M. R. Jones, 211–69. Lincoln: University of Nebraska Press.
- Bandura, A. 1963. *Social learning and personality development*. New York: Holt, Rinehart, and Winston.
- Bandura, A. 1977. Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review* 84 (2): 191–215.
- Bandura, A. 1993. Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist* 28 (2): 117–48.
- Bandura, A. 1997. *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. 2012. On the functional properties of perceived self-efficacy revisited. *Journal of Management* 38 (1): 9–44.
- Bandura, A., and E. A. Locke. 2003. Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology* 88 (1): 87–99.
- Bangert-Drowns, R. L., C.-L. C. Kulik, J. A. Kulik, and M. Morgan. 1991. The Instructional Effect of Feedback in Test-Like Events. *Review of Educational Research* 61 (2): 213–38.
- Barbero, J. L., J. C. Casillas, A. Ramos, and S. Guitart. 2012. Revisiting incubation performance. How incubator typology affects results. *Technological Forecasting and Social Change* 79 (5). Elsevier Inc.: 888–902.
- Barbero, J. L., J. C. Casillas, M. Wright, and A. Ramos Garcia. 2014. Do different types of incubators produce different types of innovations? *Journal of Technology Transfer* 39 (2): 151–68.
- Barnow, B. S. 1980. *Issues in the Analysis of Selectivity Bias. Discussion Papers. Revised*.
- Baron, R. A. 2008. The role of affect in the entrepreneurial process. *Journal of Business Venturing* 18 (1): 41–60.
- Barone, M. J., and R. D. Jewell. 2013. The Innovator’s License: A Latitude to Deviate from Category Norms. *Journal of Marketing* 77 (1): 120–34.
- Barsade, S. G., and D. E. Gibson. 2007. Why Does Affect Matter in Organizations? *Academy of Management Perspectives* 21 (1): 36–59.
- Bass, B. M., and B. Avolio. 2000. *MLQ, Multifactor Leadership Questionnaire sampler set: technical report, leader form, rater form, and scoring key for MLQ form 5x-short*. Mind.
- Basu, R., and S. G. Green. 1997. Leader-Member Exchange and Transformational Leadership: An Empirical Examination of Innovative Behaviors in Leader-Member Dyads. *Journal of Applied Social Psychology* 27 (6): 477–99.
- Basu, S., C. C. Phelps, and S. Kotha. 2016. Search and integration in external venturing: An inductive examination of corporate venture capital units. *Strategic Entrepreneurship Journal* 10 (2). Wiley Online Library: 129–52.
- Bayus, B. L. 2013. Crowdsourcing New Product Ideas over Time: An Analysis of the Dell IdeaStorm Community. *Management Science* 59 (1): 226–44.
- Becker, B., and O. Gassmann. 2006a. Corporate incubators: Industrial R&D and what universities can learn from them. *Journal of Technology Transfer* 31 (4): 469–83.

- Becker, B., and O. Gassmann. 2006b. Gaining leverage effects from knowledge modes within corporate incubators. *R&D Management Journal* 36 (1): 1–16.
- Begley, T. M., and D. P. Boyd. 1987. Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses. *Journal of Business Venturing* 2 (1): 79–93.
- Belsley, D. A., E. Kuh, and R. E. Welsch. 1980. *Regression diagnostics*. New York: Wiley Online Library.
- Beretta, M. 2015. Why Do Ideas Get Selected? Idea Selection in an Online Ideation Platform. In *Academy of Management Annual Meeting Proceedings*.
- Beretta, M. 2019. Idea Selection in Web-Enabled Ideation Systems. *Journal of Product Innovation Management* 36 (1): 5–23.
- Beretta, M., J. Björk, and M. Magnusson. 2017. Moderating Ideation in Web-Enabled Ideation Systems. *Journal of Product Innovation Management* 35 (3): 389–409.
- Bergek, A., and C. Norrman. 2008. Incubator best practice: A framework. *Technovation* 28 (1–2): 20–8.
- Berger, P. L., and T. Luckmann. 1966. The social construction of reality. *Penguin Group*: 249.
- Bernoulli, D. 1954. Exposition of a new theory on the measurement of risk. *Econometrica*, 22. World Scientific: 23–36.
- Birdi, K., D. Leach, and W. Magadley. 2016. The Relationship of Individual Capabilities and Environmental Support with Different Facets of Designers' Innovative Behavior. *Journal of Product Innovation Management* 33 (1): 19–35.
- Björk, J., and M. Magnusson. 2009. Where do good innovation ideas come from? Exploring the influence of network connectivity on innovation idea quality. *Journal of Product Innovation Management* 26 (6): 662–70.
- Björk, J., F. di Vincenzo, M. Magnusson, and D. Mascia. 2011. The impact of social capital on ideation. *Industry and Innovation* 18 (6): 631–47.
- Blindenbach-Driessen, F., and J. Van Den Ende. 2014. The locus of innovation: The effect of a separate innovation unit on exploration, exploitation, and ambidexterity in manufacturing and service firms. *Journal of Product Innovation Management* 31 (5): 1089–105.
- Bøllingtoft, A. 2012. The bottom-up business incubator: Leverage to networking and cooperation practices in a self-generated, entrepreneurial-enabled environment. *Technovation* 32 (5). Elsevier: 304–15.
- Bøllingtoft, A., and J. P. Ulhøi. 2005. The networked business incubator - Leveraging entrepreneurial agency? *Journal of Business Venturing* 20 (2): 265–90.
- Boudreau, K. 2010. Open Platform Strategies and Innovation: Granting Access vs. Devolving Control. *Management Science* 56 (10): 1849–72.
- Boudreau, K. J., E. C. Guinan, K. R. Lakhani, and C. Riedl. 2016. Looking Across and Looking Beyond the Knowledge Frontier: Intellectual Distance, Novelty, and Resource Allocation in Science. *Management Science* 62 (10): 2765–83.
- Branstad, A. 2010. A study of management tasks and stakeholders in a hybrid corporate incubator. *European Journal of Innovation Management* 13 (3): 294–312.

- Brigl, M., A. Roos, F. Schmieg, and D. Watten. 2014. Incubators, Accelerators, Venturing, and More: How Leading Companies Search for Their Next Big Thing. *The Boston Consulting Group*.
- Brodbeck, F. C., R. Kerschreiter, A. Mojzisch, and S. Schulz-Hardt. 2007. Group decision making under conditions of distributed knowledge: The information asymmetries model. *The Academy of Management Review* 32 (2): 459–79.
- Van den Broeck, A., M. Vansteenkiste, W. Lens, and H. De Witte. 2010. Unemployed individuals' work values and job flexibility: An explanation from expectancy-value theory and self-determination theory. *Applied Psychology* 59 (2): 296–317.
- Brown, T. 2008. Design Thinking. *Harvard Business Review* 88 (6): 85–92.
- Bruneel, J., T. Ratinho, B. Clarysse, and A. Groen. 2012. The evolution of Business incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation* 32 (2). Elsevier: 110–21.
- Bugshan, H. 2015. Co-innovation: the role of online communities. *Journal of Strategic Marketing* 23 (2): 175–86.
- Bullinger, A. C., A. K. Neyer, M. Rass, and K. M. Moeslein. 2010. Community-based innovation contests: Where competition meets cooperation. *Creativity and Innovation Management* 19 (3): 290–303.
- Bunce, D., and M. A. West. 1995. Self perceptions and perceptions of group climate as predictors of individual innovation at work. *Applied Psychology* 44 (3): 199–215.
- Bunge, M. 1993. Realism and Antirealism in Social Science. *Theory and Decision* 35 (2): 207–35.
- van Burg, E., S. de Jager, I. M. M. J. Reymen, and M. Cloudt. 2012. Design principles for corporate venture transition processes in established technology firms. *R and D Management* 42 (5): 455–72.
- Burgers, J. H., J. J. P. Jansen, F. A. J. Van den Bosch, and H. W. Volberda. 2009. Structural differentiation and corporate venturing: The moderating role of formal and informal integration mechanisms. *Journal of Business Venturing* 24 (3). Elsevier Inc.: 206–20.
- Burt, R. S. 1987. Social Contagion and Innovation: Cohesion versus Structural Equivalence. *American Journal of Sociology* 92 (6): 1287–335.
- Büschgens, T., A. Bausch, and D. B. Balkin. 2013. Organizational Culture and Innovation: A Meta-Analytic Review. *Journal of Product Innovation Management* 30 (4): 763–81.
- Cao, Q., E. Gedajlovic, and H. Zhang. 2009. Unpacking Organizational Ambidexterity: Dimensions, Contingencies, and Synergistic Effects. *Organization Science* 20 (4): 781–96.
- Cardon, M. S., J. Wincent, J. Singh, and M. Drnovsek. 2009. The nature and experience of entrepreneurial passion. *Academy of Management Review*.
- Cassar, G. 2006. Entrepreneur opportunity costs and intended venture growth. *Journal of Business Venturing* 21: 610–32.
- Ceri, S., A. Bozzon, M. Brambilla, E. Della Valle, P. Fraternali, and S. Quarteroni. 2013. Classification and Clustering. In *Web Information Retrieval*, ed. S. Ceri, A. Bozzon, M. Brambilla, E. Della Valle, P. Fraternali, and S. Quarteroni, 39–56.

- Chakravarty, A., and R. Grewal. 2013. Information Technology Competencies , Organizational Agility , and Firm Performance : Enabling and. *Information Systems Research* 24 (4): 976–97.
- Chandler, G. N., C. Keller, and D. W. Lyon. 2000. Unraveling the Determinants and Consequences of an Innovation-Supportive Organizational Culture. *Entrepreneurship Theory and Practice* 25 (1): 59.
- Chatman, J. A. 1989. Improving Interactional Organizational Research: A Model of Person-Organization Fit. *Academy of Management Review* 14 (3): 333–49.
- Chen, R. R., and R. P. Kannan-Narasimhan. 2015. Formal integration archetypes in ambidextrous organizations. *R and D Management* 45 (3): 267–86.
- Chen, X. P., X. Yao, and S. Kotha. 2009. Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists’ funding decisions. *Academy of Management Journal* 52 (1): 199–214.
- Chesbrough, H. W. 2003. The Era of Open Innovation. *MIT Sloan Management Review*: 35–41.
- Chesbrough, H. W. 2006. Open Innovation: A New Paradigm for Understanding Industrial Innovation. *Open innovation: researching a new paradigm*: 1–12.
- Chesbrough, H. W., and S. J. Socolof. 2000. Creating new ventures from Bell Labs technologies. *Research Technology Management* 43 (2): 13–7.
- Churchill, G. A. J. 1979. A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research* 16 (1): 64–73.
- Cipriani, R. 2007. Religion as Diffusion of Values. “Diffused Religion” in the Context of a Dominant Religious Institution: The Italian Case. In *The Blackwell Companion to Sociology of Religion*, ed. R. K. Fenn, 292–306. Oxford, UK: Blackwell Publishing.
- Clarysse, B., M. Wright, A. Lockett, E. Van de Velde, and A. Vohora. 2005. Spinning out new ventures: A typology of incubation strategies from European research institutions. *Journal of Business Venturing*.
- Clercq, D. De, B. Menguc, and S. Auh. 2009. Unpacking the relationship between an innovation strategy and firm performance: The role of task conflict and political activity. *Journal of Business Research* 62 (11). Elsevier Inc.: 1046–53.
- Cohen, P., S. G. West, and L. S. Aiken. 2014. *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge Chapman & Hall.
- Cohen, S., and Y. V. Hochberg. 2014. Accelerating Startups: The Seed Accelerator Phenomenon. *SSRN Electronic Journal* (March): 1–16.
- Cohen, S. L., C. B. Bingham, and B. L. Hallen. 2018. The Role of Accelerator Designs in Mitigating Bounded Rationality in New Ventures. *Administrative Science Quarterly*.
- Cohn, M. a., M. R. Mehl, and J. W. Pennebaker. 2004. Linguistic Markers of Psychological Change Surrounding September 11, 2001. *Psychological Science* 15 (10): 687–93.
- Coussement, K., S. Debaere, and T. De Ruyck. 2017. Inferior Member Participation Identification in Innovation Communities: The Signaling Role of Linguistic Style Use. *Journal of Product Innovation Management* 34 (5): 565–79.
- Coward, D. D. 1989. Critical multiplism: a research strategy for nursing science. *Image* 22 (3): 163–7.

- Cox, D., and A. D. Cox. 2001. Communicating the Consequences of Early Detection: The Role of Evidence and Framing. *Journal of Marketing* 65 (3): 91–103.
- Crano, W. D., and R. Prislin. 2006. Attitudes and Persuasion. *Annual Review of Psychology* 57: 345–74.
- Criscuolo, P., L. Dahlander, T. Grohsjean, and A. Salter. 2017. Evaluating Novelty : the Role of Panels in the Selection of R & D Projects. *Academy of Management Journal* 60 (2): 433–60.
- Cropanzano, R., H. M. Weiss, J. M. S. Hale, and J. Reb. 2003. The structure of affect: Reconsidering the relationship between negative and positive affectivity. *Journal of Management* 29 (6): 831–57.
- Damanpour, F. 1991. Organizational Innovation: a Meta-Analysis of Effects of Determinants and Moderators. *Academy of Management Journal* 34 (3): 555–90.
- Davis-Blake, A., and J. Pfeffer. 1989. Just a Mirage - the Search for Dispositional Effects in Organizational Research. *Academy of Management Review* 14 (3): 385–400.
- Davis, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* September: 319–40.
- Denham, J., and R. Kaberon. 2012. Culture is king: How culture contributes to innovation. *Journal of Product Innovation Management* 29 (3): 358–60.
- Denison, D. R. 1996. What is the difference between organizational culture and climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review* 21 (3): 619–54.
- Dervitsiotis, K. N. 2003. Beyond stakeholder satisfaction: Aiming for a new frontier of sustainable stakeholder trust. *Total Quality Management & Business Excellence* 14 (5): 515–28.
- Dewey, J., and A. F. Bentley. 1960. *Knowing and the known*. Beacon press Boston.
- Doğan, V. 2013. Analysis of Scientific Realism in the Dichotomy between Positivism and Anti-Positivism: An Implication for Social Sciences. *International Journal of Business and Social Science* 4 (6): 248–57.
- Dorenbosch, L., M. L. Engen, and M. Verhagen. 2005. On the job innovation: the impact of job design and human resource management through production ownership. *Creativity and Innovation Management* 14 (2): 129–41.
- Dreyfus, S. E., and H. L. Dreyfus. 1980. *A Five-Stage Model of the Mental Activities in Directed Skill Acquisition*.
- Dushnitsky, G., and M. J. Lenox. 2005. When do incumbents learn from entrepreneurial ventures?: Corporate venture capital and investing firm innovation rates. *Research Policy* 34 (5): 615–39.
- Dutt, N., O. Hawn, E. Vidal, A. Chatterji, A. McGAHAN, and W. Mitchell. 2016. How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries. *Academy of Management Journal* 59 (3): 818–40.
- Eagly, A. H., and S. Chaiken. 1993. *Psychology of Attitudes*. Orlando, FL, US: Harcourt Brace Jovanovich College Publishers.
- Easterby-Smith, M., M. A. Lyles, and E. W. K. Tsang. 2008. Inter-organizational knowledge transfer: Current themes and future prospects. *Journal of Management Studies* 45 (4): 677–90.

- Edmondson, A. 2002. Managing the risk of learning: Psychological safety in work teams. *International Handbook of Organizational Teamwork*,: 1–38.
- Van Eerde, W., and H. Thierry. 1996. Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology* 81 (5): 575–86.
- Eisenberger, R. 2003. Motivation, reward and creativity. *Creativity Research Journal* 15: 121–30.
- Eisenberger, R., and M. Selbst. 1994. Does Reward Increase or Decrease Creativity? *Journal of Personality and Social Psychology* 66 (6): 1116–27.
- Eisenberger, R., R. Huntington, S. Hutchison, and D. Sowa. 1986. Perceived Organizational Support. *Journal of Applied Psychology* 71 (3): 500–7.
- Ekvall, G. 1996. Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology* 5 (1): 105–23.
- El-Shinnawy, M., and A. S. Vinze. 1998. Polarization and Persuasive Argumentation: A Study of Decision Making in Group Settings. *Management Information Systems Quarterly* 22 (2): 165.
- Eliëns, R., K. Eling, S. Gelper, and F. Langerak. 2018. Rational Versus Intuitive Gatekeeping: Escalation of Commitment in the Front End of NPD. *Journal of Product Innovation Management* 35 (6): 890–907.
- Engelen, A., L. Weinekötter, S. Saeed, and S. Enke. 2017. The Effect of Corporate Support Programs on Employees' Innovative Behavior: A Cross-Cultural Study. *Journal of Product Innovation Management* 35 (2): 230–53.
- Euchner, J., and A. Ganguly. 2014. Business model innovation in practice: A systematic approach to business model innovation can help capture value and reduce risks. *Research Technology Management* 57 (6): 33–9.
- Evans, D. S., and R. Schmalensee. 2016. *Matchmakers: The New Economics of Multisided Platforms*. Boston: Harvard Business School Press Books.
- Evans, J. S. B. T. 2011. Dual-process theories of reasoning: Contemporary issues and developmental applications. *Developmental Review* 31 (2–3): 86–102.
- Evans, P. C., and R. C. Basole. 2016. Revealing the API ecosystem and enterprise strategy via visual analytics. *Communications of the ACM* 59 (2): 26–8.
- Farjoun, M. 2010. Beyond dualism: Stability and change as a duality. *Academy of Management Review* 45 (2): 202–25.
- Ferrary, M. 2008. Strategic spin-off: A new incentive contract for managing R&D researchers. *Journal of Technology Transfer* 33 (6): 600–18.
- Fincher, K. M., and M. W. Morris. 2016. Look Again: The Value in Distinguishing Three Processes Underlying Social-Perceptual Effects. *Psychological Inquiry* 27 (4). Taylor & Francis: 306–9.
- Finkel, S. E., and A. E. Smith. 2011. Civic Education, Political Discussion, and the Social Transmission of Democratic Knowledge and Values in a New Democracy: Kenya 2002. *American Journal of Political Science* 55 (2): 417–35.
- Flesch, R. 1948. A new readability yardstick. *Journal of Applied Psychology*.
- Ford, S., E. Garnsey, and D. Probert. 2010. Evolving corporate entrepreneurship strategy: technology incubation at Philips. *R&D Management Journal* 40 (1): 81–90.

- Forgas, J., and J. George. 2001. Affective Influences on Judgements and Behavior in Organizations: An Information Processing Perspective. *Organizational behavior and human decision processes* 86 (1): 3–34.
- Formann, A. K. 1984. *Die latent-class-analyse: Einführung in Theorie und Anwendung*. Beltz.
- Fornell, C., and D. F. Larcker. 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research* 18 (1): 39–50.
- Franke, N., and S. Shah. 2003. How communities support innovative activities: An exploration of assistance and sharing among end-users. *Research Policy* 32 (1): 157–78.
- Frey, K., C. Lüthje, and S. Haag. 2011. Whom Should Firms Attract to Open Innovation Platforms? The Role of Knowledge Diversity and Motivation. *Long Range Planning* 44 (5–6). Pergamon: 397–420.
- Füller, J., G. Jawecki, and H. Mühlbacher. 2007. Innovation creation by online basketball communities. *Journal of Business Research* 60 (1): 60–71.
- Füller, J., K. Hutter, and R. Faullant. 2011. Why co-creation experience matters? Creative experience and its impact on the quantity and quality of creative contributions. *R&D Management Journal* 41 (3): 259–73.
- Fuller, J. B., L. E. Marler, and K. Hester. 2006. Promoting felt responsibility for constructive change and proactive behavior: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior* 27 (8): 1089–120.
- Gable, E. 2000. The culture development club: Youth, neo-tradition, and the construction of society in Guinea-Bissau. *Anthropological Quarterly* 73 (4): 195–203.
- Galbraith, C. S., S. B. Ehrlich, and A. F. DeNoble. 2006. Predicting technology success: Identifying key predictors and assessing expert evaluation for advanced technologies. *Journal of Technology Transfer* 31 (6): 673–84.
- Di Gangi, P. M., and M. Wasko. 2009. Steal my idea! Organizational adoption of user innovations from a user innovation community: A case study of Dell IdeaStorm. *Decision Support Systems* 48 (1): 303–12.
- Di Gangi, P. M., M. M. Wasko, and R. E. Hooker. 2010. Getting Customers' Ideas to Work for You: Learning from Dell how to Succeed With Online User Innovation Communities. *MIS Quarterly Executive* 9 (4): 197–212.
- Garcia-Granero, A., O. Llopis, A. Fernandez-Mesa, and J. Alegre. 2015. Unraveling the link between managerial risk-taking and innovation: The mediating role of a risk-taking climate. *Journal of Business Research* 68 (5). Elsevier Inc.: 1094–104.
- Garcia, P. R. J. M., S. L. D. Restubog, P. Bordia, S. Bordia, and R. E. O. Roxas. 2015. Career optimism: The roles of contextual support and career decision-making self-efficacy. *Journal of Vocational Behavior* 88: 10–8.
- Gassmann, O., and B. Becker. 2006. Towards a Resource-Based View of Corporate Incubators. *International Journal of Innovation Management* 10 (1): 19–45.
- Gassmann, O., B. Widenmayer, and M. Zeschky. 2012. Implementing radical innovation in the business: The role of transition modes in large firms. *R and D Management* 42 (2): 120–32.
- Gatzweiler, A., V. Blazevic, and F. T. Piller. 2017. Dark Side or Bright Light: Destructive and Constructive Deviant Content in Consumer Ideation Contests. *Journal of Product Innovation Management* 34 (6): 772–89.

- George, J. M., and A. P. Brief. 1992. Feeling good-doing good: a conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological bulletin* 112 (2): 310–29.
- George, J. M., and J. Zhou. 2001. When openness to experience and conscientiousness are related to creative behavior: an interactional approach. *The Journal of applied psychology* 86 (3): 513–24.
- Georgopoulos, B. S., G. M. Mahoney, and N. W. Jones. 1957. A path-goal approach to productivity. *Journal of Applied Psychology* 41 (6): 345–53.
- Gerlach, S., and A. Brem. 2015. What determines a successful business incubator? Introduction to an incubator guide. *International Journal of Entrepreneurial Venturing* 7 (3): 286–307.
- Gibbons, J. L., and D. A. Stiles. 2004. *The thoughts of youth: Adolescents' ideal man and ideal woman in international perspective*. Greenwich, CT: Information Age Publishing.
- Gibson, C. B., and J. Birkinshaw. 2004. The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal* 47 (2): 209–26.
- Giddens, A. 1979. *Central problems in social theory: Action, structure, and contradiction in social analysis*. Vol. 241. University of California Press.
- Giossos, Y., M. Koutsouba, & Lionarakis, A., and K. Skavantzios. 2009. Reconsidering Moore's transactional distance theory. *European Journal of Open, Distance and E-learning* 12 (2).
- Glick, W. H. 1985. Conceptualizing and measuring organizational and psychological climates: Pitfalls in multilevel research. *Academy of Management Review* 10 (3): 601–16.
- Glick, W. H. 1988. Response: Organizations Are Not Central Tendencies: Shadowboxing in the Dark, Round 2. *Academy of Management Review* 13 (1): 133–7.
- Globocnik, D., and S. Salomo. 2014. Do formal management practices impact the emergence of bootlegging behavior? *Journal of Product Innovation Management* 32 (4): 505–21.
- Goldberg, M. E., and Jon Hartwick. 1990. The Effects of Advertiser Reputation and Extremity of Advertising Claim on Advertising Effectiveness. *The Journal of Consumer Research* 17 (2): 172–9.
- Gollwitzer, P. M. 1996. The volitional benefits of planning. In *The psychology of action: Linking cognition and motivation to behavior*, 287–312. New York: Guilford Press.
- Gompers, P., and J. Lerner. 2006. *The Venture Capital Cycle*. 2nd Editio. MIT Press.
- Gonthier, J., and G. M. Chirita. 2019. The role of corporate incubators as invigorators of innovation capabilities in parent companies. *Journal of Innovation and Entrepreneurship* 8 (8). *Journal of Innovation and Entrepreneurship*.
- Graen, G., and M. Uhl-Bien. 1995. Relationship based approach to leadership: development of leader-member exchange [LMX] theory of leadership over 25 years. *Leadership Quarterly* 6 (2): 219–47.
- Grant, L. 2011. "I'm a completely different person at home": Using digital technologies to connect learning between home and school. *Journal of Computer Assisted Learning* 27 (4): 292–302.
- Grant, R. M. 1996. Toward a knowledge-based theory of the firm. *Strategic Management Journal* 17: 109–22.
- Grimaldi, R., and A. Grandi. 2005. Business incubators and new venture creation: An assessment of incubating models. *Technovation* 25 (2): 111–21.

- Grote, M., C. Herstatt, and H. G. Gemünden. 2012. Cross-Divisional Innovation in the Large Corporation: Thoughts and Evidence on Its Value and the Role of the Early Stages of Innovation. *Creativity and Innovation Management* 21 (4): 361–75.
- Guba, E., and Yvonna Lincoln. 2011. Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited. In *The Sage handbook of qualitative research*, ed. N. Denzin and YS Lincoln, 97–128. SAGE Publications Ltd.
- Haas, M. R., P. Criscuolo, and G. George. 2014. Which problems to solve? Attention allocation and online knowledge sharing in organizations. *Academy of Management Journal* 58 (3): 680–711.
- Hackett, S. M., and D. M. Dilts. 2004. A systematic Review of Business Incubation. *Journal of Technology Transfer* 29: 55–82.
- Hackett, S. M., and D. M. Dilts. 2008. Inside the black box of business incubation: Study B - Scale assessment, model refinement, and incubation outcomes. *Journal of Technology Transfer* 33 (5): 439–71.
- Hadjimanolis, A. 1999. Barriers to innovation for SMEs in a small less developed country (Cyprus). *Technovation* 19 (9): 561–70.
- Hailey, J. 2000. Indicators of identity: NGOs and the strategic imperative of assessing core values. *Development in Practice* 10 (3–4): 402–7.
- Haller, J. B. A., A. C. Bullinger, and K. M. Möslin. 2011. Innovation contests: An IT-based tool for innovation management. *Business and Information Systems Engineering* 3 (2): 103–6.
- Hamilton, R. T., and D. A. Harper. 1994. The Entrepreneur in Theory and Practice. *Journal of Economic Studies* 21 (6): 3–18.
- Hansen, M. T., H. W. Chesbrough, N. Nohria, and D. N. Sull. 2000. Hothouses of the New Economy. *Harvard Business Review* 78 (October): 75–83.
- Hansen, M. T., J. Berger, and N. Nohria. 2000. *The State of the Incubator Marketplace*. Boston, MA: Harvard Business Review.
- Hartmann, P. 2014. *New business creation: Systems for institutionalized radical innovation management*. Wiesbaden, DE: Springer.
- Harvey, S. 2014. Creative synthesis: Exploring the process of extraordinary group creativity. *Academy of Management Review* 39 (3): 324–43.
- Hayes, A. F. 2013. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York, NY: Guilford Press.
- Heinrichs, V. S., J. Tischler, and C. Kiel. 2016. Leistungsprofile von Inkubatoren technologiebasierter Unternehmen: eine empirische Bestandsaufnahme. *Betriebswirtschaftliche Forschung und Praxis* 67 (2012): 89–104.
- Henderson, D. J., S. J. Wayne, L. M. Shore, W. H. Bommer, and L. E. Tetrick. 2008. Leader-Member Exchange, Differentiation, and Psychological Contract Fulfillment: A Multilevel Examination. *Journal of Applied Psychology* 93 (6): 1208–19.
- Hertel, G., S. Niedner, and S. Herrmann. 2003. Motivation of software developers in open source projects: An Internet-based survey of contributors to the Linux kernel. *Research Policy* 32 (7): 1159–77.
- Hill, S. A., and J. Birkinshaw. 2008. Strategy-organization configurations in corporate venture units: Impact on performance and survival. *Journal of Business Venturing* 23 (4): 423–44.

- Hill, S. A., and J. Birkinshaw. 2014. Ambidexterity and Survival in Corporate Venture Units. *Journal of Management* 40 (7): 1899–931.
- Hill, S. A., M. Maula, J. Birkinshaw, and G. Murray. 2009. Transferability of the venture capital model to the corporate context: Implications for the performance of corporate venture units. *Strategic Entrepreneurship Journal* 3 (1): 3–27.
- Hirte, R. 2018. The Role of Middle Managers in the Implementation of a Corporate Incubator: A Case Study in the Automotive Sector. *Technology Innovation Management Review* 8 (7): 31–9.
- Hirte, R., J. Münch, and L. Drost. 2017. Incubators in Multinational Corporations - Development of a Corporate Incubator Operator Model. In *International Conference on Engineering, Technology and Innovation (ICE/ITMC)*, 195–202.
- Hoetker, G. 2007. The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal* 28 (4): 331–43.
- Hogan, S. J., and L. V. Coote. 2014. Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research* 67 (8). Elsevier Inc.: 1609–21.
- Hogenhuis, B. N., E. A. Van Den Hende, and E. J. Hultink. 2016. Unlocking the Innovation Potential in Large Firms Through Timely and Meaningful Interactions With Young Ventures. *International Journal of Innovation Management* 21 (01): 1750009.
- Hong, Y., H. Liao, S. Raub, and J. H. Han. 2016. What it takes to get proactive: An integrative multilevel model of the antecedents of personal initiative. *Journal of Applied Psychology* 101 (5): 687–701.
- Honig, B. 2001. Learning Strategies and Resources for Entrepreneurs and Intrapreneurs. *Entrepreneurship: Theory & Practice* 26 (1): 21–35.
- Hoornaert, S., M. Ballings, E. C. Malthouse, and D. Van den Poel. 2017. Identifying New Product Ideas: Waiting for the Wisdom of the Crowd or Screening Ideas in Real Time. *Journal of Product Innovation Management* 34 (5): 580–97.
- Hoover, J. J., and J. R. Patton. 2004. Differentiating Standards-Based Education for Students with Diverse Needs. *Remedial and Special Education* 25 (2): 74–8.
- Hossain, M., and K. M. Z. Islam. 2015. Ideation through Online Open Innovation Platform: Dell IdeaStorm. *Journal of the Knowledge Economy* 6 (3): 611–24.
- Houts, A. C., T. D. Cook, and W. R. Shadish. 1986. The person-situation debate: A critical multiplist perspective. *Journal of Personality* 54 (1): 52–105.
- Hovland, C. I., I. L. Janis, and H. H. Kelly. 1953. *Communication and Persuasion: Psychological Studies of Opinion Change*. New Haven, CT: Yale University Press.
- Hsu, D. K., R. Shinnar, and B. C. Powell. 2014. Expectancy Theory and Entrepreneurial Motivation: a Longitudinal Examination of the Role of Entrepreneurship Education. *Journal of Business and Entrepreneurship* (121): 121–40.
- Hughes, M., R. D. Ireland, and R. E. Morgan. 2007. Stimulating Dynamic Value : Social Capital and Business Incubation as a Pathway to Competitive Success. *Long Range Planning* 40: 154–77.
- Ireland, R. D., M. A. Hitt, and D. G. Sirmon. 2003. A Model of Strategic Entrepreneurship: The Construct and its Dimensions. *Journal of Management* 29 (6): 963–89.
- Jackson, P., and N. Richter. 2017. Situational Logic: an Analysis of Open Innovation Using Corporate Accelerators. *International Journal of Innovation Management* 21 (07): 1–21.

- Jain, S. P., and S. S. Posavac. 2001. Prepurchase Attribute Verifiability, Source Credibility, and Persuasion. *Journal of Consumer Psychology (Lawrence Erlbaum Associates)* 11 (3): 169–80.
- James, L. R., W. F. Joyce, and J. W. J. Slocum. 1988. Comment: Organizations do not cognize. *Academy of Management Journal* 13 (1): 129–32.
- Janis, Irving L, and Carl I Hovland. 1959. An overview of persuasability research. In *Personality and persuasability*, ed. C.I. Hovland and I.L. Janis, 1–26. New Havon and London: Yale University Press.
- Janssen, O. 2000. Job demands, perceptions of effort—reward fairness and innovative work behaviour. *Journal of Occupational and Organisational Psychology* 73: 287–302.
- Janssen, O. 2001. Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of Management Journal* 44 (5): 1039–50.
- Janssen, O., and N. W. van Yperen. 2004. Employees’ goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal* 47 (3): 368–84.
- Janssen, O., E. van de Vliert, and M. West. 2004. The bright and dark sides of individual and group innovation: a special issue introduction. *Journal of Organizational Behavior* 25 (1): 129–45.
- Jasanoff, S. 1997. NGOs and knowledge the to environment : from action. *Third World Quarterly* 18 (3): 579–94.
- Jensen, M. B., C. Hienerth, and C. Lettl. 2014. Forecasting the commercial attractiveness of user-generated designs using online data: An empirical study within the LEGO user community. *Journal of Product Innovation Management* 31 (S1): 75–93.
- Jeyaraj, A., J. W. Rottman, and M. C. Lacity. 2006. A review of the predictors, linkages, and biases in IT innovation adoption research. *Journal of Information Technology* 21 (1): 1–23.
- Johnson, D. W., and R. T. Johnson. 1993. Cooperative learning and feedback in technology-based instruction. In *Interactive instruction and feedback*, ed. J. Dempsey and G. C. Sales, 133–57. Englewood Cliffs, NJ: Educational Technology Publications.
- De Jong, J. P. J., and D. Den Hartog. 2010. Measuring Innovative Work Behaviour. *Creativity and Innovation Management* 19 (1): 23–36.
- De Jong, J. P. J., and R. Kemp. 2003. Determinants of Co-Workers’ Innovative Behaviour: An Investigation into Knowledge Intensive Services. *International Journal of Innovation Management* 07 (02): 189–212.
- De Jong, J. P. J., S. K. Parker, S. Wennekers, and C. H. Wu. 2013. Entrepreneurial Behavior in Organizations: Does Job Design Matter? *Entrepreneurship: Theory and Practice*: 981–96.
- Kacwicz, E., J. W. Pennebaker, M. Davis, M. Jeon, and A. C. Graesser. 2014. Pronoun Use Reflects Standings in Social Hierarchies. *Journal of Language and Social Psychology* 33 (2): 125–43.
- Kanbach, D. K., and S. Stubner. 2016. Corporate accelerators as recent form of startup engagement: The what, the why, and the how. *Journal of Applied Business Research* 32 (6): 1761–76.

- Kashdan, T. B., P. Rose, and F. D. Fincham. 2004. Curiosity and Exploration : Facilitating Positive Subjective Experiences and Personal Growth Opportunities. *Journal of Personality Assessment* 82 (3): 291–305.
- Kathan, W., K. Hutter, J. Füller, and J. Hautz. 2015. Reciprocity vs. Free-Riding in Innovation Contest Communities. *Creativity and Innovation Management* 24 (3): 537–49.
- Katz, M. L., and C. Shapiro. 1985. Network Externalities, Competition, and Compatibility. *The American Economic Review* 75 (3): 424–40.
- Kelman, H. C., and S. P. Cohen. 1974. The Problem-Solving Workshop : A Social-Psychological Contribution of International Conflicts *. *Journal of Peace Research* 13 (2): 79–90.
- Khazanchi, S., M. W. Lewis, and K. K. Boyer. 2007. Innovation-supportive culture: The impact of organizational values on process innovation. *Journal of Operations Management* 25 (4): 871–84.
- Killen, C. P., J. Geraldi, and A. Kock. 2018. Visualizations: their use and impact on innovation portfolio decision making. In *Innovation and Product Management Development Conference (IPDMC)*.
- Klein, K. J., and J. S. Sorra. 1996. The challenge of innovation implementation. *Academy of Management Review* 21 (4): 1055–80.
- Kleysen, R. F., and C. T. Street. 2001. Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital* 2 (3): 284–96.
- Kline, T. J. B., L. M. Sulsky, and S. D. Rever-Moriyama. 2000. Common method variance and specification errors: A practical approach to detection. *Journal of Psychology: Interdisciplinary and Applied* 134 (4): 401–21.
- Knudsen, T., and D. A. Levinthal. 2007. Two Faces of Search: Alternative Generation and Alternative Evaluation. *Organization Science* 18 (1): 39–54.
- Ko, Kirsch, and King. 2005. Antecedents of Knowledge Transfer from Consultants to Clients in Enterprise System Implementations. *MIS Quarterly* 29 (1): 59.
- Kock, A., W. Heising, and H. G. Gemünden. 2015. How ideation portfolio management influences front-end success. *Journal of Product Innovation Management* 32 (4): 539–55.
- Köhler, R., and O. Baumann. 2016. *Organizing a Venture Factory: Company Builder Incubators and the Case of Rocket Internet*.
- Kohler, T. 2016. Corporate accelerators: Building bridges between corporations and startups. *Business Horizons* 59 (3): 347–57.
- Kolympiris, C., and P. G. Klein. 2017. The Effects of Academic Incubators on University Innovation. *Strategic Entrepreneurship Journal* 11 (2): 145–70.
- Kosonen, M., C. Gan, M. Vanhala, and K. Blomqvist. 2014. User Motivation and Knowledge Sharing in Idea Crowdsourcing. *International Journal of Innovation Management* 18 (5).
- Kötting, M. 2019. Corporate incubators as knowledge brokers between business units and ventures. *European Journal of Innovation Management*: DOI: 10.1108/EJIM-12-2017-0201.
- Kroh, J., H. Luetjen, D. Globocnik, and C. Schultz. 2018. Use and Efficacy of Information Technology in Innovation Processes: The Specific Role of Servitization. *Journal of Product Innovation Management* 35 (5): 720–41.

- Krueger, N. 1993. The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. *Entrepreneurship Theory and Practice* 18 (1): 5–21.
- Kruft, T., M. Gamber, and A. Kock. 2018. Substitutes or Complements? The Role of Corporate Incubator Support and Innovation Climate for Innovative Behavior in the Hosting Firm. *International Journal of Innovation Management* 22 (5): 1840006: 1-29.
- Kruft, T., C. Tilsner, A. Schindler, and A. Kock. 2019. Persuasion in corporate idea contests: the moderating role of content scarcity on decision making. *Journal of Product Innovation Management* 36 (5): 560–585.
- Kruglanski, A. W., and E. P. Thompson. 1999. Persuasion by a single route: A view from the unimodel. *Psychological Inquiry* 10 (2): 83–109.
- Kunz, V. 2009. Sport as a post-disaster psychosocial intervention in Bam, Iran. *Sport in Society* 12 (9): 1147–57.
- Lam, C. F. U., L. Rees, L. L. Levesque, and S. Ornstein. 2018. Shooting from the Hip: A habit perspective of voice. *Academy of Management Review* 43 (3): 470–86.
- Lane, P. J., J. E. Salk, and M. A. Lyles. 2001. Absorptive Capacity, Learning, and Performance in International Joint Ventures. *Strategic Management Journal* 22 (12): 1139.
- LeBreton, J. M., and J. L. Senter. 2008. Answers to 20 Questions About Interrater Reliability and Interrater Agreement. *Organizational Research Methods* 11 (4): 815–52.
- Leifer, R., G. Colarelli O'Connor, and M. Rice. 1993. Implementing Radical Innovation in Mature Firms: The Role of Hubs. *The Academy of Management Executive* 15 (3): 102–13.
- Leimeister, J. M., M. Huber, U. Bretschneider, and H. Krcmar. 2009. Leveraging Crowdsourcing: Activation-Supporting Components for IT-Based Ideas Competition. *Journal of Management Information Systems* 26 (1): 197–224.
- Leonard-Barton, D. 1985. *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation*. Harvard Business Review Press.
- Lewin, K. 1951. Field theory in social science. In *Resolving Social Conflicts and Field Theory in Social Science*, 1st ed. Amer Psychological Assn.
- Lewis, B. R., G. F. Templeton, and T. A. Byrd. 2005. A methodology for construct development in MIS research. *European Journal of Information Systems* 14 (4): 388–400.
- Liedtka, J. 2015. Perspective: Linking Design Thinking with Innovation Outcomes through Cognitive Bias Reduction. *Journal of Product Innovation Management* 32 (6): 925–38.
- Lindell, M. K., and C. J. Brandt. 2000. Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology* 85 (3): 331–48.
- Long, J. S. 1997. *Regression models for categorical and limited dependent variables*. Thousand Oaks, California: Sage Publ Inc.
- López-Nicolás, C., F. J. Molina-Castillo, and H. Bouwman. 2008. An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models. *Information and Management* 45 (6): 359–64.
- Lu, S., K. M. Bartol, V. Venkataramani, X. Zheng, and X. Liu. 2018. Pitching Novel Ideas to the Boss: The Interactive Effects of Employees' Idea Enactment and Influence Tactics on Creativity Assessment and Implementation. *Academy of Management Journal* 62 (2): 579–606.

- Lyles, M. A., R. van Wijk, and J. J. P. Jansen. 2008. Inter- and Intra-Organizational Knowledge Transfer: A Meta-Analytic Review and Assessment of its Antecedents and Consequences. *Journal of Management Studies* 45 (4): 830–53.
- Van Maanen, J. E., and E. H. Schein. 1979. Toward a theory of organizational socialization. In *Research in Organizational Behavior*, ed. B. M. Staw and Robert I. Sutton, 22nd ed., 209–64. Elsevier.
- Mack, T., and C. Landau. 2015. Winners, losers, and deniers: Self-selection in crowd innovation contests and the roles of motivation, creativity, and skills. *Journal of Engineering and Technology Management* 37: 52–64.
- Macmillan, I. C., and P. N. S. Narasimha. 1987. Research notes and communications: Characteristics distinguishing funded from unfunded business plans evaluated by venture capitalists. *Strategic Management Journal* 8 (6): 579–85.
- Magadley, W., and K. Birdi. 2009. Innovation Labs: An Examination into the Use of Physical Spaces to Enhance Organizational Creativity. *Creativity and Innovation Management* 18 (4): 315–325.
- Magnusson, P. R., E. Wästlund, and J. Netz. 2014. Exploring Users' Appropriateness as a Proxy for Experts When Screening New Product/Service Ideas. *Journal of Product Innovation Management* 33 (1): 4–18.
- Maine, E. 2008. Radical innovation through internal corporate venturing: Degussa's commercialization of nanomaterials. *R&D Management* 38 (4): 359–71.
- Makarevich, A. 2017. Organizing for success in internal corporate venturing: An inductive case study of a multinational consumer goods company. *Creativity and Innovation Management* 26 (2): 189–201.
- Mallat, N., M. Rossi, V. K. Tuunainen, and A. Öörni. 2009. The impact of use context on mobile services acceptance: The case of mobile ticketing. *Information and Management* 46 (3): 190–5.
- Marxt, C., and P. Link. 2002. Success factors for cooperative ventures in innovation and production systems. *International Journal of Production Economics* 77 (3): 219–29.
- Mayer, R. C., J. H. Davis, and F. D. Schoorman. 1995. An Integrative Model of Organizational Trust. *The Academy of Management Review* 20 (3): 709–34.
- Mcgrath, R. G. 1999. Falling forward. Real options reasoning and entrepreneurial failure. *Academy of Management Review* 24 (1): 13–30.
- McGrath, R. G. 2001. Exploratory learning , innovative capacity , and managerial oversight. *Academy of Management Journal* 44 (1): 118–31.
- McGrath, R. G., T. Keil, and T. Tukiainen. 2006. Extracting value from corporate venturing. *MIT Sloan Management Review* 48 (1). Massachusetts Institute of Technology, Cambridge, MA: 50.
- Mead, G. H. 1934. *Mind, self and society*. Chicago: University of Chicago Press.
- Meier, M., and M. Saavedra. 2009. Esther Phiri and the Moutawakel effect in Zambia: An analysis of the use of female role models in sport-for-development. *Sport in Society* 12 (9): 1158–76.
- Menon, T., and S. Blount. 2003. The Messenger Bias: a Relational Model of Knowledge Valuation. *Research in Organizational Behavior* 25 (03): 137–86.

- Merriam, S. B. 1991. How research produces knowledge. *Adult education: Evolution and achievements in a developing field of study*. Jossey-Bass San Francisco, CA: 42–65.
- Mian, S., W. Lamine, and A. Fayolle. 2016. Technology Business Incubation: An overview of the state of knowledge. *Technovation* 50–51. Elsevier: 1–12.
- Miles, M. P., and J. G. Covin. 2002. Exploring the Practice of Corporate Venturing: Some Common Forms and Their Organizational Implications. *Entrepreneurship Theory and Practice* 26 (3): 21–40.
- Milligan, G. W., and M. C. Cooper. 1987. Methodology review: Clustering methods. *Applied psychological measurement* 11 (4): 329–54.
- Miron, E., M. Erez, and E. Naveh. 2004. Do Personal Characteristics and Cultural Values That Promote Innovation, Quality and Efficiency Complete or Complement Each Other? *Journal of Organizational Behavior* 25 (2): 179–99.
- Montani, F., C. Odoardi, and A. Battistelli. 2014. Individual and contextual determinants of innovative work behaviour: Proactive goal generation matters. *Journal of Occupational and Organizational Psychology* 87 (4): 645–70.
- Moore, M. 1993. Theory of transactional distance. In *Theoretical Principles of Distance Education*, ed. D. Keegan, 22–38. Routledge.
- Morvan, P. Le. 2004. Arguments against direct realism and how to counter them. *American Philosophical Quarterly* 41 (3): 221–34.
- Mossholder, K. W., and H. D. Dewhirst. 1980. The appropriateness of management by objectives for development and research personnel. *Journal of Management* 6 (2): 145–56.
- Mueller, J. S., S. Melwani, and J. A. Goncalo. 2012. The bias against creativity: Why people desire but reject creative ideas. *Psychological Science* 23 (1): 13–7.
- Mumford, M. D., G. M. Scott, B. Gaddis, and J. M. Strange. 2002. Leading creative people: Orchestrating expertise and relationships. *Leadership Quarterly* 13 (6): 705–50.
- Murphy, P. K., J. F. Long, T. A. Holleran, and E. Esterly. 2003. Persuasion online or on paper: A new take on an old issue. *Learning and Instruction* 13 (5): 511–32.
- Nambisan, S. 2013. Information Technology and Product/Service Innovation: A Brief Assessment and Some Suggestions for Future Research. *Journal of the Association for Information Systems* 14 (April 2013): 215–26.
- Narayanan, V. K., Y. Yang, and S. A. Zahra. 2009. Corporate venturing and value creation: A review and proposed framework. *Research Policy* 38 (1): 58–76.
- Neck, H. M., G. D. Meyer, B. Cohen, and A. C. Corbett. 2004. An Entrepreneurial System View of New Venture Creation. *Journal of Small Business Management* 42 (2): 190–208.
- Neider, L. L., and C. A. Schriesheim. 2011. The Authentic Leadership Inventory (ALI): Development and empirical tests. *Leadership Quarterly* 22 (6). Elsevier B.V.: 1146–64.
- Newman, M. L., J. W. Pennebaker, D. S. Berry, and J. M. Richards. 2003. Lying Words: Predicting Deception From Linguistic Styles. *Personality and Social Psychology Bulletin* 29 (5): 665–75.
- Nicholson, S. 2015. A recipe for meaningful gamification. In *Gamification in Education and Business*, ed. L. Wood and T. Reiners, 1–20. New York: Springer.

- Nickerson, R. S. 1985. Enhancing creativity. In *The nature of creativity*, ed. R. J. Sternberg, 11–38. Cambridge, UK: Cambridge University Press.
- Niederkofler, M. 1991. The evolution of strategic alliances: Opportunities for managerial influence. *Journal of Business Venturing* 6 (4): 237–57.
- Nohria, N., and R. Gulati. 1996. Is slack good or bad for innovation? *Academy of Management Journal* 39 (5): 1245–64.
- Norton, E. C., H. Wang, and C. Ai. 2004. Computing interaction effects and standard errors in logit and probit models. *The Stata Journal* 4 (2): 154–67.
- Nylén, D., and J. Holmström. 2015. Digital innovation strategy: A framework for diagnosing and improving digital product and service innovation. *Business Horizons* 58 (1): 57–67.
- O'Connor, G. C., and A. D. Ayers. 2001. Building a radical innovation competency. *Research-Technology Management* 48 (1): 23–31.
- O'Connor, G. C., and R. DeMartino. 2006. Organizing for radical innovation: An exploratory study of the structural aspects of RI management systems in large established firms. *Journal of Product Innovation Management* 23 (6): 475–97.
- O'Reilly, C. A. 1980. Individuals and Information Overload in Organizations: Is More Necessarily Better? *Academy of Management Journal* 23 (4): 684–96.
- O'Reilly, C. A., and M. L. Tushman. 2004. The ambidextrous organization. *Harvard Business Review*.
- O'Reilly, C. a. 1989. Corporations, Culture, and Commitment: Motivation and Social Control in Organizations. *California Management Review* 31: 9–25.
- Ohe, T., S. Honjo, and D. B. Merrifield. 1992. Japanese Corporate Ventures: Success Curve. *Journal of Business Venturing* 7: 171–80.
- Oldham, G. R., and A. Cummings. 1996. Employee creativity: Personal and contextual factors at work. *Academy of Management Journal* 39 (3): 607–34.
- Olleros, X. 2008. The lean core in digital platforms. *Technovation* 28 (5): 266–76.
- Osterwalder, A., and Y. Pigneur. 2010. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. A handbook for visionaries, game changers, and challengers.*
- Ouchi, W. G. 1977. The relationship between organizational structure and organizational control. *Administrative Science Quarterly* 22: 95–113.
- Parhankangas, A., and M. Ehrlich. 2014. How entrepreneurs seduce business angels: An impression management approach. *Journal of Business Venturing* 29 (4): 543–64.
- Parke, M. R., and M.-G. Seo. 2017. The Role of Affect Climate in Organizational Effectiveness. *Academy of Management Review* 42 (2): 334–60.
- Parker, G. G., M. W. A. Van, and S. P. Choudary. 2016. *Platform Revolution: How networked markets are transforming the economy - and how to make them work for you.* New York: W.W. Norton & Company.
- Parker, S. K., H. M. Williams, and N. Turner. 2006. Modeling the antecedents of proactive behavior at work. *The Journal of applied psychology* 91 (3): 636–52.
- Patterson, M. G., M. A. West, V. J. Shackleton, J. F. Dawson, R. Lawthom, S. Maitlis, D. L. Robinson, and A. M. Wallace. 2005. Validating the organizational climate measure: Links

- to managerial practices, productivity and innovation. *Journal of Organizational Behavior* 26 (4): 379–408.
- Pauwels, C., B. Clarysse, M. Wright, and J. Van Hove. 2016. Understanding a new generation incubation model: The accelerator. *Technovation* 50–51: 13–24.
- Pechmann, C. 1992. Predicting When Two-Sided Ads Will Be More Effective than One-Sided Ads: The Role of Correlational and Correspondent Inferences. *Journal of Marketing Research* 29 (4): 441.
- Pennebaker, J. W., R. J. Booth, and M. E. Francis. 2007. Linguistic inquiry and word count: LIWC [Computer software]. Austin, TX: *liwc.net*.
- Pennebaker, J. W., C. K. Chung, J. Frazee, G. M. Lavergne, and D. I. Beaver. 2014. When small words foretell academic success: The case of college admissions essays. *PLoS ONE* 9 (12): 1–10.
- Pessoa, L. 2008. On the relationship between emotion and cognition. *Nature Reviews Neuroscience* 9 (2): 148–58.
- Petty, R. ., and J. . Cacioppo. 1986. The elaboration likelihood model of persuasion. In *Communication and Persuasion*, 123–62. New York: Academic: Press.
- Petty, R. E., D. T. Wegener, and L. R. Fabrigar. 1997. Attitudes and attitude change. *Annual Review of Psychology* 48: 609–47.
- Pfarrer, M. D., T. G. Pollock, and V. P. Rindova. 2010. A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. *Academy of Management Journal* 53 (5): 1131–52.
- Pham, M. T., and T. Avnet. 2004. Ideals and oughts and the reliance on affect versus substance in persuasion. *Journal of Consumer Research* 30 (4): 503–18.
- Pieterse, A. N., D. van Knippenberg, M. Schippers, and D. Stam. 2012. Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *Journal of Organizational Behavior* 31 (4): 609–23.
- Piezunka, H., and L. Dahlander. 2015. Distant Search, Narrow Attention: How Crowding Alters Organizations' Filtering of Suggestions in Crowdsourcing. *Academy of Management Journal* 58 (3): 856–80.
- Piezunka, H., and L. Dahlander. 2018. Idea Rejected, Tie Formed: Organizations' Feedback on Crowdsourced Ideas. *Academy of Management Journal*.
- Podsakoff, P. M., S. B. MacKenzie, J. Y. Lee, and N. P. Podsakoff. 2003. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88 (5): 879–903.
- Poetz, M. K., and M. Schreier. 2012. The value of crowdsourcing: Can users really compete with professionals in generating new product ideas? *Journal of Product Innovation Management* 29 (2): 245–56.
- Porpora, D. V. 2013. Morphogenesis and Social Change. In *Social morphogenesis*, ed. M. S. Archer, 25–37. Springer Netherlands.
- Preacher, K. J., and A. F. Hayes. 2008. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods* 40 (3): 879–91.

- Preacher, K. J., D. D. Rucker, and A. F. Hayes. 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research* 42 (1): 185–227.
- Prelić, A., S. Bleuler, P. Zimmermann, A. Wille, P. Bühlmann, W. Gruissem, L. Hennig, L. Thiele, et al. 2006. A systematic comparison and evaluation of biclustering methods for gene expression data. *Bioinformatics* 22 (9): 1122–9.
- Quinn, R. E., and J. Rohrbaugh. 1981. A Competing Values Approach to Organizational Effectiveness. *Public Productivity Review* 5 (2): 122–40.
- Rai, A., and X. Tang. 2010. Leveraging IT capabilities and competitive process capabilities for the management of interorganizational relationship portfolios. *Information Systems Research* 21 (3): 516–42.
- Raisch, S., J. Birkinshaw, G. Probst, and M. L. Tushman. 2009. Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science* 20 (4): 685–95.
- Ramamoorthy, N., P. C. Flood, T. Slattery, and R. Sardesai. 2005. Determinants of innovative work behaviour: Development and test of an integrated model. *Creativity and Innovation Management* 14 (2): 142–50.
- Rangel, A., C. Camerer, and P. R. Montague. 2008. Neuroeconomics: The neurobiology of value-based decision-making. *Nature Reviews Neuroscience* 9 (7): 545–56.
- Recker, J., A. Malsbender, and T. Kohlborn. 2016. Using Enterprise Social Networks as Innovation Platforms. *IT Professional* 18 (2): 42–9.
- Rein, I., and B. Shields. 2007. Place branding sports: Strategies for differentiating emerging, transitional, negatively viewed and newly industrialised nations. *Place Branding and Public Diplomacy* 3 (1): 73–85.
- Reiss, S. 2004. Multifaceted Nature of Intrinsic Motivation: The Theory of 16 Basic Desires. *Review of General Psychology* 8 (3): 179–93.
- Reiss, S., and S. M. Havercamp. 1998. Toward a comprehensive assessment of fundamental motivation. *Psychological Assessment* 10 (2): 97.
- Reitzig, M., and O. Sorenson. 2013. Biases in the selection stage of bottom-up strategy formulation. *Strategic Management Journal* 34 (7): 782–99.
- Remneland-Wikhamn, B., and W. Wikhamn. 2011. Open innovation climate measure: The introduction of a validated scale. *Creativity and Innovation Management* 20 (4): 284–95.
- Renko, M., K. G. Kroeck, and A. Bullough. 2012. Expectancy theory and nascent entrepreneurship. *Small Business Economics* 39 (3): 667–84.
- De Reuver, M., C. Sørensen, and R. C. Basole. 2018. The digital platform: A research agenda. *Journal of Information Technology* 33 (2): 124–35.
- Rhoades, L., and R. Eisenberger. 2002. Perceived organizational support: A review of the literature. *Journal of Applied Psychology* 87 (4): 698–714.
- Rhodes, R. E., and G. J. De Bruijn. 2013. How big is the physical activity intention-behaviour gap? A meta-analysis using the action control framework. *British Journal of Health Psychology* 18 (2): 296–309.
- Riggle, R. J., D. R. Edmondson, and J. D. Hansen. 2009. A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research* 62 (10). Elsevier Inc.: 1027–30.

- Roberts, E. B. 1980. New ventures for corporate growth. *Harvard Business Review* 58 (4): 134–42.
- Roberts, J. A., I. H. Hann, and S. A. Slaughter. 2006. Understanding the motivations, participation, and performance of open source software developers: A longitudinal study of the Apache projects. *Management Science* 52 (7): 984–99.
- Roberts, P. W., and G. R. Dowling. 2002. Corporate reputation and sustained superior financial performance. *Strategic Management Journal* 23 (12): 1077–93.
- Robeson, D., and G. O'Connor. 2007. The governance of innovation centers in large established companies. *Journal of Engineering and Technology Management* 24: 121–47.
- Rode, H. 2016. To share or not to share: The effects of extrinsic and intrinsic motivations on knowledge-sharing in enterprise social media platforms. *Journal of Information Technology* 31 (2). Nature Publishing Group: 152–65.
- Rogers, C. R. 1954. Toward a theory of creativity. *ETC: A review of general semantics*. JSTOR: 249–60.
- Rose, L. H., and H.-T. Lin. 1984. A Meta-Analysis of Long-Term Creativity Training Programs. *The Journal of Creative Behavior* 18 (1): 11–22.
- Rost, K., K. Hölzle, and H.-G. Gemünden. 2007. Promotors or champions? Pros and cons of role specialisation for economic process. *Schmalenbach Business Review* 59 (October): 340–63.
- Rothaermel, F. T., and M. T. Alexandre. 2009. Ambidexterity in Technology Sourcing: The Moderating Role of Absorptive Capacity. *Organization Science* 20 (4): 759–80.
- Rotter, J. B. 1954. *Social learning and clinical psychology*. Englewood Cliffs, NJ, US: Prentice-Hall, Inc.
- Salomo, S., K. Talke, and N. Strecker. 2008. Innovation field orientation and its effect on innovativeness and firm performance. *Journal of Product Innovation Management* 25 (6): 560–76.
- Salter, A., and D. Gann. 2003. Sources of ideas for innovation in engineering design. *Research Policy* 32 (8): 1309–24.
- Salton, G., C. Buckley, and E. A. Fox. 1983. Automatic query formulations in information retrieval. *Journal of the American Society for Information Science* 34 (4): 262–80.
- Sambamurthy, V., and R. W. Zmud. 2000. The Organizing Logic for an Enterprise's IT Activities in the Digital Era - A Prognosis of Practice and a Call for Research. *Information Systems Research* 11 (2): 105–14.
- Schein, E. H. 1985. *Organizational culture and leadership: A dynamic view*. The Jossey-Bass Management Series and The Jossey-Bass Social and Behavioral Science Series. San Francisco, CA, US: Jossey-Bass.
- Schemmann, B., A. M. Herrmann, M. M. H. Chappin, and G. J. Heimeriks. 2016. Crowdsourcing ideas: Involving ordinary users in the ideation phase of new product development. *Research Policy* 45 (6): 1145–54.
- Schiersmann, C., and H.-U. Thiel. 2009. *Organisationsentwicklung*. Wiesbaden, DE: VS Verlag für Sozialwissenschaften/GWV Fachverlage GmbH.
- Schippers, M. C., M. A. West, and J. F. Dawson. 2015. Team Reflexivity and Innovation. *Journal of Management* 41 (3): 769–88.

- Schneider, B., and C. J. Bartlett. 1968. Organizational Climate I: The Research Plan and Questionnaire Development. *Personnel Psychology* 21 (3): 323–33.
- Schneider, B., A. N. Salvaggio, and M. Subirats. 2002. Climate strength: A new direction for climate research. *Journal of Applied Psychology* 87 (2): 220–9.
- Schneider, B., M. G. Ehrhart, and W. H. Macey. 2013. Organizational Climate and Culture. *Annual Review of Psychology* 64 (1): 361–88.
- Schöll, L., and R. Hirte. 2018. Incubation in Multinational Corporations: How to Enhance the Flow of Resources Between Key Stakeholders. In *ICE/IEEE International Conference on Engineering, Technology and Innovation*. Stuttgart.
- Schulte, M., C. Ostroff, and A. J. Kinicki. 2006. Organizational climate systems and psychological climate perceptions: A cross-level study of climate-satisfaction relationships. *Journal of Occupational and Organizational Psychology* 79: 645–71.
- Schuurman, D., B. Baccarne, L. De Marez, and P. Mechant. 2012. Smart ideas for smart cities: Investigating crowdsourcing for generating and selecting ideas for ICT innovation in a city context. *Journal of Theoretical and Applied Electronic Commerce Research* 7 (3): 49–62.
- Schweiger, D. M., W. R. Sandberg, and J. W. Ragan. 1986. Group Approaches for Improving Strategic Decision Making: a Comparative Analysis of Dialectical Inquiry, Devil's Advocacy, and Consensus. *Academy of Management Journal* 29 (1): 51–71.
- Schweisfurth, T. G., M. A. Zaggl, and C. P. Schöttl. 2017. Does Similarity Between Evaluator and Creator Affect the Evaluation of Ideas? *Academy of Management Annual Meeting Proceedings*: 1–6.
- Schyns, B., M. van Veldhoven, and S. Wood. 2009. Organizational climate, relative psychological climate and job satisfaction. *Leadership & Organization Development Journal* 30 (7): 649–63.
- Scott, S. G., and R. A. Bruce. 1994. Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace. *Academy of Management Journal* 37 (3): 580–607.
- Sedera, D., S. Lokuge, V. Grover, Suprateek Sarker, and Saonee Sarker. 2016. Innovating with enterprise systems and digital platforms: A contingent resource-based theory view. *Information and Management* 53 (3). Elsevier B.V.: 366–79.
- Segal, G., D. Borgia, and J. Schoenfeld. 2005. The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour and Research* 11 (1): 42–57.
- Selig, C. J., T. Gasser, and G. H. Baltes. 2018. How Corporate Accelerators foster Organizational Transformation: An internal Perspective. In *IEEE International Conference on Engineering, Technology and Innovation*.
- Sethi, R., D. Smith, and W. Park. 2001. Cross-Functional Product Development Teams, Creativity, and the Innovativeness of New Consumer Products. *Journal of Marketing Research* 38 (1): 73–85.
- Sethibe, T., and R. Steyn. 2017. The Impact of Leadership Styles and the Components of Leadership Styles on Innovative Behaviour. *International Journal of Innovation Management* 21 (02): 1750015.
- Shadish, W. R. 1993. Critical multiplism: A research strategy and its attendant tactics. *New Directions for Program Evaluation* 1993 (60): 13–57.

- Shalley, C. E., and J. E. Perry-Smith. 2001. Effects of Social-Psychological Factors on Creative Performance: The Role of Informational and Controlling Expected Evaluation and Modeling Experience. *Organizational Behavior and Human Decision Processes* 84 (1): 1–22.
- Shane, S., E. A. Locke, and C. J. Collins. 2003. Entrepreneurial motivation. *Human resource management review* 13 (2). Elsevier: 257–79.
- Shankar, R. K., and D. A. Shepherd. 2018. Accelerating strategic fit or venture emergence: Different paths adopted by corporate accelerators. *Journal of Business Venturing* (June): 1–19.
- Shanker, R., R. Bhanugopan, B. I. J. M. van der Heijden, and M. Farrell. 2017. Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of Vocational Behavior* 100. Elsevier Inc.: 67–77.
- Shepherd, D. A., J. G. Covin, and D. F. Kuratko. 2009. Project failure from corporate entrepreneurship: Managing the grief process. *Journal of Business Venturing* 24 (6): 588–600.
- Siegel, S. M., and W. F. Kaemmerer. 1978. Measuring the Perceived Support for Innovation in Organizations. *Journal of Applied Psychology* 63 (5): 553–62.
- Slooman, S. A. 1996. The Empirical Case for Two Systems of Reasoning. *Psychological Bulletin* 119 (1): 3–22.
- Smilor, R. W., and M. D. Gill. 1986. *The new business incubator: linking talent, technology, capital, and knowhow*. Lexington (Massachusetts): Lexington Books.
- Smith, E. R., and J. DeCoster. 2000. Dual-Process Models in Social and Cognitive Psychology: Conceptual Integration and Links to Underlying Memory Systems. *Personality and Social Psychology Review* 4 (2): 108–31.
- Soetanto, D. P., and S. L. Jack. 2013. Business incubators and the networks of technology-based firms. *Journal of Technology Transfer* 38 (4): 432–53.
- Solis, B., J. Buvat, R. R. Singh, and S. KVJ. 2015. The Innovation Game: Why and How Businesses are Investing in Innovation Centers Why Should Companies Launch Innovation Centers? *Capgemini Consulting*.
- Spaaij, R. 2009. The social impact of sport: Diversities, complexities and contexts. *Sport in Society* 12 (9): 1109–17.
- Steel, P., and C. J. König. 2006. Integrating theories of motivation. *Academy of Management Review* 31 (4): 889–913.
- Stone, D. L., and K. M. Lukaszewski. 2009. An expanded model of the factors affecting the acceptance and effectiveness of electronic human resource management systems. *Human Resource Management Review* 19 (2): 134–43.
- Surowiecki, J. 2004. *The Wisdom of Crowds*. Random House Inc.
- Swigger, N. 2013. The Online Citizen: Is Social Media Changing Citizens' Beliefs About Democratic Values? *Political Behavior* 35 (3): 589–603.
- Takahashi, M., M. Indulska, and J. Steen. 2018. Collaborative Research Project Networks: Knowledge Transfer at the Fuzzy Front End of Innovation. *Project Management Journal* 49 (4): 36–52.
- Thompson, N. A. 2017. Imagination and Creativity in Organizations. *Organization Studies* 39 (2–3): 1–22.

- Thompson, V. A. 2009. Dual-process theories: A metacognitive perspective. In *In Two Minds: Dual Processes and Beyond*, ed. J. Evans and K. Frankish, 1st ed. Oxford, England: Oxford University Press.
- Thompson, V. A., J. A. Prowse Turner, and G. Pennycook. 2011. Intuition, reason, and metacognition. *Cognitive Psychology* 63 (3): 107–40.
- Tian, X., and T. Y. Wang. 2014. Tolerance for failure and corporate innovation. *Review of Financial Studies* 27 (1): 211–55.
- Tierney, P., S. M. Farmer, and G. B. Graen. 1999. An Examination of Leadership and Employee Creativity: the Relevance of Traits and Relationships. *Personnel Psychology* 52: 591–620.
- Tilson, D., C. Sorensen, and K. Lyytinen. 2012. Change and Control Paradoxes in Mobile Infrastructure Innovation. *45th Hawaii International Conference on System Science*: 1324–33.
- Tiwana, A. 2014. *Platform Ecosystems: Aligning Architecture, Governance, and Strategy*. Waltham, MA: Morgan Kaufmann.
- Tomlinson, A., and J. Sugden. 1994. Hosts and champions: Soccer cultures, national identities and the USA World Cup. Aldershot: Arena.
- Tomz, M., G. King, and L. Zeng. 2003. ReLogit: Rare events logistic regression. *Journal of statistical software* 8 (i02). Foundation for Open Access Statistics.
- Troilo, G., L. M. De Luca, and K. Atuahene-Gima. 2014. More innovation with less? A strategic contingency view of slack resources, information search, and radical innovation. *Journal of Product Innovation Management* 31 (2): 259–77.
- Tu, Y., and X. Lu. 2013. How Ethical Leadership Influence Employees' Innovative Work Behavior: A Perspective of Intrinsic Motivation. *Journal of Business Ethics* 116 (2): 441–55.
- Turban, D. B., and D. M. Cable. 2003. Firm reputation and applicant pool characteristics. *Journal of Organizational Behavior* 24 (6): 733–51.
- Uittenbogaard, B., L. Broens, and A. J. Groen. 2005. Towards a Guideline for Design of a Corporate Entrepreneurship Function for Business Development in Medium-Sized Technology-Based Companies. *Creativity and Innovation Management* 14 (3): 258–71.
- Vachani, S., J. P. Doh, and H. Teegen. 2009. NGOs' influence on MNEs' social development strategies in varying institutional contexts: A transaction cost perspective. *International Business Review* 18 (5): 446–56.
- Valente, T. W. 2012. Network interventions. *Science* 336 (6090): 49–53.
- Vanderstraeten, J., and P. Matthyssens. 2012. Service-based differentiation strategies for business incubators: Exploring external and internal alignment. *Technovation* 32 (12). Elsevier: 656–70.
- Vanhaverbeke, W., and N. Peeters. 2005. Embracing Innovation as Strategy: Corporate Venturing, Competence Building and Corporate Strategy Making. *Creativity and Innovation Management* 14 (3): 246–57.
- van de Ven, A. 1986. Central problems in the management of innovation. *Management Science* 32 (5): 590–607.
- Vermeulen, J., and P. Verweel. 2009. Participation in sport: Bonding and bridging as identity work. *Sport in Society* 12 (9): 1206–19.

- Voisey, P., L. Gornall, P. Jones, and B. Thomas. 2006. The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development* 13 (3): 454–68.
- Vroom, V. H. 1964. *Work and Motivation*. New York: John Wiley & Sons.
- Vveinhardt, J., and E. Gulbovaite. 2017. Models of Congruence of Personal and Organizational Values: How Many Points of Contact are There Between Science and Practice? *Journal of Business Ethics* 145 (1). Springer Netherlands: 111–31.
- Wang, C.-W., and R.-Y. Horng. 2002. The effects of creative problem solving training on creativity, cognitive type and R&D performance. *R&D Management* 32 (1): 35–45.
- Wang, S. L., and P. Y. Wu. 2008. The role of feedback and self-efficacy on web-based learning: The social cognitive perspective. *Computers and Education* 51 (4): 1589–98.
- Ward, J. H. 1963. Hierarchical Grouping to Optimize an Objective Function. *Journal of the American Statistical Association* 58 (301): 236–44.
- Wardekker, W. L. 2001. Schools and moral education: Conformism or autonomy? *Journal of Philosophy of Education* 35 (1): 101–14.
- Watson, D., L. A. Clark, and A. Tellegen. 1988. Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales. *Journal of Personality and Social Psychology* 54 (6): 1063–70.
- Weber, C., and B. Weber. 2011. Exploring the antecedents of social liabilities in CVC triads-A dynamic social network perspective. *Journal of Business Venturing* 26 (2). Elsevier Inc.: 255–72.
- Weiblen, T., and H. W. Chesbrough. 2015. Engaging with startups to enhance corporate innovation. *California Management Review* 57 (2): 66–90.
- West, J., and M. Bogers. 2014. Leveraging external sources of innovation: A review of research on open innovation. *Journal of Product Innovation Management* 31 (4): 814–31.
- West, M. A. 2000. Reflexivity, revolution and innovation in work teams. In *Product development teams*, ed. M. M. Beyerlein and D. A. Johnson, 1–29. Stamford, CT: JAI Press.
- West, M. A. 2002. Response: Ideas are ten a penny - It's team implementation not idea generation that counts. *Applied Psychology* 51 (3): 411–24.
- Wildemuth, B. 1993. Post-positivist research: two examples of methodological pluralism. *Library Quarterly* 63 (4): 450–68.
- Williams, C. 2007. Research Methods. *Journal of Business & Economic Research* 5 (3): 65–72.
- Winter, C., and R. Firth. 2007. Knowledge about Education for Sustainable Development: Four case studies of student teachers in English secondary schools. *Journal of Education for Teaching* 33 (3): 341–58.
- Wood, R., and A. Bandura. 1989. Social Cognitive Theory of Organizational Management. *Academy of Management Review* 14 (3): 361–84.
- Woodman, R. W., and L. F. Schoenfeldt. 1990. An interactionist model of creative behavior. *Journal of Creative Behavior* 24 (4): 279–90.
- Woodman, R. W., J. E. Sawyer, and R. W. Griffin. 1993. Toward a Theory of Organizational Creativity. *Academy of Management Review* 18 (2): 293–321.

- Wooldridge, J. M. 2015. Control Function Methods in Applied Econometrics. *Journal of Human Resources* 50 (2): 420–45.
- Yoon, E., H. J. Guffey, and V. Kijewski. 1993. The effects of information and company reputation on intentions to buy a business service. *Journal of Business Research* 27 (3): 215–28.
- Young, M. J., C. W. Bauman, N. Chen, and A. Bastardi. 2012. The pursuit of missing information in negotiation. *Organizational Behavior and Human Decision Processes* 117 (1): 88–95.
- Yuan, F., and R. W. Woodman. 2010. Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal* 53 (2): 323–42.
- Von Zedtwitz, M. 2003. Classification and management of incubators: aligning strategic objectives and competitive scope for new business facilitation. *International Journal of Entrepreneurship and Innovation Management* 3 (1–2): 176–96.
- Zhang, X., and K. M. Bartol. 2010. Linking empowering leadership and employee creativity: the influence of psychological empowerment, intrinsic motivation, and creative process management. *Academy of Management Journal* 53 (1): 107–28.
- Zhao, X., J. G. Lynch, and Q. Chen. 2010. Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research* 37 (2): 197–206.
- Zhou, J. 2003. When the presence of creative coworkers is related to creativity: Role of supervisor close monitoring, developmental feedback, and creative personality. *Journal of Applied Psychology* 88 (3): 413–22.
- Zhou, J. 2008. Promoting creativity through feedback. In *Handbook of organizational creativity*, ed. J. Zhou and C. E. Shalley. New York: Erlbaum.
- Zhu, H., A. Kock, M. Wentker, and J. Leker. 2019. How Does Online Interaction Affect Idea Quality? The Effect of Feedback in Firm-internal Idea Competitions. *Journal of Product Innovation Management* 36 (1): 24–40.
- Zhu, J. J., S. Y. Li, and M. Andrews. 2017. Ideator Expertise and Cocreator Inputs in Crowdsourcing-Based New Product Development. *Journal of Product Innovation Management* 34 (5): 598–616.
- Zhu, Y. Q., D. G. Gardner, and H. G. Chen. 2018. Relationships Between Work Team Climate, Individual Motivation, and Creativity. *Journal of Management* 44 (5): 2094–115.
- Zohar, D., and G. Luria. 2005. A Multilevel Model of Safety Climate: Cross-Level Relationships Between Organization and Group-Level Climates. *Journal of Applied Psychology* 90 (4): 616–28.

Declaration of Authorship

I hereby declare that the submitted thesis is my own work. All quotes, whether word by word or in my own words, have been marked as such.

The thesis has not been published anywhere else nor presented to any other examination board.

Ich erkläre hiermit ehrenwörtlich, dass ich die vorliegende Arbeit selbstständig angefertigt habe. Sämtliche aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht.

Die Arbeit wurde bisher weder einer anderen Prüfungsbehörde vorgelegt noch veröffentlicht.

Tobias Kruff

Darmstadt, October 10, 2019