Moving forward: Reconciling future and past

Temporal work in strategy as practice and process

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Writing a dissertation is an incredible journey, and not only in glorified hindsight. It unlocks enthralling knowledge, bestows unique experiences and introduces one to fascinating people. Of course, it is also hard work and requires much effort and personal engagement. However, a person is not alone on this quest but is surrounded by people who offer support. Therefore, I would like to express my deep gratitude to all the persons who contributed to my research endeavor.

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Schwyz, December 2019 Simon A. Betschart

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SAPP	Strategy as practice and process
CEO	Chief executive officer
CINO	Chief innovation officer
IoT	Internet of Things

SUMMARY OF THE DISSERTATION

This dissertation presents an investigation of temporal work in strategizing and examines how management reconciles future and past.

To ensure future value creation, management – via strategizing – engages in the creation and enactment of projections of the future. While this strategizing is concerned with the future, it is also inextricably linked to the past: Strategizing happens in an established organizational context that is enabling but also restraining. To ensure future value creation and move forward accordingly, an organization's management must engage in temporal work and create strategic accounts by reconciling future and past. However, these aspects of temporal work in strategizing are under-researched. Therefore, this dissertation addresses this research gap with the following research question: *How does management reconcile future and past in strategizing in order to make it productive for future value creation?*

To answer the research question, this dissertation draws on strategy as practice and process (SAPP) as a theoretical lens. A theoretical framework is developed to explain how future and past are reconciled in strategizing. Hence, different perspectives on time are reviewed, and the significance of temporality as well as its enactment in relation to an organization's strategy work are examined. To complete the framework, a future-oriented notion of sensemaking is outlined alongside five key organizational dimensions, which provide the context for the reconciliation of future and past.

Based on an empirical case study with Belimo, a Swiss engineering company, this dissertation identifies nine practices to reconcile future and past: mobilizing history, adjusting the organizational setup, inducing decisions, creating strategic accounts, setting boundaries, zooming in and zooming out, mosaic working, aligning innovation with strategy and organization, submarining. To illustrate these practices in practice, a process map of a strategic innovation project is depicted in which the practices are located. Hence, the practices are contextualized within the theoretical framework, which results in the discovery of four temporality dynamics: stabilization work, integration work, future work, and (re)creation work.

The research indicates that the configuration of the practices to reconcile future and past strongly influences the strategy work of an organization. Management can contribute to successful strategizing by actively configuring the above nine practices and by consciously arranging the temporality dynamics. However, this refinement requires that management emphasizes temporal work in its strategizing.

ZUSAMMENFASSUNG DER DISSERTATION

Diese Dissertation untersucht, wie das Management einer Organisation Vergangenheit und Zukunft in seiner Strategie-Arbeit zusammenführt und dadurch produktiv macht.

Um die Voraussetzungen für eine zukunftsfähige Wertschöpfung zu schaffen, versucht das Management mit seiner Strategie-Arbeit, organisationale Zukunftsvorstellungen zu entwickeln und diese zu realisieren. Dabei beschäftigt sich Strategie-Arbeit jedoch nicht nur mit der Zukunft, sondern auch unausweichlich mit der Vergangenheit: Strategie-Arbeit findet in einem etablierten organisationalen Kontext statt, der gewisse Aktivitäten ermöglicht, aber auch einschränkt. Für die Realisierung einer zukunftsfähigen Wertschöpfung muss sich das Management in seiner Strategie-Arbeit mit den organisationalen Zukünften und Vergangenheiten auseinandersetzen. Da sich die Strategie-Forschung bisher nur unzureichend mit dieser Thematik beschäftigt hat, untersucht diese Dissertation diese Forschungslücke mit der folgenden Forschungsfrage: *Wie führt das Management in seiner Strategie-Arbeit Vergangenheit und Zukunft zusammen, um sie für die zukünftige organisationale Wertschöpfung produktiv zu machen?*

Auf Grundlage der Strategy as Practice and Process-Perspektive wird ein Framework entwickelt, das die Zusammenführung von Vergangenheiten und Zukünften in der organisationalen Strategie-Arbeit schematisch aufzeigt. Dazu werden unterschiedliche theoretische Überlegungen zu Zeit, Zeitlichkeit und Sensemaking im Hinblick auf ihren Einfluss auf die Strategie-Arbeit zusammengebracht. Für die Vervollständigung des Frameworks werden fünf organisationale Schlüsseldimensionen definiert, die als Kontext für die Zusammenführung von Vergangenheiten und Zukünften dienen.

Im Rahmen einer empirischen Studie mit Belimo, einem Schweizer KMU, beschreibt diese Dissertation neun Praktiken, mit denen das Management Vergangenheit und Zukunft zusammenführt. Diese Praktiken werden in einer prozessualen Rekonstruktion eines strategischen Innovationsprojekts der Belimo verortet, um ihre empirische Relevanz aufzuzeigen. Die Praktiken werden sodann im Framework kontextualisiert, was die Beschreibung von zeitlichen Dynamiken in der Strategie-Arbeit ermöglicht.

Die Dissertation zeigt auf, dass die Konfiguration der Praktiken die Strategie-Arbeit einer Organisation massgeblich beeinflusst. Durch die Betonung zeitlicher Aspekte und durch eine aktive Bearbeitung der zeitlichen Dynamiken erhält das Management einen Hebel, um die Voraussetzungen für eine zukunftsfähige Wertschöpfung zu schaffen.

PART 1 - INTRODUCTION

Organizations are inextricably embedded in time and temporality: On the one hand, they come from a certain past and have an organizational history with established routines, structures, processes, and practices. On the other hand, organizations continuously generate projections of the future and engage in the ongoing realization of these projections to ensure the future value creation of the organization. For instance, they develop plans, craft products, provide services, hire people, and allocate resources. In this context of future value creation, strategy work figures as an important activity, since strategy provides a trajectory of the organization’s future and indicates how the organization will move forward to ensure future value creation (Hamel and Prahalad 1994b; Mintzberg 1978; Rumelt 2011).

However, strategy work occurs not void of context but embedded in an organization with a history and a past that can be restraining or enabling. This context-sensitivity implies that the projections of the future generated by an organization arise from the past and are therefore inextricably related to that past. Whether implicitly or explicitly, an organization needs to address this issue when engaging in strategy work and strategizing (Gioia et al. 2002; Kaplan and Orlikowski 2013; Suddaby et al. 2010).

1.1 Research interest

The relation between future and past provides the context for a fascinating research puzzle within strategic management. Management is required to anticipate, project, and design an organization’s trajectory to future value creation (Giraudeau 2008; Hamel and Prahalad 1994a; Mintzberg 2007; Mirabeau and Maguire 2014; Rüegg-Stürm and Grand 2019; Rumelt 2011) – that is, to act strategically. Correspondingly, respective strategic activities are initiated to help the organization reach the anticipated future. However, the success is fragile, and the failure rate in terms of achieving strategic goals is high, since strategic activities “often lead to unanticipated outcomes and unintended consequences“ (Balogun 2006, p. 29).

The literature on strategic management states that these shortcomings and failures can be traced back to the fact that management lacks sufficient information in terms of strategy. For instance, theories of competitive advantage (Porter 1985; Ghemawat and Collis 2001) and resource-based views (Prahalad and Hamel 1990; Barney and Clark 2009) argue that management can generate more accurate projections of the future when sufficient information is at hand. Correct analysis of this information leads a company to strategic success. From this perspective, analyzing information is crucial for the successful moving forward towards the future value creation of an organization.

While analyzing sufficient information figures as a prominent method in these approaches, researchers such as Mintzberg (1994), Langley (1999), and Jarzabkowski (2003) emphasize the importance of synthesizing information in order to successfully perform strategy work. In this context, "synthesizing" means that a coherence between different organizational aspects and perspectives is achieved. This coherence facilitates the successful creation of shared strategic accounts regarding future value creation and allows an organization to move forward accordingly. If we look at the above-mentioned tension between projections of the future and their embeddedness in the past, synthesizing these different temporal dimensions becomes crucial for successful strategizing. In other words, management should reconcile future and past coherently in order to successfully strategize. This reasoning resonates with Butler's argument, which states that "[we] need to understand how participants in an organization think of their futures and relate them to the past" (1995, p. 929) in order to investigate the strategy work of an organization.

Indeed, recent studies in strategic management suggest that the linking of future and past in a coherent fashion eminently contributes to the success of a company's strategy work (Balogun et al. 2014; Ericson et al. 2015; Garud et al. 2010; Kumaraswamy et al. 2018; Spee and Jarzabkowski 2017). Rather than analysis, synthesis becomes a success factor for temporal work in strategizing:

> *[…] generating future forecasts is not so much about obtaining more information or analyzing information accurately as it is about the plausibility, coherence, and acceptability of accounts that link interpretations of the future to the past and present. Indeed, data are interpreted, translated, and reconceived in the light of past histories and present concerns as actors reimagine the future. (Kaplan and Orlikowski 2013, p. 990)*

Taking this argument seriously, management must engage in temporal work in strategizing to establish the preconditions for the organization's future value creation (Rüegg-Stürm and Grand 2019). It must continuously and profoundly link future and past. For instance, management has to explain how projected products (future) contribute to the organization's previously formulated strategy (past), why resource allocation (past) had to be reconfigured and shifted due to an anticipated new technology (future), or how the existing sales channels (past) should be altered with respect to new potential customers (future). These examples are merely illustrative, but they demonstrate the importance of relating future and past for successful strategy work.

If an organization fails to bring together future and past coherently, strategizing may not contribute to the organization's future value creation and inhibit the successful moving forward of the organization (Girard and Stark 2002; Fenton and Langley 2011; Hernes and Irgens 2013; Spee and Jarzabkowski 2017; Kaplan and Orlikowski 2013). Evidently, reconciling future and past is crucial for the future value creation of an organization. However, it is not clear *how* management engages in reconciling future and past and what actually happens in this respect. Hitherto, management practices to relate future and past in strategizing have remained indistinct and opaque. The reconciliation of future and past in strategizing and the respective managerial engagement are therefore the focus of this dissertation.

How management reconciles future and past remains unclear, but certain research efforts have concerned themselves with related issues and have examined important aspects of temporal work in strategizing. In Chapter 1.2, I will provide an overview of the extant literature.

1.2 Existing research efforts

Research on temporal work in strategy remains scarce, and only few studies have provided insight regarding aspects of the reconciliation of future and past. For instance, Orlikowski and Yates (2002) analyze “temporal structuring” that enables organizations to generate temporal orientation within the flow of time. Through an organization’s continuous engagement in temporal structuring, time becomes meaningful and consequential. Orlikowski and Yates argue that the organization’s mobilization of its past and its future strongly influences the way in which its strategizing occurs. Thus, temporal structuring figures as a crucial element for the successful strategy work of an organization.

In their study, Kaplan and Orlikowski (2013) introduce the term “temporal work” as a central practice of successful strategy making. They see the temporal dimensions of future and past as both enabling and constraining in terms of an organization’s moving forward towards future value creation. They argue that an organization’s strategy or its projection of the future can be understood only through an analysis of its past and historically embedded trajectories. Kaplan and Orlikowski consider an organization’s future and its past as malleable and subject to interpretation. Therefore, managers “must address the inherent tension between the influences of (multiple) pasts and (multiple) futures” (2013, p. 991) in order to engage in successful strategizing.

Further insights regarding the reconciliation of future and past are provided by the literature on sensemaking, especially approaches that foreground holistic views of temporality as an integral element of sensemaking. Gephart et al. (2010), for example, introduce the notion of future-oriented sensemaking as “always embedded in or related to past and present temporal states” (2010, p. 287). These temporal states provide contexts and histories for the organization's projections of the future and their respective strategy work.

In the same way, Wiebe sees temporal sensemaking as way of conceptualizing the link between future and past. In his study, he argues that management makes use of temporality by "actively configuring the relationship between the past, present, and future in different ways" (Wiebe 2010, p. 213). Managerial actors engage in the construction of the flow of time in an organization and thereby continuously orient themselves towards the past, present, and future.

In their study of material practices of collective sensemaking, Stigliani and Ravasi state that prospective sensemaking is "a fundamental cognitive process […] that underlies all activities associated with planning and initiating change in organizations" (2012, p. 1233). In this statement, they argue that retrospective notions of sensemaking are inadequate given ambiguous projections of the future, (e.g., as it is the case in strategy making). Stigliani and Ravasi (2012) consider prospective sensemaking as a productive means to relate different temporal dimensions within an organization.

Cornelissen and Schildt (2015) consider temporal sensemaking as indispensable for strategizing. They argue that it is necessary to reach consensus in the face of inherent uncertainty when projecting the future and engaging in strategy work. According to Cornelissen and Schildt, all "strategy-related sensemaking includes some form of temporal work" (2015, p. 357) because of sensemaking's sensitivity with respect to the future and the past.

Despite these promising research efforts, studies of temporal work in strategizing remain scarce, leaving this subject in need of further analysis: "Less attention has been directed to the question of how interpretations of the past, present, and future are constructed and linked together" (Kaplan and Orlikowski 2013, p. 966). In Chapter 1.3, I provide a more detailed description of the research gap that exists in terms of management's efforts to reconcile future and past.

1.3 Research gap

While the extant literature sheds light on certain points of temporality-related strategizing, it does not address four aspects of primary importance: a clear conception of time and temporality and respective impacts on strategizing; an approach considering more future-oriented sensemaking; a theoretical framework for the reconciliation of future and past; and empirically grounded studies regarding practices to reconcile future and past. In the following, I elaborate on this research gap by providing more detail regarding these four points.

First, a clear conception of time and temporality is needed in studies regarding strategy as practice and process (SAPP). While Orlikowski and Yates (2002) provide useful insights in terms of temporality and temporal work in an organization's everyday activities, the research still lacks a deep understanding of time and temporality in strategy work. The interpretation of future and past in organizations, as well as the mobilization of these temporal dimensions by management in specific strategy contexts, remains unclear and needs further elaboration. These time- and temporality-related issues must be examined to understand how future and past are reconciled.

Second, sensemaking as an important activity regarding temporal work in strategizing is primarily focused on retrospectivity. While retrospective aspects of sensemaking have been the subject considerable research efforts (Balogun and Johnson 2004; Gioia and Chittipeddi 1991; Maitlis 2005; Rouleau and Balogun 2011; Rouleau 2005; Sonenshein 2010; Suddaby et al. 2010; Weick 1995; Weick et al. 2005), studies on prospective sensemaking remain scarce (Cornelissen and Schildt 2015; Gephart et al. 2010; Stigliani and Ravasi 2012; Wiebe 2010). To research the reconciliation of future and past, we need a more future-oriented conception of sensemaking that is embedded in an extended framework for the reconciliation of future and past.

Third, to theoretically capture what is actually going on when organizations reconcile future and past requires a focused and detailed view of the respective practices over time. The introduction of temporal work by Kaplan and Orlikowski (2013) provides promising insights in temporality-related strategizing. However, their work focuses on the emergence and creation of strategic accounts in a linear fashion, neglecting to contextualize the set of manifold practices within the temporal dimensions. It also does not explain the various dynamics involved in reconciling future and past. The extant research on temporal work in strategizing cannot account for the organizational interplay between different temporalities and is therefore incomplete in this regard. To tackle this shortcoming, we need an integrated framework that allows an illustration of the dynamics involved when future and past are reconciled in strategizing.

Fourth, reconciling future and past is a dispersed, collaborative, and social activity (Emirbayer and Mische 1998; Jarzabkowski et al. 2007; Jarzabkowski and Spee 2009; Suddaby et al. 2010) that emerges from strategizing across an organization and involves specific practices. Although Kaplan and Orlikowski (2013) have provided promising insights regarding practices of temporal work, the description of the practices remains rather generic. Previous research has so far not offered an accurate, in-depth description of what actually happens when future and past are reconciled in strategizing efforts. For this reason, we need more empirically grounded analyses regarding the reconciliation of future and past in order to genuinely capture what is actually going on when organizations engage in temporal work in strategizing.

1.4 Approach of the dissertation and research question

To better understand the reconciliation of future and past in strategizing and to address the described gaps, we need a theoretical framework that fundamentally incorporates aspects of time and temporality. Furthermore, an empirically grounded analysis is required to make visible the reconciliation of future and past in strategizing.

To guide respective research, I developed a research question building on the described research interest and addressing the identified research gap:

How does management reconcile future and past in strategizing in order to make it productive for future value creation?

To answer the research question and to contribute to the literature regarding temporal work in strategizing, I pursue the following approach: Based on a SAPP perspective, I develop a theoretical framework that integrates future-oriented sensemaking and temporality-related strategy work. Drawing on rich data material of an empirical study, I hence identify practices regarding the reconciliation of future and past. I further provide an empirical illustration by the means of a process map to exemplify what is happening in an organization when future and past are reconciled. Afterwards, I contextualize the identified practices within the theoretical framework to illustrate the temporality dynamics involved when organizations are reconciling future and past.

Following this approach, my dissertation seeks to provide productive contributions to overcome the described shortcomings in strategy research. Chapter 1.5 describes the respective contributions.

1.5 Contribution of this dissertation

This dissertation expands the literature regarding SAPP by providing three main contributions: sharpening the understanding of temporal work in strategizing; enriching the literature on temporality-related sensemaking; and enhancing the comprehension of managerial engagement in terms of temporal work in strategizing. In the following, I provide more information regarding these contributions.

First and foremost, my dissertation sharpens the understanding of temporal work in strategizing. Through the theoretical framework developed in Part 2, I can illustrate the various dynamics involved in the reconciliation of future and past. Thus, I answer calls for more research on time and temporality in SAPP (Burgelman et al. 2018; Kaplan and Orlikowski 2013; Mirabeau and Maguire 2014). As Burgelman et al. state, “future research could go further in exploring different types of temporal dynamics” (2018, p. 548) in SAPP. Within my research, I elaborate upon and conceptualize time and temporality in relation to strategizing and enhance the understanding of the organizational embeddedness of temporal structuring within strategy work.

Furthermore, my dissertation strives to extend our scholarly knowledge regarding the organizational interpretation of future and past, as well as their mobilization by the organization's management. These insights contribute to the development of a robust understanding regarding conceptions of temporal dimensions and their relation to and relevance for strategizing.

Second, this research enriches the literature on temporality-related sensemaking. By identifying and emphasizing prospective and future-oriented aspects of sensemaking, I can develop "a broader temporal basis than retrospection" (Wiebe 2010, p. 213) and a more comprehensive notion of sensemaking from a temporal perspective. Through the embeddedness of a strongly temporality-comprehensive notion of sensemaking in the theoretical framework, further insights can be gained regarding the role of sensemaking in temporal work and strategizing. The empirically grounded component of this study also helps to explain the implications of successful and thoroughly temporality-comprehensive sensemaking for management and strategizing in praxis.

Third, my dissertation enhances our comprehension of managerial engagement in terms of temporal work in strategizing. The in-depth case study provides rich information regarding the activities of management when reconciling future and past. Developing a comprehensive notion regarding the role and engagement of management in the reconciliation of future and past also provides practical implications for managers concerned with temporal work in organizations. In identifying these implications, this dissertation contributes a better understanding of how management reconciles future and past in practice and provides insight in terms of potential success factors for engaging in temporal work in strategizing.

1.6 Scope of the dissertation

My dissertation has a very specific focus but touches upon various, multilayered, and complex topics related to temporal work in strategizing. This chapter aims to clarify what my research intends to do and – maybe equally important at this stage – also outlines what is beyond the scope and intention of my dissertation.

My dissertation is concerned with temporal work in strategizing and focuses on the reconciliation of future and past as well as the related practices of the management. I thus rely on a practice and process perspective and aim to contribute to the SAPP literature. This aim inevitably limits my research in certain respects. In the following, I elaborate on four topics related to my research but not at its center.

First, this study cannot engage in extensive discussions and considerations regarding aspects related to the philosophy of time. The ontology and epistemology of time are not a main concern of this research endeavor unless they turn out to be highly relevant for the reconciliation of future and past in strategizing. To avoid lengthy discussions regarding these issues, I rely on existing research to outline concepts of time and temporality that are relevant for this dissertation. As a basic principle, this dissertation considers time to be an important instance of structuration in organizations where people's action shape and are shaped by temporality (Orlikowski and Yates 2002).

Second, my research does not follow a normative approach. This dissertation does not intend to discern a "true" view of the past or to predict the "correct" future. Future and past are considered matters of interpretation and, therefore, resources that can be mobilized by the management of an organization in idiosyncratic ways (Emirbayer and Mische 1998; Mirabeau and Maguire 2014; Suddaby et al. 2010). The past, in particular, figures as a topic that is highly relevant for temporal work in strategizing but at the same time is in need of theorization. While certain aspects of the past are – at least in the short-term – rather fixed (e.g., available capital, employees, infrastructure and buildings), other aspects (e.g., strategy and perceptions regarding the organization's trajectory; the positioning of the company; the identity of the organization and its purpose; power structures, organizational roles; knowledge and success factors) provide more possibilities for interpretation and discursive construction (Fenton and Langley 2011; Smircich and Stubbart 1985). I elaborate on interpretations of the past and its malleability in Chapter 2.4. In following this approach, this dissertation clearly distances itself from more functionalist approaches (Lawrence and Dyer 1983; Thompson 2008) that consider strategy and organization as “objective entities existing independently of the discourses contributing to their construction” (Fenton and Langley 2011, p. 1176).

Third, I also reckon that reconciling future and past and temporal work in organizations might not be successful (Kaplan and Orlikowski 2013). However, the evaluation of success and failure is highly specific to an individual organization and not generalizable without further explanation. The aim of this dissertation is therefore not an objective evaluation of the quality of a company’s strategy work, but an in-depth analysis of the mechanisms operating when management engages in temporal work in strategizing and the reconciliation of future and past.

Fourth and last, this dissertation does not aim for direct contributions to the vast literature about change management (see Feldman 2003; Langley 2007; Pettigrew et al. 2001; van de Ven and Poole 1995 for respective processual perspectives). The focus lies on practices and managerial everyday activities in terms of reconciling future and past, based on a processual view of organizational becoming (Tsoukas and Chia 2002). This focus implies an understanding of reconciling future and past as a regular strategizing activity that occurs not only when “change” happens. However, this understanding does not exclude that implications of this research endeavor can be deduced for research on change management.

1.7 Structure of the dissertation

Based on the previous elaborations, this dissertation follows a structure that helps to address the described research gap and reflects the approach of this dissertation. The dissertation is therefore structured in six parts, as shown in Figures 1-6, which illustrate the structure of this dissertation.

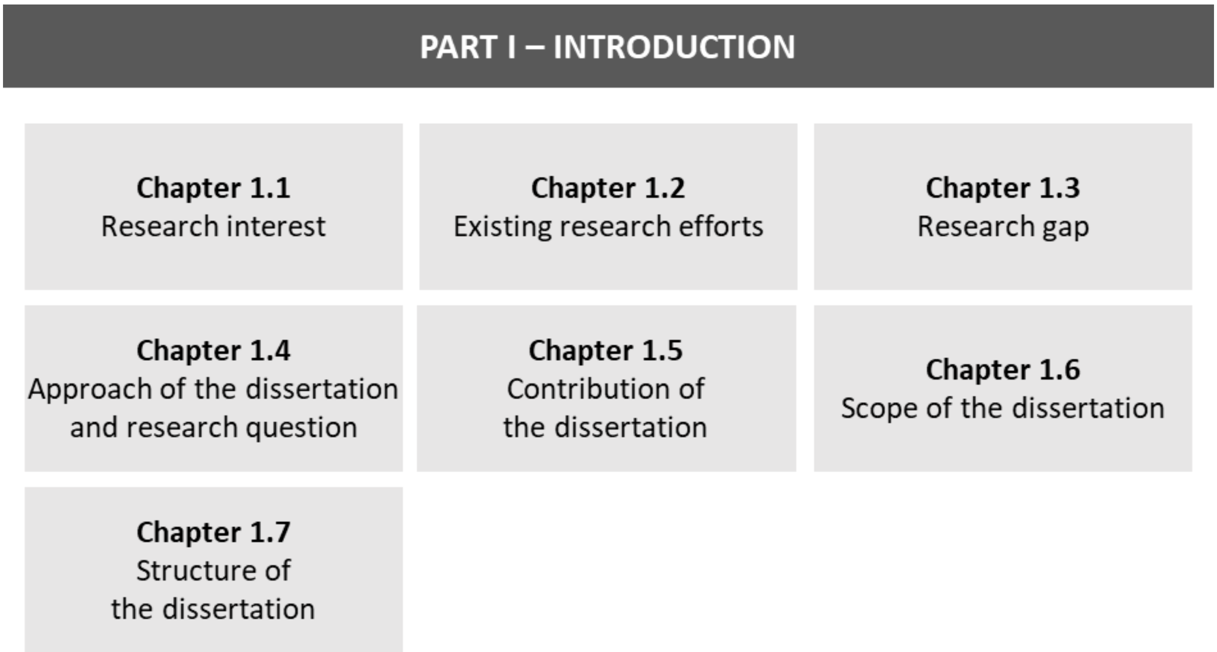


Figure 1: Graphical illustration of Part I

While I refrain from describing Part I as the reader already accomplished this part, I still list the graphical illustration (Figure 1) for the sake of completeness.

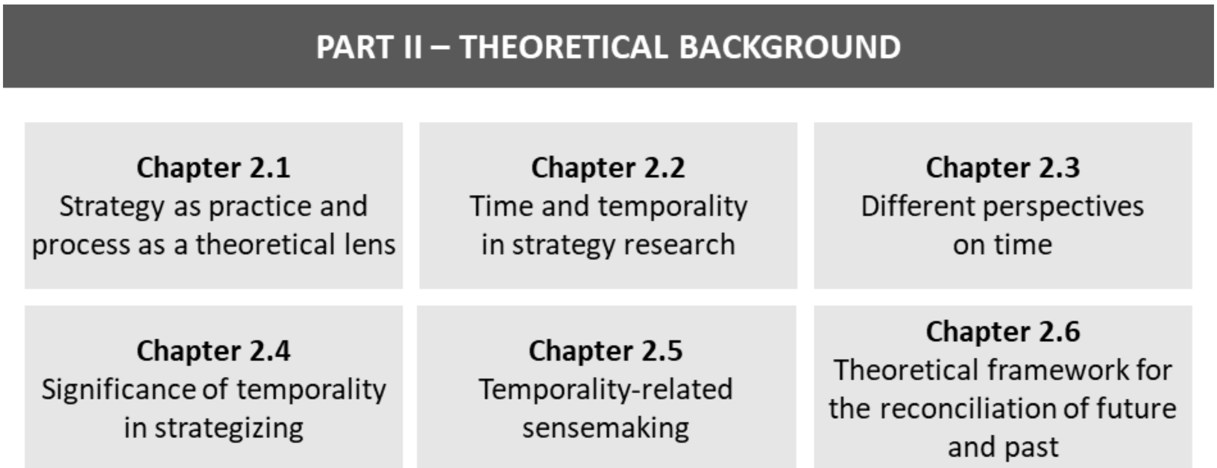


Figure 2: Graphical illustration of Part II

Part 2 provides the theoretical background for this dissertation, structured in six chapters (Figure 2). In Chapter 2.1, I describe SAPP as theoretical lens for this research. I argue that SAPP provides a productive perspective to investigate temporal work in strategizing. Chapter 2.2 begins with an illustration of the importance of time and temporality in strategizing. However, I also problematize common conceptions of time and temporality in strategy research. In Chapter 2.3, I provide an overview of three different perspectives on time in organization research: the subjective view, the objective view, and a practice-based perspective on time. I conclude Chapter 2.3 with the implications that these perspectives on time have on my research endeavor. Chapter 2.4 emphasizes the importance of temporality and its mobilization in organizations. In this chapter, I elaborate on future, past, and present as the three most essential temporal dimensions in strategy work. The chapter concludes with the implications that temporality-related issues have for this dissertation. In Chapter 2.5, I provide an overview of temporality-related sensemaking and highlight, more specifically, aspects of future-oriented sensemaking. Subsequently, I outline the implications of a temporality-related notion of sensemaking for my research endeavor. Chapter 2.6 outlines five key organizational dimensions that provide the context for the reconciliation of future and past. Concluding the theoretical background, I complete the theoretical framework that schematically depicts how organizations reconcile future and past in strategizing.

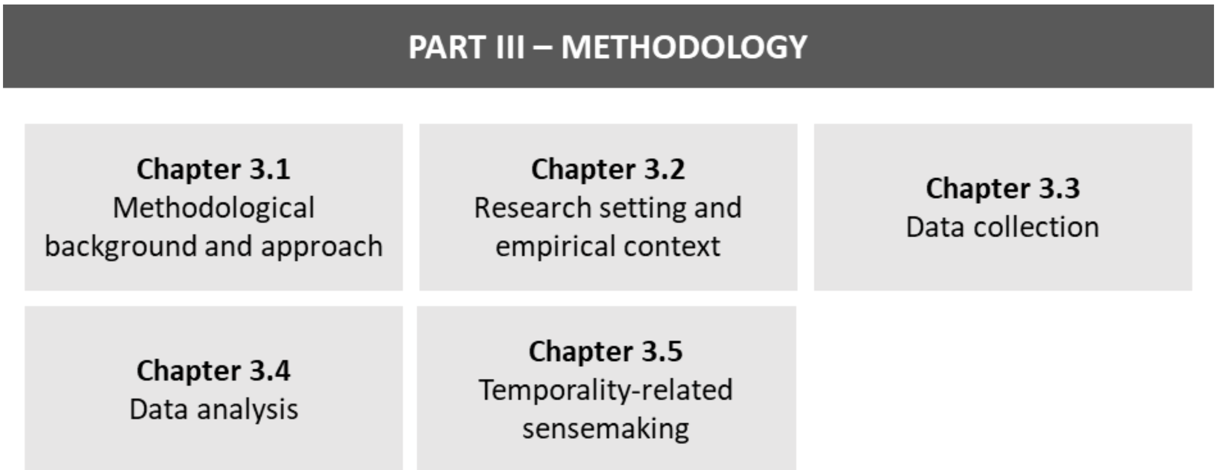


Figure 3: Graphical illustration of Part III

Part 3 is concerned with the methodology of the research and is structured in five chapters (Figure 3). Chapter 3.1 provides information regarding my research approach and the methodological background of the dissertation. In Chapter 3.2, I describe the research setting and the context of the empirical case in order to facilitate the understanding of the empirical analysis. Chapter 3.3 describes the data collection, while Chapter 3.4 describes how the collected data were analyzed. In Chapter 3.5, I present the data that were previously analyzed in a structured and coherent form.

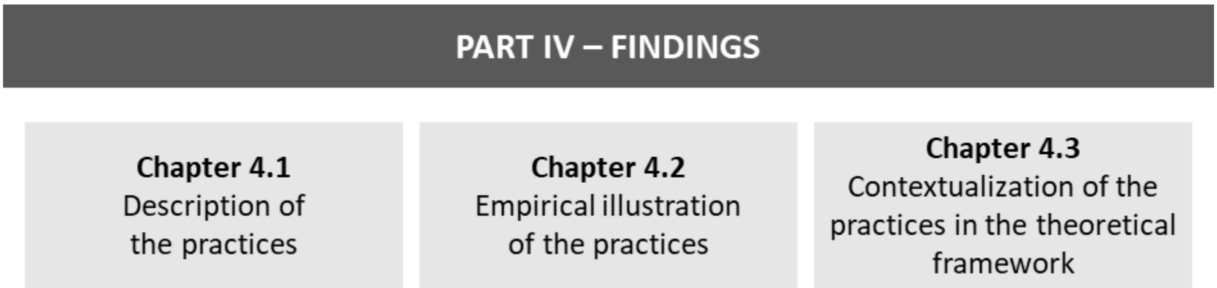


Figure 4: Graphical illustration of Part IV

In Part 4, I present the findings of this dissertation (Figure 4). This part is structured in three chapters. Chapter 4.1 is concerned with an in-depth description of the practices I identified. In Chapter 4.2, I provide an empirical illustration of the practices in their organizational context by locating them in the process map of a strategic innovation project. Chapter 4.3 contextualizes the practices within the theoretical framework for the reconciliation of future and past and reveals temporality dynamics that are inherent when management reconciles future and past. I conclude this chapter by outlining general implications that can be derived from the theoretical framework and the practices to reconcile future and past in strategizing.

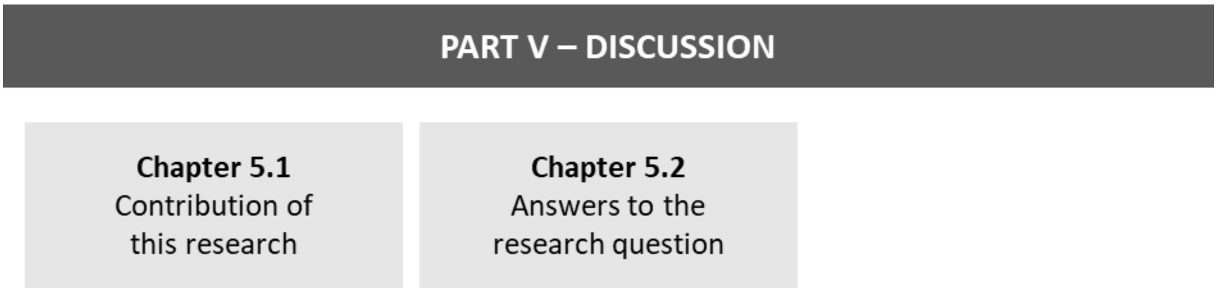


Figure 5: Graphical illustration of Part V

Part 5 is concerned with the discussion of the results and consists of two chapters (Figure 5). In Chapter 5.1, I emphasize the contributions of this research, while Chapter 5.2 answers the research question that guides this dissertation.

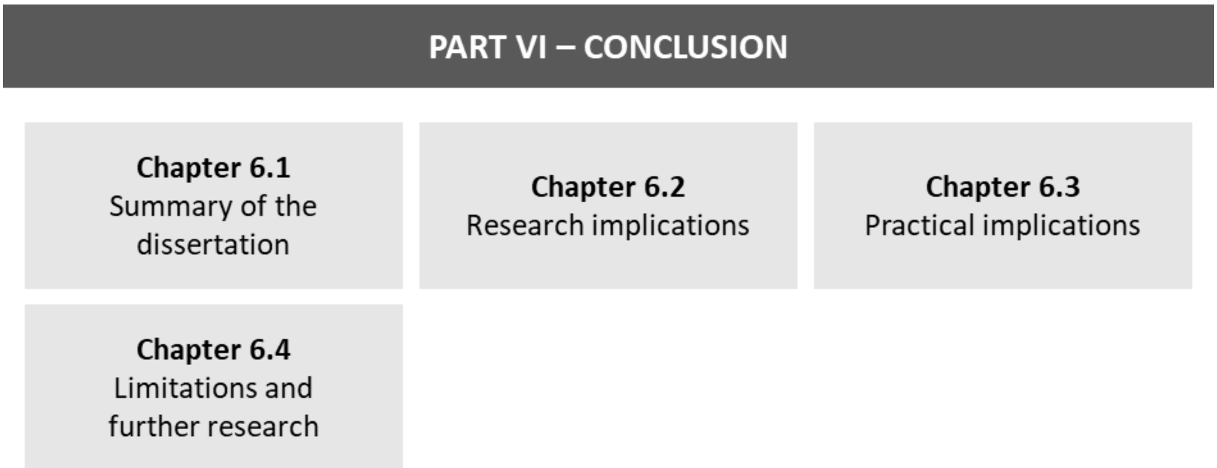


Figure 6: Graphical illustration of Part VI

Part 6, the study's conclusion, is structured in four chapters (Figure 6). In Chapter 6.1, I provide a summary of the dissertation. Chapter 6.2 illustrates the implications of the dissertation for strategy research. In Chapter 6.3, the implications for practice are outlined. The dissertation is concluded by Chapter 6.4, where the limitations of this dissertation are depicted and an outlook on further research regarding temporal work in strategizing is provided.

PART 2 - THEORETICAL BACKGROUND

Part 2 aims to develop a theoretical framework for the reconciliation of future and past that integrates temporality-related strategy work and a temporality-comprehensive notion of sensemaking from a practice and process perspective. The framework is advanced in a step-by-step manner, allowing for a systematic and comprehensible composition. It also ensures that the relevant insights from the theoretical work are condensed into an accessible and productive form and that the identified research gap is consistently addressed.

Part 2 consists of six chapters. Chapter 2.1 provides an overview of SAPP, since my research is located in this field. I thereby outline why SAPP is a promising approach to research temporal work in strategy. Chapter 2.2 depicts and problematizes the most important aspects of time and temporality in strategy research. In Chapter 2.3, I describe different views of time, namely the subjective and objective perspective as well as a combinatory view. In Chapter 2.4, the past, the present, and the future are illuminated as the most relevant temporal dimensions in strategizing. The focus here lies on the organizational mobilization of these temporal dimensions. Chapter 2.5 emphasizes the relevance of sensemaking for the reconciliation of future and past. Thus, I focus on future-oriented and prospective aspects of sensemaking to develop a temporality-comprehensive notion of sensemaking. In Chapter 2.6, I specify the five key organizational dimensions along which the reconciliation of future and past is happening. Finally, the implications of the theory part coalesce in the completion of the theoretical framework for the reconciliation of future and past. The framework in this way integrates the different aspects of time and temporality in strategizing as well as the five key organizational dimensions which figure as the context for the practices to reconcile future and past.

Since the discussed topics are complex and multilayered, different implications emerge for this dissertation. In order to provide a focus on the most essential insights, I summarize the implications of the theory work at the ends of Chapters 2.3, 2.4 and 2.5, gradually developing the theoretical framework. This iterative approaches ensures that the relevant insights from the theory can be adequately incorporated into a coherent concept of reconciling future and past.

2.1 Strategy as practice and process as a theoretical lens

Since this dissertation profits from insights from the field of SAPP studies and also strives for a contribution in that field, I adopt SAPP as a theoretical lens. Therefore, this chapter introduces the main pillars of SAPP and its relevance for the dissertation. Furthermore, I elucidate why SAPP figures as a productive approach to research temporal work in strategizing.

Strategy as practice and process is a relatively novel approach and has emerged from two vibrant strategy research traditions: research on strategy practices and strategy process research. Research on strategy as practice is typically concerned with the routinized types of behavior and tools that are used in strategy as well as the strategic activities of organizations. The foundations of strategy practice research are rooted in the practice turn in social theory, with Bourdieu (2010) and Giddens (1984) as prominent representatives. In the mid-90s, Whittington (1996) established the term “strategy as practice” which has gained popularity ever since and received further support through several special issues in academic journals, see for instance Johnson et al. (2003), Jarzabkowski et al. (2007), or Whittington and Cailluet (2008).

The origins of strategy process research can be traced back to the work of Bower (1970), Mintzberg (1978), and Burgelman (1983b). In the beginning of the 90s, two special issues of Strategic Management Journal paved the way for more process studies in strategy research (Chakravarthy and Doz 1992; Pettigrew 1992). Research on these issues is concerned with how and why a given strategy emerge and unfolds. The empirical focus of processual studies therefore lies on evolving phenomena in terms of strategy. Thus, these studies are inherently concerned with questions regarding time and temporality, since process research tries to understand and explain the “temporal progressions of activities” (Langley et al. 2013, p. 1). Process-oriented perspectives can be divided into strong and weak process views. A weak processual view emphasizes change in entities and focuses on the transition from one state to another (van de Ven and Poole 1995). Strong process views (Burgelman et al. 2018; Langley et al. 2013; Langley and Tsoukas 2017; Tsoukas and Chia 2002) emphasize the perpetual becoming and continuous unfolding of events in the flow of time. They state that “every aspect of the organization is constantly and simultaneously a product of activity” (Burgelman et al. 2018, p. 540). On this view, stability is considered a collective accomplishment that is by no means to be taken for granted.

The recent emphasis on a strong process ontology has disclosed paths to SAPP since activity is an essential concept in both perspectives (Burgelman et al. 2018). Subsequentially, SAPP considers an organization as an “an accomplishment of coordinated activities of its stakeholders” (Burgelman et al. 2018, p. 540), reproduced and stabilized over time. Therefore, SAPP recognizes the “evolutionary nature of strategy and the temporal recursiveness related to it as the realized strategies of the past feed into the strategizing episodes in the present” (Burgelman et al. 2018, p. 541). Thus, time and temporality figure as eminent concepts within SAPP. However, research on these concepts in SAPP remains scarce. Not surprisingly, then, Burgelman et al. (2018) have identified time and temporality as a promising research topics within SAPP.

In terms of temporal work in strategy, adopting a practice and process view indeed allows one to generate productive insights. The processual perspective sheds light on temporality-related aspects of strategizing. It emphasizes the temporal embeddedness of strategy work and depicts how actors relate strategizing episodes and respective strategic issues in the flow of time. While a processual perspective sharpens the understanding of the temporal embeddedness of strategy, the practice perspective informs us regarding the activities and actual doings (i.e., what is happening when future and past are reconciled):

> *A practice lens recognizes that practice is a central locus of organizing, and it is through situated and recurrent activities that organizational consequences are produced and become*

> *reinforced or changed over time. Everyday activity becomes the object of analysis. (Kaplan and Orlikowski 2013, p. 967)*

That is, practices are fundamentally embedded in temporality and unfold over time. Only through time do nexuses of activities become practices, since a "single action at a point of time is not a practice; it is the passage of time that converts action into practice" (Ericson et al. 2015, p. 516).

Hence, a practice and process approach allows one to zoom in on the reconciliation of future and past while also considering inherent temporality and embeddedness in the flow of time, complete with the organizational consequences that emerge over time (Burgelman et al. 2018; Kaplan and Orlikowski 2013). As proposed in the combinatory view of SAPP, practices and processes are not seen as separate units but rather as mutually interrelated. Activity, embedded in the flow of time, becomes a crucial concern for the analysis of strategy (Burgelman et al. 2018). Since reconciling future and past is an eminent strategizing activity of an organization, SAPP is predestined to research temporal work in strategizing, especially practices to reconcile future and past.

While time and temporality are fundamental aspects of SAPP, we must clarify why time and temporality are also highly relevant for strategy and how they are interwoven with strategy work. In Chapter 2.2, I therefore provide an overview of time and temporality in strategy research. Because time and temporality are vast and virtually inexhaustive topics (Lee and Liebenau 1999), I limit the overview to the aspects that are most relevant for this dissertation.

2.2 Time and temporality in strategy research

Chapter 2.2 pursues two goals: first, to provide a brief overview of literature that emphasizes the significance of time and temporality in strategy research; and second, to illustrate where and why current strategy research needs further problematization and analysis. Accordingly, these two goals are approached in Sections 2.2.1 and 2.2.2, respectively.

2.2.1 Significance of time and temporality in strategy research

Time and temporality figure as pivotal concepts in organization theory (Ancona et al. 2001; Bluedorn and Denhardt 1988; Butler 1995; Das 1991; Hay and Usunier 1993; Lee and Liebenau 1999; Mosakowski and Earley 2000; Ramaprasad and Stone 1992; Slawinski and Bansal 2015; Vaara and Reff Pedersen 2013; Zaheer et al. 1999). Their omnipresence is widely acknowledged: "Time is a fundamental dimension of organizational life and […] all pervasive in the basic concepts of organizational analysis" (Butler 1995, p. 925). As Lee and Liebenau declare, the significance of time and temporality are also evident in strategy-related issues, since "time is the fundamental dimension in which strategic planning takes place" (1999, p. 1048). Indeed, strategy research is rich in references to time and temporality. Mosakowski and Earley argue, accordingly, that "a [temporality-related] perspective appears in virtually all strategy research" (2000, p. 803). Whether implicitly or explicitly problematized, time and temporality appear as important reference points in strategy research.

In order to systematize time and temporality as reference points, Ancona et al. (2001) develop a framework to categorize existing studies and to organize the different notions of time and temporality in strategy research. This framework fits into their research agenda, since they noted earlier that time is "perhaps the most pervasive aspect of our lives. Yet, with few exceptions, it does not play a significant role in organizational theory research" (Ancona and Chong 1992, p. 166). Similarly, Lee and Liebenau (1999) classify studies in strategy and management into four notions of temporality. Their aim is to raise awareness that time and temporality should not be taken for granted in strategy research but requires a specific kind of mindfulness. Likewise, Zaheer et al. (1999) contribute to strategy research by introducing five time scales that have implications for the development of theory. They state that the choice of a time scale affects how theory is constructed. Construction efforts are also at the core of the work of Vaara and Reff Pedersen (2013), as they explain how strategy narratives construct the different temporal dimensions of past, present, and future. Their discursive analysis reveals the malleability of these different temporal dimensions. That different temporal dimensions may generate tensions becomes evident in the study of Slawinski and Bansal (2015), who juxtapose the short term and the long term in terms of strategic business sustainability.

While these research efforts explain different notions of time and temporality in strategy research, other studies focus more on the effects that time and temporality have with regards to strategy and strategic activity. Bluedorn and Denhardt (1988) analyze the effects of time regarding the macro level (e.g., organizational culture, strategic planning), as well as the micro level (e.g., decision making, group behavior). They argue that time is pivotal for research in strategy and management since it affects these two topics significantly. The implications of time and temporality for strategy are also emphasized by Ramaprasad and Stone (1992). In their study, they develop a concept of strategic time and argue that it substantially influences domains such as strategic analysis, strategy design, and the strategy implementation and its continuous control. Hay and Usunier (1993) studied strategizing by international banks, arguing that the sense of strategic time significantly impacts the approach to strategic planning. Their research provides insights regarding an organization's temporal identity, which in turn shapes the way in which strategizing happens. The critical relevance of culture and the perception of time for an organization's strategy is also emphasized in Das (1991). In his study, in terms of temporal aspects of strategic management, he argues that planning horizons influence strategic decision making. This argument accords with the view of Mosakowski and Earley (2000), who researched how the temporal perceptions of strategists affect their strategizing. Accordingly, they develop a concept for strategic management with five time dimensions. The malleability of time and temporality is also emphasized in the research of Butler (1995). Viewing time as socially constructed, he states that an organization's timeframe (i.e., the interpretation and experience of time and temporality) influence how strategic decisions are made. Butler thereby underlines the importance of the past in strategic decision making and its relatedness to other temporal dimensions, as well as the mutual interdependence between future and past.

While these research efforts are explicitly concerned with time and temporality in strategy, the importance of time and temporality can also be detected in further strategy literature. Since a comprehensive and in-depth review of existing strategy literature to discern potentially relevant relations to time and temporality would go beyond the scope of this dissertation, I provide three examples of prominent strategy research in which time and temporality play an important role in order to illustrate that time and temporality are inherently embedded in strategy and strategic activities. Thus, I refer to the work of Hamel and Prahalad (1994b, 2007), Rumelt (2011), and Mintzberg (2007), since these authors were already mentioned in this dissertation (see Part 1, especially Chapter 1.1). This approach does not aim for a comprehensive analysis of the field and applies a selective review of the mentioned strategy literature. Nevertheless, it allows one to clarify the significance of time and temporality in strategy research.

In their seminal work, Hamel and Prahalad (1994b, 2007) elaborate on the creation of a company's future success. According to their analysis, management is often more concerned with the past and present of the organization than with its future, because managers are occupied with driving operational excellence and optimizing the existing organization. In this context, organizations are "devoting too much energy to preserving the past and not enough to creating the future" (Hamel and Prahalad 1994b, p. 123). Instead of restructuring and reengineering, which allow only for a correction of mistakes of the past, the authors advocate for mindful engagement in creating the future of the company. The organization's management should spend more time developing a distinctive and shared corporate perspective. Hamel and Prahalad argue that an organization's core competencies are pivotal for this endeavor. However, these core competencies rely on the existing organization and need to be built in a lengthy process. In this line of argument, the significance of time and temporality becomes evident: In order to create its future, an organization needs to meaningfully enact its past.

The second example regarding the significance of time and temporality in prominent strategy literature refers to the work of Richard Rumelt (2011). Rumelt is interested in "good" strategy and how to distinguish it from "bad" strategy. Applying a more descriptive approach, he argues that "strategy is about how an organization will move forward" (2011, pp. 6–7). Moving forward in this sense has an important connotation regarding temporality: to move forward in time, that is, into the future and towards the organization's future value creation. Therefore, Rumelt argues that coherence over time is an important success factor in terms of good strategy. Coherence does not mean stagnation but rather implies that views of the past and the future might shift in the course of time. Given this transience, management hereby needs to engage in the creation and framing of respective viewpoints in order to achieve the coherence of future and past that is required for "good" strategy.

The third example from renowned strategy research stems from Henry Mintzberg (2007). In his work on strategy formation, Mintzberg (2007) compares strategy work with the craft of a potter. While forming the clay, the potter thinks of past experiences (e.g., what has worked in the past) as well as future prospects (e.g., what her work might look like). In this manner, Mintzberg addresses the temporal embeddedness of strategy work. He argues that an organization sits between its past capabilities and its future possibilities. It is essential for the success of the organization that management is able to relate these two poles. This notion is also articulated in Mintzberg's work regarding the conceptualization of strategy (1987), where he argues that the patterns from the past become the plans for the future.

As stated, these examples are selectively chosen from prominent strategy literature. However, they further emphasize the significance of time and temporality for strategy work and strategizing. Research regarding time and temporality lacks important aspects and needs to be further problematized, as I argue in the following section.

2.2.2 Problematization of time and temporality in strategy research

Although time is ubiquitous and a fundamental aspect of strategy, most of the hitherto existing strategy research surprisingly neglects to focus on the implications of time and temporality in strategizing. Time is often considered a condition sine qua non, but is seldomly focused upon by strategy researchers (Bluedorn 2002; Zaheer et al. 1999) or simply "taken for granted" (Lee and Liebenau 1999, p. 1035). Lee and Liebenau further criticize that "time is treated as an independent variable" (1999, p. 1042) in strategy research. Viewing time as an independent variable and taken for granted seems to prevent a further examination: “Temporality is not problematized in [former views] of strategy: time is irreversible, and chains of cause and effect proceed in a path-dependent fashion” (Ericson et al. 2015, p. 507).

However, adopting an altered view of time and paying “proper attention to time as a “main effect” variable” (Wright 1997, p. 201) can inform research in terms of the implications of time and temporality on strategy. Authors such as Ancona and Chong (1992), Butler (1995), and Wright (1997) argue that – in order to better understand the impacts of time and temporality on strategy – it is important to understand how management is working on strategic issues and engaging in temporality-related strategizing. This view resonates with that of Orlikowski and Yates, who see “time as an enacted phenomenon within organizations” (2002, p. 684), whereby the enactment is considered an ongoing socially accomplished activity that has consequences for the way in which strategy work occurs.

Considering time as a more dependent variable opens up new perspectives in strategy research. It implies a more active notion of time in terms of strategizing. From this perspective, management’s strategizing activities are to be analyzed in light of their efforts to construct notions of time and temporality in strategizing and how these notions affect strategy work. In order to develop a coherent understanding of time and temporality in strategizing as well as its respective implications, we need to establish a thoroughly temporality-related notion of strategizing and strategy work. On that account, a review of perspectives on time and temporality in organization theory is required. Thus, Chapter 2.3 depicts different perspectives on time that are relevant in terms of strategy work and strategizing. Chapter 2.4 then explains the significance of temporality in strategizing.

2.3 Different perspectives on time

Time figures as an essential concept in organization research, since "organizations exist in time and space" (Lee and Liebenau 1999, p. 1037). As Ancona and Chong point out, this omnipresence can also be observed in the language used when talking about organizations: "The organizational arena is filled with references to time. Practitioners, journalists and theorists alike point to an ever increasing pace of change, to closing windows of opportunity, and to the scarcity of time" (1992, p. 169). Time is also of the utmost significance for management and "constitutes a key meta-dimension of management" (Reinecke and Ansari 2015, p. 618). Gersick refers to the importance of time in management and emphasizes its importance in managerial activity: "Managers appoint time-limited task forces and committees to deal with novel problems. Businesses designate time-limited project groups to invent new products" (1989, p. 274). While the importance of time is undisputed for organizational activity, divergent perspectives of time are supported by different scholars.

In the following sections, I provide an overview of the different approaches to time in organization theory. The most prominent distinction in time-related research is that between objective time and subjective time. Section 2.3.1 is therefore concerned with the objective view of time, while Section 2.3.2 explains the subjective view. In each of these two sections, the respective concept is first described based on the extant literature in the field. Second, the most relevant aspects for management and strategy research are emphasized, and third, shortcomings in the respective concepts of time are addressed. Section 2.3.3 summarizes the shortcomings of the approaches and provides a combinatory view of time that links the objective and subjective view. In Section 2.3.4, the implications of these different views of time for this dissertation are depicted.

2.3.1 Objective view of time

The objective view considers time as a phenomenon that exists independently of human action (Bluedorn and Denhardt 1988; Bluedorn 2002; Lee and Liebenau 1999; Zerubavel 1985). In this view, time is absolute and invariant and follows a linear path from the past into the future. Cunliffe et al. (2004) describe objective time as concerned with a physical and cosmological experience in which time is external to human beings. This view considers time as something unitary, which can be objectively described and measured (Nyland 1986; Thrift 2014). In the literature, the objective view of time is often connected to the Greek god Chronos, being a metaphor for time introduced into the scholarly discourse regarding time by Jaques (1982, 2014). In Greek mythology, Chronos is the god symbolizing the constant flow of time and transience (Rämö 1999). Chronos stands for the chronological and linear view of time. Orlikowski and Yates (2002) illustrate the meaning of Chronos by relating it to specific dates, deadlines, and further elements of calendar-based time. It is used as a synonym for abstract, measurable time to represent, for instance, the length of an interval for which points can be clearly identified in time (Kumaraswamy et al. 2018; Reinecke and Ansari 2015; Zaheer et al. 1999).

From the perspective of management and strategy research, measuring becomes a central attribute in this perspective on time. It is described merely quantitatively, and the reference frame is clearly clock-based. Not surprisingly, time is viewed as a mostly scarce resource that must be managed effectively (Barkema et al. 2002; Gersick 1989, 1994; Perlow et al. 2002). Therefore, deadlines and (strategic) planning are highly important:

> *This concept of time as a resource [...] reminds us of the aphorism that 'time is money'. According to this metaphor, time can be, like money, spent, saved, wasted, possessed, budgeted, used up and invested. People understand time in financial terms in most cases of everyday life, especially in business and management contexts. In management, time has been closely related to productivity. An organization is considered more productive or efficient when it shortens the period of time it takes to accomplish a given amount of work. (Lee and Liebenau 1999, p. 1039)*

Especially interesting for this dissertation is the way in which the different temporalities (past, present, and future) are linked. Based on the extant literature, objective time is seen as a succession of isolated and mathematically operable points, meaning that a clear distinction between the past, the present, and the future is possible – according to the respective point in time. Referring to objective time, Reinecke and Ansari state that “clock time allows the present moment to be detached from the past and future, and for phenomena to be viewed as distinct, stable, and isolable entities independent of and emancipated from events” (2015, p. 620).

Although objective time is widespread in formal organizations due to, for instance, accounting routines, annual cycles, and the structure of a working weeks as well as the duration of a working day itself (Butler 1995), this view is criticized by many scholars, mainly for being too unilateral and simplistic. Reinecke and Ansari state that the hegemony of clock-time tends to eclipse alternative conceptions. They argue that objective time is unable to depict the inherent complexity of activities embedded in temporality: “Imposing [objective time] across a range of domains may blur complexities in the pace and timing of organizational processes” (Reinecke and Ansari 2015, p. 619). This argument also implies that the objective view of time is incommensurable with other views and is therefore segregating.

Furthermore, it is criticized that an objective perspective on time disregards that time can also be viewed as a social construction, not imposed entirely from the outside but merely a subjective phenomenon: “When it is considered, time tends to be treated as a linear, uncontrollable, constantly unfolding fact of life rather than as a variable, socially constructed in part, and experienced in different ways” (Butler 1995, p. 925). Additionally, Wright criticizes that objective time may suggest a deterministic and naïve perspective on the future. He therefore advocates for a view that integrates “social pluralism” (2005, p. 86) and the existence of multiple and simultaneous times into conceptions of time. An attempt to amend the shortcomings of the objective view is the subjective view of time, described in the following section.

2.3.2 Subjective view of time

The subjective view sees time as based on events and dependent on human experience. Temporality is inherent in being human, and the experience of time is therefore central to the subjective view. Accordingly, Cunliffe et al. (2004, p. 265) argue that the subjective view of time emphasizes psychological experience and adopts a phenomenological approach to time. This approach marks a fundamental shift from the objective view, which considers time as external to human agency. While objective time is associated with Chronos, subjective time is attributed to the Greek god Kairos, representing "the human and living time of intentions and goals" (Jaques 1982, pp. 14–15). In Greek mythology, Kairos symbolizes the right time and an opportune moment, an opportunity that exists and can be seized only at that very point in time (Rämö 1999). This present-oriented conception of time emphasizes the open and relative nature of subjective time: Time is not something that simply passes but something that enables the generation of opportunities that can be used by social actors (Zaheer et al. 1999). Subjective time is human-centered and states that time is continuously shaped by actors. This notion considers time as a contextual feature of human activity and offers temporal continuity in the sense that past, present, and future are intertwined and cannot be easily separated. Unlike the objective view, the subjective view is subject to multiple interpretations that are closely linked to diverse event trajectories (Reinecke and Ansari 2015). Naturally, the subjective view emphasizes qualitative aspects of time (Hassard 1989).

In studies regarding management and strategy, the subjective view sees time as a qualitative phenomenon. It is malleable and subject to the interpretations of organizational actors. Reinecke and Ansari (2015) characterize the subjective view as an agentic perspective on time, while Lee and Liebenau argue that the "subjective time implies a time conception which is shared (or owned) by any subject or entity, whether it is an individual, group, organization or any other entity that is of interest to management and organizational research" (1999, p. 1039). Again, this view contrasts conceptions of the objective view of time that measures individual and organizational behavior in terms of clock time. The subjective approach to time perceives it as a cultural resource and thus allows one to analyze organizational interpretations of diverse phenomena (Reinecke and Ansari 2015). In this context, Kumaraswamy et al. (2018) equate the bootlegging rule[1] of a company with Kairos, which lies outside of the chronological time of the organization. This emphasis on qualitative aspects helps to expose otherwise "hidden" and tacit assumptions regarding temporality in organizations that are beyond linear clock time. For instance, assumptions about the development of the company and competing interpretations of the past and the future can be made accessible through the subjective view of time. According to Reinecke and Ansari, organizations interpret these temporal dimensions via sensemaking: "Through temporal sensemaking, organizations engage with the present based on memories of the past and anticipations of the future" (2015, p. 621). Sensemaking is thus considered an important avenue by which to unveil temporalities and time-related issues in organizations (Garreau et al. 2015; Stigliani and Ravasi 2012; Wiebe 2010). Similarly, Pedersen argues that the subjective view is closely related to sensemaking (2009).

The subjective view of time has gained influence in recent years and provides answers that the objective view has failed to address. However, the subjective view of time also has its shortcomings. Criticism can be directed towards three issues. First, the subjective view construes time as manifold and diverse and develops the image of heterogeneity in terms of time. While this argument has a certain legitimacy, subjective time fails to describe how it remains possible to create a common understanding or shared accounts of what is happening within organizations from a temporality perspective. As we know from Spee and Jarzabkowski (2017), these joint accounts are essential for an organization to successfully move forward towards future value creation. Despite time being heterogenous and manifold, organizations need to establish joint accounts to organize their activities (Kaplan and Orlikowski 2013).

Second, the subjective view of time emphasizes time's social construction, but thus neglects the "time out there" and diminishes the importance of chronological and

[1] In their article, Garud et al. 2011 describe the bootlegging rule of 3M Corporation which states that allows employees to use 15% of their time to explore their own ideas.

calendar-based time. While the individual experience of time undoubtedly figures as a pertinent element of time, the time outside of the organization may also have a significant impact on the organization because organizational actors engage in the objectification of time (Orlikowski and Yates 2002), leading to the generation of a time "out there." For instance, organizations and their members are bound to business hours, terminable contracts, and imposed deadlines, as well as being embedded in clock time-based accounting routines, financial statements, and other annual cycles (Orlikowski and Yates 2002). When Reinecke and Ansari (2015) state that objective time has eclipsed more subjective views of time, the argument could be reversed, since the concept of subjective time only marginally acknowledges insights from a more linear perspective on time.

Third, the focus on psychological experience tends to overemphasize the importance of the individual person or of single members of the organization, while social and organizational aspects, as well as practices and processes, are usually neglected. This critique is especially relevant in terms of the organizational context which strongly contributes to the social construction of time (Orlikowski and Yates 2002). Rather than simply focusing on an individualistic conception of time, research should emphasize the interdependence between an organization and its specific construction and interpretation of time.

2.3.3 A combinatory view of time in organization theory

The objective and subjective view of time both enable a strong temporal notion of organizations and deepen our understanding of time in organizations. While the objective view emphasizes the importance of calendar-based time and the consequences of clock time for organizations, the subjective view indicates the significance of socially constructed aspects of time in organizations. However, both views have their shortcomings: The objective view of time neglects aspects of the social construction of time and in that way depletes time-related phenomena of their inherent complexity. This simplification leads to deterministic views of time that lack nuance. The subjective view, on the other hand, struggles with explanation in terms of the creation of joint accounts that enable organizations to move forward. Furthermore, the subjective view does not provide an account of how the time out there (Chronos) can be brought together with socially constructed time (Kairos), leaving a dichotomy between the objective and subjective view of time. These shortcomings necessitate an extended understanding of time and temporality as well as their implications for strategy work in organizations. Pivotal in this endeavor is to overcome the dichotomy between subjective and objective views of time.

Recently, studies regarding time and temporality in strategy research have figured ways to overcome the subjective–objective dichotomy. These studies indicate that time is neither given and immutable (objective) nor entirely the product of a social construction (subjective) but shaped by the organization, which in turn is shaped by the implications of time. Evidence of this circular relationship can be found especially in certain studies. For instance, Perlow et al. have elaborated on the relationship between decision making and the temporal context using the example of speed and fast action. Their results illustrate that not only the context or "time out there" was relevant for the organization's notion of time, but also the social construction of time:

> *Although existing research is largely premised on the assumption that the context surrounding a firm dictates the need for fast action, we found that an emphasis on speed played a significant role in creating the context that seemingly required it. Recognizing [the ongoing interaction between decision-making and temporal context] provides a path to resolving a number of questions related to the temporal patterns of organizational activity. (Perlow et al. 2002, p. 932)*

Similarly, Reinecke and Ansari argue that temporal structures can be "strategically manipulated" (2015, p. 622) to create temporal commons that are shaped, in turn, by the temporal structures.

These studies indicate that the subjective–objective dichotomy can be overcome. An explicit effort in this direction is undertaken by Orlikowski and Yates (2002) in their seminal article regarding temporal structuring. The authors consider time as a phenomenon enacted in organizations. Drawing on Giddens' (1984) notion of social practices, Orlikowski and Yates argue that actors in organizations enact temporal structures on an ongoing basis, in turn constraining and enabling the activities of actors. In doing so, "temporality is both produced in situated practices and reproduced through the influence of institutionalized norms" (Orlikowski and Yates 2002, p. 685). This circularity means that temporality emerges out of the recurrent enacting of temporal structures in people's everyday practices. According to Orlikowski and Yates, it is this temporal structuring that makes time "meaningful and consequential in organizational life" (2002, p. 695). This argument aligns with a practice view (Feldman and Orlikowski 2011; Nicolini and Monteiro 2017; Reckwitz 2007; Schatzki 2012). Adopting this view, temporal structuring allows for a potent explanation of how time is created, used, and influenced in organizations.

Like the subjective view, the practice view sees time as malleable and changeable by organizational actors. But unlike the subjective view, the practice view also acknowledges that, at the same time, temporal structures restrain and enable everyday practices of actors. For instance, the fiscal year may restrict certain accounting practices while it enables an organization to measure sales activity in quarters. Often, these temporal structures are objectified by the organizational actors and therefore perceived as a taken-for-granted external force. However, Orlikowski and Yates state that temporal structures are not fixed and invariant, but only "stabilized-for-now" (2002, p. 697) and therefore – at least over the long term – they are provisional. Actors engage in the objectification of temporal structures that become institutionalized and taken for granted by organizations due to their "apparent objectivity" (2002, p. 686):

> *[The] practice-based perspective recognizes that time may appear to be objective or external because people treat it as such in their ongoing action—objectifying and reifying the temporal structures [...] by treating clocks, schedules, milestones, etc., as if they were*

> *'out there' and independent of human action. (Orlikowski and Yates 2002, p. 689)*

This view discloses a productive perspective on the malleability of time. On the one hand side, the objectivist view states that actors are unable to change time but rather must align their actions with invariant time, for instance, by adjusting the prioritization of their tasks; the subjectivist view, on the other hand, claims that actors in fact can change their cultural interpretations of time, thus altering their experience of temporal notions. However, the practice view of time explicitly states that supposedly external time may be changed, at least eventually:

> *Temporal structures, because they are constituted in ongoing practices, can also be changed through such practices. Like all social structures, they are ongoing human accomplishments, and thus provisional. They are always only 'stabilized-for-now'. During periods of stability, they may be treated, for practical and research purposes, as objective. But because they are only stabilized for now, actors can and do modify their community's temporal structures over time, whether explicitly or implicitly. (Orlikowski and Yates 2002, p. 687)*

As we can see, the practice perspective offers an alternative view of time in organizations that transcends the subjective–objective dichotomy and its respective shortcomings. While the subjective view neglects that human action is shaped by temporal structures, the objective view overlooks "the role of human action in shaping people's experiences of time in organizations" (Orlikowski and Yates 2002, p. 695). It is exactly this "human role in shaping as well as being shaped by time" (Orlikowski and Yates 2002, p. 698) that promises insightful research regarding the temporal embeddedness of agency (Emirbayer and Mische 1998) and the engagement of organizations with time. It is temporal structuring that "characterizes people's everyday engagement with the world" (Orlikowski and Yates 2002, p. 684). On this account, it is essential in terms of temporal work in strategizing to find out how this temporal structuring occurs in practice and how organizations mobilize their futures and pasts accordingly. Since time is always time in use (Orlikowski and Yates 2002) and mobilized by actors, the temporal embeddedness of agency requires further examination.

2.3.4 Implications for this dissertation regarding time

In the previous chapter, time and temporality in strategy research were problematized. As a consequence, this chapter informed us of different perspectives on time in organizations which generated several insights on the topic. These insights result in three distinct implications of particular relevance for this dissertation.

First, I adopt a practice-based view of time. The practice-based view overcomes the dichotomy between the subjective and the objective view of time by stating that organizational actors "produce and reproduce a variety of temporal structures which in turn shape the temporal rhythm and form of their ongoing practices" (Orlikowski and Yates 2002, p. 684). Hence, the practice-based view figures as a promising approach on which to research temporal work in strategy, since it allows one to analyze how organizational actors reconcile future and past in strategizing. The practice-based notion of time is also aligned with SAPP as a theoretical lens, which ensures unity and consistency regarding the theoretical approaches of this dissertation.

Second, since time is always time in use, the enactment of time is crucial when analyzing time in organizations. To study the enactment of time, we need to understand how organizational actors mobilize time. The mobilization of time is strongly related to notions of temporality (i.e., the mobilization of temporal dimensions such as future and past). Recognizing how organizational actors draw on different temporal dimensions is crucial to grasping temporal work in strategizing. On that account, we need to know more about temporality and its mobilization in an organizational context. Therefore, Chapter 2.4 elaborates on the organizational mobilization of future and past.

Third, temporal structuring is a socially accomplished activity produced through the sensemaking efforts of organizational actors (see Section 2.3.2). This collaborative element implies that sensemaking is essential in terms of constructing temporal realities in organizations. That relationship, in turn, has a significant impact on temporal work in strategy-making, and it is decisive for the reconciliation of future and past in strategizing. Based on this reasoning, the concept of sensemaking and its impact on reconciling future and past needs further elaboration. I therefore provide insights on temporality-related sensemaking in Chapter 2.5.

2.4 Significance of temporality in strategizing

In organizations, time is always time in use (Orlikowski and Yates 2002). In this respect, it is important to detail how organizations handle time. This enactment of time is referenced to as temporality. Temporality plays a crucial role in research regarding temporal work in strategy (Butler 1995; Flaherty and Fine 2001; Kaplan and Orlikowski 2013; Mirabeau et al. 2018), although studies on temporality in strategizing have so far been scarce (Ericson et al. 2015). In the literature, three temporal dimensions are most prominent: past, present and future (Hydle 2015). Hence, I elaborate on these three temporal dimensions as well as their use and mobilization in an organizational context. However, before analyzing the three temporalities, it is necessary to understand how organizational actors generate agency in the flow of time and how agency is temporally embedded.

This chapter is structured accordingly: In Section 2.4.1, the temporal embeddedness of agency is discussed; in Section 2.4.2, the present as the locus of reality is analyzed; in Section 2.4.3, the interpretation and mobilization of past is addressed; in Section 2.4.4, the relation between future and past is examined; lastly, in Section 2.4.5, the implications of this chapter for this dissertation are summarized. This closing section includes the first iteration of the theoretical framework for the reconciliation of future and past.

2.4.1 Temporal embeddedness of agency

In their seminal article, Emirbayer and Mische (1998) emphasize the importance of time and temporality in terms of human agency. Human agency is embedded in time and oscillates between different temporalities:

> *Actors are always living simultaneously in the past, future, and present, and adjusting the various temporalities of their empirical existence to one another (and to their empirical circumstances) in more or less imaginative or reflective ways. They continuously engage patterns and repertoires from the past, project hypothetical pathways forward in time, and adjust their actions to the exigencies of emerging situations. Moreover, there are times and places when actors are more oriented toward the past, more directive toward the future, or more evaluative of the present. (Emirbayer and Mische 1998, p. 1012)*

This oscillation implies that social actors in organizations are inextricably intertwined with time and that temporality is essential in terms of their actions. As indicated above by Emirbayer and Mische, social actors are not just living in a unilateral temporal dimension, but are, they clarify, "embedded within many such temporalities at once" (1998, p. 964). Hence, they can be oriented towards "the past, the future, and the present at any given moment" (Emirbayer and Mische 1998, p. 964). This orientation has consequences for the way in which social actors handle time because they continuously have to recompose their temporal orientations in their social environment. As suggested above (see Chapter 2.3), this continuous reassembling is in line with the notion of temporal structuring, as proposed by Orlikowski and Yates (2002).

Being embedded in a dynamic flow of activities implies that social actors incessantly have to make sense between unfolding interpretations of future and past while time simultaneously and relentlessly advances. Referring to the these different interpretations of temporality, Emirbayer and Mische indeed argue that future and past are "neither radically voluntarist nor narrowly instrumentalist" (1998, p. 984) but interactively negotiated and culturally embedded. Viewing social actors as embedded in different temporal dimensions subject to interpretation opens up new perspectives on the past, the future, and the present, since these temporal dimensions are not considered fixed or given entities, but rather as a processual enactment. Temporal dimensions are generated through a socially accomplished activity and are thereby subject to an ongoing process of sensemaking (Maitlis and Christianson 2014; Weick et al. 2005; Wiebe 2010). Therefore, what *was* (past), what *is* (present), and what *will be* (future) are continuously enacted and interpreted in distinct situations within specific contexts. On this view, temporal dimensions are considered malleable sources for agency and action.

This reasoning implies that there is not only one generally accepted past and future in an organization, but rather, organizations simultaneously draw on a multiplicity of co-existing interpretations of the past, the future, and the present (Bakken et al. 2013; Brunninge 2009; Cornelissen and Schildt 2015; Gephart et al. 2010; Kaplan and Orlikowski 2013; Schultz and Hernes 2013). These interpretations are contested and subject to potentially controversial discourses in organizations: "[…] the path from perceived uncertainties in the environment to responses by the organization is littered with multiple interpretations of what has happened, what is currently at stake, and what might be possible" (Kaplan and Orlikowski 2013, p. 966). These interpretations might result in political struggles regarding the "right" interpretation of the past and become part of organizational politics (Godfrey et al. 2016; Hatch and Schultz 2017). This possibility is especially relevant in strategic discussions in terms of where an organization has been (interpretation of the past) and where it will head (interpretation of the future). As such, the interpretations of future and past are highly contested, as well as "multiple, interdependent, and sometimes conflicting" (Kaplan and Orlikowski 2013, p. 973). Nevertheless, organizations need to engage in sensemaking efforts to establish joint accounts (Spee and Jarzabkowski 2017) or provisional settlements (Girard and Stark 2002; Kaplan and Orlikowski 2013) regarding the organization's future value creation. Corresponding sensemaking efforts allow an organization to move forward accordingly. As indicated before, this view resonates with a practice-based perspective on time, where organizational actors engaging in temporal work both shape and are shaped by different interpretations and re-interpretations of temporal dimensions (Kaplan and Orlikowski 2013; Orlikowski and Yates 2002).

These different interpretations of future, past, and present have an enabling or restraining effect on agency (Emirbayer and Mische 1998; Vaara and Lamberg 2016) since they are constitutive of what is possible and what not. Therefore, how an organization develops agency and moves forward is strongly influenced by the way in which organizational actors construct temporality:

> *The ways in which people understand their own relationship to the past, future, and present* make a difference *[emphasis in original] to their actions; changing conceptions of agentic possibility in relation to structural contexts profoundly influence how actors in different periods and places see their worlds as more or less responsive to human imagination, purpose, and effort. (Emirbayer and Mische 1998, p. 973)*

Now that the temporal embeddedness of agency and the significance of interpreting different temporalities for the organization's strategy work are illustrated, we can move on to have a closer look at these different temporalities. In order to do so, Sections 2.4.2–2.4.4 provide insights regarding the present, the past, and the future, as well as their mobilization in an organizational context.

2.4.2 The present as the locus of reality

Although subject to ongoing interpretation, past and future can be distinguished rather clearly in terms of something that has happened before and something that will happen, when speaking in everyday language. The present, however, is more difficult to grasp, due to its elusive state: "Time has no being since the future is not yet, the past is no longer, and the present does not remain" (Ricoeur 1984, p. 7). Nevertheless, the present is considered to be a vital temporal dimension in terms of strategizing, since temporality is "shaped in practice – in the 'now' – as it is interpreted and enacted" (Kaplan and Orlikowski 2013, p. 967). In this respect, there is no other time for a practice to happen than in the present. Actors in organizations might relate to the future or to the past – but this relation must always be made in the present (Flaherty and Fine 2001). Drawing on Mead and his seminal work, *The Philosophy of the Present*, the present is "the locus of reality" (1932, p. 1), where all social interaction occurs. Mead therefore sees the present as the paramount form of temporality and questions the ontology of other temporal dimensions: "The present of course implies a past and a future, and to these both we deny existence" (1932, p. 1). Based on Mead's work, several authors (Emirbayer and Mische 1998; Ericson 2006; Flaherty and Fine 2001) have enhanced this notion of the present as the paramount form of temporality.

Stating that the present is the locus of reality implies that the present is the locus of practices and that all sayings and doings happen in the present (Schatzki 2012). Schultz and Hernes refer to this locus as an ongoing present which is "suspended between the past and the future" (2013, p. 2). Since the practices that reconcile future and past necessarily happen in the present, this dissertation adopts the perspective of an ongoing present. However, this viewpoint does not entail that future and past are unimportant for this dissertation or for strategy research in general – quite the contrary: by acknowledging an ongoing present, the present as the paramount form of temporality can be blackboxed and does not need further problematization (Callon 1986; Fenton and Langley 2011; Latour 1999). It is evident that practices to reconcile future and past take place in the present, which is why the present can be taken for granted as an independent variable as proposed by Lee and Liebenau (1999) as well as Orlikowski and Yates (2002). The study can then shift its focus towards future and past, which are reconciled in the present. Postulating an ongoing present paves the way for an analysis of future and past as eminent temporal dimensions in strategy research.

To summarize, the present figures as the paramount form of temporality (Mead 1932) because that is where reality is located and practices occur. However, strategy research needs to understand how future and past are reconciled in the present. Therefore, Sections 2.4.3 and 2.4.4 examine how organizations handle future and past and how these temporal dimensions are mobilized in an organizational context.

2.4.3 Interpretation and mobilization of the past

The extant literature addresses an organization's past in various ways. Studies on dynamic capabilities (Teece et al. 1997) and evolutionary economics (Nelson and Winter 1982), for instance, assume that the past serves as a set of "historical antecedents" (Ericson 2006, p. 122) to the present. This perspective tends to treat the past as an independent and fixed variable. Given this reasoning, an organization advances in a path-dependent fashion and success depends on resource configuration established in the past (Brunninge 2009). Hence, the past is deterministic of the future, and the history of an organization "constitutes a cage that severely constrains the possibilities" (Brunninge 2009, p. 10) and diminishes the strategic moves available for the organization. Ericson et al. argue that this "unidirectional visions of time's flow" (2015, p. 516) leads to a view of organizations as "carriers of destiny" (Ericson et al. 2015, p. 516).

Indeed, an organization carries an organizational heritage. For instance, available financial resources, infrastructure, and buildings, along with the legal form and domicile of a company are highly relevant to the organization and cannot be neglected. The past disciplines the possibilities of the future, which means that certain strategic moves are enabled or restrained by the historical antecedents of the organization. However, although its disciplining impact on the moving forward of an organization is indisputable, organizational heritage does not determine the future of the organization:

> *The past is not simply a collectively reproduced narrative, nor does it necessarily constrain the firm in a path dependent manner. Instead, it is a "resource" that can be productively explored and exploited. (Kumaraswamy et al. 2018, p. 1033)*

Similarly, Kaplan and Orlikowski describe the past as also "a resource for actors' negotiations across interpretive differences and a cage of constraints" (2013, p. 991). The past is thus not seen as a fixed and immutable entity that inescapably determines the future, but rather as "an interpretive device" (Suddaby et al. 2010, p. 155). In his work regarding temporality, Mead (1932) describes the paradoxical nature of the past, which is simultaneously irrevocable *and* revocable:

> *The pasts that we are involved in are both irrevocable and revocable. It is idle, at least for the purposes of experience, to have recourse to a "real" past within which we are making constant discoveries; for that past must be set over against a present within which the emergent appears, and the past, which must then be looked at from the standpoint of the emergent, becomes a different past. (Mead 1932, p. 2)*

The constant discoveries mentioned by Mead trigger sensemaking efforts through which joint accounts and provisional settlements (Girard and Stark 2002; Kaplan and Orlikowski 2013; Spee and Jarzabkowski 2017) are achieved. In their study of organizational history, Godfrey et al. (2016) argue further that the history of an organization is often employed as a strategic resource in order to create joint accounts. This argument is also prominent in Brunninge's research on the use of history in organizations:

> *Members of an organization do not act upon the actual history of their organization, but rather what they believe to be organizational history. These beliefs are socially constructed when organizational members collectively remember the past, discuss it and assign meaning to it. This interpretive perspective opens up for a dynamic view of organizational history and questions the determinism of historical trajectories. (2009, p. 11)*

Such a dynamic and processual view sees the past as a resource that can be mobilized by organizations. Since "history is not just an event in the past but is alive in the present and may shape the future" (Pettigrew 1990), this dynamism creates the possibility to "work" with time and engage in temporality.

This engagement of organizations in temporal work is reflected, for instance, in the research regarding organizational identity. In their study, Schultz and Hernes (2013) analyze the temporal dynamics of organizational identity and argue that evocations of the past greatly influence how claims for the organization's future identity are articulated. Schultz and Hernes emphasize the role of the past and its "malleability and dynamics in the construction of organizational identity over time" (2013, p. 3). They see identity as enduring and changing at the same time, a view that resonates with Emirbayer and Mische's (1998) notion that the enactment of the past might have a stabilizing and sustaining influence on identity. That the mobilization of the past is constitutive of the identity of an organization also becomes evident in the research of Cornelissen and Schildt (2015). However, these authors go even further in their argument, emphasizing the importance of the past for the organization's future value creation and its moving forward: "Interpretations of the past are vital not only for organizational identity work but also for the formulation of strategic forecasts" (Cornelissen and Schildt 2015, p. 357).

Taking this argument seriously, the past figures as an important element of strategizing, since it may be enabling or restraining regarding strategic activity: "Organizational actors purposefully construct and use history in order to establish continuity in strategy processes. The use of historical references legitimizes or delegitimizes specific strategic options" (Brunninge 2009, p. 8). Hence, it becomes obvious that agency is embedded in temporality and – in particular – that strategizing is interwoven with temporality. Therefore, the past and its interpretations have consequences for the way in which strategizing is allowed to happen in a given context and how it takes place in practice:

> *Research on strategic processes and practices has, however, provided an understanding of how this agency is enabled or constrained by the prevailing context. The [analysis of an organization's history] adds to this understanding by highlighting how strategic agency is conditioned by historically embedded processes and how historically embedded practices enable or*

> *constrain this agency in a given historical period or point in time. (Vaara and Lamberg 2016, p. 650)*

The research efforts regarding the mobilization of the past illustrate the importance of organizational heritage in terms of strategizing. The past is not considered something that was completed long ago and rests forever, but is enacted and mobilized in present strategizing efforts or, as Ericson puts it, the "past, in terms of a living tradition, 'speaks' again and again. There is then no time gulf to bridge" (Ericson 2006, p. 130).

The past therefore figures as an important element in strategizing. However, various studies also emphasize the importance of the future as a corresponding temporal dimension (Ericson 2006; Gioia et al. 2002; Suddaby et al. 2010). Ericson argues that the past is a "communicative partner of the present" and therefore "belongs to the future" (Ericson 2006, p. 131). This view is also reflected in the work of Suddaby et al., who state that "history is viewed as an interpretive device through which actors connect the past, present, and future" (Suddaby et al. 2010, p. 155). An interesting approach is provided by Gioia et al., who reverse the temporal orientation of a strategy process: "[...] as organizations try to define their role in the present and the future, there often is a need to revise the past to be consistent with the way they currently see themselves" (Gioia et al. 2002, p. 623). These research efforts illustrate that the different temporal dimensions of future and past in strategizing are strongly related. Given these considerations, the future and, especially, links between past and future are examined in the following section.

2.4.4 The relation between future and past in strategizing

Research on temporality-related issues in strategy-making emphasizes that future and past are strongly related. Addressing this relatedness of future and past, Emirbayer and Mische introduce the term "hypothesization of experience" (1998, p. 984) to describe the reconfiguration of the past in order to generate an alternative future. By this term, they mean that, based on the past, potential images of the future are designed. These images are embedded in a temporal flow and can vary regarding their clarity as well as their temporal reach. Similarly, but with a stronger focus on strategizing and change, Gioia et al. (2002) argue that because the past is malleable and open to interpretation, organizations craft their pasts to make them coherent with their presents and (potential) futures. In order to project the future and develop images of what the organization might become, organizations need to engage in "future perfect tense" (Gioia et al. 2002, p. 622).

The past is not seen as "a given sequence of a plan, a package of events, or a path" (Ericson 2006, p. 131), but rather is rather considered a resource for the organization's moving forward. In order to make use of this resource, the management of an organization has to relate future and past in strategizing. Butler also argues that strategy work needs the past as a resource because strategizing "is bounded by knowledge of the past which is used to envision the future" (Butler 1995, p. 925). When strategizing, managers "intentionally attempt, in the present, to connect the past to the future" (1995, p. 926). According to Kaplan and Orlikowski, it is "the very process of projecting the future that renders the past a greater or lesser source of competitive advantage" (2013, p. 991). Similarly, Gephart et al. argue that the malleability of the past provides opportunities for strategizing in terms of innovative projections of the future:

> *Future-oriented projections are thus shaped through selective reconstruction and creative elaboration of prior entities or through the invention of new ones. Because past meanings are indexical and the future is untestable in the present, there is a great latitude for innovative construction and projection from past entities. The indexicality of past meanings makes future projections more open to innovation. (Gephart et al. 2010, p. 299)*

While the indexicality of past meanings offers opportunities for innovative strategizing, it adds also complexity, because the future is inherently uncertain and ambiguous. As argued above (see Chapter 1.1), the indexicality of temporal dimensions makes successful strategizing difficult:

> *Given the inherent uncertainty of the future and the ambiguity of any evidence that may back interpretations of future events and*

> *outcomes, it is often hard for managers to reach a consensus that can act as a basis for deliberate decisions and actions. (Cornelissen and Schildt 2015, p. 357)*

Establishing such a basis is a delicate endeavor (Fenton and Langley 2011; Flaherty and Fine 2001; Kaplan and Orlikowski 2013; Girard and Stark 2002; Spee and Jarzabkowski 2017) and requires management to make sense of the different temporal dimensions in their strategy-making efforts. Management must reconcile divergent interpretations of future and past. Kaplan and Orlikowski suggest that "both past legacies and future projections significantly shape outcomes, and managers must address the inherent tension between the influences of (multiple) pasts and (multiple) futures" (Kaplan and Orlikowski 2013, p. 991). This suggestion anticipates the notion that the past is vivid and present in strategizing, as it is also reflected in Chia's study regarding the nature of time and the implications of the past from a processual view:

> *[...] time is inextricably linked with our consciousness and involves the continuous progress of the past that gnaws into the future and swells as it advances, leaving its bite, or the mark of its tooth, on all things. (Chia 2002, p. 864)*

Although reconciling future and past is crucial in terms of how the organization moves forward, research on this subject is scarce, and "we still have very limited knowledge about how conceptions of history are socially constructed in business organizations and in particular what these constructions of history imply for future-oriented strategic action" (Brunninge 2009, p. 9). By researching the reconciliation of future and past, this dissertation aims to amend these shortcomings.

2.4.5 Implications for this dissertation regarding temporality

Chapter 2.4 has indicated the significance of temporality in strategizing and has examined the role of past, present, and future for temporal work in strategy. Thus, several insights could be generated that are reflected in the following three implications for this dissertation.

First, future and past as important temporal dimensions in strategizing are not immutable but need to be interpreted and enacted. This malleability entails that multiple interpretations of future and past simultaneously co-exist when strategizing occurs. This dissertation therefore assumes that reconciling future and past in strategizing is entangled with multiple futures and pasts. In the theoretical framework, this assumption is reflected by labelling these temporal dimensions as "future(s)" and "past(s)." When I refer to future and past in singular, for the purposes of readability, I imply multiple and diverse interpretations of future and past.

Second, the present is the paramount form of temporality, and practices happen in an ongoing present. Therefore, the present is considered an independent variable and is not further problematized in this dissertation, because it does not add further explanatory potential regarding the reconciliation of future and past in strategizing. Integrating the present in the analysis of temporal work in strategizing would imply that all temporal dimensions are "in the flow" and no independent variable is set. The consideration of the present would add too much complexity and therefore hinder a productive research endeavor. Thus, this dissertation focuses on the temporal dimensions of future and past. This focus is reflected in the first two iterations of the theoretical framework, where the present is placed at the center of the framework, since practices (such as reconciling future and past) unavoidably happen in the ongoing present.

Third, sensemaking figures as an important means in terms of reconciling future and past in strategizing. As illustrated, future and past are continuously interpreted by organizational actors. Thus, multiple interpretations of these temporal dimensions co-exist in organizations. In order to unite these interpretations, management engages in sensemaking efforts that support the establishment of joint accounts, in turn allowing an organization to move forward. In consequence, this interpretive process implies that sensemaking is an integral part of reconciling future and past and thus requires further elaboration. This third point reinforces the implication of Section 2.3.4 regarding the importance of sensemaking in terms of temporality-related strategizing.

The hitherto existing implications (see Chapters 2.3 and 2.4) allow us to develop a first iteration of the theoretical framework. Figure 7 schematically depicts what is happening when management reconciles future and past. At the top and at the bottom of the framework, the grey arrows symbolize the continuous moving forward of an organization towards its future value creation. The moving forward provides the context for the elements of the theoretical framework. Moving forward in line with SAPP implies that an organization is in constant flux (Burgelman et al. 2018), which is depicted by the slightly wavy lines of the arrows. On the left side, the interpretations of the past are indicated with multiple potential past(s). The same can be seen on the right side of the framework for multiple potential future(s). Since past and future are subject to interpretation, they are delineated with dotted lines. The curved arrows between past(s) and future(s) indicate the dynamic relation between future and past and the mutual interdependence between the different temporal dimensions. In the center of the framework, the circle with the X in the middle symbolizes the present as the locus of reality, where all practices happen. This first iteration of the framework basically states that future and past are reconciled in the present and that a dynamic interplay between the different temporal dimensions takes place.

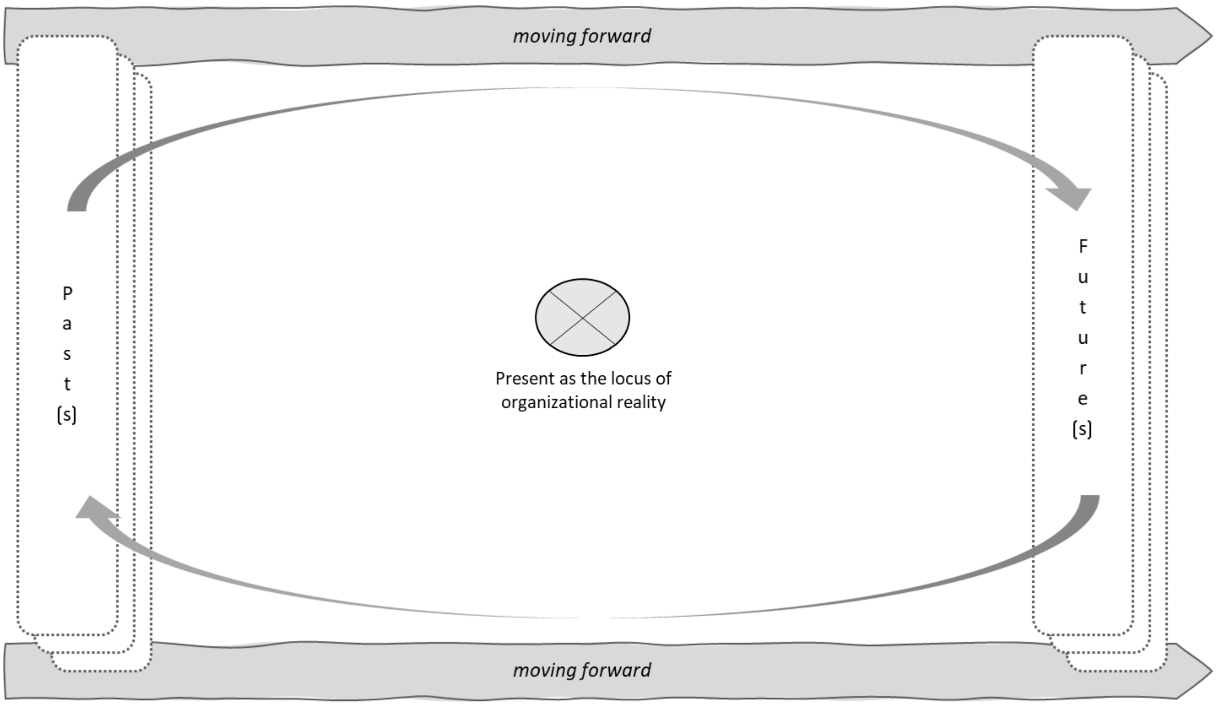


Figure 7: First iteration of theoretical framework to reconcile future and past

With this first iteration of the theoretical framework in mind, we can move on to examine the role of sensemaking in terms of the reconciliation of future and past in the next chapter.

2.5 Temporality-related sensemaking

Reconciling future and past requires that the multiple interpretations of future and past be structured, brought together, and aligned. This alignment is necessary to establish shared strategic accounts that are in turn essential for an organization to move forward towards the organization's future value creation. However, creating these strategic accounts turns out to be a fragile and delicate endeavor (Fenton and Langley 2011; Flaherty and Fine 2001; Girard and Stark 2002; Spee and Jarzabkowski 2017), as also indicated by Kaplan and Orlikowski, based on their empirical study:

> *Negotiating new strategic accounts that connected interpretations of the past, present, and future was often arduous, yet forward movement was only possible to the extent [the researched organization] achieved some resolution of views. […] distinct, sometimes implicit, and often temporary connections among actors' temporal interpretations undergirded each strategic decision. (2013, p. 978)*

In this context, sensemaking figures as a vital means to successfully bring together the different interpretations of future and past. Therefore, and as indicated before, sensemaking requires further examination in terms of its significance and impact for temporal work in strategy. Since the role of sensemaking in reconciling future and past is examined through this approach, I refer to it as "temporality-comprehensive sensemaking."

Examining temporality-comprehensive sensemaking, Chapter 2.5 is structured as follows: In Section 2.5.1, I provide an overview of the main properties of sensemaking to emphasize the characteristics in the vast literature on sensemaking that are most relevant for this dissertation. Section 2.5.2 is concerned with retrospection in sensemaking. As such, I emphasize the significance of the past for the concept of sensemaking. In Section 2.5.3, I elaborate on future-oriented aspects of sensemaking, since they are presently under-researched and need closer examination. Section 2.5.4 summarizes the implications of this chapter for the dissertation and outlines the second iteration of the theoretical framework to reconcile future and past.

2.5.1 Main properties of sensemaking

Sensemaking is fundamental for organizing. It can be characterized as a process through which organizations make sense of or try to understand what happens. Sensemaking happens in the context of ambiguity and uncertainty, where the environment has to be interpreted. According to Maitlis and Christianson (2014), sensemaking emerges when meaning is ambiguous and outcomes are uncertain or when organizational actors experience a discrepancy between their perceived situation and the organizational reality. Sensemaking is triggered in different situations, such as environmental jolts (Meyer 1982), organizational crises (Weick 1988 and 1993), or organizational change initiatives (Gioia and Chittipeddi 1991; Balogun and Johnson 2004). A common characteristic of successful sensemaking in each context is that it creates collective and shared accounts of current events. These accounts form the basis for an organization to move forward successfully (Cornelissen and Schildt 2015). Hence, sensemaking transcends mere interpretation and involves active authoring of events and frameworks (Maitlis and Christianson 2014).

The history of sensemaking includes varying paths and slightly different approaches to the concept. The most relevant dichotomy lies between a more individual cognitive understanding of sensemaking (Louis 1980, Walsh 1995) and an inherently social and discursive analysis (Weick 1995, Weick et al. 2005, Maitlis 2005). This research follows the second stream and considers sensemaking to be an entirely social, "mutually co-constituted process" (Maitlis and Christianson 2014, p. 78) that happens in organizations. In this view of sensemaking, the concept of enactment is central:

Enactment means that actors not only think or talk about their environment but actively take part in shaping it. This view shifts sensemaking away from a mere cognitive perspective and lines it with a more processual, social-constructionist view that is grounded in organizational reality:

> *The construct of enactment, as part of sensemaking, suggests that an environment is constructed and enacted by actors rather than being a wholly separate external reality that individual agents simply "cope" with. The key advantage of the enactment perspective is that it provides the potential for a processual analysis that moves beyond isolated snapshots of cognitions or behaviours to the coevolution of actors and the environments they inhabit. (Cornelissen and Schildt 2015, p. 348)*

Moving beyond these isolated snapshots is crucial in order to understand the processual dynamic that is inherent in sensemaking. While sensemaking as an entirely social activity is embedded in time and can only happen in the present (see Section 2.4.2), it constantly refers to other temporal dimensions (i.e., the past and the future). Actors involved in sensemaking relate to certain events or cues that happened in the past or might happen in the future: "Through temporal sensemaking, organizations engage with the present based on memories of the past and anticipations of the future" (Reinecke and Ansari 2015, p. 621). In other words, organizations and their management engage in a dialogue with different narratives about the future and the past that are, however, not the future or past *per se* (Balogun et al. 2014; Fenton and Langley 2011; Gephart et al. 2010; Weick et al. 2005). Through this enactment of time, sensemaking influences the way in which temporality is constructed in an organization and thereby has an impact on the reconciliation of the future and past in strategizing.

In summary, sensemaking is an inherently temporal activity and serves as a means to link the multiple interpretations of temporal dimensions such as the past and the future in organizations. Section 2.5.2 is concerned with the first of these two temporal dimensions (namely the past) and depicts aspects of retrospectivity in sensemaking.

2.5.2 Retrospectivity in sensemaking

Undoubtedly, retrospectivity plays an important role in sensemaking. Only in retrospect are organizational actors able to make sense of what has happened and thus engage in organizing the ongoing circumstances:

> *Sensemaking involves the ongoing retrospective development of plausible images that rationalize what people are doing. Viewed as a significant process of organizing, sensemaking unfolds as a sequence in which people concerned with identity in the social context of other actors engage ongoing circumstances from which they extract cues and make plausible sense retrospectively, while enacting more or less order into those ongoing circumstances. (Weick et al. 2005, p. 409)*

In his seminal work *Sensemaking in Organizations* Karl Weick (1995) describes retrospectivity as one of seven properties of sensemaking. Weick argues that making sense of something has to do with attention, "but it is attention to that which has already happened" (1995, pp. 25–26). He claims that an action can become an object of attention only after it has occurred, which is why sensemaking is seen as an "exercise in future perfect thinking" (Weick 1995, p. 29). Actions concerned with the future are considered rather futile, as long as they are not linked to past events or occurrences:

> *The dominance of retrospect in sensemaking is a major reason why students of sensemaking find forecasting, contingency planning, strategic planning, and other magical probes into the future wasteful and misleading if they are decoupled from reflective action and history. (Weick 1995, p. 30)*

Although these thoughts have played a major role for successive work in sensemaking (Balogun and Johnson 2004, Weick et al. 2005, Sonenshein 2010, Suddaby et al. 2010, Rouleau and Balogun 2011), Weick has also been criticized for the explicit focus on retrospectivity. Gioia and Mehra (1996), for example, point to the fact that organizations also engage in projecting idealistic but fuzzy futures and that their management is crafting opportunities that might become relevant in the future. Therefore, they advocate for a broadening of the temporal conception of sensemaking:

> *[…] we are suggesting an expansion of the domain of sense making to include both retrospective and prospective elements. […] If sense making were not retrospective, we would be forever incapable of making sense of our past—whether real or imagined. And if sense making were not also prospective, we would be forever at a loss when asked where we want to go. (Gioia and Mehra 1996, p. 1230)*

This reasoning is further supported by Wiebe, who argues that cognitive acts in organizations are time-soaked with orientations towards the past and the future; for this reason, "sensemaking is also thoroughly temporal, not just retrospective" (2010, p. 241). Therefore, sensemaking must extend beyond merely making sense of what happened in the past, since it "involves drawing on all three dimensions of temporality" (Maitlis and Christianson 2014, p. 97). Stigliani and Ravasi elaborate, stating that sensemaking not only overemphasizes retrospectivity but also lacks research on prospectivity: "Despite the fact that prospective sensemaking underpins fundamental organizational processes, such as [strategy making, product development, and organizational change], this process is underresearched and undertheorized" (Stigliani and Ravasi 2012, p. 1234).

Recent literature has addressed concerns regarding the unidirectional focus on retrospectivity and suggested that prospective elements should be included in the overall debate concerning sensemaking. This so-called post-Weickian approach is advocated by authors such as Wiebe (2010) and Gephart et al. (2010), as well as Stigliani and Ravasi (2012), Kaplan and Orlikowski (2013), and Cornelissen and Schildt (2015), all of whom emphasize the need for the integration of future-oriented aspects in the concept of sensemaking. Section 2.5.3 therefore reviews the existing literature regarding prospective and future-oriented sensemaking and outlines specific characteristics in order to provide a coherent concept of temporality-comprehensive sensemaking that contributes to the theoretical foundations of this research.

2.5.3 Future-oriented sensemaking

In their article, Gephart et al. (2010) explore the social processes and practices of sensemaking that are oriented towards the future. They research the accomplishment of prospective sensemaking and are also interested in the question of how future-oriented sensemaking relates to other temporal dimensions (i.e., the past and the present). The authors criticize that the Weickian perspective describes sensemaking as a process bound to the present. Attention and meaning possess a merely retrospective orientation and are directed to the past at a specific point in time. However, Gephart et al. have found clear evidence for prospective elements in sensemaking and identify several distinguished practices for future-oriented sensemaking: for example, "the construction of plans, expertise, hypothetical entities, institutionalized sequences, and conventional histories" (Gephart et al. 2010, p. 276). These sensemaking practices shape the organization's future, since they generate projectivity: "Projectivity is the imaginative generation by actors of possible future trajectories of action where received structures are reconfigured in relation to the future" (Gephart et al. 2010, p. 280). An important aspect of this statement is the combination of elements from the future and the past: Existing elements (e.g., available financial resources, infrastructure and buildings, or the legal form and domicile of a company) are projected into the future, becoming shared accounts of how the organization moves forward. Thus, the past provides the context for projections of potential futures: "Future-oriented sensemaking is always embedded in or related to past and present temporal states" (Gephart et al. 2010, p. 287). In this context, the performative aspects of sensemaking become obvious because sensemaking "seeks to create reality" (Gephart et al. 2010, p. 284). This creative process, in turn, has a significant impact on how the organization moves forward.

Stigliani and Ravasi (2012) build on an ethnographic study with a design consulting firm to research the transition from individual sensemaking to sensemaking on a group level. They advocate for more attention to prospective sensemaking, since it comprises an important element of future-oriented processes in organizations, such as "strategy making, new product development, and the planning of organizational change" (Stigliani and Ravasi 2012, pp. 1232–1233). They criticize that the sensemaking approach pursued by Weick (1995) is merely retrospective and that it can depict the future only via "future perfect tense" (1979, p. 199):

> *Thinking in future perfect tense, however, seems less appropriate to explain prospective cognitive work when expectations or aspirations about the future are ambiguous or unclear, as often occurs in product development or strategy making. (Stigliani and Ravasi 2012, pp. 1250–1251)*

In this manner, the authors emphasize that strategy work is inextricably associated with prospective aspects of sensemaking. This link further motivates the consideration of temporality-comprehensive sensemaking in strategizing.

In his study of the relationship between time and organizational change, Wiebe (2010) calls for a broader temporal basis for sensemaking than mere retrospection and provides further insights regarding prospective sensemaking. He states that managers make sense of their environment by actively reconfiguring the past, present, and future through a process of temporal sensemaking, and he suggests that "actors construct the flow of time in which they situate themselves and in which they subsequently orient to the past, present, or future" (Wiebe 2010, p. 218). This suggestion resonates with the notion of temporal structuring (Orlikowski and Yates 2002), as well as with an active shaping of the past to create trajectories for the future (Gephart et al. 2010). The ongoing enactment of past and future in the present creates strategic accounts that allow the organization to engage in the enactment of the organization's future value creation. However, Wiebe neglects to elaborate how these accounts are created and how future and past are enacted and reconciled in particular.

The relevance of temporality-related sensemaking in strategy making is also emphasized in Kaplan and Orlikowski's (2013) study, which focuses on temporal work in strategy making and how actors resolve and link different interpretations of the past, present, and the future. According to their research, the actors' projections of the future cannot be isolated from their views of the past and the present. They argue that temporal work enables the creation of coherent strategic accounts that allow the organization to move forward. Historical trajectories, projections of the future, and present concerns are open to multiple interpretations and exist in a "dynamic interplay" (Kaplan and Orlikowski 2013, p. 966) in an organization. Therefore, strategy "cannot be understood as the product of more or less accurate forecasting without considering the multiple interpretations of present concerns and historical trajectories" (Kaplan and Orlikowski 2013, p. 966). For this reason, sensemaking plays a pivotal role regarding the dynamic interplay of the different temporal dimensions:

> *The work on sensemaking has powerfully argued that actors are always making interpretive links in time, looking back to understand the present through retrospective sensemaking and imagining paths that will have been taken to reach projected futures. (Kaplan and Orlikowski 2013, p. 966)*

Although the contribution of sensemaking to discussions regarding temporal work is undeniable, the authors criticize the retrospective focus of sensemaking and argue for a stronger emphasis on prospective aspects. Kaplan and Orlikowski also state that the actual doing (i.e., the practice of the reconciliation of future and past) remains under-researched: "Less attention has been directed to the question of how interpretations of the past, present, and future are constructed and linked together in more or less radical ways" (Kaplan and Orlikowski 2013, p. 966). They subsequently call for a better understanding of how the different temporal dimensions are related in strategizing.

Cornelissen and Schildt (2015) study the linkages between strategy as practice and sensemaking. They acknowledge that the research on sensemaking leads to significant insights regarding the reconciliation of different temporal dimensions: "The focus on sensemaking has also attuned recent strategy-as-practice research to the role of the past, the present and the future in the creation and communication of strategies" (Cornelissen and Schildt 2015, p. 356). Like Kaplan and Orlikowski (2013), Cornelissen and Schildt underline the importance of a more future-oriented approach to sensemaking that involves prospective sensemaking:

> *Whereas initial formulations by Weick emphasized sensemaking as a specifically cognitive and retrospective activity in which actual events and physical reality are interpreted, Weick's own more recent work has similarly shifted to a focus on the discursive and prospective aspects of sensemaking. (Cornelissen and Schildt 2015, p. 347)*

They ground their demand for the integration of more prospective aspects on the assumption that "essentially all strategy-related sensemaking includes some form of temporal work" (Cornelissen and Schildt 2015, 357). This form of sensemaking contains several characteristics that are specific for strategy-related sensemaking (e.g., the extension of prior beliefs into the future, the creation of narrative accounts regarding a potential future, and also the shift of sensemaking over time, which requires more processual approaches to strategy-related sensemaking).

The work on prospective sensemaking illustrates the importance of reconciling different temporal dimensions. However, the act of reconciling future and past remains indistinct, despite being an essential activity of management in strategizing:

> *From a sensemaking perspective, the strategist is viewed as a social constructor of sensible events when being confronted with puzzled events. [...] A central question within the sensemaking literature is how managers construct what they construct, why, and with what effects. In a turbulent flow of events the strategist attempts to connect momentary experience with past experience for finding cues in the interest of making sense of what occurs at present. (Ericson 2006, p. 123)*

In Section 2.5.4, I summarize the implications of Chapter 2.5 on temporality-comprehensive sensemaking. I also further extend the theoretical framework based on the implications of Sections 5.2.1–5.2.3.

2.5.4 Implications for this dissertation regarding sensemaking

This chapter has elaborated on temporality-related sensemaking and illustrated the importance of a thorough consideration of past and future in sensemaking. This examination of temporality-comprehensive sensemaking generated several insights that are solidified in three implications for this dissertation.

First, sensemaking is a thoroughly temporal activity and draws not only on the past but also on the future as a further significant temporal dimension. Hence, these different temporal dimensions are related to each other in a dynamic interplay, which is why an ongoing reconfiguration via sensemaking is needed. In this context, this dissertation refers to a "temporality-comprehensive" notion of sensemaking when addressing respective issues.

Second, sensemaking figures as a constitutive element for strategy, and strategy-related sensemaking includes temporal work. As Cornelissen and Schildt (2015) have illustrated, sensemaking concerned with strategy is inherently temporal. When I write in this dissertation of the reconciliation of future and past in strategizing, strategy-related sensemaking is inherent. Based on this reasoning, sensemaking needs to be integrated in the theoretical framework to reconcile future and past.

Third, sensemaking has an impact on how the organization will move forward towards its future value creation. Moving forward realizes along different dimensions of an organization. To depict the concrete realization of the reconciliation of future and past, organizational dimensions need to be established along which the practices and temporality-comprehensive sensemaking crystallize. Therefore, I describe five key organizational dimensions in Chapter 2.6. These key dimensions provide the context for sensemaking and the practices by which organizations reconcile future and past.

These implications allow us to develop a second iteration of the theoretical framework, which is depicted in Figure 8. In addition to the first iteration, the second iteration integrates a temporality-comprehensive notion of sensemaking into the framework. This notion is depicted by the grey background that surrounds the present as the locus of organizational reality and stretches from the past(s) on the left to the future(s) on the right. Thus, I acknowledge that sensemaking and the reconciliation of future and past happen in the present but reach towards the past and the future in a dynamic interplay. In Figure 8, this interplay is represented by the dotted arrows directed towards different directions, implying that sensemaking reconfigures the different interpretations of future and past. Since sensemaking is inherent in the reconciliation of future and past, it can be viewed as an underlying mechanism in terms of the practices I describe in the fourth part of this dissertation.

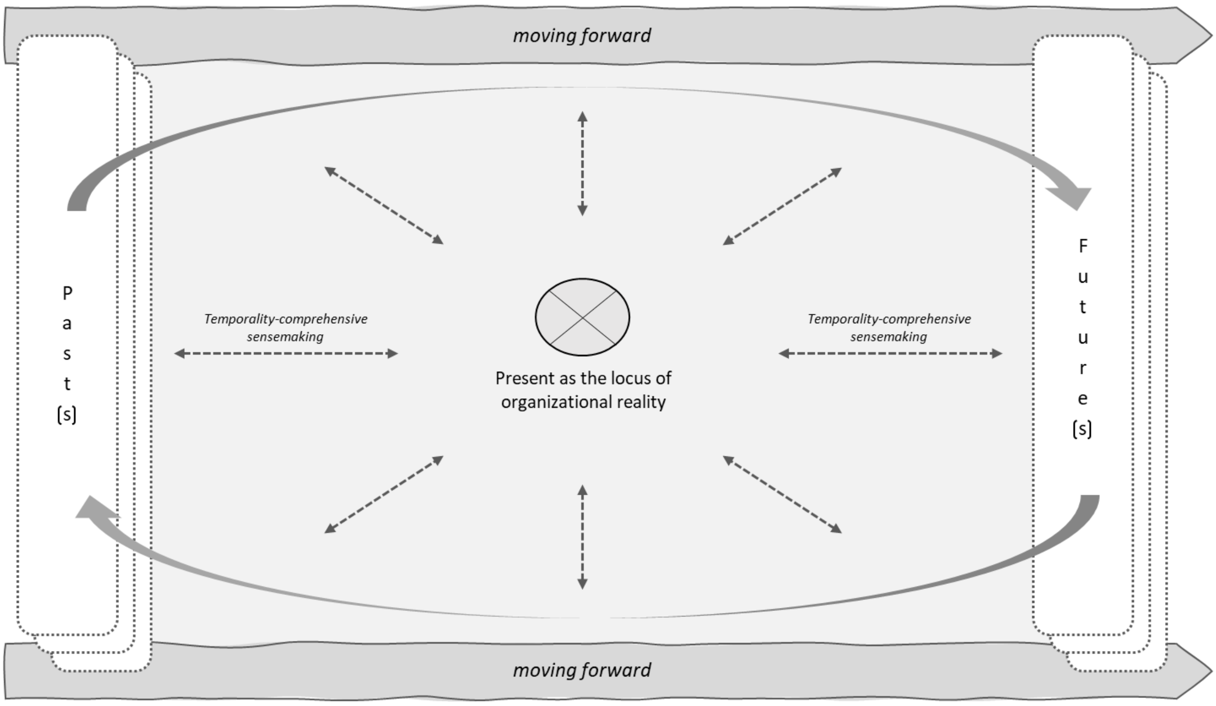


Figure 8: Second iteration of theoretical framework to reconcile future and past

As indicated in the implications, we can now move on to the next chapter, which completes the theoretical framework to reconcile future and past by describing the five key organizational dimensions.

2.6 Theoretical framework for the reconciliation of future and past

The theoretical framework hitherto illustrates the basic mechanisms in an organization when future and past are reconciled on a generic level. As stated before, reconciling does not happen in a vacuum but is embedded in an organizational reality. Naturally, the reconciliation of future and past continuously occurs in various dimensions of any organizational reality. In order to make the rather idiosyncratic and organization-specific term "organizational reality" more accessible and productive for this research, I develop five key organizational dimensions that depict the aspects of the organizational reality most relevant in terms of temporal work in strategizing. This step completes the theoretical framework by which this study conceives the reconciliation of future and past.

Accordingly, this final chapter of Part 2 consists of two sections. In Section 2.6.1, I provide an overview of the key organizational dimensions and describe their characteristics. In Section 2.6.2, I complete the framework with the key dimensions and conclude with closing remarks about the theoretical framework.

2.6.1 Five key organizational dimensions

The key organizational dimensions provide a useful and productive reference frame for the reconciliation of future and past and the respective practices that contribute to the reconciliation. The key dimensions sharpen the focus of the analysis and allow one to capture precisely what is going on when future and past are reconciled, and where the respective practices occur. Notably, the key dimensions do not have an entitative character; neither are they invariable. Rather, practices and key dimensions are mutually constitutive for each other: Practices to reconcile future and past inform and are informed by the key dimensions, while the key dimensions in turn inform and are informed by the practices. These interdependent relationships exemplify the inherent dynamic of the key organizational dimensions as well as the practices to reconcile future and past. Although the dimensions are distinguishable and can be distinctly described in theory, they are not mutually exclusive in reality and might intermingle with each other.

The first dimension is resource configuration (see Section 2.6.1.1); the second, strategic context (see Section 2.6.1.2); the third, structural context (see Section 2.6.1.3), the fourth, innovation and technology (see Section 2.6.1.4); and the fifth and last, stakeholders (see Section 2.6.1.5). In describing each of these key organizational dimensions, I refer to certain examples that will help to explain the key dimensions. However, the examples serve only as an illustration, and the key organizational dimensions should not be limited exclusively to the example.

2.6.1.1 Dimension 1 – resource configuration

The allocation of resources such as capital and manufacturing assets is crucial for the (future) success of an organization, since they are constitutive of the competitive advantage of the company (Bogner and Barr 2000; Bower and Gilbert 2007; Eisenhardt and Martin 2000). However, the allocation of resources has preconditions and follows distinctive routines that the organization has developed. As we know from the literature on dynamic capabilities (Eisenhardt and Martin 2000; Helfat and Winter 2011; Teece et al. 1997), these preconditions and routines shape how resources are allocated and are for this reason “the drivers behind the creation, evolution, and recombination of other resources into new sources of competitive advantage” (Eisenhardt and Martin 2000, p. 1107). The configuration of organizational resources is therefore crucial in terms of how an organization moves forward.

These thoughts culminate in views of disruptive innovations on which the resource-allocation process is decisive for the emergence of disruptive innovations. Bower and Christensen (1995) argue that rational and risk-minimizing mechanisms of resource allocation restrain the emergence of disruptive innovations. Classical resource allocation processes do not direct resources in relatively small markets but rather foster profitable existing business in already-competitive market environments (Christensen 1997).

Given this rationale, resource configuration constitutes an important element in terms of disrupting or being disrupted.

Practices to reconcile future and past resonate with resource configuration as a key organizational dimension. They shape and are shaped by the preconditions and routines that induce how resources are allocated in organizations. For instance, the decision to build up competences in a certain domain and to hire relevant specialists may be triggered by practices to reconcile future and past, since interpretations of the past and projections of the future are made plausible (Kaplan and Orlikowski 2013). In turn, the practices may be influenced by the current and stabilized-for-now resource configuration in the organization (Orlikowski 2000). A similar argument can be found in Gilbert (2005), who distinguishes routine and resource rigidity. As stated earlier, the practice perspective contradicts strictly resource-based views claiming that previous resource configurations determine the future of the company in a path-dependent and irreversible fashion (Teece et al. 1997). The practice perspective is also reflected in Deken et al. (2018), who argue that the configuration of resources and the strategizing of an organization are mutually constitutive to each other.

2.6.1.2 Dimension 2 – strategic context

The second dimension of the theoretical framework is labelled strategic context and relates to Burgelman’s (1983a) concept of corporate strategy and the work of Mintzberg (1978) in terms of the formation of realized strategies. Strategic context, as the second key organizational dimension, includes strategic activities (emergent or deliberate) that contribute to the development of the strategy of the organization. This notion resonates with the findings of Mirabeau and Maguire, who argue that “the manipulation of strategic context involved in emergent strategy formation is a joint achievement of front line, middle, and top managers enacting practices of strategy articulation” (2014, p. 1225). Hence, strategizing emerges as a distributed activity throughout the organization.

Within the theoretical framework, the strategic context figures as an important reference point for practices to reconcile future and past. For instance, the strategic decision to enter a business segment can be induced by practices to reconcile future and past in their attempt to link competences acquired in the past with the strategic direction that is projected. In turn, entering a given business segment might influence practices to reconcile future and past, since the past has to be addressed differently. Therefore, the key dimension of strategic context becomes an important reference frame for practices to reconcile future and past.

2.6.1.3 Dimension 3 – structural context

The third dimension, structural context, refers to the established practices and processes that contribute to the formation and emergence of strategy. This dimension resonates with Burgelman's notion that "strategic behavior is shaped by the current structural context" (1983a, p. 65). The structural context has a selective effect on an organization's strategy. According to Burgelman, the structural context means "the various administrative mechanisms that corporate management can manipulate to change the perceived interests of the strategic actors in the organization" (1983a, p. 65). For instance, project screening with standardized and quantitative procedures as well as strong organizational categorization of strategic projects mostly have a restraining effect on strategic behavior. The structural context allows one to narrow strategy and decreases the probability of the failure of strategic projects because it reduces the variation of what is possible regarding strategic proposals. The structural context raises the predictability of strategic behavior. In this context, strategic efforts tend to occur in a planning mode (Burgelman 1983a, 1991; Mintzberg 1973, 1987). However, by increasing the efficiency of what is being selected as a strategic project, the structural context diminishes the chances of a substantial change in the strategy concept (Burgelman 1983a, 1994). While the structural context might enable strategic efforts that are in line with the current concept of strategy, deviating initiatives are unlikely to unfold relevance within the organization.

The structural context also resonates with a routine-based perspective on organizations (Feldman 2000, 2015; Feldman and Pentland 2003). As such, routines are considered a source of stability but also a source of change. This dualism relates to the generative dynamic inherent to routines:

> *We argue that the relationship between ostensive and performative aspects of routines creates an on-going opportunity for variation, selection, and retention of new practices and patterns of action within routines and allows routines to generate a wide range of outcomes, from apparent stability to considerable change. (Feldman and Pentland 2003, p. 94)*

On this view, routines in terms of the structural context may generate new outcomes but are also likely to have a preserving and stabilizing function. The orientation of these routines (stability versus change) depends on managerial configuration. As depicted by Bogner and Barr (2000) and Markowski and Dabhilkar (2016), the configuration of the routines is strongly influenced by management's sensemaking in terms of stability versus change. The structural context can also be seen in the view of Burgelman's (1991) notion of the variation-selection-retention framework, in which organizational adaptation is explained.

Practices to reconcile future and past relate to structural context. The structural context figures as an important reference point for the practices to reconcile future and past because these practices draw on established ways of doing and on respective routines:

> *The current order represents past interpretations and activities that may be strongly embraced by some constituents because the past accords them power or security whereas other constituents […] may be less bound by the past or perceive benefits in new activity, generating internal contradictions that provide an opportunity for change. (Jarzabkowski 2003, p. 43)*

However, practices to reconcile future and past also have the capability to alter the structural context: for instance, practices to reconcile future and past generate new ways of screening a strategic project or they transform organizational categories.

2.6.1.4 Dimension 4 – innovation and technology

This fourth dimension represents important context for the practices to reconcile future and past. The literature on path dependency (David 2001; Garud and Karnøe 2001; Garud et al. 2010; Sydow et al. 2009; Vergne and Durand 2010) informs us of the dynamics of this dimension. The scope of what is possible in terms of technology and innovation narrows specific strategic moves. However, this narrowing of options does not lead to path dependency in a determinate fashion, where almost exclusively self-reinforcing mechanisms are in place (David 2001; Vergne and Durand 2010). Rather, these mechanisms serve as an embedded context for what is happening in an organization. For this reason, it is possible to strategically manipulate and alter this context (Garud et al. 2010). The established ways of doing are merely provisional stabilizations that occur within a broader process of structuration (Giddens 1984).

In this sense, practices to reconcile future and past are related to aspects of innovation and technology. The practices relate to the existing but also potential future technologies and associated innovations, evaluating them in terms of moving forward. This relation enables or restrains the initiatives and moves that are strategically possible. Thus, the dimension of innovation and technology provides the context for path dependency and path creation in terms of aspects of technology and innovation. Practices to reconcile future and past shape and are shaped by this dimension: While they might alter what is possible regarding innovation and technology by exploring innovative technologies, existing technologies might also inhibit certain projections of the future due to a lock-in (David 2001; Sydow et al. 2009). The idiosyncratic configuration of practices to reconcile future and past is pivotal for the perpetuation or creation of paths. This configuration, in turn, influences the context of innovation and therefore the way in which an organization handles innovation and technologies. With this line of argument, innovation and technology are not considered consistent entities in an organization, but rather “complexity arrangements” (Garud et al. 2011, p. 737), a set of different and sometimes conflicting streams of technology and innovation (Ansari et al. 2016; Dougherty and Dunne 2011; Garud et al. 2011; Garud et al. 2013). This understanding exemplifies the considerable amount of complexity inherent to the dimension of innovation and technology. In order to cope with this complexity, sensemaking – as in the case of the other four dimensions – becomes an important element for the reconciliation of future and past.

2.6.1.5 Dimension 5 – stakeholders

The fifth dimension (stakeholders) provides another context relevant to practices to reconcile future and past. In this context, stakeholders are represented primarily by actors closely affiliated with an organization, such as partners, suppliers, customers, and the market (Ansari and Krop 2012; Ansari et al. 2016; Garud and Karnøe 2003). Investors and public authorities may also be included (Bogner and Barr 2000; Bower and Christensen 1995; Snihur et al. 2018). These actors are important for the moving forward of an organization, since they strongly influence the way in which a company manages its value creation (Simon 2007).

Although perceived as external entities (Ansari and Krop 2012), stakeholders are strongly intertwined with the organization and important reference points (Rosa 2016; Thévenot 2001). Mutual interdependences between a company and its stakeholders are an important source of organizational transformation and its moving forward. As Ansari and Krop illustrate, the engagement of a company in “symbiotic cross-boundary management” (2012, p. 1364) fosters the reconfiguration of resources. As such, the exchange with stakeholders requires an organization to reconsider and potentially adapt its position. This requirement indicates that the stakeholders comprise an important context for practices to reconcile future and past. As with the other dimensions, stakeholders shape how an organization reconciles future and past by providing a contextual framework. In turn, practices to reconcile future and past shape how stakeholders are perceived and might also initiate altered perceptions. For instance, when a new technology is incorporated for a specific product, it requires a strategic partnership with a new supplier. This partnership not only alters the specific product but might also reveal new aspects of existing products. Therefore, stakeholders significantly influence the reconciliation of future and past.

This example emphasizes that the dimensions and the practices to reconcile future and past can be constitutive of each other: While practices shape the context in which they occur, they are – at the same time – shaped by that very context. This interdependence also indicates that the practices and dimensions in the theoretical framework are not mutually exclusive but are intertwined and related.

2.6.2 Completion of the theoretical framework

With the theoretical analysis completed in this chapter, the theoretical framework can now be completed as well. Figure 9 depicts the theoretical framework, supplemented by the five key organizational dimensions. In order to provide a comprehensive overview, I provide a description of the completed framework.

At the top and at the bottom, the straight arrows from left to right schematically indicate that the organization is moving forward in time. On the left side, the past is depicted with multiple layers that emphasize that organizations generate and relate to multiple versions of the past. Therefore, the past is labeled past(s). The right side of the framework displays the same but for the future: future(s) and multiple layers indicate that there is more than one immutable future. In the center of the framework, the five key organizational dimensions are depicted with a diamond-shaped pentagon. Each corner represents one of the five key dimensions: resource configuration (top left), strategic context (top right), structural context (middle left), innovation and technology (middle right), and stakeholders (below). The arrows from each dimension to the other signify the interrelatedness of the key organizational dimensions, since they are mutually constitutive. The grey colored circle with the X in the very center of the pentagon indicates the present as the locus of reality where all social interaction (including practices to reconcile future and past) are happening. While the pentagon is in the foreground, it is silhouetted against temporality-comprehensive sensemaking, which interweaves with the key organizational dimensions and – as shown later (see Chapter 4.3) – and with the practices to reconcile future and past. This interrelation indicates that temporality-comprehensive sensemaking is inherent in the key organizational dimensions as well as in the practices to reconcile future and past. The double-sided arrows between the pentagon and past(s) and future(s) illustrate the ongoing sensemaking efforts that (simultaneously) refer to different temporal dimensions.

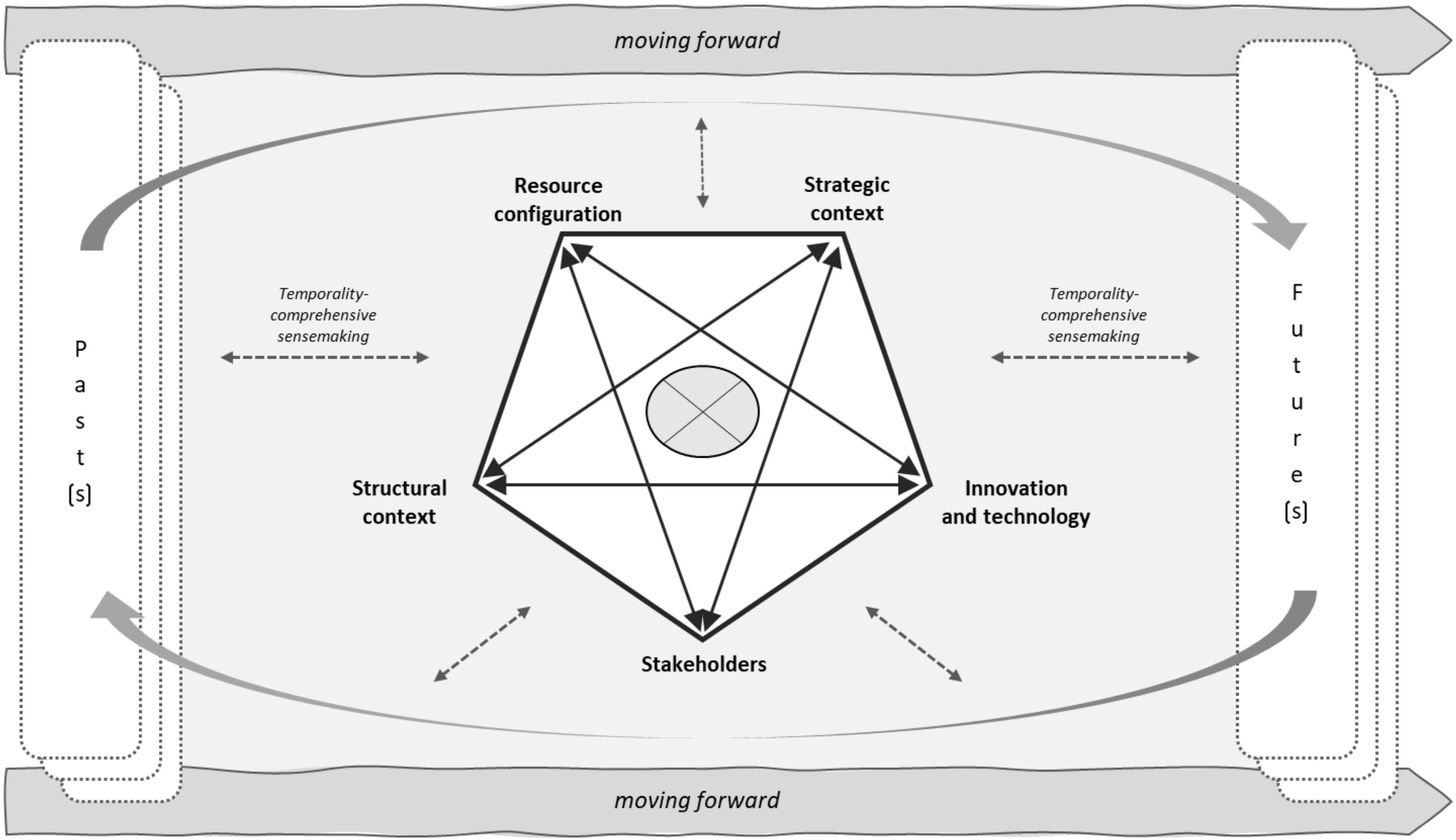


Figure 9: Theoretical framework to reconcile future and past in strategizing

As outlined in Chapter 2.1, the theoretical framework to reconcile future and past draws on SAPP as a theoretical lens. The framework includes a strong processual view that emphasizes the temporal embeddedness of strategizing, indicated by the moving forward of the organization. Over time, temporal work in strategizing emerges as an organizational outcome from the flow of activities (Burgelman et al. 2018). To better detail this particular flow of activities over time, the framework integrates a practice perspective which allows one to closely examine the various “spatially-temporally dispersed” (Schatzki 2012, p. 15) nexuses of activities that lead to the reconciliation of future and past (i.e., respective practices). In order to provide a context for these practices, the framework comprises five key organizational dimensions along which the practices will be oriented. In doing so, the theoretical framework applies SAPP as a theoretical lens and allows for an analysis of different nexuses of activities (practices to reconcile future and past) embedded in the flow of time. These practices are contextualized in the theoretical framework, which generates insights in terms of an organization’s temporal work.

The analysis of the respective practices is based on an empirical study of Belimo, a Swiss engineering company. In Part 3, I provide the details of the empirical study, while the practices to reconcile future and past are presented in the fourth part.

PART 3 - METHODOLOGY

The methodology part is structured in five chapters. In Chapter 3.1, the methodological background and underlying research assumptions as well as the enactment of the hinterland (Law 2004) is described. Chapter 3.2 provides information in terms of the research setting and the organization on which the empirical research took place. Chapter 3.3 depicts the data sources and the collection of the empirical data. In Chapter 3.4, the processing of the data (i.e., the actual analysis of the gathered empirical material) is described. Chapter 3.5 is concerned with the presentation of data and shows the structure that resulted from the data analysis.

3.1 Methodological background and approach

In order to investigate the reconciliation of future and past, empirical data from a single case study are combined with a grounded theory approach (Locke 2001, Richardson and Kramer 2006, Strauss and Corbin 1998). The grounded theory approach allows for inductive theory development based on the empirical data material. With the gradual development of the analysis, the arguments become more abstract and shift to the theoretical realm. The single case study at hand offers a promising starting point for a grounded theory approach, since it offers rich data from various sources: interviews, observations, and analyses of archival data and correspondence.

A further reason for choosing a grounded theory approach is that it is highly compatible with the SAPP perspective. It enables one to observe and study the everyday activities of organizations. In this dissertation, the emphasis is on such nexuses of activities (i.e., practices) that contribute to temporal work in strategizing and the reconciliation of future and past. While the practice and process perspective offers an excellent opportunity to gain insights in terms of the actual doing of organizations, capturing practices in practice comes with certain presuppositions. Schatzki argues that practices are a "spatially-temporally dispersed nexus of doings and sayings" (2012, p. 14) that are open ended and that unfold over time. Nicolini states that practices are multifaceted and multidimensional phenomena that require a reiteration of "zooming in on the accomplishments of practice, and zooming out of their relationship in space and time" (2013, p. 213). To achieve this zooming in and out and to capture the dispersed nexus of "doings and sayings," a solid basis of empirical material is required. A grounded theory approach ensures that theory building is rooted in the empirical material. This solid basis of data allows the reconstruction of practices in organizations by relying on different data sources in order to triangulate the data.

Viewing practices, as they unfold over time, resonate with processual approaches. An organizations is not treated as a stable entity but rather as "accomplishment of coordinated activities of its stakeholders" (Burgelman et al. 2018, p. 540). Organizational phenomena are considered to be dynamic, interrelated, and embedded in temporality. Due to the inherent aspects of temporality and temporal embeddedness (Langley 1999), a processual view is very much in line with the goal of my dissertation to analyze the reconciliation of future and past. Engaging in this kind of research, I follow Langley (1999) and Nicolini (2013), who argue that theorizing in practice and process research is a performative endeavor of world-making and reality configuration. I provide explanations for a sequence of events that lead to a specific outcome (Mohr 1982) (i.e., the reconciliation of future and past). Since this sequence fundamentally requires temporal structuring, a practice and process view seems appropriate, whereas variance theory approaches might not capture the temporal dynamics involved in practices of reconciling future and past (Langley 1999).

With regards to these considerations, the unit of analysis must be carefully and consciously defined, because "boundaries are ambiguous" (Langley 1999, p. 692) in practice and process research, due to the fluidity of organizational becoming. This fluidity poses the challenge of what should or should not be included in the unit of analysis. A convincing approach is provided by Locke (2001), who suggests that the unit of analysis should be defined according to the data that need to be collected. In grounded theory, these data should then bear theoretical relevance in order to contribute to theory building.

Relating this relevance to my research question, this dissertation requires data that illustrate how management reconciles future and past in order to make strategizing productive for the organization's future value creation. The "how" in this case also includes the "where" and "when" in order to contextualize the reconciliation. Applying this logic, my unit of analysis is the temporal work in strategizing and especially management's efforts to reconcile future and past. Having this specific focus, I can engage in collecting data material that has a theoretical relevance and makes the practices visible that occur when an organization reconciles future and past. Combining these methodological insights with the previously developed theoretical framework, this approach allows me to shed light on the temporal work in the strategizing of an organization.

Before I provide an overview of the respective data collection in Chapter 3.3, I outline the research setting and detail the empirical case study in Chapter 3.2. Based on a practice and process approach, this description seems necessary in order to explain the location of the research and the organizational context.

3.2 Research setting and empirical context

The empirical research is based on a single case study with Belimo, a Swiss-based but globally operating company. Belimo has been founded in 1975 and started by producing motorized damper actuators for heating, ventilation, and air conditioning (HVAC). Over time, the company has grown substantially and expanded its geographic spread from Europe over the Americas to Asia-Pacific. Alongside with the geographic development, Belimo also expanded its field of activities: In 1998, the company entered the HVAC water application market, and it recently launched solutions for the residential market. In 2017, Belimo started another range expansion into the sensor business.

Belimo's strategy and related activities are embedded in fundamental principles such as focus and portfolio discipline, sustainable growth, customer orientation, continuous optimization of the organization, and differentiation through innovation. Operating on these principles, Belimo successfully realizes a focus strategy based on long-standing knowledge and expertise in a well-known industry. Since its foundation, the company has been strongly affected by the bottleneck-oriented strategy (Mewes 1972), which basically states that an entrepreneur must identify the entrepreneurial bottleneck and then concentrate all its power and energy on that bottleneck in order to release it. In his book regarding the success of the company (Burkhalter 2010), one of Belimo's founders argues that the bottleneck-oriented strategy can be seen as opposed to a diversification approach (Ansoff 1957; Markowitz 1952).

Belimo can be characterized as an optimized organization within a slow-moving industry – it is well-embedded in the existing customer value constellations that figure as important strategic reference points. The company's high market shares in the market regions of Europe and the Americas force Belimo to approach and develop new markets as well as to invest in new fields in order to achieve the targeted growth. Regarding the growth, some current moves (e.g., into energy efficient and environmentally friendly products and the sensor business) are more in line with the established and optimized organization than are others (e.g., new customer segments, Internet of Things [IoT] and cloud-based applications). Belimo faces the challenge of short-term goals in sales versus long-term development; an underlying discussion in this context regards the adequate pricing strategy (Carricano 2014). Belimo was operating with a cost-plus strategy in its early years of operation, but it then switched to value-based pricing that refers to market research and benchmark analysis. Discussions regarding a cost-plus pricing strategy arise from time to time due to the superior innovation capability of the company and the possibility for it to become a disruptive force in the industry.

Growth and new topics pose a challenge for current capabilities, knowledge, and communication. Therefore, the current strategy aims for further growth and serves as an explication of long-standing implicit patterns and beliefs within Belimo in order to maintain focus with regards to newly emerging topics. The company's strategy document states how the organization and its executive management intend to address current and future challenges and opportunities regarding growth. Furthermore, it describes the company's scaling and transformations in terms of altered ways of innovating in the context of a rising trend towards more digitalization in products. The strategy is embedded between longstanding and historically grown strategic principles and a balanced scorecard with specific goals adapted from year to year. The underlying entrepreneurial logic of Belimo is not explicitly formulated. Belimo is currently concerned with making an effort to communicate strategy regarding second- and third-line management.

Belimo faces several new topics in different areas. The company is, for instance, entering adjacent business segments to achieve the targeted growth. This move is considered to be in line with the company's history due to the proximity of the business segment to the existing business. However, in the context of the development of a new product series, Belimo is also exploring new customer segments. Hence, Belimo is highly aware of potential cannibalizations and disruptions, and it approaches the market entry of products carefully.

While Belimo has historically been rooted in the mechanical damper and actuator business, its new products contain more digitalization. For instance, the products integrate more digital technologies and are connected to a cloud. This step towards the IoT opens up new perspectives and possibilities. However, in terms of the revenue model, Belimo maintains its focus on selling products and not services. As such, management keeps the market interfaces in balance: retaining existing customers while at the same time experimenting with new customers or the same customers with an altered approach regarding the go-to-market strategy.

From a strategic point of view, reconciling future and past is pivotal for Belimo. The handling of newly arising topics (e.g., IoT, new customer segments and products) against the background of a strong organizational history will be crucial for the organization's moving forward. With this research setting in mind, I describe the data collection in Chapter 3.3.

3.3 Data collection

This dissertation benefits from a longitudinal single case study that generated a considerable amount of useful empirical data over time. The study's longitudinal character is reflected in the data collection that extends to more than two years of intensive research. As we learn from scholars in practice and process research (Gioia and Chittipeddi 1991; Gioia et al. 2013; Feldbrugge 2015; Kouamé and Langley 2018; Langley and Abdallah 2011), a longitudinal approach is essential for productive research in processual studies in order to depict the temporal evolution and unfolding of strategizing activities over time.

The data collection consisted of four stages and involved several sources of empirical data throughout the research. The four stages can be summarized as (i) interviews with executive management and result discussion, (ii) field research in an emerging market, (iii) focused interviews regarding strategy and innovation, and (iv) the observation of a strategic management platform. Figure 10 provides an overview of the four research stages; I describe the stages in more detail below.

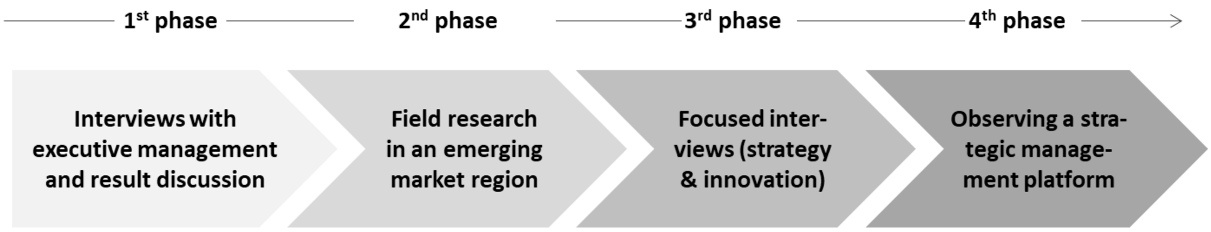


Figure 10: Stages of the data collection

3.3.1 Description of the research stages

In the first stage, the goals were manifold. First of all, I wanted to introduce myself as a researcher and present our research approach in order to transparently inform our partners collaborating in the research project. A second goal was to become acquainted with Belimo and its environment. This goal included preliminary meetings with the chief executive officer (CEO) and the chief innovation officer (CINO), as well as the analysis of relevant strategic documents. The preliminary meetings and the document analysis were an important step and crucial to conducting well-informed interviews with the executive management. Obviously, the third goal was to conduct the interviews with the executive management and to gather empirical material. Thus, I also needed to redefine the scope of the research, as well as the empirical unit of analysis. Finally, the fourth goal was to systematically reflect the provisional empirical insights from the research with the executive management to validate observations and interpretations. This validation helped to systematize my knowledge of the company and to sharpen the study's empirical focus.

The second stage (field research in an emerging market) was crucial for my dissertation, since it gave me the opportunity to observe members of executive management in their everyday activities (Johnson et al. 2003). I was able to closely follow their practices in the context of a visit to China, considered to be an important emerging market for Belimo. Therefore, China also prominently figured in Belimo's strategy document. This research stage included preliminary interviews with members of the executive and middle management to become acquainted with the empirical field and to be able to contextualize "what is going on" during the visit. This embeddedness and close access to the field is in line with recent methodological insights in practice-based research (Nicolini and Monteiro 2017).

This second stage also included a detailed analysis of relevant strategic documents, which helped me to better understand conversations during the field research and to consolidate the different pieces of information. The field research included the visit of a newly opened facility in the Chinese market, a strategy meeting with the executive management and local members of the middle management, and a meeting with a strategically relevant customer. This meeting was especially interesting for my research regarding the reconciliation of future and past, since during the meeting a new idea was developed. Additionally, the field research gave me the opportunity to participate in formal events with members of the organization and customers, as well as to engage in informal discussions with members of the executive management. I was able to immediately clarify and validate the information I gathered during the field research. Needless to say, these interactions were an important data source because they provided me with background information regarding current topics and issues with which Belimo was concerned. To conclude the field research, I summarized the observations and developed hypotheses about what I had observed. As in the first research stage, I engaged in helpful and productive reflections with the CEO and CINO of Belimo to further validate my insights. This consultation also allowed me to refine the focus of my research for the third stage in order to conduct purposeful and well-structured interviews.

The third stage consisted of a series of interviews, mainly focused on a current strategic innovation project. This innovation project was considered to be a potential game changer for Belimo due to the culmination of newness it contained regarding the innovation approach, the used technologies, the customer segment, and the product itself. I elaborate on this project in more detail in Section 4.2.2. The participants of these interview series were mostly members of middle management who were related to the strategic innovation project. The interviews enriched the empirical data material in two ways: On the one hand, I obtained a comprehensive overview of the project, since my interview partners covered all stages of the strategic innovation project, from its beginnings with a preliminary study to the product development, its rollout, and even the beginnings of the project's aftermath. This overview thus allowed for a historical reconstruction of the innovation process and a comprehensive contextualization of the project and its implications for strategic moving forward of Belimo.
On the other hand, my interview partners provided me with additional material and documents, which were helpful to triangulate my empirical data. Furthermore, I could observe the practices related to the documents, since I witnessed the handling of the documents and their use in everyday activities. Again, I develop hypotheses based on the information I gathered from the interviews in order to reflect on the insights with members of the executive management.

The fourth stage was centered on the observation of a strategic management platform. This management platform was established to discuss the strategic development of Belimo's product portfolio. The goal of the management platform is to bring executive

and middle management to the same level of information regarding existing and new products, as well as to develop the product portfolio. The platform consists of two main events: a regional meeting and a global meeting. In the two-day regional meeting, members of the regional sales organization and the innovation division discussed the development of the product portfolio and prepared inputs for the global meeting. In the global meeting, the preparatory work was presented, and new suggestions for products from the sales organization as well as from the innovation division are discussed. The members of the executive management participate in the global session, although they do not take a leading role, rather acting as regular participants. This levelling of authority happens on purpose so that the executive management is not too assertive or dominant regarding the development of the product portfolio. The global meeting lasts three days; it involves presentations from external partners and is moderated by an external host.
While these two meetings figure as the main events of the management platform, a core team is concerned with the continuous development of the product portfolio and prepares the basis for decision-making. For this reason, the core team sometimes also raises new topics of discussion and thus prompts the need for decisions to be made. The process is closely aligned with the management processes of the executive management, and the core team directly reports to the executive management. The core team is also responsible for the two meetings and their preparation. While the regional meetings involve more input from the regions, the agenda of the global meeting is constructed by the core team. Since agenda setting (Dutton and Ashford 1993) is an inherent part of the preparation of the management platform, it was insightful to also follow the meetings of the core team, where they discussed issues of high strategic importance. In doing so, I could observe the forming and enacting of strategic decisions over time from a processual perspective.

3.3.2 Data sources and use

The empirical work of my dissertation profits from all four research stages, although the relevance of the respective data sources may vary in each stage. For instance, while interviews were the most prominent data source in the first and the third stage, participant observation was crucial for the data collection in the second and fourth stage.

The analysis of archival data and documents, in turn, accompanied my research efforts throughout all research stages. Table 1 provides an overview of the data sources and their use for this dissertation.

Data sources and use in the analysis

Data source	Type of data	Use in the analysis
Interviews	*Interviews with executive management* (14 interviews), to investigate Belimo's history, current situation, and future challenges as well as strategy-related practices and processes *Interviews with middle management and project members* (12 interviews), to investigate emergence and development of the strategic innovation project	Becoming familiar with the organizational context (mainly first stage) and with the strategic innovation project (mainly second and third stage) Identifying potential topics relevant for further research (mainly first stage) Gathering insights regarding practices to reconcile future and past
Archival data	*Strategy documents:* Corporate strategy, corporate sales & marketing strategy, regional sales & marketing strategies (from all market regions) *Management documents:* Corporate management model, organization chart, documents regarding the resource allocation process *Project related documents:* Workshop protocols, itemized marketing strategy for market region Asia-Pacific and for the Chinese market, presentations about the strategic innovation project	Becoming familiar with the organization and the research context Triangulating insights from observations, interviews, and informal conversations Scrutinizing and challenging assumptions of the interviewees in the interviews and in informal conversations based on "hard facts" from documents and written statements
Participant observation	*Field notes from meeting and event attendance (internal meetings as well as meetings with customers and partners):* Written records of social interactions, conversations, and	Becoming familiar with the organizational context Observing practices to reconcile future and past in practice

Data source	Type of data	Use in the analysis
	organizational practices around the meetings and events	Triangulating insights from archival data, interviews, and informal conversations
Field research	*Field notes from a business trip to a market region:* Written record of social interaction, conversations, and practices around the meetings and events (including visiting a strategically relevant customer in China)	Becoming familiar with the organizational context Observing practices as enacted Triangulating insights from archival data, interviews, and informal conversations
Informal conversations	*Conversations with members of the organization,* partially written down and recorded	Gathering first-hand insights, discussing and verifying potential hypotheses Facilitating access to research partners
Correspon-dence	*Correspondence between and with members of the organization,* via mail	Organizing the research project Gathering first-hand insights regarding the use of written communication within the organization

Table 1: Data sources and use in the analysis

In total, I conducted 26 qualitative interviews with members of the executive and middle management as well as with project members. The interviews were semi-structured: While I prepared a list of topics to be covered during the interviews, the interviewees were invited to set and emphasize topics on their own. This invitation allowed for the discovery of previously unknown but relevant topics. My intention was to convert the interviews into a conversation in order to let the interviewees give a precise account of activities and to thereby grasp the organizational reality as much as possible. In addition to the recording, I took notes during the interviews to help me navigate through the interviews. I also used the notes to remember important interrelations of what was said. The interviews allowed me to familiarize myself with the organizational context, especially during the first research stage. Through the interviews, I was able to narrow the scope for further research stages and – of course – to gather information regarding the practices to reconcile future and past.

During the research, I was provided with several documents that I used as an important data source. The archival data I received can be categorized as follows: documents related to strategy (e.g., the corporate strategy or regional marketing strategies), management documents (e.g., organizational charts, sheets to plan the resource allocation process, or meeting minutes), and project-related documents (e.g., final report regarding project completion, evaluation of target markets, or calculations of costs). These archival data helped me to familiarize myself with the organization and allowed for a triangulation of observations, interviews, and informal conversations. Owing to the archival data, I could juxtapose the information from interviews and conversations with written accounts of strategy work.

Participant observation was an important source of data because I could complement the archival data and information from the interviews with first-hand observation of what was going on when Belimo engaged in temporal work in strategizing. This method is in line with Nicolini and Monteiro's argument that studies "that do not entail some direct access to the sites where practices unfold risk missing important aspects of them" (2017, pp. 11–12). Introduced as a management researcher, I was able to attend several strategy meetings with members of the executive and middle management. During these meetings, I took notes on what was discussed and on the meeting setting (e.g., location, participants and their function and background, meeting infrastructure, documents referred to, tools used, and so on). I recorded certain parts of the meeting and later transcribed the recordings. This information helped me to contextualize the activities that occurred in the meeting. Thus, it was important to reflect on the meetings with the participants before and after they took place, because important information was often implicit. For instance, a member of the executive management told me after a meeting that the discussions were not as intense as I had expected because the controversial issues already had been discussed in a preparatory meeting.

The field research was a productive source of data inasmuch as it allowed the observation of the executive management's strategizing *in situ*. As a preparation before going to the field, I conducted three interviews with members from the market region via telephone in order to discover what the business trip to China would be about. Furthermore, I studied documents that were relevant to the visit. During the field research, I attended the meetings and took notes. As noted above, I could immediately discuss and verify ideas and hypotheses that rendered the field research a productive and goal-oriented data source.

Informal conversations were an important source of empirical data because they allowed me to learn more about implicit issues in the organization and to gain background knowledge. I tried to record relevant commentaries and insights from informal conversations in field notes, in order to put "official" information and its use into perspective (Mantere 2005). Although the differentiation between official and unofficial is ambiguous and would not withstand an empirical examination, informal conversations helped me to contextualize what I observed in terms of strategizing and allowed me to assess the emphasis of members of the organization on strategic issues.

Finally, I used correspondence with Belimo as a data source. Although correspondence was mainly a means to organize the research, I gathered insights into how the organization functions. For instance, I could monitor the communication between members of the organization when interviews were organized or when information regarding the management council was exchanged. This monitoring also aided my understanding of the organizational context.

3.3.3 Overview of the interviews

Since the interviews figure as an important part of the data collection, I provide detailed information regarding the interviews during the different stages of the research. As mentioned, the interviews were conducted on the basis of a semi-structured approach: Starting with a series of topics and questions concerned with research focus, the interviews transformed into conversations in which the participants could provide thematic input and emphasize important and relevant points on their own. In agreement with the interviewees, the interviews were recorded and transcribed. The transcripts served as the basis for the subsequent analysis of the interviews. Table 2 provides an overview of the interviews across the different research stages.

Overview of the interviews

Research stage	Interview partner (function)	Duration (hh:mm:ss)	Form of the interview
First stage	Head of market region Europe	01:43:56	Semi-structured, face to face
	Head of logistics / customizing	01:42:45	
	Head of strategy & brand management	01:58:13	
	Head of production	01:46:22	
	Chief executive officer	01:41:02	
	Head of market region Americas	01:52:49	
	Head of market region Asia-Pacific	01:28:37	
	Chief innovation officer	01:37:41	
	Chief financial officer	01:18:45	
Second stage	Head of Chinese market	00:42:26	Semi-structured, via Skype
	Head of market region Asia-Pacific	01:02:55	
	Product manager in market region Asia-Pacific	00:44:01	
Third stage	Chief innovation officer	01:42:50	Semi-structured, face to face
	Team leader product management market region Europe	01:41:12	
	Product manager market region Europe	01:43:44	
	Senior manager development system innovation	01:22:14	
	Head of the product maintenance department	01:26:46	
	Former manager of strategic innovation project	01:49:11	
Fourth stage	Manager of a strategic innovation project	01:17:31	Semi-structured, face to face
	Product manager market region Europe	01:27:47	
	Team leader innovation division	01:14:56	
	Head of strategy & brand management	01:48:33	
	Chief executive officer	01:57:56	
	Chief innovation officer	01:48:03	

Research stage	Interview partner (function)	Duration (hh:mm:ss)	Form of the interview
	Product manager market region Americas Product manager market region Asia-Pacific	00:34:05 00:42:58	Semi-structured, via Skype

Table 2: Overview of the interviews

The longitudinal approach of this research and the interviews with the same interviewees at different research stages enabled me to collect interview data at different points in time, further allowing me to depict the flow of activities over time. This approach therefore proved very productive for a processual reconstruction of what happened in the flow of time. Bearing this reconstruction in mind, I provide detailed information regarding the analysis of the empirical data in Chapter 3.4.

3.4 Data analysis

The data analysis follows an abductive logic (Langley and Abdallah 2011), by which an iterative process was followed to shape the theory, data collection, and findings (Gioia et al. 2013). The analysis of the empirical data can be divided into five different steps: review of the empirical data, analysis of the data material, initial and selective coding, iteration and refinement of the codes, and development of the data structure.

The first step of the analysis consisted of an overall review of the empirical data. In order to gain an understanding of the data in overview, I reviewed the interview transcripts as well as the field notes and archival data I gathered throughout the various research stages. This first step helped me to understand the case and the processual dynamic that was implied. To arrange the disparate information, I took note of potentially relevant data and itemized the topics of interest.

In the second step, the empirical material was analyzed in-depth. As such, I worked over the interviews to extract relevant excerpts and passages of text from the interview partners. I revised the extensive notes from my field research as well as the participant observation and identified what was relevant in the context of my research interest. I also worked through the archival data in order to extract textual passages of relevance for reconciling future and past. This activity resulted in a separate list of 444 "informant terms" (Gioia et al. 2013, p. 20).

Based on this list of informant terms, the third step was to code the data. I pursued the approach of open coding (Strauss and Corbin 1998) and began to develop first-order concepts that were assigned to adequate informant terms. This activity followed an iterative logic in which I oscillated between the informant terms and the first-order concepts. This iterative process resulted in the development of 75 first-order concepts related to the 444 informant terms. As suggested by authors such as Locke (2001) and Gioia et al. (2013), the first-order concepts are still close to the empirical data. I then looked for similarities and differences among the first-order concepts in order to achieve a clustering. A further round of more selective coding allowed me to develop 28 second-order themes based on the 75 first-order concepts. This iteration was more detached from the initial informant terms and more abstract. With the second-order themes, I approached "the theoretical realm" (Gioia et al. 2013, p. 20) to discover topics that were potentially relevant for the reconciliation of future and past. Once I ensured that the first-order concepts and the second-order themes were meaningfully interrelated, I engaged in a next round of coding. As a result of this iteration, the practices to reconcile future and past emerged in nine aggregate dimensions. These aggregate dimensions possess a high degree of abstractness but are firmly rooted in the empirical data material. To ensure the consistency and the qualitative rigor of the analysis, I engaged in a fourth step.

In the fourth step, the goal was to ensure that the emerging data structure was robust and solidified. Therefore, I engaged in a "cycling between emergent data, themes, concepts, and dimensions and the relevant literature" (Gioia et al. 2013, p. 21) to ascertain that the identified practices still related to the empirical material. This cycling exercise implies that I was iterating between the informant terms, first-order concepts, and second-order themes, as well as the aggregate dimensions (practices), to validate the consistency of the empirical analysis. In seeking this validation, I also refined the data structure by drawing on insights from the participant observation and archival data in the sense of a triangulation of the empirical data. This triangulation allowed me to reach theoretical saturation (Glaser and Strauss 2009), where the process of developing aggregate dimensions from empirical data came to an end.

After reassuring the qualitative rigor of the analysis, I began to develop the data structure as the fifth and last step of the data analysis. Due to the richness of the empirical data, a structured depiction was helpful to create transparency in terms of the analysis:

> *The data structure not only allows us to configure our data into a sensible visual aid, it also provides a graphic representation of how we progressed from raw data to terms and themes in conducting the analyses—a key component of demonstrating rigor in qualitative research. (Gioia et al. 2013, p. 20)*

The data is organized and presented in Chapter 3.5. The data presentation allows for a coherent and transparent display of the data.

3.5 Data presentation

Due to the richness of the empirical data material, this chapter provides two accounts regarding the analyzed data. In the first account, the developed first-order concepts are assigned to illustrative informant terms in order to exemplify the development of the first-order concepts and to demonstrate the qualitative rigor of the analysis. Taking into consideration that the first-order concepts amounted to 75 items, only one illustrative informant term was assigned to each first-order concept, although in each case several illustrative informant terms led to the formation of the first-order concepts. Certain informant terms were originally in German, and these were then translated to English where necessary. Table 3 displays the informant terms and the corresponding first-order concepts.

Development of first-order categories

Illustrative quotes (translated)	First-order concepts
"Then it doesn't work out even regarding financial budget and it is slowed down. At the same time, we demand that we be courageous. Sometimes, it's schizophrenic. It is difficult to handle this mentally. You really need stamina."	Wavering resource allocation
"The bottleneck-oriented strategy is in our heads. The successful past is like a soft pillow, but we might miss something because of that. Basically, the goal is to innovate and move forward. Be attractive in the market."	Stabilizing change
"It makes sense that we don't burden the organization too much."	Protecting the well-rehearsed
"Growth sparks a dynamic and opens up perspectives. The old infrastructure is not enough; we need a new building, plan it and so on."	Perpetuating an atmosphere of departure
"Our innovation, that distinguishes Belimo. We have a strong position within the organization. Maybe too strong but our past success justifies this position."	Exploiting success
"Actually, we always know that the product will sell at least on average. It is virtually impossible that it won't sell at all. We know the market very well and we also know that our innovation will be well received."	Extrapolating the past
"A discussion regarding opportunity costs – what are we going to do and what not – that has never taken place within Belimo, that just doesn't work here."	Prolonging the past
"A remedy is that we standardize each division. There are only a few real interfaces with need for clarification."	Unitizing and standardizing
"I believe that focusing helps. We have a lot of small projects. Our projects from R&D are seldomly bigger than 10 million. That allows us to engage in more projects in parallel."	Parallelizing
"To be consistent regarding the product portfolio comes at a cost. That is the biggest digitalization challenge, to update the existing product portfolio. We need to develop platforms and bring them to the next level."	Platforming and streamlining
"Many projects have this kind of rupture. Something emerges out of the preliminary project and then another unit has to finish it. This seems necessary to make it fit for serial production."	Demarcating domains
"I see our process map as a guardrail. Sometimes, we take shortcuts. This is difficult for some people because they insist on filling out a requirements engineering. But that won't guarantee a successful project."	Handling the formalization

Illustrative quotes (translated)	First-order concepts
"There is this advancement, the optimization of the existing. That is also affected from the outside. But the big topics – no customer will tell us. We need to understand them."	Optimizing the organization
"We can react quite well, and we can expand. We try to grow 6–7% with a clever expansion."	Organizing growth
"Especially regarding this strategic innovation project, we need to tackle the infrastructure and the architecture so we can accelerate the development by mid-2019."	Ensuring compatibility
"We should create synergies between the two products. But the story we will tell is that Belimo makes life easier and offers one-stop solutions."	Narrating the company
"If we want to push a product, we shouldn't be concerned with our organization and the resource allocation. We need to identify requirements that are important for our customers."	Maintaining a strict customer orientation
"Number one is that it is an entrepreneurial company. It was founded by people who knew the industry and knew what was important. They kept a long-term focus regarding financial returns."	Long-ranging
"Sometimes it is better to start somewhere and let the others just watch. Maybe it is more effective to follow a step-by-step approach."	Iterating forward
"Because of the complexity, we may drift in a strong competition and cannot differentiate ourselves via the products. But we want to be innovative. We need both. But we cannot dissolve this dilemma."	Equilibrating profit and investment
"There is a lot of strategy happening in different locations. From a formal perspective, that surely has increased."	Equally evening out
"Belimo does a very good job in keeping its priorities straight and maintaining excellent customer relationships."	Continuously prioritizing
"We have to think hard before expanding horizontally. We don't want to be a company who has tried many things but only been successful at 30%."	Focusing
"We are struggling with too many projects in the pipeline. It is not as it seems: We in the KL have expectations but there are bottlenecks and delays."	Selectively narrowing
"We're good but our competition is really bad. They have a short-term attitude. If we can keep the discipline and the culture we have right now, I'm optimistic that we will have a great future."	Positioning the company

Illustrative quotes (translated)	First-order concepts
"It strikes me that our market regions always fall back. We are positioning ourselves with innovation – nevertheless, we fall back. We need to be better than our competitors to differentiate us."	Differentiating from competitors
"Belimo was successful with a cost-plus approach. We don't want to squeeze the lemon; we only take what is necessary. This contributed to Belimo's success."	Discussing pricing strategy
"We didn't do a conscious, systematic evaluation in the early days. The evaluation criteria are subject to debate, of course, but the process is very important. It helps to reflect and to define basic principles: What is our target regarding growth, how much to invest, what margin do we want."	Systematizing ambiguity
"We distinguished between the definition of strategy, the communication of strategy and the strategy implementation. Regarding the definition of the strategy, we have an annual process, typically in March, the executive management workshop."	Formalizing strategizing
"It is important to continuously re-evaluate these topics. We need a basis. Otherwise we won't get anything done, if we have too many construction sites."	Constantly re-evaluating
"We spent less on sensors but outperformed on sales. However: The definition of success will trigger discussions."	Defining success
"Some years ago, we only considered the financial perspective. We explained everything with numbers and engaged in extensive project management. We only reduced costs. Creating value added almost disappeared."	Creating value added
"We try to involve our stakeholders. It adds value, but we could do even more."	Involving stakeholders
"Suppliers are strategic partners for us, and we accompany them systematically. When you are developing a product together, you don't know the result in advance. Therefore, you need to trust your partner."	Systemically partnering
"We produce only 12% of the products by ourselves. This makes sense because we wouldn't be able to stay up to date with machines, technology, and knowhow."	Strictly sourcing
"That was a process that lasted several years. Now we are able to put the second-line management in charge. It is short- and mid-term strategy planning. In consequence, we don't see that many details in the executive management. It is a step where the executive management loses touch with the ground forces."	(De)coupling strategic and operative level

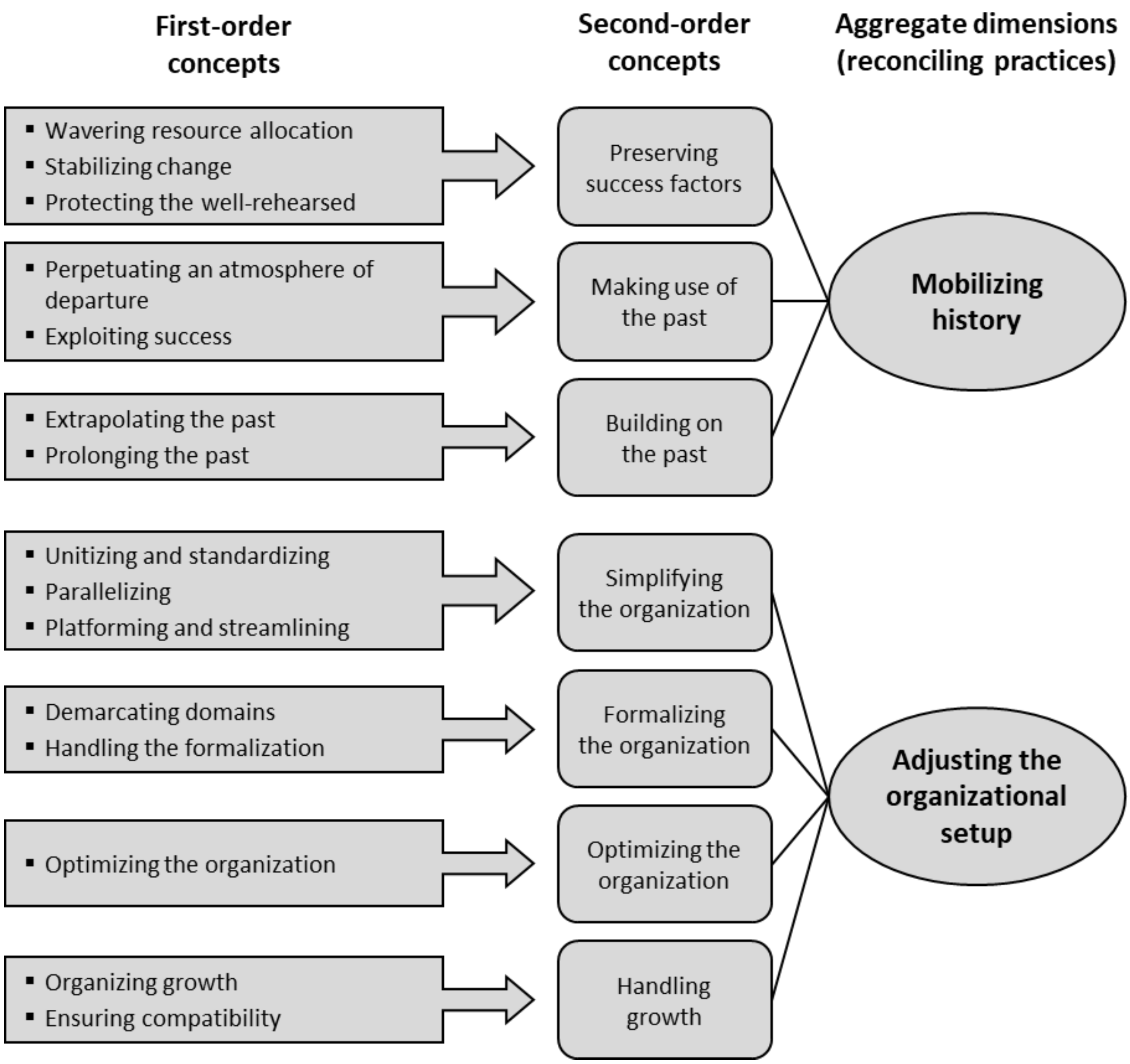
Illustrative quotes (translated)	First-order concepts
“There are more ideas than we can actually realize. The market is there, the topics need to be prioritized. For instance, this happens in our growth strategy.”	Containing growth
“We are organized with three market regions. They always want something different. Nevertheless, we achieve a high efficiency with this kind of organization.”	Aligning geographically
“Even if we don’t know yet what it will be exactly, but if we can talk IoT. It’s a defensive strategy in this sense.”	Appropriating topics
“I believe that – if we want to develop ourselves – we need to work on our capabilities. Capabilities regarding innovation but also in terms of market.”	Developing capabilities
“If we knew the costs in advance, we would not be where we are today.”	Daring the future
“I can anticipate the organic growth quite well. Ninety percent is retrospection according to the principle ‘I look in the rear-view mirror and drive forward,’ actually.”	Anticipating
“You trigger a lot of anxiety regarding the future. We need to illustrate where we are heading.”	Projecting the future
“In fact, our growth strategy informs us how we want to balance our bread and butter-business with new things that are fraught with risk.”	Balancing the old and new
“We should engage in creating the new big thing. But existing business should not be eclipsed by new topics.”	Discussing alternatives
“Our new products are embedded in an ecosystem. The question is where to draw the line. In theory, the scope could be huge – but also really small.”	Working on an ecosystem
“Other projects have a higher prioritization and our resources are limited. It is important that we have a process that reflects the whole organizational context.”	Generating the bigger picture
“There is a risk that we dilute towards the market. We always talk about sensors, but we cannot do everything.”	Diluting over time
“F&I is always a step ahead, and that is troublesome and generates conflicts because the sales organization is operating in daily business. It’s a dynamic system where positions and argumentations constantly shift.”	Regulating speed and timing
“My experience was that Belimo always had clear projections. But the clarity has vanished. And currently, no discussion whatsoever takes place.”	Getting things straight

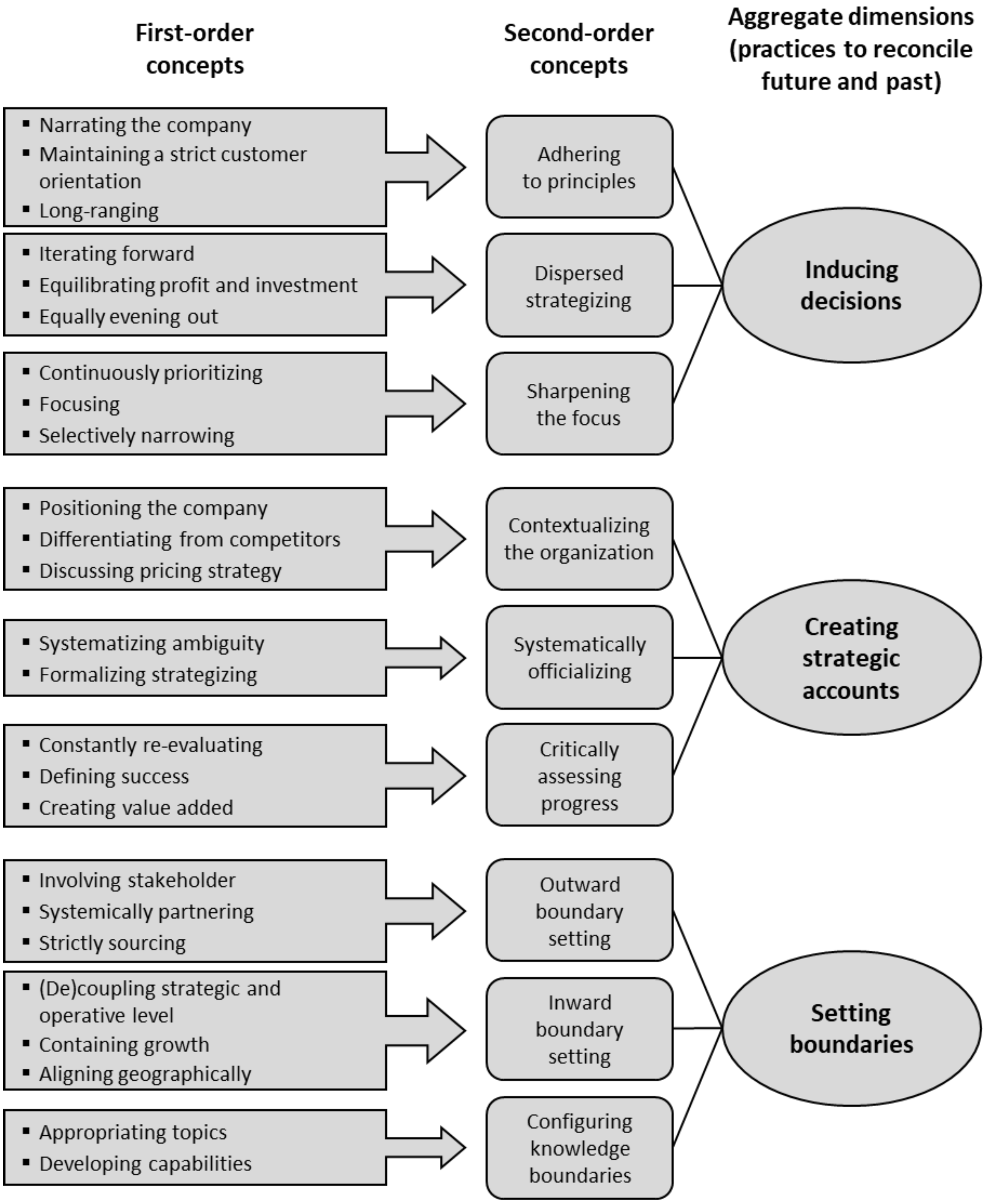
Illustrative quotes (translated)	First-order concepts
"These are uncharted waters. But with the customer journey, we have a tool to establish a discussion regarding these new and uncertain topics."	Tackling uncertainty
"As executive management, we need to order the topics in a meaningful way throughout the organization."	Arranging information
"The most uncomfortable one for me is IoT because there is no existing market yet and no experience. There we have to predict what the market is going to look like and what the value proposition is going to be."	Grasping the unknown
"It is important for the people to understand where we are headed. As executive management, we have to accept this challenge."	Translating strategy
"The higher complexity transforms the management. The system unfolds more dynamics. Belimo's strength is that we have solid processes. However, this transformation poses a challenge."	Managing strategic complexity
"I believe that Belimo has to tighten the relationships between innovation, product management, and sales to be successful. We need to be able to communicate quickly, clearly and intensively in terms of potential errors."	Inter-linking the organization
"The market development plan outlines how the customers can be prepared for a radical innovation and what measures need to be taken to develop the market for the new product."	Preparing the market
"If you want to be successful regarding product development, you need to navigate the relationships, and you need skills in selling your project. You may get a chance to receive a couple of bucks to dilly-dally."	Lobbying
"The accuracy regarding 'what do we want' compared to 'what are we doing' was not good. The aim of this initiative is to raise the requirements accuracy."	Raising accuracy
"We are enthusiastic about new ideas, but the implementation has to be feasible and in line with our strategy."	Checking the strategic fit
"Discarding old hats, that only emerges in the actual project. But even there, people dislike discontinuing – discarding old hats means to engage in a conflict."	Killing your darlings
"I would sign every page that says the bottleneck-oriented strategy is over. But I should not say that out loud."	Discarding old hats
"This strategic innovation project is exemplary regarding the transformation of the way we are innovating. It is not just mechanical anymore; it is highly complex and contains mechanics, electronics and software within an ecosystem. Due to this innovation project, Belimo needs to work differently."	Innovating the organization via innovations

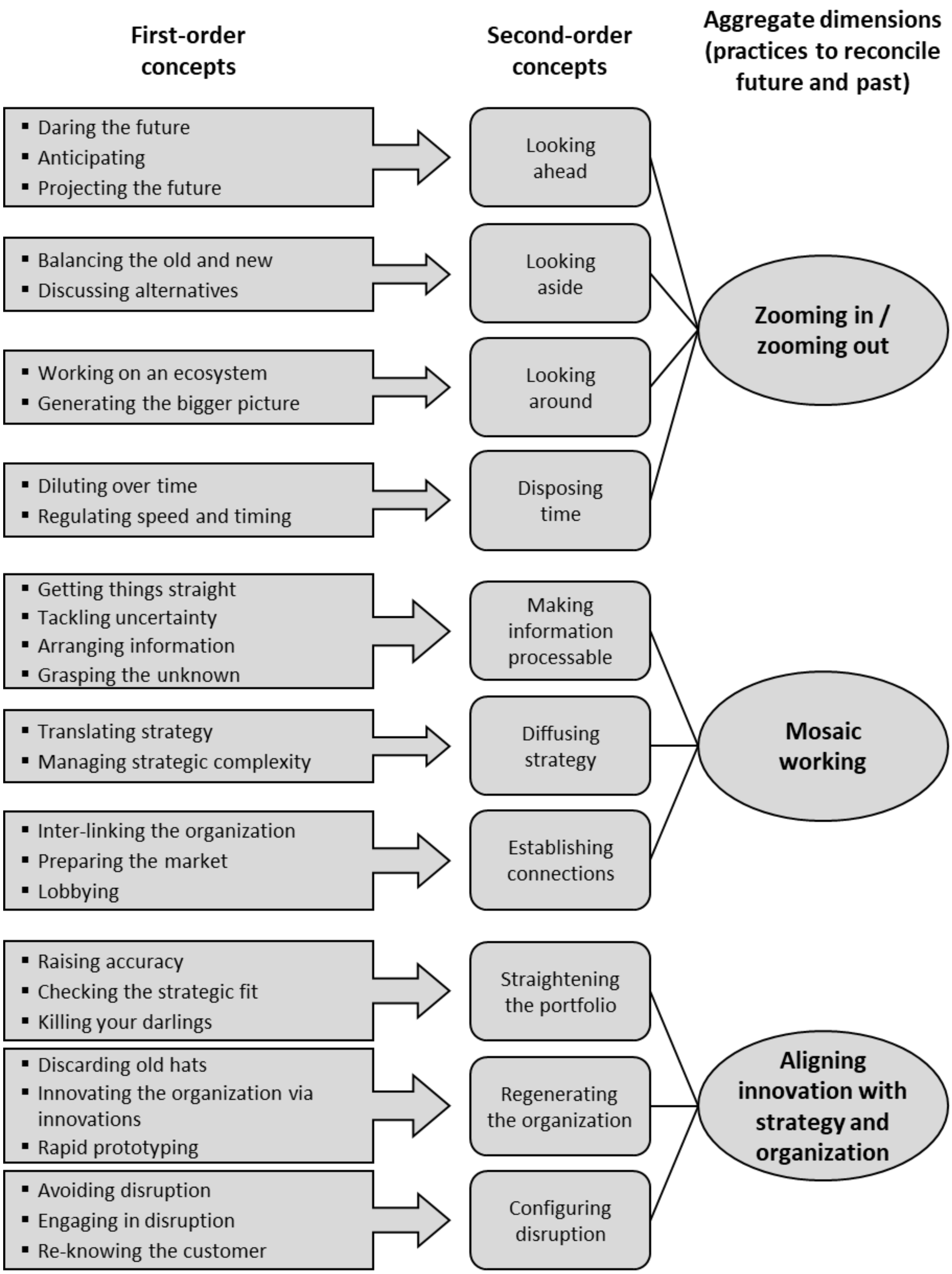
Illustrative quotes (translated)	First-order concepts
"If you want to launch a product every two years, then it is not important. But if you want to react to changes immediately, then you have to be prepared to quickly test a product."	Rapid prototyping
"Our industry is very slow. IoT and service offers will only slowly gain a foothold in our industry. An extreme scenario, such as Uber managing all sub-contractors – we cannot let this happen."	Avoiding disruption
"If we sold the product according to its value, then they would be much more expensive. However, in not doing it, we have the chance to disrupt the market."	Engaging in disruption
"The customer will not tell us where to go in terms of digitalization because he doesn't know yet what he needs. The risk is much higher not to meet customer needs. We therefore need to re-think what our customer needs."	Re-knowing the customer
"Engaging with this new kind of products was not mandatory, and we could have avoided digitalization. Maybe it would have worked out. But you are not exposed to these new topics if you don't engage with them."	Operating in the discovery mode
"We are currently operating out of the scope of our strategy. There we have the possibility to gain market intelligence, especially regarding digitalization topics."	Strategizing beyond strategy
"With such a platform, we can ensure that our employees maintain an entrepreneurial spirit. This raises the chance that we develop the right ideas."	Entrepreneuring
"As innovation, we sometimes leave the market regions behind. We are way ahead. Nobody wants that kind of product – that is what we hear from our sales organization."	Pulling the organization
"We also have to give attention to adjacent markets."	Creating opportunities
"We immediately engage in projects. We are performing a vivisection, so to say."	Bootstrapping
"Most of the time, the new technologies are pushed via projects. We don't have big infrastructure projects. We try out the new technologies in the context of a concrete project."	Continually effectuating facts
"Rapid development is crucial. Innovation is a big chance for us. Through pioneering innovation, we have the possibility to engage with customers in a meaningful and productive way."	Pioneering

Table 3: Development of first-order categories

As described in the previous chapter, the first-order concepts led to the formation of second-order themes and eventually practices. Hence, the second depiction of the analyzed data in Figure 11 shows the relation between first-order concepts, second-order themes, and the practices to reconcile future and past. On the left side of Figure 11, the first-order concepts are listed with bullet points in arrows. The arrows then lead to the second-order themes in the middle of the figure. The second-order themes are linked to their aggregate dimension (i.e., the practices to reconcile future and past).




First-order concepts
Second-order concepts
Aggregate dimensions (practices to reconcile future and past)
Narrating the company
Maintaining a strict customer orientation
Long-ranging
Adhering to principles
Iterating forward
Equilibrating profit and investment
Equally evening out
Dispersed strategizing
Continuously prioritizing
Focusing
Selectively narrowing
Sharpening the focus
Inducing decisions
Positioning the company
Differentiating from competitors
Discussing pricing strategy
Contextualizing the organization
Systematizing ambiguity
Formalizing strategizing
Systematically officializing
Constantly re-evaluating
Defining success
Creating value added
Critically assessing progress
Creating strategic accounts
Involving stakeholder
Systemically partnering
Strictly sourcing
Outward boundary setting
(De)coupling strategic and operative level
Containing growth
Aligning geographically
Inward boundary setting
Appropriating topics
Developing capabilities
Configuring knowledge boundaries
Setting boundaries



First-order concepts
Second-order concepts
Aggregate dimensions (practices to reconcile future and past)
Daring the future
Anticipating
Projecting the future
Looking ahead
Balancing the old and new
Discussing alternatives
Looking aside
Working on an ecosystem
Generating the bigger picture
Looking around
Diluting over time
Regulating speed and timing
Disposing time
Zooming in / zooming out
Getting things straight
Tackling uncertainty
Arranging information
Grasping the unknown
Making information processable
Translating strategy
Managing strategic complexity
Diffusing strategy
Inter-linking the organization
Preparing the market
Lobbying
Establishing connections
Mosaic working
Raising accuracy
Checking the strategic fit
Killing your darlings
Straightening the portfolio
Discarding old hats
Innovating the organization via innovations
Rapid prototyping
Regenerating the organization
Avoiding disruption
Engaging in disruption
Re-knowing the customer
Configuring disruption
Aligning innovation with strategy and organization

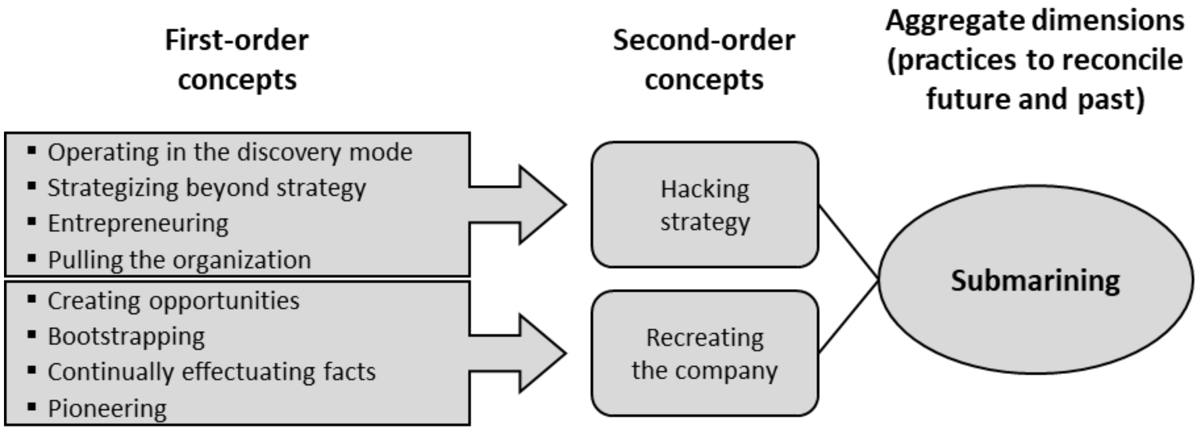


Figure 11: Presentation of the data structure

This detailed data presentation clarifies the process of analyzing the rich data and demonstrates the qualitative rigor of this process in a relatively concise manner. The analysis of the empirical data and its combination with the theoretical framework generated several findings in terms of the reconciliation of future and past. These findings are described Part 4.

PART 4 - FINDINGS

This part describes the findings from the empirical study and both substantiates and enhances the theoretical framework with insights gathered from the empirical analysis. Accordingly, the part is structured in three chapters: Chapter 4.1 describes the practices; Chapter 4.2 offers an empirical illustration of the practices; and Chapter 4.3 contextualizes the practices in the theoretical framework.

4.1 Description of the practices

This chapter provides an in-depth description of the practices to reconcile future and past. As stated in the data analysis and presentation, nine respective practices were identified. I describe them in the same order as they were depicted in the data presentation; additionally, I assign alphabetic characters to each practice in order to facilitate the orientation.

All nine practices are described in four parts: First, an introduction is provided to summarize the practice, concisely explaining the elementary aspects of the practices to reconcile future and past. Second, an informant term illustrates the practice and links it to the empirical material. Although this illustration cannot depict the complexity behind the practice, it provides an idea of its empirical rootedness. Third, aspects of sensemaking within the practices are presented. Hence, the main concerns of organizational actors' sensemaking are illuminated and briefly discussed. Fourth, the practices are described according to their characteristics. In these descriptions, I also refer to second-order themes where it is relevant for the explanation of the practices, and a comprehensive overview of the practices to reconcile future and past is provided. This overview will provides the basis for the empirical illustration (see Chapter 4.2) as well as the contextualization of the practices within the theoretical framework (see Chapter 4.3).

4.1.1 Practice A – mobilizing history

A practice that widely occurred to reconcile future and past was mobilizing history. While this appears to be an obvious practice, it contains interesting attributes that need further explanation. The practice can be described on the basis of three significant characteristics: preserving success factors, making use of the past and building on the past.

Illustrative informant term from the empirical analysis: "Our innovation, that distinguishes Belimo. We have a strong position within the organization. Maybe too strong but our past success justifies this position."

Main narrative regarding sensemaking: In this practice, sensemaking centered on the question of what the history of the organization is and what this history means for the future. When mobilizing history, Belimo's management was concerned with making the organization's past productive for the future. As indicated in the illustrative informant term above, this discussion was ambiguous and considered the past as an enabling but also restraining element.

Characteristics of the practice: An inherent attribute of this practice is that Belimo paid close attention to preserve its (perceived) success factors. Preserving success factors presented itself, for instance, in the way in which resources were allocated. While most strategic innovation projects at Belimo were fast forwarding from a technical and project perspective, the allocation of resources was rather restrained and stuck to the past. This restraint was counter-intuitive because it could be assumed that important projects contributing to the strategy are adequately or even unduly equipped with resources (Bower and Christensen 1995; Burgelman 1996, 1983b; Noda and Bower 1996). However, resource allocation for such projects at Belimo was inconsistent and did not match the dynamic of the project itself. Nevertheless, the projects continued and – despite scarce resources – managed to succeed. The wavering resource allocation resonated with efforts to stabilize organization in a dynamic environment. Although change was needed and demanded by this dynamic environment, Belimo's management paid attention that the company's history was acknowledged and not overthrown. The past was thus mobilized to ensure smooth transitions and to protect the well-rehearsed and established context of the company, since it was considered an eminent success factor that brought Belimo to the current outstanding position in the market.

A further observation regarding this practice was that Belimo was making use of the past when mobilizing history. The company's history was characterized by a strong pursuit of innovative products and solutions. Executive and middle management made use of this history by perpetuating an atmosphere of departure, stating that Belimo needs to move forward and in new directions in order to be successful in the future. These claims were linked with the company's past, with management saying that moving forward was always a success factor in the history of Belimo. In doing so, Belimo also engaged in the exploiting past successes. This course of action was used in two ways, namely to legitimize or to delegitimize new ideas. Making use of the past thus served as a framing mechanism to either foster or restrain the strategic moves of the company (Gilbert and Bower 2002; Kaplan 2008; Snihur et al. 2018).

When mobilizing history, Belimo's management was also building the projected future on the past. This activity presented itself in two specifications. On the one hand, Belimo engaged in extrapolations of the past (Brunninge 2009; Das 1987, 1991). As such, the past was taken as a "role model" for the future, and projections of the future were interwoven with the past (Schultz and Hernes 2013). Future developments were considered through the lens of the past, and an imaginary bridge was built to extrapolate the past into the future. This bridging effort included the alteration and adaptation of interpretations of the past in the light of potential future directions. On the other hand, Belimo was building on the past by simply prolonging the past. This organizational conservatism could be observed when, for example, the manner of innovation was discussed. The argument in this discussion was often that certain approaches were successful in the past and therefore need to be perpetuated. Facing strategic challenges, such as new technologies and approaches to innovation as well as shifting customer segments, prolonging the past triggered frequent discussions regarding the moving forward of the organization.

4.1.2 Practice B – adjusting the organizational setup

In order to reconcile future and past, Belimo's management engaged in adjusting the organizational setup. This adjustment makes sense insofar as the past is reflected in current organizational structures (Bartunek 1984; Jarzabkowski 2003), while projections of the future might require a different structure that has to be enacted to become an organizational reality. Four characteristics were inherent in the practice of adjusting the organizational history: simplifying the organization, formalizing the organization, optimizing the organization, and handling growth.

Illustrative informant term from the empirical analysis: "Especially regarding this strategic innovation project, we need to tackle the infrastructure and architecture so we can accelerate the development by mid-2019."

Main narrative regarding sensemaking: Sensemaking was concerned with the adequacy of the current organizational setup for the uncertainty-laden future and its potential challenges. Management engaged in discussions regarding the efficiency and effectiveness of the current organizational setup, especially the usefulness of the organizational structure. Within this narrative, the question of the organization of growth also appeared as a prominent reference point for sensemaking: Belimo's management discussed whether the organization is prepared for the future challenges that accompany growth.

Characteristics of the practice: Simplifying the organization in Practice B, adjusting the organization, means that Belimo engaged in efforts to unitize and standardize practices and procedures. These efforts occurred against the background of projections of the future that contained a high degree of complexity and ambiguity. Path-dependent and intricate structures appeared as a force restraining strategic forward movement and the realization of the projections of the future. Therefore, simplifying and unitizing regarding processes and products helped to adjust the organization so that a reconciling of future and past became possible. Belimo's management, therefore, also made efforts to continuously streamline processes and to increase platform-based products and solutions. Especially in strategic innovation projects, a tendency to parallelize the work was apparent. In doing so, Belimo was able to simplify the organization by aligning work streams and tasks according to projections of the future.

Simplifying the organization raised questions about formalization (i.e., how much flexibility was allowed and how strictly rules and procedures were followed). Belimo can be described as a well-rehearsed organization with stable routines – yet the company reserved a certain degree of conscious leeway in its actions, especially in terms of innovating. To move forward, it was important for Belimo to define where more formalization and rigidity was needed (e.g., with respect to serial production) and where flexibility should be preserved (e.g., in terms of digitalization initiatives). As such, certain organizational domains were demarcated either to preserve flexibility or to restrain the degree of freedom and to enforce more formalization. By continuously adjusting the organizational setup, Belimo realized a balance between former and future ways of organizing. Given this realization, the management needed to engage in reconciling future and past.
Adjusting the organization also featured ongoing efforts to optimize the organization. Optimization was an import activity to reconcile future and past because it meant amending the past by creating an improved version of the organizational setup in the future. Since optimization can be interpreted as an act of reflexivity, it is always directed towards something (Chia 1996; Cunliffe 2004). In this case, it was directed towards the projections of the future with an inherent and considerable degree of uncertainty. As stated previously, Belimo's management thus engaged in sensemaking regarding the question of how to optimize the organization in the light of an uncertain future.

As mentioned in the description of the research context (see Chapter 3.2), Belimo's strategy aimed for growth. Since there is an inherent tension in general between the past, with a smaller organization, and the projected future, when the organization is larger, Belimo engaged intensively in managing growth. Growth had an impact in various domains of the organization (e.g., investments in innovation, production, sales organization, customer support, logistics, etc.). Belimo therefore actively reconfigured the organizational setup by ensuring the compatibility of the growth and explicitly discussed the potential effects of an enlarged company. This discussion also meant that management ensured the growth would be compatible with the organization: The various domains mentioned were carefully analyzed regarding what was and what will be in order to assure that future and past were compatible and coherent (Kaplan and Orlikowski 2013). To organize growth in this context, management had to reconcile future and past.

4.1.3 Practice C – inducing decisions

Inducing decisions was an important yet rather implicit and – to a certain degree – even concealed practice to reconcile future and past. Inducing decisions means that reconciliation did not happen in "big," surprising, and abrupt decisions, but rather in careful and long-lasting processes that facilitated Belimo's continuous transition from past to future (Burgelman 1994; Langley 2007; Tsoukas and Chia 2002). In several of the organization's locations, strategic decisions were cautiously induced and built up so that the actual, officialized decision was merely a formal act (Burgelman 1994). Inducing decisions presented itself in three main characteristics: following principles, dispersed strategizing, and sharpening the focus.

Illustrative informant term from the empirical analysis: "There is a lot of strategy happening in different locations. From a formal perspective that surely has increased."

Main narrative regarding sensemaking: Sensemaking around the practice of inducing decisions was strongly concerned with Belimo's principles and values that guided the discourse in terms of strategic decisions and potential future trajectories. This trend implies that, for instance, focus and portfolio discipline, sustainable growth, customer orientation, continuous optimization of the organization, and differentiation through innovation strongly directed management's sensemaking. The emerging decisions and their implications led to the enactment and further reification of Belimo's principles and values.

Characteristics of the practice: Belimo was inducing decisions by adhering to well-known principles. This practice included that the history of the company with its principles and success factors was intensively narrated and mobilized to reconcile future and past. For instance, customer orientation and value added have been fundamental principles since the foundation of Belimo. When discussions arose in terms of how Belimo should realize interpretations of the future and move forward towards its future value creation, customer orientation and value added figured as important arguments that guided the discourse. Similarly, longevity was mobilized as a principle to link projections of the future with the organization's past. The enactment of these principles shaped the corporate narratives, which in turn contributed to the practice of inducing decisions (Weick et al. 2005).

The practice of inducing decisions also entailed that Belimo's strategizing efforts were distributed. Strategy was happening not only within executive management but rather emerged among Belimo's management in different locations of the organization. In the context of inducing decisions, this emergence meant that Belimo's moving forward was evened out within the organization, and multiple considerations were made. For instance, profit and investment were balanced in a cautious and deliberative way, as in the example regarding the strategic innovation project mentioned above (relating to the wavering resource allocation, see Section 4.1.1). In this regard, Belimo's management also engaged in an process of iterating forward that paved the way for decisions widely accepted or even anticipated beforehand, throughout the organization (Alvarez et al. 2013).

When Belimo was inducing decisions, it continuously sharpened the focus of respective topics to be decided. Due to its innovation capacity, Belimo had more options available that they could actually pursue. Therefore, a selective narrowing was necessary since Belimo's management had to consciously choose which strategic directions they wanted to pursue and realize. Thus, the topics were continuously prioritized and minor shifts in terms of the prioritization were regular. For example, a strategic innovation project deemed to be a game changer did not receive the resources requested by the project team. While this decision seems odd at first glance, executive management prioritized the development of existing products, where implementation showed promising return on investments (Bower and Christensen 1995; Smith et al. 2017). As such, executive management engaged in reconciling future and past by stating that the new products are significant for the future success of the company but that the focus has to be on existing and revenue-generating products as well. This decision was carefully introduced through a rather protracted process.

4.1.4 Practice D – creating strategic accounts

An important practice regarding the reconciliation of future and past was the creation of strategic accounts. As Kaplan and Orlikowski (2013) argue, strategic accounts or provisional settlements are crucial for an organization to engage in the realization of future value creation. The practice of creating strategic accounts featured three characteristics: contextualizing the organization, systematically officializing, and critically assessing progress.

Illustrative informant term from the empirical analysis: "It is important to continuously re-evaluate these topics. We need a basis. Otherwise we won't get anything done, if we have too many construction sites."

Main narrative regarding sensemaking: In this practice, sensemaking was primarily concerned with how Belimo's strategy can be translated into the organization to establish strategic accounts. Hence, management's sensemaking also referred to the current position of Belimo and what future organizational trajectories might imply for this position (Mintzberg 1987). In emphasizing this relationship, management scrutinized and challenged existing assumptions and thereby ensured that strategic accounts were coherent and plausible as well as shared, in order to enable the organization's alignment to moving forward.

Characteristics of the practice: The contextualization of the organization was strongly intertwined with the positioning of the company. Belimo's management made constant efforts to explain where the company is positioned and how potential future developments may affect this positioning. This discussion was important not only to reconcile interpretations of past positionings with anticipated future positionings but also to create shared strategic accounts of the organization's future value creation. Inherent in the discussions regarding the positioning were questions of how the company can differentiate itself from competitors (Christensen et al. 2015; Peteraf and Barney 2003). In this regard, the pricing strategy also emerged as a prominent topic to achieve strategic accounts in terms of Belimo's positioning. These discussions were important to contextualize the organization and thus helped Belimo to move forward towards future value creation.

The second characteristic of creating strategic accounts is contextualizing the organization. When the contextualization of the organization led to joint strategic accounts (Kaplan and Orlikowski 2013; Spee and Jarzabkowski 2017), the executive management systematically officialized the strategic accounts. For this task, ambiguity was systematized and thereby made manageable. Furthermore, the strategizing was formalized, and plans to realize the strategic accounts were developed. These formalization efforts were essential for Belimo to translate the (new) strategic issues into the existing organization and thus to reconcile future and past (Balogun 2006; Balogun et al. 2014; Gioia and Chittipeddi 1991).

Creating strategic accounts was related to critically assessing Belimo's progress. Within the company, assessing progress was linked to success, whereby the definition of success was subject to frequent discussions among Belimo's management. One of the main criteria in defining success was the creation of value added (e.g., for customers, employees, and stakeholders). Accordingly, progress was also scrutinized under aspects of value added. As such, constant re-evaluation supported the ongoing creation of broadly supported strategic accounts. This recursive process, in turn, contributed to the reconciling of future and past because assessing progress was synonymous with comparing a previous or current status (past) with a projected status (future).

4.1.5 Practice E – setting boundaries

The practice of setting boundaries contributed to the reconciliation of future and past by stating what is in line with Belimo's moving forward and what is "off-limits" regarding projections of the future. Setting boundaries presented itself in three main characteristics: outward boundary setting, inward boundary setting, and configuring knowledge boundaries.

Illustrative informant term from the empirical analysis: "We produce only 12% percent of the product by ourselves. It makes sense because we wouldn't be able to stay up to date with machines, technology, and knowhow."

Main narrative regarding sensemaking: Sensemaking in terms of Practice E, setting boundaries, centered on the boundaries of organizational value creation. The main questions within the respective discourse regarded how close stakeholders should be, what is outsourced, and what knowledge is required to maintain those boundaries. Setting boundaries in this context was strongly related to temporality, since the questions were considered to be nested between past and future.

Characteristics of the practice: Outward boundary setting means that Belimo's management constantly demarcated boundaries within the environment of the organization. Outward boundary setting was concerned with the question of how strongly stakeholders should be involved (Seidl and Werle 2018). In the past, Belimo cultivated strong relations with its stakeholders, especially regarding its suppliers. Therefore, the handling of partners, suppliers and further stakeholders was crucial in terms of the moving forward: Where to set the boundaries influenced the strategic direction of Belimo. Since Belimo pursued a strict approach to sourcing products and services in the past, the outward boundary setting required intensive discussion (e.g., in the context of new and more complex products) (Garud et al. 2011; Markowski and

Dabhilkar 2016). In discussing the vertical integration of previous and upcoming products, Belimo’s management intensively engaged in the reconciliation of future and past.

Not only was outward boundary setting decisive for Belimo’s moving forward, but also inward boundary setting. Thus, mainly three domains were relevant. The first domain was that Belimo needed to contain the growth in order to make it manageable. As mentioned, Belimo produced more ideas than they could pursue. Setting boundaries regarding scope and configuring the resources adequately throughout the global organization was therefore a prominent issue for Belimo’s management (Burgelman 1983b; Eisenhardt and Martin 2000).

Considering the global organization but paying attention to regional specifics at the same time leads to geographical alignment, the second domain in which boundary setting was important. While Belimo was focused on the historically strong market regions Europe and Americas, where the company has high market shares, emphasis shifted towards the markets in Asia-Pacific. The management engaged in an alignment between the geographical regions, while at the same considering the peculiarities of the regions (Ansari et al. 2014). Hence, management needed to set boundaries regarding the independence of each region and their development. Since this need to set boundaries marked a shift, management intensively engaged in temporal work to set the “right” boundaries and to balance what was in the past and what should be in the future.

Due to the growth of the company, (de)coupling strategic and operative levels emerged as a third domain that required boundary setting. In the past, Belimo’s executive management could delve into technical questions because of their engineering background and the strict portfolio discipline the company maintained as an important principle. New products and markets made managing product portfolio more complex (Garud et al. 2003) and forced the executive management to engage in the setting of new boundaries between the strategic and operative level. Again, this new engagement required much temporal work by the management in order to reconcile future and past.

Configuring knowledge boundaries can be described as a third characteristic of setting boundaries as a practice. Due to the various new topics that emerged, Belimo had to acquire new knowledge (Alvarez et al. 2013; Grand and Ackeret 2012; Markowski and Dabhilkar 2016). Thus, management engaged in boundary setting insofar as it had to decide which topics and types of knowledge had to be appropriated by the organization and which capabilities needed further development. This appropriation happened in a distributed fashion and was not ordered in a strictly top-down fashion by the executive management. As illustrated by the example regarding the locus of innovation, the appropriation of knowledge happened through an iterative progress that emerged in different locations throughout the organization. Management had to contextualize and consolidate the appropriation of knowledge. In this context, management engaged in temporal work and the reconciling of future and past by relating previous and future knowledge, which resulted in the setting of new boundaries.

4.1.6 Practice F – zooming in and zooming out

In order to reconcile future and past, Belimo engaged in a practice called zooming in and zooming out. Zooming in implies that an organization immerses itself in topics of strategic relevance and dwells on them in order to determine the details. Zooming out means that the organization must be able to establish an abstraction of the strategic issue and put it in perspective. This perspective entails framing the strategic issue accordingly and making it compatible with its context. Constantly iterating between zooming in and zooming out enables an organization to continuously move forward (Nicolini 2013). Zooming in and zooming out features four characteristics: looking ahead, looking aside, looking around, and temporal structuring.

Illustrative informant term from the empirical analysis: "Our new products are embedded in an ecosystem. The question is where to draw the line. In theory, the scope could be huge – but also really small."

Main narrative regarding sensemaking: Sensemaking efforts around zooming in and zooming out mostly related to detailed accounts of what happened in the past and what these past events could mean for the future. While past accounts were highly specific and concrete, the projections of the future were rather vague and ambiguous, indicating asymmetrical discourse in terms of lucidity. However, sensemaking was successfully used to create connections between the future and the past via zooming in and zooming out across the different temporal dimensions.

Characteristics of the practice: As already illustrated in the practice of mobilizing history, Belimo related to the successful past in order to move forward in the same manner. However, to reconcile future and past, Belimo also made use of projections of the future in the context of zooming in and zooming out. Looking ahead thus figures as a specific characteristic of this practice. Looking ahead means that Belimo was constantly projecting and anticipating the future. This anticipation occurred in planning and scheming at different levels. A constant iteration between more detailed views (e.g., zooming in on product specifics) and broader visions (e.g., zooming out on technology and market development) of the future took place. Looking ahead also implied an activity that can best be described as daring the future, because keen visions of the future were established. At the same time, it was said that these visions are difficult to achieve. In doing so, Belimo engaged in reconciling future and past because an intricate but desirable future was related to the past.

Zooming in and zooming out as a practice also involved looking aside as a characteristic. That is, Belimo – when discussing projections of the future –also discussed alternatives based on the established organizational context. By engaging in temporal strategizing, Belimo's management carefully paid attention to achieve a balance between the old and new (i.e., the projections of the future and the established organizational context).
While looking *aside* focuses on internal aspects of the organization, looking *around* as a further characteristic of zooming in and zooming out emphasizes an inside-out view. Hence, Belimo reflexively iterated both emerging topics and their potential implications for the various stakeholders. In other words, management took part in generating the bigger picture. In doing so, Belimo worked on the ecosystem in which it moved (Ansari and Krop 2012). This complex activity was possible only when management engaged

in temporal work in strategizing via zooming in on the accomplishments of the practice and zooming out to an ecosystem-level perspective to consider broader effects.

Disposing time is another characteristic of the practice of zooming in and zooming out and means that Belimo was working with temporality in different ways. For instance, Belimo’s management made efforts to regulate the speed of innovation projects and especially their time to market. Timing was considered crucial in this respect. For instance, while zooming in on the project showed the potential of the product, zooming out disclosed that the sales organization or the customers were not yet ready for the product. Executive management then had to slow down the market introduction in order to launch preparatory activities that allowed for a smooth introduction (Barkema et al. 2002; Perlow et al. 2002). In doing so, executive management regulated time while zooming in and zooming out. This regulation could also result in a diluting of activities over time when there was a timing mismatch between the market and the product. However, zooming in and zooming out were important practices to determine adequate timing for Belimo’s activities.

4.1.7 Practice G – mosaic working

The reconciliation of future and past required Belimo’s management to work in various organizational loci. I call this process “mosaic working” because it occurred in several instances under different circumstances but always as a practice of management to relate different temporal dimensions. While other practices can be assigned to management in general, mosaic working prominently occurred when the Belimo’s executive management was involved. Mosaic working is described by three characteristics: making information processable, diffusing strategy, and establishing connections.

Illustrative informant term from the empirical analysis: “As executive management, we need to order the topics in a meaningful way throughout the organization.”

Main narrative regarding sensemaking: Sensemaking around the practice of mosaic working was multifaceted and included a vast array of topics. A main subject of discussion was the question of how to translate the strategy into the organization and where managerial interventions are needed to move the organization forward according to the strategy and the projected future. This question was also related to the challenge that new information was always interpreted by the established organizational context, which made executive management's engagement necessary in terms of a new framing (Bean and Hamilton 2006; Feldbrugge 2015; Suddaby et al. 2010).

Characteristics of the practice: In order to make dispersed pieces of information processable, Belimo's executive management motivated middle management to grasp the unknown and to dare to fully commit in various domains of the organization. The reason for this encouragement was the executive management's awareness that the established context from the past – though having contributed eminently to the success of Belimo – may generate path dependencies that endanger Belimo's future success (Garud and Karnøe 2001; Garud et al. 2010; Kumaraswamy et al. 2018). Therefore, it was essential within this practice to tackle uncertainty in order to make information processable. As such, executive management invested a considerable amount of time to arrange the gathered information in a mosaic way of working so that the information would develop performative relevance throughout the whole company. In this context, reconciling future and past becomes evident: While grasping the unknown produced important insights, these insights were generated by the established organizational context and examined with reference to the organization's past. However, the insights were thought to contribute to the future. To reconcile this tension, the information had to be arranged and framed so that the organization could further process it in terms of the projected future (Jarzabkowski 2003; Kaplan and Orlikowski 2013). Executive management engaged in efforts to clarify relevant points or to provide orientation by making information accessible and processable.

Mosaic working also appeared in the diffusion of the strategy. The strategy was enacted by the executive management throughout the organization in attempts to translate the strategy into the everyday activities of the management (Jarzabkowski 2003; Kaplan

2008; Langley et al. 2019; Rouleau and Balogun 2011). Diffusing strategy and thereby relating future and past was therefore an integral element of mosaic working.

Once the information was manageable for the organization, the practice of mosaic working encompassed executive management's established connections as they were relevant for the organization. Intensive lobbying for strategic issues or ideas could be observed in this context. Establishing connections also occurred in the form of inter-linking and aligning the organization regarding new topics. In the context of reconciling future and past, this form of mosaic working is considered an integrative mechanism by executive management to frame new topics as compatible with the organization (Kannan-Narasimhan and Lawrence 2018). Establishing connections was also revealed in terms of market relations. New products or solutions were introduced in a rather cautious fashion in order to prepare the market (i.e., to achieve a successful transition from the past to the future in the market) (Ansari et al. 2016; Kumaraswamy et al. 2018). Since this characteristic crystallized throughout the organization and in every market region, it is considered to be an important part of mosaic working.

4.1.8 Practice H – aligning innovation with strategy and organization

In an organization that is driven by innovation, strategy and organization are inevitably and reciprocally entangled with innovation. While innovation may be a trigger or driver for strategy and organization, so too can strategy and organization influence the way an organization innovates. Creating strategic accounts and moving forward in this context are therefore strongly related to the alignment of innovation with strategy and organization, which figures as a further practice to reconcile future and past. The alignment of innovation with strategy and organization features three main characteristics: straightening the portfolio, regenerating the organization, and configuring disruption.

Illustrative informant term from the empirical analysis: "This strategic innovation project is exemplary regarding the transformation of the way we are innovating. It is not just mechanical anymore; it is highly complex and contains mechanics, electronics, and software within an ecosystem. Due to this innovation project, Belimo needs to work differently."

Main narrative regarding sensemaking: Unsurprisingly, the sensemaking of Belimo's management in Practice H, aligning innovation with strategy and organization, consistently referred to the alignment of the product portfolio with the strategy as well as with the organizational setup. Interestingly, the discussion also occurred in reverse, with Belimo's management discussing whether the strategy needs to be aligned due to an emerging extension of the product portfolio; this reversal illustrates the primacy of innovation. Further sensemaking in Practice H centered on the mutual interdependence between strategy and future products, as well as disruptive potential within the HVAC industry.

Characteristics of the practice: For an innovation-driven engineering company such as Belimo, a coherent and continuously straightened product portfolio is essential in terms of success (Deken et al. 2018). This portfolio-straightening could indeed be observed as an important characteristic of aligning innovation with strategy and organization. Hence, Belimo strived for accuracy in product innovation to ensure that the portfolio was not unnecessarily inflated and remained focused. Belimo thus attached importance to the strategic fit of the products that were developed. Not surprisingly, potential optimizations of the requirements engineering were prominently discussed. In general, Belimo was able to keep highly accurate product innovation, and few projects were discontinued. However, executive management was fully aware that "killing your darlings" had to be an option in project portfolio management. This possibility ensured that the innovation projects kept their focus and were aligned with the strategy and also with the organizational context. However, killing your darlings was a merely implicit pattern and not addressed in a manifest manner.

Another important characteristic of this practice was the regeneration of the organization. In order to move forward towards future value creation, Belimo engaged in frequent reviews of the portfolio. While there were both preservative and progressive forces within the organization, management engaged in a careful balancing of old and new. However, to regenerate the organization, existing products and technologies had to be discarded from time to time in order to move forward without “historical dead weight” that restrained the realization of future strategic innovation projects (Garud et al. 2010; Garud et al. 2013). Although the HVAC industry is characterized as slow-moving, the prospective innovations required a careful approach, since several stakeholders were affected by decisions to discard existing products and technologies. Another way to regenerate the organization was to innovate the organization via innovations. As mentioned, Belimo is an innovation-driven company, where the strategic context intensively resonates with technology and innovation. Therefore, it was possible to influence the strategic context with product innovations because they opened up new business segments and fields of activity. In this context, rapid prototyping, for instance, figured as an important means to swiftly create shifts in the interpretation of the strategy and the strategic context in order to regenerate the organization.

Aligning innovation with strategy and organization as a practice featured a third characteristic, namely configuring disruption. As a typical incumbent (Ansari and Krop 2012; Christensen 1997; Christensen and Raynor 2003), Belimo was well aware of the potential of being disrupted and engaged in several activities to manage or configure disruption. Hence, Belimo’s management needed to reconcile an unknown and potentially disruptive future with the past and its legacies. One activity in this process of reconciliation was that Belimo engaged in avoiding disruption by raising attentiveness to potentially disruptive technologies. As passively trying to avoid disruption seemed a hazardous endeavor because respective technologies might not be on Belimo’s radar until it was too late, Belimo also actively engaged in creating a disruption itself. As will be shown in the empirical illustration (see Chapter 4.2), one strategic innovation project (later described as New Horizon) showed signs of a potentially disruptive innovation. Considered as a regular innovation at first, Belimo recognized the disruptive potential of the innovation as New Horizon went on. In order to configure this (self-made) disruption, management engaged in a mutual reframing of strategy and potentially disruptive innovation (Bogner and Barr 2000; Feldbrugge 2015;

Gilbert and Bower 2002; Snihur et al. 2018). This reframing protected the potentially disruptive innovation and the strategic context, allowing the innovation to further unfold. This protective activity is related to the reconciliation of future and past and facilitated the creation of strategic accounts that allowed Belimo to move forward.

4.1.9 Practice I – submarining

Reconciling future and past was also achieved through a practice called "submarining." Thus, actors within Belimo projected alternative futures or interpretations of the future and engaged in the creation of these projections. However, while these projections emerged within the organization, they did not necessarily reflect Belimo's officialized strategy (Floyd and Lane 2000; Vaara and Reff Pedersen 2013). In certain cases, they even tried to alter Belimo's strategic context. Although initiated by specific communities of managers and often without the notice of most members of management, submarining disclosed itself in terms of two main characteristics: hacking strategy and recreating the company.

Illustrative informant term from the empirical analysis: "We are currently operating out of the scope of our strategy. There we have the possibility to gain market intelligence, especially regarding digitalization topics."

Main narrative regarding sensemaking: Sensemaking in submarining was concerned with possibilities to expand the existing strategy and to create opportunities beyond the strategy. In this context, the existing strategy was questioned regarding certain specific elements. However, the discourse also referred to veritable turnarounds in terms of the strategic paths taken in past. This emphasis on past turnarounds implied that the existing strategy needed to be altered or disrupted.

Characteristics of the practice: A precondition for hacking strategy was that actors within Belimo were operating in a discovery mode, meaning that they were looking for opportunities not necessarily in line with strategy, as indicated in the informant term above. These *ad hoc* manager communities explored possibilities not included in the official strategy. In other words, they engaged in strategizing beyond strategy. However, this strategizing could influence the officialized strategy and vice versa. The actors engaging in this activity could be found throughout the company, even within executive management. What was common regarding this strategizing beyond strategy was an entrepreneurial mindset motivated by the idea of bringing the existing context together with an alternative future (Grand and Bartl 2019). If this attempt to hack the existing strategy was successful, respective topics pulled the organization in this direction over time (Grand and Karaschewitz, forthcoming). Hacking strategy can be viewed as a mechanism of entrepreneurial actors who consider the company off track and therefore try to correct a path induced in the past by leading the organization to an alternative path other than the current strategic direction.

Submarining also included attempts to recreate the company on a bottom-up approach. Entrepreneurial actors tried to create opportunities (Garud and Karnøe 2001) for Belimo that were not previously known to management. Once the opportunities became manifest – at least for the entrepreneurial actors – they induced bootstrapping (Barnes 1983) to create an opportunity to gain momentum and support from peers within and outside of the organization. It is important to note that this bootstrapping could, indeed, be undertaken together with customers who then enforced the further development of the opportunity from the outside. In turn, this pressure from outside allowed entrepreneurial actors to continually draw attention to facts that supported the opportunity (e.g., described as customer needs). Engaging in opportunity creation and pioneering “subcutaneous” ideas could lead to a persistent recreation of the company (Schultz and Hernes 2013). These rather subversive activities contributed to the practice of submarining, which could have a considerable impact on the realization of alternative futures. Therefore, this practice reconciled future and past in an entrepreneurial and often implicit way.

4.2 Empirical illustration of the practices

The identified practices emerged out of the in-depth analysis of the empirical material. As described, I used a grounded theory approach for the development of first-order concepts, second-order themes, and the aggregate dimensions (i.e., the practices). This approach implies that the I went from empirical data to the theoretical realm, which is more abstract by nature (Gioia et al. 2013). In order to establish a re-entry (Spencer Brown 1979) and exemplify the "practices in practice," I provide an empirical illustration of how the practices unfolded in the organizational setup of Belimo. In doing so, I emphasize the interdependence of the practices and their temporal embeddedness. Furthermore, the empirical illustration helps to capture the implications of the practices in terms of reconciling future and past in an innovation project with high strategic relevance.

In order to do so, this chapter is structured in three sections. Section 4.2.1 provides an explanation of why the approach of a vignette was chosen for the empirical illustration. I also explain why a specific strategic innovation project was selected for the vignette. In Section 4.2.2, I describe the strategic innovation project and develop a process map that depicts the development of the project. Section 4.2.3 concerns locating the practices within the process map and providing further context for how the practices were enacted in the flow of time.

4.2.1 Using a vignette and selecting a strategic innovation project

The empirical illustration follows the logic of a vignette. This approach seems especially adequate because vignettes provide a "vivid account of a professional's practice" (Miles 1990, p. 37) and depict what is going in an organization. While vignettes may have different forms (written, visual, and video), my research relies on a vignette that depicts a strategic innovation project of Belimo in the form of a process map. A process map allows one to reconstruct the flow of activities over time, which is in line with Langley's argument that empirical data should "enable the incorporation of time and the capture of temporal evolution" (2011, p. 411). The strategic innovation project I describe is called "New Horizon."[2] In the following, I describe the four reasons why New Horizon was chosen as the subject of a process map.

First and foremost, Belimo considers New Horizon as a potential game-changer. New Horizon is highly important from a strategic point of view and might significantly alter Belimo's prospects and the future trajectories of the organization. New Horizon integrates new technologies and aspects of digitalization, bringing together different components into one solution. With this kind of innovation, Belimo made an important step towards the development of an integrated system instead of a single device. This step also generated potentially novel use cases and opened up different customer segments since Belimo could provide a different package of performance attributes. From a strategic point of view, New Horizon shows characteristics of a potentially disruptive innovation (Christensen 1997; Christensen et al. 2018). This potential disruption is especially fascinating for research regarding the reconciliation of future and past, since an old context is opposed to a new one (Ansari et al. 2016; Kaplan and Orlikowski 2013; Schultz and Hernes 2013).

The second reason for the selection of New Horizon for practical analysis is its ideal setting for research on the reconciliation of future and past. While integrating new technologies and aspects of digitalization, New Horizon started from well-established grounds strongly rooted in the organization's past. In the beginning, the project was not destined to be a game-changer; gradually, potentially disruptive characteristics emerged over time and were progressively enacted. As the project was unfolding, Belimo had to constantly reconcile the disciplining context of the past (where the project started) with an unknown future (where it was headed).

Third, New Horizon offered the opportunity to gain insights from a project with various dynamics that were still vibrant during the data collection. While the actual product was developed and launched in Asia-Pacific, the rollout of New Horizon in the other markets

[2] For reasons of simplicity, the project as well as the resulting product will be labelled New Horizon. Where necessary, a distinction will be drawn and an explicit reference towards the project or product will be made.

was ongoing and intensively debated within Belimo. This debate allowed for the recapitulation of the actual innovation phase of New Horizon, while the project dynamics continues to endure due to current efforts in terms of the global rollout.

Fourth, New Horizon was also chosen for practical reasons since the CINO was centrally involved in the setup of the project. This involvement allowed for straightforward and direct access to New Horizon, which ensured productive research. Executive management, in general, strongly approved research regarding New Horizon, since it figures as a landmark in Belimo's development. This approval and support facilitated access to research material and provided the research project with the necessary thrust. Due to this support, I was able to closely follow the strategic innovation project, and I could collect extensive data early on.

Having outlined the reasons for using a vignette and choosing New Horizon, I now provide an in-depth description of the project and eventually introduce the process map for New Horizon.

4.2.2 Description of the strategic innovation project New Horizon

New Horizon is characterized as a potential game-changer for Belimo and might have a significant impact on the organization because it differs from previous products in various ways. To provide insight regarding New Horizon, this section is structured in three subsections: Section 4.2.2.1 depicts the context and development of New Horizon. Section 4.2.2.2 emphasizes the impact of New Horizon to illustrate its strategic importance for Belimo. In Section 4.2.2.3, I present and describe the process map of New Horizon.

4.2.2.1 Context and development of New Horizon

The initial idea of the strategic innovation project New Horizon was to integrate a cloud-based service into a common HVAC device. This move would advance the device into the realm of the IoT, which means that a product is directly linked to the internet. Gathering the real-time data of the devices provides the customers with several

advantages (e.g., in terms of the initial commissioning of the device as well as in terms of establishing predictive maintenance).
Due to the divergent conditions of the markets, the innovation project was planned for only one specific market region: Asia-Pacific. This was because of the affinity of this market to app-based devices and the application spectrum in Belimo's relevant customer segment. From the beginning, the plan was to develop the device for the market region Asia-Pacific but to scale it globally afterwards. The project was located within the innovation division. However, it had several peers in the global organization, such as product managers in Asia-Pacific as well as, in a later phase of the project, also in Europe and the Americas. These peers ensured that regional specifics were considered and – in a later phase – prepared their market region for the launch of New Horizon. They were also assigned to provide for functioning interfaces between the innovation division and the sales organizations in the market regions.

New Horizon can be distinguished in five time periods: antecedents, preliminary study, initial product development, iterative product advancements, and renewal of product. In the following, I describe each period of New Horizon.

Period 1 – antecedents: New Horizon had several precursors that were important to the project's emergence. A first precursor was intensified engagement with the IoT within Belimo. Since the company produces mechanical devices that continuously generate data, the IoT was a promising topic. Therefore, the company established a task force concerned on the IoT and the implications for the company. Furthermore, it experimented with data transmission and cloud solutions to gather experiences regarding the IoT. A second precursor was the strategic thrust that New Horizon had due to NextGen,[3] a corporate initiative that pushed devices with similar complexity as New Horizon. The corporate initiative regarding NextGen included only one main device aside from New Horizon.

[3] NextGen is a pseudonym that was chosen for reasons of anonymity and confidentiality.

Before the innovation project of New Horizon was launched, a preliminary project had been started. With the preliminary project, Belimo wanted to examine the market specifics in Asia-Pacific. Hence, the location of the potential project within the organization, as well as the requirements of the product, were clarified. Furthermore, customers were asked about their opinions concerning a potential product with the defined requirements. Due to the close link of members of the Asia-Pacific project management to the market and to customers, they supportively accompanied the preliminary project.

The development of New Horizon profited from two already-existing solutions, of which one was already used in the market region Asia-Pacific, but only for a very limited customer segment. Overall, the respective product did not meet the company's requirements in terms of sophistication and was deemed to be a "cheap" solution. Interestingly enough, before the preliminary study was launched, a similar project was proposed for the market region of Europe but was rejected by that market region. The reason for this rejection was that the market region Europe conducted customer visits in which no need for the solution could be detected. Due to the company's emphasis on customer orientation, it was decided not to launch the project in the market region Europe. In hindsight, this decision was crucial for the development of New Horizon because the geographical focus shifted from an established market region to Asia-Pacific, an emerging market region.

Period 2 – preliminary study: Based on the described antecedents, a preliminary study was initiated to clarify the market-specific demands and the technical framework of New Horizon. The resulting options were analyzed, and the business case was developed. At the same time, the technical landscape and the system environment were under review, due to the increasing complexity of the future products. In parallel, the development of a cloud solution was ongoing. The cloud solution triggered intensive discussions regarding the sophistication of the cloud infrastructure.

While one argument forwarded was that the infrastructure of the cloud must be high-end because of its future potential, another argument was that Belimo first needs to get acquainted with the cloud and that, therefore, a less sophisticated solution that can be enhanced and developed is more adequate. Within this setting, the project team of the preliminary study developed a budget proposal for the actual project New Horizon, approved in February 2015 by executive management.

Period 3 – initial product development: The project was officially launched in March 2015. During the development of New Horizon, it became obvious that the project contains a higher degree of complexity than do regular innovation projects. Therefore, six sub-projects were differentiated. However, the project struggled with resource allocation from its inception: Of the 28 roles necessary for product development, only 13 were filled. A year later, in April 2016, of the 28 roles only 14 were adequately filled – the other roles were either not filled or struggled with employee turnover. In hindsight, Belimo underestimated the complexity inherent in the project: The standard development approach was insufficient for New Horizon because it would have required a new approach that was more oriented towards the development of integrated systems. The late realization led to delays in the project and a cost overrun that culminated in project expenses five times higher than anticipated in the beginning of the project. This excess of expense was highly unusual for Belimo, where projects in general meet their financial objectives and timely deadlines.

In retrospect, the basis for the start of New Horizon was unsatisfactory in the eyes of many managers involved in the project. Against all intentions, the project suffered from poor front-loading in terms of resources. Additionally, the project had to deal with numerous different stakeholders and external developing partners: 15 partners with substantial contributions and several smaller partners were part of the project. The combination of a high degree of newness, new use cases, different stakeholders, and insufficient resourcing made it difficult for the project to meet the deadlines.

However, while New Horizon as a project struggled with many difficulties, products from NextGen were further strengthened due to the integration in Belimo's corporate strategy. This strengthening firmly contributed to the importance of New Horizon in spite of its adversities. The development continued, and the series approval was achieved in December 2017. Almost a year later, in November 2018, the product development project was officially concluded.

Period 4 – iterative product advancements: Parallel to the project conclusion of New Horizon, an iterative advancement of the product was initiated, called "Step 1.5." The aim of this step was to integrate the most important and urgent issues from the backlog into the product. Belimo intentionally postponed the development of Step 2.0 for the subsequent year because of different prioritization for resource allocation. It seemed that the company's management wanted to iteratively move forward and to avoid an extensive overemphasis on New Horizon. While concluding the project, Belimo started working on another product, which could be seen as a new version of New Horizon, since it was a similar product conception but even more sophisticated and permanently connected to the cloud. Internally, discussions were initiated regarding the value added and the strategic fit of this advanced product version because it increased the potential to rapidly subvert parts of the existing customer basis.

Together with the more connected product, New Horizon triggered strategic questions regarding pricing, cloud connectivity, customer basis, and its disruptive potential. Furthermore, new functions were established within Belimo due to the realization that with New Horizon, an extended customer segment could be approached, and therefore knowledge of that segment was needed. This move was also a reaction to the discussion regarding the changing customer basis. Another important implication in terms of strategic questions was the establishing of a new organizational unit that fostered products from NextGen. This supported New Horizon's standing within Belimo and allowed for further strategic development of products from NextGen.

Period 5 – renewal of product: Since New Horizon was developed for the market region Asia-Pacific but designated for a global rollout, Belimo initiated the global scaling of the product without delay. An important element of this global scaling and the translation into the other market regions was a strategic communication platform that linked the market regions with the innovation division. Initially, the executive management established this platform to strengthen the middle management and to delegate decisions regarding the product portfolio more in the direction of the second-line management. In the case of New Horizon, the platform was used as a means to translate the importance of products from NextGen as well as New Horizon into the organization, especially into the sales departments of the market regions. Subsequently, the task for the market regions was to plan the rollout for their region and to describe the necessities of the rollout. A special focus was hereby on the customer, and potential changes regarding the customer structure due to New Horizon. Belimo used several methods, such as customer journeys maps (Halvorsrud et al. 2016) and business model canvas (Osterwalder et al. 2010), to develop an extended understanding of the customer and the value added that New Horizon and further products from NextGen could generate.

In this context, controversy regarding the stop of one of the main pillars of the corporate strategy which aimed for new customer segments erupted within the organization. Although the pillar was considered to have high potential, Belimo engaged in killing this darling. The two main arguments for the stop were discouraging feedback from the market after several pilot projects and the realization that the system was too complex compared to traditional solutions, as well as too distanced from core business areas of Belimo. This discussion also became relevant for New Horizon, since this innovation initiative increasingly showed its potential to alter customer structure, too. However, the success of New Horizon and products from NextGen, along with their proximity to existing customers, did not provoke fundamental discussions regarding strategic fit. One could argue that New Horizon and NextGen were better aligned with existing assumptions about strategy. The familiarity of New Horizon allowed the executive management to protect this strategic innovation project despite its difficulties, while the now-abandoned pillar of the corporate strategy turned out to be too unfamiliar and complicated for Belimo.

4.2.2.2 Impact of the strategic innovation project New Horizon

The impact of New Horizon was substantial for Belimo. It improved its product portfolio, fostered cross sales within Belimo, and strengthened its position as an innovative actor in the HVAC business. While the new product was initially designed for Asia-Pacific, the global rollout of New Horizon required only minor market-specific adaptations. The model of primarily innovating in one market region and scaling the product globally in a later phase became an accepted way of performing rapid and focused innovation. The customers' needs are already similar in all market regions and may converge even more in the future, which makes this new form of innovation very promising. Being an innovation-driven company, Belimo has found that product development in a specific market region seems to generate a pull effect for other markets. New Horizon had an impact not only on the geographical distribution of innovation but also on product specifics. The app- and cloud-based device is becoming a standard for Belimo's new products, and New Horizon is seen as a lighthouse project that may have a great impact on the trajectory of future innovation, as well as on the future of Belimo, since it will continue to pursue the path it has taken.

Due to the novelty of this innovation project, existing practices in Belimo's innovation questioned, and a break with the past in the sense of a self-made disruption was discussed. An example of such a contested practice is the bottleneck-oriented strategy: Because of the sheer amount of novelty of New Horizon, the formerly undisputed bottleneck-oriented strategy is sometimes challenged within the company. Considerations to re-elaborate the bottleneck-oriented strategy and potentially refine or expand it are vivid, especially in the context of major strategic innovation projects like New Horizon.

Since it was one of the first projects the company had undertaken with such a high degree of systemic innovation, the organizational setup had to be extended as the project went on. Although knowledge regarding project management, technology, markets, and customers was high, knowledge about the actual enactment of a complex project like New Horizon was limited, due to its novelty. In the end, the development claimed more resources than planned and lasted twice as long. Nevertheless, New Horizon is considered a success and a landmark for Belimo. The development of follow-up solutions to New Horizon has been initiated, and insights regarding strategic innovation in a context such as New Horizon have been incorporated in new strategic innovation projects.

4.2.2.3 Process map of New Horizon

In order to thoroughly depict the unfolding of New Horizon, I developed a process map (Figure 12) that also illustrates the context and the interdependencies of the strategic innovation project.

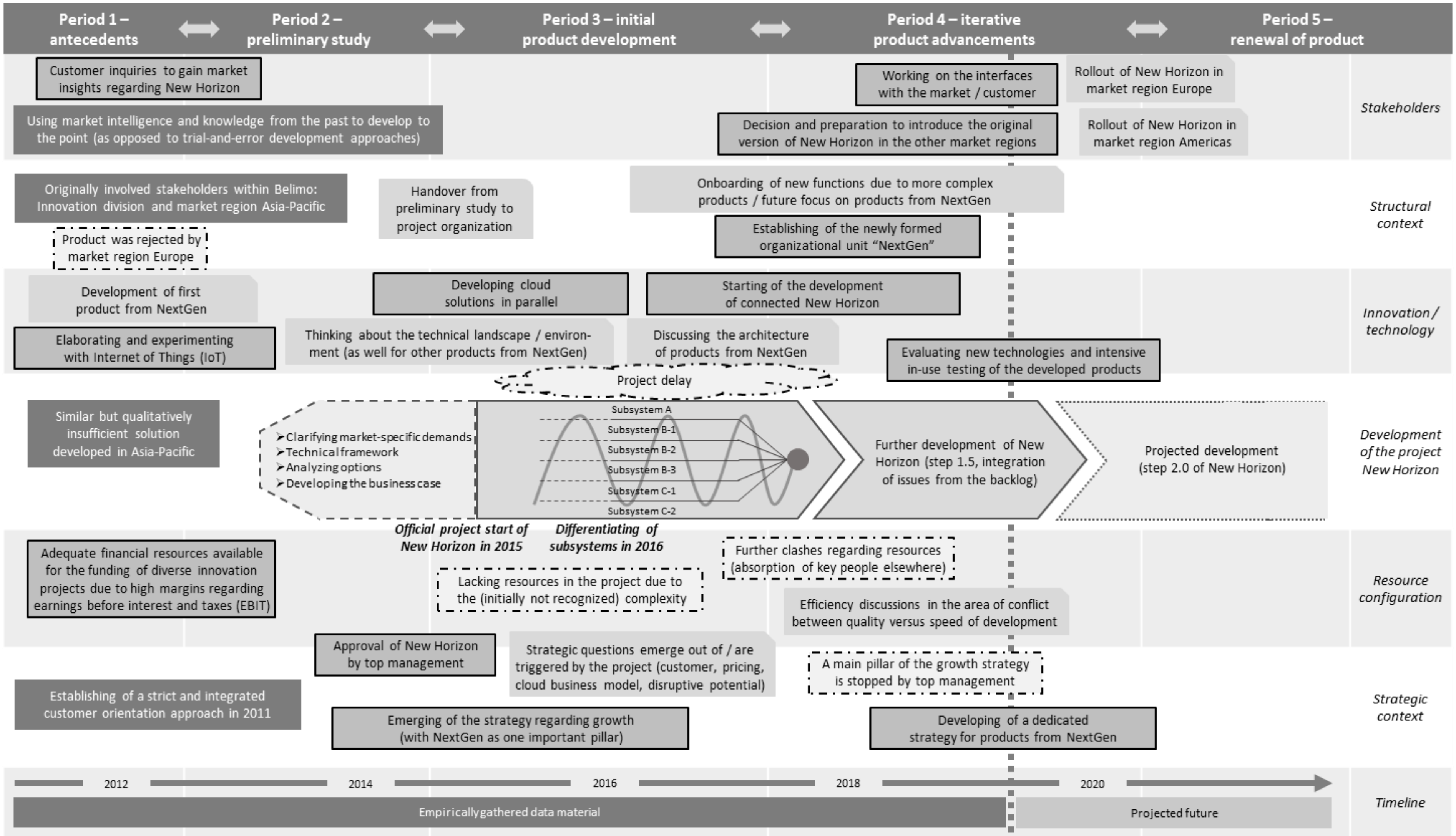


Figure 12: Process map of the strategic innovation project New Horizon

From left to right, the process map is divided into the five time periods described at the top of figure. This vertical division is also reflected in the timeline, which appears at the bottom of the process map. While periods 1–4 are based on empirically gathered data material, period 5 depicts planned future activities in order to provide a coherent view of New Horizon. Horizontally, the process map is structured along five swim lanes that correspond to the five key organizational dimensions from the theoretical framework. This approach facilitates comparisons and contributes to the understanding of both the theoretical framework and the process map. The five key organizational dimensions are complemented by a lane labelled "Development of the project New Horizon," where the progress of the strategic innovation project itself is depicted.

The various events and incidents that occurred during the unfolding of New Horizon are depicted with different rectangular elements on the process map. These elements are located according to their appearance: The horizontal position indicates the time of their occurrence, the vertical position their affiliation with the corresponding key organizational dimension. In order to structure the events and incidents, the shape and design of the rectangular elements differs. Figure 13 illustrates the meaning of the different elements.

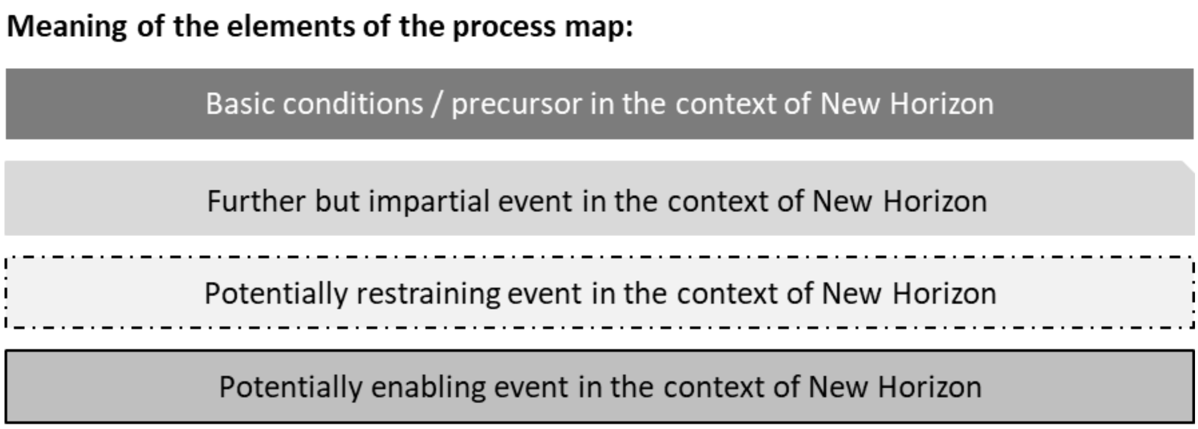


Figure 13: Meaning of the elements of the process map

Together with the key organizational dimensions, the process map provides an illustrative reconstruction of the strategic innovation project New Horizon.

4.2.3 Contextualizing the practices in the process map

The process map serves as an empirical illustration in terms of the practices to reconcile future and past. Therefore, I located the respective practices directly within the process map to provide an empirically based example and to illustrate the practices in practice. Figure 14 depicts the process map with the practices.

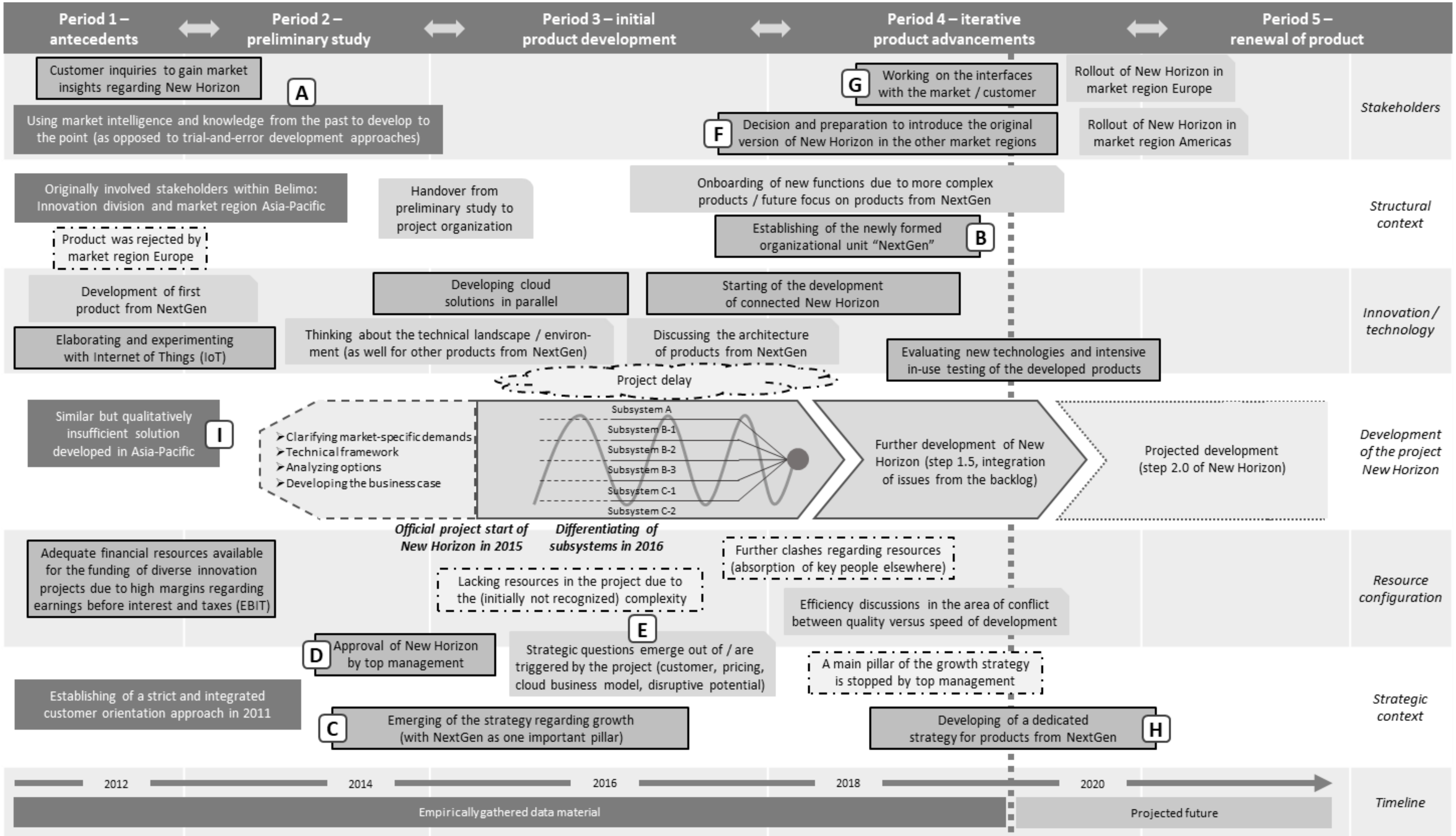


Figure 14: Location of the nine practices in the process map of New Horizon

In the following, I describe how the practices unfolded in the specific context of New Horizon. I begin with the practices on the left side of the process map and move towards the right side. This approach also indicates an important feature of the practice-based approach used in this research: Practices to reconcile future and past do not have a strict sequence and might emerge throughout the organization at different times. From an organizational perspective, the identification, configuration, and relation of the different practices therefore seems important in successfully reconciling future and past. There are limitless possibilities in terms of the arrangement of practices over time. I refer to this issue later (see Section 4.3.3). In the following passage, the nine practices are described in the context of New Horizon. As such, I rely on the depiction of the practices in Chapter 4.1 and – implicitly or explicitly – I refer to their previously described characteristics.

4.2.3.1 Practice I – submarining:

Submarining was prominent at the beginning of New Horizon. Ideas regarding the development of a product like New Horizon emerged in the innovation division. At the same time, the market in Asia-Pacific already experimented with a similar product. As a rule, innovation in a normal case was driven by the established markets (i.e., Americas and especially Europe). Therefore, the innovation division first collaborated with Europe in terms of a potential development of New Horizon. Asking the market and the customer, the demand and subsequently the potential for such a product seemed strongly limited, which is why the market region Europe rejected a similar project.

However, the idea of a project was not abandoned but pursued in a subliminal fashion with the market region Asia-Pacific. Since this pursuit was against the established way of innovating in the company, this move can be related to hacking strategy as feature of submarining. By circumventing the way in which the company normally moves forward in terms of innovation, Belimo was able to undercut the organization's formal procedures and hack the official strategic context. As it turned out later, that approach strongly contributed to the recreation of the company because of the strategic shift towards products from NextGen. In this case, the recreation was enabled by the practice of submarining because it questioned the unwritten rule of initiating innovation in Europe. Hence, submarining contributed to the reconciliation of future and past by altering the strategic context to such an extent that innovation in Asia-Pacific became possible from a strategic point of view. Furthermore, it prepared and facilitated the establishment of NextGen in the strategic context.

4.2.3.2 Practice A – mobilizing history

In the context of New Horizon, mobilizing history could be observed when Belimo tried to use its market intelligence and its profound knowledge of the customer and the HVAC industry. Although these elements are considered success factors, they were only partially successful in this case. Belimo tried to build on the market intelligence in Europe, which led to the rejection of the project because the customers did not signal interest in New Horizon.

However, using the customer and industry knowledge in Asia-Pacific paved the way for the initialization of New Horizon in that market region. While mobilizing history as a practice to reconcile future and past restrained the initialization of New Horizon in one market region, it had an enabling effect in another market region. These proceedings exemplify that the practices, their enactment, and their contribution to success are highly context specific.

4.2.3.3 Practice D – creating strategic accounts

The practice of creating strategic accounts can be seen in the decision of executive management to approve the project New Horizon. Before officializing the decision, executive management engaged in discussions that were characteristic for the contextualization of the organization. Respective discussions centered around the paths Belimo had taken in the past and why New Horizon was essential for the future. This contextualization and the resulting creation of strategic accounts contributed to the reconciliation of future and past. The subsequent approval of New Horizon figured as a carefully officialized strategic account and as a symbol that indicated future strategic direction.

This strategic account, in turn, helped Belimo to understand where it is headed and how the past influences this direction. In order to stabilize this fragile and provisional strategic account, Belimo constantly assessed the progress of New Horizon in order to evaluate whether the new strategic direction was compatible with the organization's past. This persistent assessment ensured that the successful reconciliation of future and past was continuously accounted for.

4.2.3.4 Practice C – inducing decisions

As described above (see Section 4.1.3), inducing decisions as a next practice to reconcile future and past features three characteristics: following principles, dispersed strategizing, and sharpening the focus. In the context of New Horizon, inducing decisions was evident in the emergence of the corporate growth strategy. Although New Horizon figured as a novelty and despite that its impact could not be properly evaluated in the beginning, the value added was evident from the start. Since increasing the value added figures as a strong principle of Belimo, New Horizon was considered to be a strategic fit and therefore integrated into the corporate strategy. The following principles hereby induced this decision. Considering the emergence of corporate strategy, it became obvious that strategizing not only happened among executive management, but also in the innovation division and in the market region Asia-Pacific. Executive management, innovation division and Asia-Pacific pushed New Horizon to such an extent that it found its way into the corporate strategy. This development illustrates that dispersed strategizing also contributes to the practice of inducing decisions.

The decision to integrate New Horizon in the corporate strategy was also induced while the focus of New Horizon was sharpened. Due to the complexity of the product, Belimo had to engage in clarifications regarding the fit of New Horizon with existing customers, the technical landscape, and suppliers and partners. These clarifications turned out to be promising and allowed Belimo to sharpen its focus on where it was headed with products from NextGen. This sharpened focus, in turn, induced the decision to integrate products from NextGen into the corporate strategy.

4.2.3.5 Practice E – setting boundaries

This practice to reconcile future and past became evident when strategic questions emerged during the development of New Horizon. An important question concerned the customers. The management had to elucidate who Belimo's customers were (based on a historical perspective) and whether these customers were compatible with New Horizon and with potential other products from NextGen. This consideration also led to discussions regarding future customers (i.e., who will become future customers or not). Belimo's management had to engage in boundary setting in order to bring the old, current, and potential new customers together within New Horizon. However, management not only engaged in outward but also in inward boundary setting. As stated, New Horizon carried a great deal of newness, and Belimo came to the realization that the existing organizational structures were not sufficient to deal with this newness. Management then had to redefine internal boundaries, which it did by creating a new organizational unit that better fit the future strategic direction of Belimo, with an emphasis on New Horizon and products from NextGen. Thus, management engaged in a reconciliation of future and past.

This reconciliation was also evident in terms of knowledge boundaries. Due to the complexity of the product, questions around the value chain and vertical integration arose. In this context, Belimo discussed what they should do in-house and what could be outsourced in terms of products such as New Horizon. The basis for this discussion was the experiences of the past in terms of in- and outsourcing. Again, management had to engage in boundary setting regarding the knowledge and the competences that Belimo needed to be able to mobilize as an organization. Since New Horizon required new competences compared to previous product developments, reconciling future and past by deciding what competences are important for the future was an important activity in answering the strategic questions that emerged out of New Horizon.

4.2.3.6 Practice F – zooming in and zooming out

The practice of zooming in and zooming out can be explained by looking at preparational work to introduce New Horizon in the market regions of Europe and Americas. As such, the characteristics of the practice (looking ahead, looking aside, looking around, and temporal structuring) played an important part. When looking ahead, Belimo engaged in the planning of New Horizon's rollout in the different market regions. This planning implied a constant zooming out to secure an overview of the whole rollout process and a respective zooming in to plan the details of the rollout at different stages. Looking aside as a further characteristic became evident when Belimo compared the different market regions with each other in order to identify necessary adjustments to the rollout plan. For this reason, management zoomed out to be able to compare the different market regions and zoomed in for the finetuning of the rollout plan according to its geographic specifics.

When evaluating the competition, partners, and suppliers, Belimo engaged in looking around as a further characteristic of zooming in and zooming out. Thus, Belimo zoomed in on individual competitors and stakeholders in order to understand the implications that New Horizon would impose on them. On the other hand, Belimo also zoomed out in order to recognize their interfaces with Belimo in a more general way. Since New Horizon contained much newness, these interfaces had to be carefully evaluated regarding their future fit.

Zooming in and zooming out could also be observed in terms of temporal structuring. In order to introduce New Horizon in the market regions, Belimo zoomed out to take a long-term perspective. Hence, Belimo asked the question of what might happen with the market and the customers when New Horizon is widely accepted and gains market share. At the same time, Belimo engaged in a zooming in where more short-term issues (e.g., where to launch New Horizon first in order to create a successful market entry) were in focus. This simultaneous iteration of zooming in and zooming out allowed the company to bring different temporal relations together in a coherent strategic account that in turn allowed Belimo to successfully move forward towards future value creation.

4.2.3.7 Practice G – mosaic working

The practice of mosaic working could be observed when Belimo was working on the relation with the market and the customers in the context of New Horizon. First, Belimo had to make the various and inconsistent information about the customer processable. In this process, the existing knowledge of the customer and the value chain was combined with the novel features of New Horizon. As such, Belimo worked with a customer journey (Halvorsrud et al. 2016) to facilitate the relating of the existing knowledge of the customer (past) to New Horizon (future). Once management had cast New Horizon in the right perspective, it also had to diffuse the respective strategic aspects within the organization. Inter alia, this diffusion occurred on the strategic management platform, where management intensively worked with the customer journeys they had elaborated before the meeting.

This work, in turn, allowed management to recognize where interfaces and communication with customers and stakeholders were necessary in order to prepare the market. Market preparation emerged as an eminent topic in this context, due to the potentially disruptive characteristics of New Horizon. Through this kind of mosaic working, Belimo was able to reconcile future and past in the context of New Horizon's interfaces with the customers.

4.2.3.8 Practice B – adjusting the organizational setup

This practice to reconcile future and past was evident in the context of New Horizon when Belimo established a new organizational unit. This organizational unit was responsible for the products from NextGen, with New Horizon being one of them. Based on the previous success of New Horizon, Belimo anticipated potential future trajectories of the organization and inferred that adjustments in terms of the organizational setup would be required. Belimo thus engaged in the simplification of the organization because the formal interfaces were adapted according to the already existing, underlying mode of operation of the organization.

Similarly, the organization was optimized by adjusting a historically grown and path-dependent structure to the nascent strategic trajectories that began to solidify due to New Horizon. Belimo thus emphasized that the organizational setup should also be consistent with expected future growth. In this context, Belimo's management faced the difficulty of establishing an organizational setup that was in line with the future trajectory but also fulfilled the needs of the past (i.e., existing products with their own compatibility issues). When engaging with these issues regarding New Horizon, Belimo also engaged in temporal work and the reconciliation of future and past.

4.2.3.9 Practice H – Aligning innovation with strategy and organization

Belimo started to develop a dedicated strategy for NextGen by which it basically stated three points: Why NextGen is an opportunity for Belimo, what the characteristics of products from NextGen are, and what strategic directions might be possible to expand the business with NextGen. In doing so, Belimo aligned its innovation with the strategy and the organization, since NextGen emerged as a strategic direction after the initialization of New Horizon and not vice versa. Therefore, management aligned the strategy after the product portfolio had already been expanded by successful innovations with a promising future. Interestingly enough, the product portfolio was straightened according to the aligned strategy at a later stage. This alignment implies a mutually constitutive process: While strategic innovation (New Horizon) influenced the strategy, the altered concept of strategy (Burgelman 1983a) started to shape the portfolio accordingly. This disciplining allowed Belimo to gradually regenerate the organization while at the same time reconcile future and past due to the incremental moving forward.

Since New Horizon figures as a potentially disruptive innovation, Belimo's management strongly engaged in the configuration and contextualization of this strategic innovation project. Thus, an alignment between the established context and New Horizon was achieved by efforts to mutually reframe the strategic context and the disruptive innovation in order to realize reciprocal compatibility (Grand and Betschart, forthcoming; Kannan-Narasimhan and Lawrence 2018). Additionally, the interfaces with the market had to be prepared to avoid New Horizon from having disruptive effects on other, previously established products of Belimo. In this context, Belimo introduced a new job profile that should facilitate the launch of New Horizon and allow for a deliberate go-to market. In sum, the development of a dedicated strategy for products from NextGen served as an exemplary illustration of Practice H – aligning innovation with strategy and organization.

As mentioned in the beginning of this chapter, this re-entry of an already-theorized construction (i.e., the practices to reconcile future and past) into the empirical case of New Horizon illustrates the practices in practice. After having described the practices in practice, the next chapter provides further contextualization of the theoretical framework.

4.3 Contextualization of the practices in the theoretical framework

The aim of this chapter is to contextualize the identified practices to reconcile future and past. To achieve this, I locate the practices in the theoretical framework in Section 4.3.1. In Section 4.3.2, I provide insights regarding the dynamics that emerge between the practices. Section 4.3.3 is then concerned with general implications that crystallized during the research, in terms of the theoretical framework.

4.3.1 Locating the practices in the framework

In this section, I locate the practices within the theoretical framework. This placement helps to better explain the practices, on the one hand, and sharpens the theoretical framework and its use, on the other hand. Notably, the location of the practices in this dissertation is case specific and not generalizable *per se*. Since each organization features different characteristics, the location of the practices in the theoretical framework of this dissertation can claim validity only for the researched case: Belimo. However, this does not mean that the practices themselves do not admit of generalizability, as I demonstrate later (see Section 4.3.3).

In Figure 15, the theoretical framework is supplemented with the nine practices to reconcile future and past. To describe the location of the practices within the framework, I begin with the practices on the left side and then move to the right side. Thus, the sequence of the practices is as follows: Practice B; Practice E; Practices A, F, and G; Practice C; Practice D; Practice H; and Practice I. While some practices require an extended description and additional background information, other practices are more evident and are therefore described in a duly straightforward fashion.

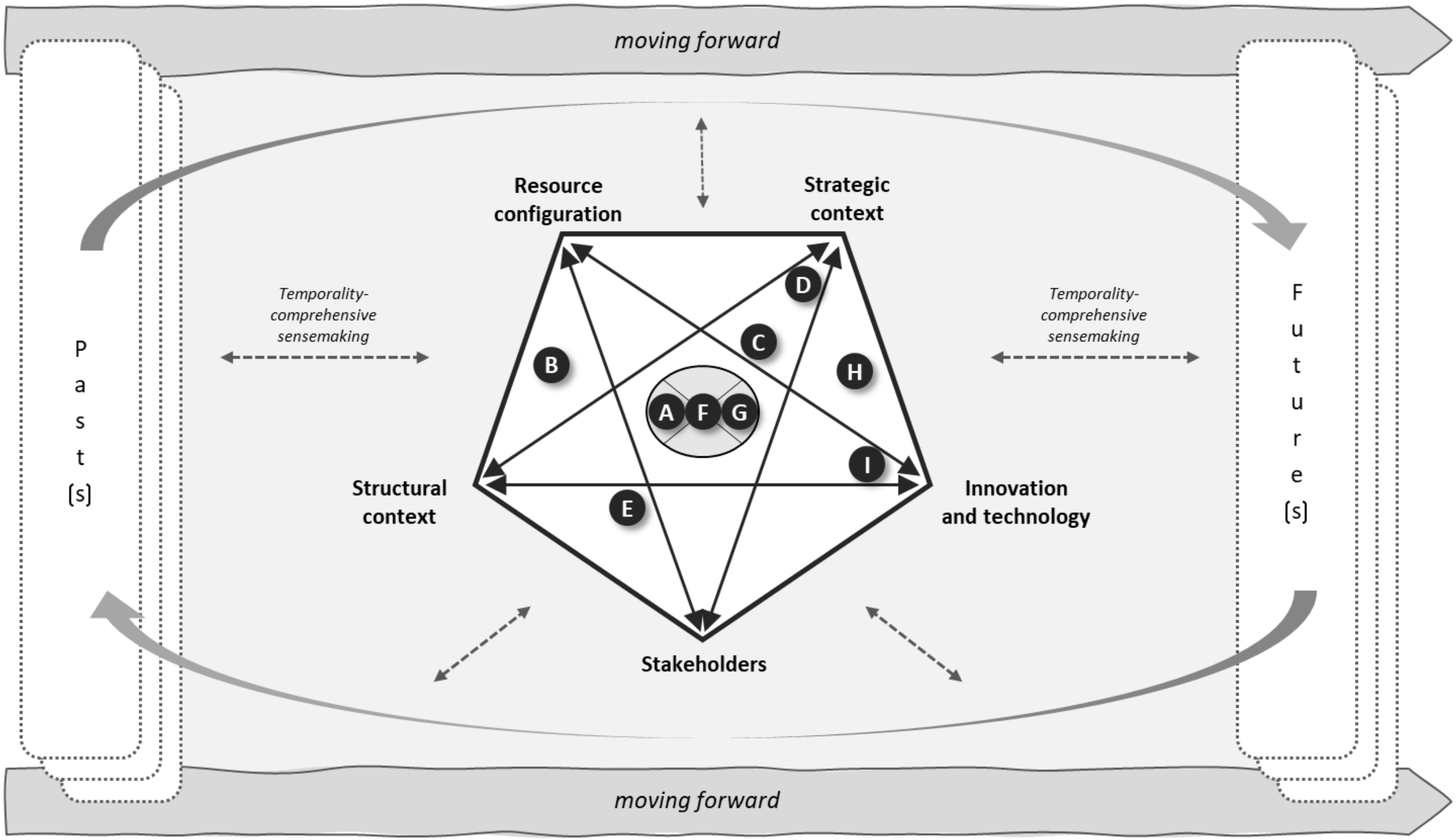


Figure 15: Contextualization of the practices in the theoretical framework

4.3.1.1 Location of Practice B

On the far-left side, Practice B, adjusting the organizational setup, is primarily located between the two key organizational dimensions: resource configuration and structural context. The relation of the practice with structural context seems obvious, since adjusting the organizational setup is intertwined with the administrative mechanisms that have a selective effect on strategizing (Burgelman 1983a, 1991, 1994). Adjusting the organizational setup might also include that a new project screening with standardized and quantitative procedures is established or that new organizational definitions for strategic projects emerge. This adjustment, in turn, influences the structural context because it alters the selection mechanisms in terms of strategizing. The practice is also mobilized in the context of the dimension of resource configuration. In order to effectively adjust the organizational setup, specific resources need to be configured. For instance, the establishing of a new organizational unit requires skilled employees, adequate financial resources, and the time to plan and implement the unit.

Practice B, adjusting the organizational setup, exemplifies how the practices cannot be assigned to one or two key organizational dimensions but rather involve aspects of all five dimensions. While the practice of adjusting the organizational setup might have been triggered by developments related to Dimension 4, innovation and technology, its mobilization and enactment mainly occurs along Dimension 1, resource configuration, and Dimension 3, structural context. However, their mobilization can be assigned to key organizational dimensions that provide the main context for the practices.

4.3.1.2 Location of Practice E

Similarly, Practice E, setting boundaries, was triggered by developments in Dimensions 2 and 4 (strategic context, and innovation and technology). However, the crystallization of the practice emerged more along Dimensions 3 and 5 (structural context and stakeholders), so it is located closer to these two dimensions in the theoretical framework. Setting boundaries is especially necessary when the organization has to shape internal selection mechanisms and responsibilities and when it draws the line between inside and outside. For instance, the practice is mobilized when customer segments are defined or when vertical integration in terms of supplier management is discussed.

4.3.1.3 Location of Practices A, F, and G

While the first two practices are more peripherally located in the theoretical framework, the practices of mobilizing history, zooming in and zooming out, and mosaic working (Practices A, F, and G) are located in the middle of the framework. The reason for this placement is that their mobilization occurs more or less equally along all five key dimensions. For instance, mobilizing history can relate to resource configuration (Dimension 1) when, for example, previously acquired competences are related to future strategic direction. Zooming in and zooming out relates to stakeholders (Dimension 5) when, for instance, the implications of a new product are evaluated with customers. Mosaic working emerges, for example, when efforts to translate strategy into the organization take place on different occasions in different settings and locations throughout the organization, which in this case mainly relate to Dimension 2, strategic context. The relation of these three practices to the five key dimensions can be strengthened with further examples in an almost discretionary fashion. However, the examples provided here illustrate that these three practices to reconcile future and past are mobilized along all five dimensions.

4.3.1.4 Location of Practice C

Inducing decisions mainly emerged between Dimensions 1, 2, and 4 (resource configuration, strategic context, and innovation and technology). Resource configuration substantially informed the practice of inducing decisions, since decisions were often composed over time by referring to available resources and competences. Similarly, the strategic context structured the decision possibilities and thereby played a significant role in inducing decisions. Innovation and technology as a further key dimension also influenced the practice of inducing decisions. The technology used in the past and the way in which previous innovation unfolded has a significant impact on the decisions of the organization within the scope of path dependencies. In this sense, technology and manner of innovation induce the decisions.

4.3.1.5 Location of Practice D

The creation of strategic accounts (Practice D) clearly and obviously emerges around topics of strategic relevance. The strategic context (Dimension 2) is mobilized via the practice of creating strategic accounts, which reciprocally influence the strategic context, creating an interactive loop. An illustrative example of the location of this practice was the intensive discussion that Belimo's management had regarding the abandonment of a main pillar of its strategy. The perception towards the respective pillar was ambiguous and divided among management, which restrained Belimo's moving forward. Deciding to discontinue the respective pillar as a strategic direction was difficult for the organization, but allowed it to move forward because a provisional settlement and a joint strategic account (Girard and Stark 2002; Kaplan and Orlikowski 2013) were achieved. Furthermore, certain concepts from the former strategy pillar were pursued in a more modular approach. Practice D therefore also included that management effected compromises that allowed Belimo to move forward towards the organization's future value creation.

4.3.1.6 Location of Practice H

The alignment of innovation with strategy and organization (Practice H) primarily emerges along the two organizational dimensions: strategic context, and innovation and technology (Dimensions 2 and 4). This emergence is unsurprising, since the practice explicitly refers to strategy and innovation. For instance, when an innovation project is discussed from a strategic point of view, the existing strategy and the project have to be aligned, and the relation between the two has to be clarified. While Dimension 3 (structural context) is also mobilized by the practice, this mobilization happens mostly in a later phase and not as intensively as with the other two dimensions. For this reason, the practice is more in the vicinity of strategic context and innovation and technology.

4.3.1.7 Location of Practice I

Submarining mainly emerges along the dimension of innovation and technology (Dimension 4). While this connection seems obvious as well, it is interesting to see that the stakeholder dimension (Dimension 5) is not necessarily the most relevant impetus for this practice. The reason for this primacy of innovation and innovation regarding submarining is that when potential inputs from the outside (e.g., from customers or suppliers) are taken up by the organization and officialized in an early stage, they tend to emerge along Dimension 2, strategic context (e.g., as a strategic innovation project). Because they are already revealed to the whole organization, they can therefore no longer be considered submarines. Indeed, entrepreneurial initiatives around Dimension 4, innovation and technology, are hidden and maintain their secrecy. Although they may be dissident in terms of strategy, they are not bothered by official and formal procedures for this reason. They are able to dwell and develop below the surface (submarining) until they are strong enough to be debated "in public" (i.e., via official organizational procedures).

4.3.2 Temporality dynamics within the framework

Contextualizing the practices in the theoretical framework illustrates how the practices are related to the five key organizational dimensions. Additionally, it revealed that specific dynamics between the practices and the key dimensions take effect. These temporality dynamics indicate patterns in terms of reconciling future and past and allow for an advanced analysis of an organization's temporal work. The dynamics emerge from an idiosyncratically configurated set of practices that contribute to temporal work in strategizing in highly particular and context-specific ways. This, in turn, allows one to further understand the impact of temporality dynamics in terms of how an organization moves forward.

In the context of this case study, different temporality dynamics were identified based on their location within the theoretical framework. It is important to note that the configuration of these temporality dynamics and their tendencies in the framework apply only to the case study with Belimo. The temporality dynamics were labelled as follows: stabilization work, future work, integration work, and (re)creation work. In Figure 16, the dynamics are depicted within the framework.

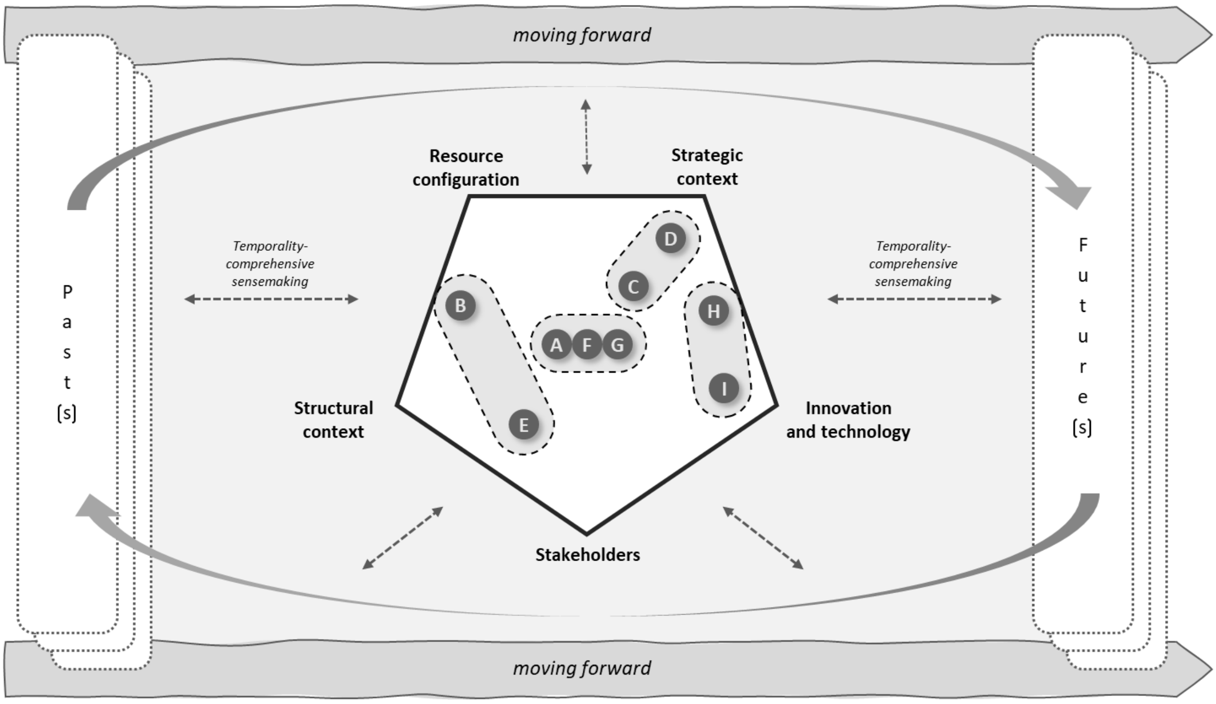


Figure 16: Temporality dynamics within the framework to reconcile future and past

In subsections 4.3.2.1-4.3.2.4, I describe the four temporality dynamics indicated in Figure 16 in the following order: stabilization work, future work, integration work, and (re)creation work.

4.3.2.1 Stabilization work

The practices of adjusting the organizational setup (Practice B) and setting boundaries (Practice E) contribute to the stabilization work in terms of reconciling future and past. This contribution means that they refer mainly to the interpretations of the past in order to maintain the established organization and to prolong the past into the future. The temporality dynamic that emerges between Practices B and E (adjusting the organizational setup and setting boundaries) is therefore more oriented to the past when reconciling future and past. In other words, the practices in this case are configured such that they are dominated by a logic that privileges what has happened over what might be. Stabilization work emphasizes interpretations of the past and adheres to a more preservative and conservative tendency. Reconciling future and past in this temporality dynamic therefore occurs with an emphasis on the previous and existing organization. This dynamic attempts to fit the future into the existing organization by changing as little as possible.

4.3.2.2 Future work

The temporality dynamic labelled "future work" consists of the Practices C (inducing decisions) and D (creating strategic accounts). Together, these practices vitally contribute to the shaping of the strategic context and mainly refer to the respective dimension in the theoretical framework. For this reason, inducing decisions and creating strategic accounts work concertedly and are mutually constitutive of each other: When strategic decisions are induced, strategic accounts are created continuously. In turn, these accounts are understood as provisional settlements and contribute to further inducing decisions. Future work, as a dynamic of temporality, benefits from reciprocally reinforcing practices that shape the strategic context (Dimension 2). This reinforcement powerfully contributes to the organization's temporal work in strategizing: By fostering joint strategic accounts, the organization can engage in the realization of future value creation and coherently move forward.

4.3.2.3 Integration work

Integration work as a further temporality dynamic emerges in the center of the theoretical framework. The practices contributing to this dynamic (Practices A, F, and G) are strongly related to all five key organizational dimensions, as described in Section 4.3.1. The integrative dynamic regarding the temporality of these three practices effectively enables the organization to reconcile future and past. Mobilizing history integrates projections of the future with interpretations of the past by making the organizational history productive for future trajectories. Considering Practice F in the temporality dynamic integration work, zooming in allowed the organization to immerse itself in certain aspects of past and future and relate them to the broader context and temporal work, via zooming out. Integration work was further supported by mosaic working. Mosaic working curates and diffuses the contents of strategy work and thereby generates important temporal links that help to reconcile future and past in different locations throughout the organization.

4.3.2.4 (Re)creation work

While the former three temporality dynamics have a more or less distinct temporal tendency in terms of an organization's moving forward (stabilization, future, and integration), (re)creation work is harder to capture. It consists of Practice H, aligning innovation with strategy and organization, as well as Practice I, submarining. This dynamic manifests itself in ambivalent ways. On the one hand, (re)creation work supports Dimensions 2 and 3 (strategic context and structural context) and facilitates an alignment between the two. For instance, it helps to contextualize an innovation in the strategy and the organizational setup by working and shaping the respective key organizational dimensions in a way that conforms with the organization. On the other hand, (re)creation work also features more subversive tendencies that question taken-for-granted elements of the company and thereby cause disturbances throughout the organization; for instance, (re)creation work might also challenge assumptions about customers and joint strategic accounts. However, this temporality dynamic enables the generation of alternative interpretations of the future and the past. These interpretations enrich temporal work in strategizing but also make this work more complex. The configuration of this temporality dynamic is therefore crucial for a successful reconciliation of future and past.

4.3.3 General implications

Based on the empirical illustration and the contextualization of the practices, certain general implications can be inferred. While the previous findings were based on insights that were related to the case to a greater (e.g., locating the practices in the process map) or lesser extent (e.g., identifying temporality dynamics within the framework), this section provides insights that are more detached from the single case study on Belimo. These general implications are structured in four subsections: the significance of the practices, significance of the key organizational dimensions, tendencies of temporality dynamics, and pervasiveness of sensemaking efforts.

4.3.3.1 Significance of the practices

As stated before, the location of the practices in the framework depends greatly on the individual organization in focus and its respective idiosyncrasies. The practices might also intermingle with each other in different varieties and constellations, since they are not mutually exclusive. The configuration of the different practices to reconcile future and past are organization-specific and distinctive. The occurrence and the peculiarities of the practices to reconcile future and past are subject to the organizational context. Hence, while the concrete configuration and the interplay of the practices are decisive in terms of how the organization moves forward, the possibilities to configure the practices are almost discretionary in their variability and depend on the individual organization.

Therefore, the nine practices to reconcile future and past identified in this dissertation cannot claim general validity *per se*. However, the practices offer a solid indication of how an organization reconciles future and past. Since the practices originate from an analysis with high qualitative rigor and a substantial degree of abstraction, they might also be applicable to other cases. Furthermore, the practices align with the existing literature (see Chapter 4.1) and are strongly corroborated from a theoretical perspective. Although further research is needed to prove the general validity of the nine practices, the high qualitative rigor, and the resonance of these practices with findings recorded in the literature indicate that the practices might possess a general validity.

While the dissertation cannot claim the general validity of the identified nine practices, it does demonstrate that an organization needs to engage in temporal work in strategizing. While there are different ways to get involved with temporal work, reconciling future and past provides a powerful way for management to engage in successful strategizing. In this context, reconciling is considered an activity related to synthesizing. As stated at the beginning of the dissertation (see Chapter 1.1), synthesizing means that a coherence between different organizational aspects and perspectives is created. Viewing the reconciling of future and past as an aspect of synthesizing emphasizes the importance of the practices for the moving forward of an organization.

4.3.3.2 Significance of the key organizational dimensions

A further general implication of the analysis concerns the five key organizational dimensions. The five dimensions are interdependent and simultaneously provide the context for the practices. For instance, when a practice to reconcile future and past mainly draws on Dimension 2, strategic context, it might also relate to Dimension 1, resource configuration; Dimension 5, stakeholders, and other dimensions at the same time. The framework merely indicates which dimension is the most prominent. As with the practices, the key organizational dimensions are not mutually exclusive, and it is likely that they intermingle with each other. This overlap emphasizes that the framework to reconcile future and past should not be considered inflexible. Rather, it comprises an ongoing, dynamic, and inherent fluidity.

Notably, Dimensions 1 and 3, on the left side of the framework (resource configuration and structural context) tend to be more preserving than Dimensions 2 and 4 on the right side (strategic context, and innovation and technology). A potential explanation for this difference is that resource configuration and structural context tend to be more oriented towards interpretations of the past; for instance budgeting, as an important activity strongly related to resource configuration, greatly draws on assumptions from previous years in most organizations (Ancona et al. 2001; Feldman and Pentland 2003; Gilbert

2005). The organizational structure and routinized ways of producing goods and services are designed to guarantee stable organizational value creation. Most of the time, they are therefore concerned with optimizing what already exists (i.e., what was developed in the past). This tendency might explain why the focus of Dimensions 1 and 3 in terms of temporality is more on the past, as with other key organizational dimensions.

Strategic context and innovation and technology, on the other hand, contain an inherent orientation towards the future. The development of a strategy for a product line (as an example for strategic context) is specifically and selectively concerned with the organization's future. Similarly, product innovation aims to create something new or something that has not yet been a part of the organization, which implies a dissociation from the past and an orientation towards the future. The mentioned four dimensions (resource configuration, structural context, strategic context, and innovation and technology) therefore have tendencies towards the past or the future.

Stakeholders, as the fifth dimension, can be described as an ambiguous dimension in this setting. On the one hand, one might argue that existing customers and their needs represent an organization's past. On the other hand, an organization needs to anticipate future customer needs in order to be successful in the future. Therefore, stakeholders have ambiguous tendencies in terms of their temporal orientation.

4.3.3.3 Tendencies of temporality dynamics

The contextualization of the practices brings to light that certain temporality dynamics emerge when the practices are located within the framework. As illustrated in Figure 17, these temporality dynamics tend to be oriented in a certain direction. While stabilization work is clearly oriented towards the past, future work pulls towards the future. Integration work is considered as a balancing dynamic that tends in both directions and figures as an accelerator for the other temporality dynamics. Innovation work is more volatile: Although it is generally directed towards the future, the direction might deviate from the one in strategy work and deflect its course because innovation work contains a more subversive and entrepreneurial thrust that can destabilize the officialized strategic direction. However, it is possible for the two dynamics – through intensive temporal work and a mutual reframing – to align themselves. For instance, this agreement occurs when management successfully mobilizes Practice H (aligning innovation with strategy and organization). In such cases, reinforcing accounts for the organization's moving forward emerge.

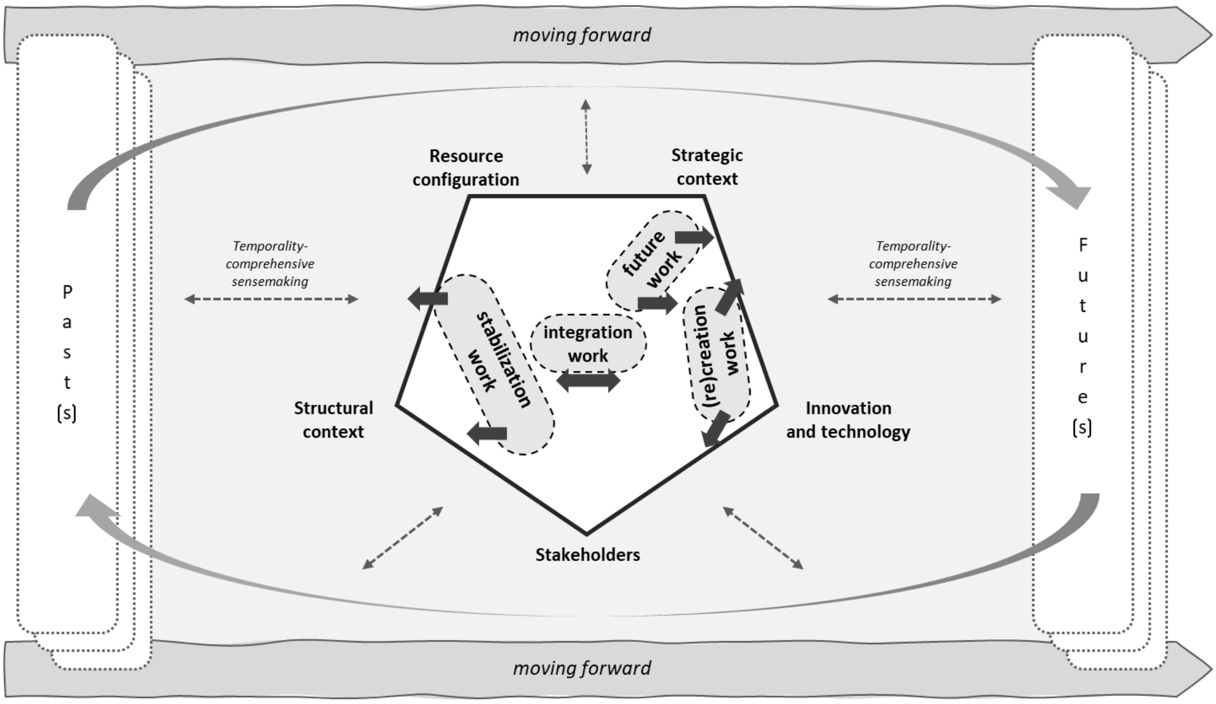


Figure 17: Thrust of temporality dynamics within the framework to reconcile future and past

An interesting question in this context regards the emergence of potentially disruptive innovations. As Christensen (1997) states, it is unlikely that incumbent organizations can engage in the creation of disruptive innovations. This line of thought is affirmed in this research: Arguably, disruption can evolve only if the temporality dynamics of future work and innovation work deviate. When innovation work is aligned too strongly with future work, the probability of a disruptive innovation diminishes because the disruptive potential is absorbed by the established incumbent context. However, this argument requires further research to evaluate its validity.

4.3.3.4 Pervasiveness of sensemaking efforts

Using the theoretical framework in the context of an empirical study has revealed the importance of temporality-comprehensive sensemaking when reconciling future and past. Retrospective and future-oriented sensemaking pervades practices to reconcile future and past and figures as a significant element of temporal work in strategizing.

Sensemaking is essentially involved in all nine practices to reconcile future and past and also happens along all five key organizational dimensions. As stated at the outset of this research (see Chapter 1.6), future and past are not seen as a fixed, invariable entities. They are interpreted as temporal dimensions in a discursive process of meaning negotiation (Balogun et al. 2014; Vaara et al. 2004). Thus, sensemaking is vital for the enactment of future and past in an organization and is an integral element of practices to reconcile future and past. By grounding sensemaking in a framework that reflects organizational realities, the sensemaking efforts of organizational actors can be researched in a focused and purposeful way.

PART 5 - DISCUSSION

This part aims to pose the main contributions of my research and to answer the research question. Accordingly, this part is structured in two concise chapters: In Chapter 5.1, I discuss the contributions of this research. Chapter 5.2 provides answers to the research question and describes the value of this dissertation with regard to the research question.

5.1 Contribution of this research

As stated Chapter 1.5, this dissertation strives to make three contributions: enhancing the understanding of temporal work in strategizing; enriching the literature on temporality-related sensemaking; and sharpening the understanding of managerial engagement in terms of temporal work in strategizing. In the following, I detail these contributions.

5.1.1 Temporal work in strategizing

As outlined in this dissertation (see Chapter 1.1), temporal work is crucial for successful strategizing. However, temporal work in strategizing is little understood and is therefore in need of further research. With this dissertation, I have been able to shed light on certain aspects of temporal work in strategizing and to link it to recent considerations in the literature on SAPP. The development of the theoretical framework to reconcile future and past explains in a schematic fashion how management reconciles future and past in strategizing. Hence, the theoretical framework provides a dynamic view of temporal work in strategizing and illustrates how multiple interpretations of future and past are related by the practices to reconcile future and past. This dissertation has been able to bring to light the underlying mechanisms of this continuous reconciliation that contributes to the realization of future value creation.

Furthermore, the framework developed in this dissertation provides a conceptual basis to make use of insights regarding time and temporality in strategy research: the framework culminates these insights and integrates them in a practice and process view. In this regard, the framework also illustrates the temporal embeddedness of strategy and contributes a robust understanding of temporality and its relevance for strategizing.

5.1.2 Temporality-related sensemaking

The second contribution of this research is concerned with sensemaking. As outlined in Chapter 2.5, sensemaking is a strongly temporality-related concept. However, this relation to temporality is – with few exceptions – more or less exclusively focused on retrospective aspects of sensemaking. My research contributes to a more future-oriented perspective of sensemaking and includes these notions in a theoretical framework to reconcile future and past. By emphasizing that sensemaking is not only an activity that looks back but is also one concerned with interpretations of an uncertain future, this dissertation provides a more comprehensive notion of sensemaking as a deeply temporality-related concept – this concept includes both retrospective and prospective aspects of sensemaking.

Through the comprehensive conceptualization of sensemaking in the theoretical framework, this research emphasizes the importance of sensemaking in terms of reconciling future and past in strategizing or more generally in temporal work. This study also contributes to an "empirical grounding" of sensemaking because the sensemaking efforts of an organization's management engaged in strategizing become visible and can be contextualized through the theoretical framework. This contribution helps to explain the implications of successful temporality-comprehensive sensemaking on management and strategizing in practice. Despite that more research is needed in this direction, my dissertation opens up new avenues by which can be pursued an expanded understanding of sensemaking in terms of empirical studies regarding the reconciliation of future and past.

5.1.3 Managerial engagement regarding temporal work in strategizing

The practices to reconcile future and past disclose the ways in which management is engaged in temporal work in strategizing. While the practices are a distributed and multilayered nexus of sayings and doings throughout the organization (Nicolini 2013; Reckwitz 2007), they are held together by managerial engagement. Configuring the practices to reconcile future and past therefore requires managerial engagement. In consequence, when management considers temporal work and actively configures practices to reconcile future and past, this consideration can contribute to successfully moving the company forward (Kaplan and Orlikowski 2013).

In addition to the practices to reconcile future and past, I have been able to disclose the temporality dynamics that emerge from the configuration of the practices in the context of the key organizational dimensions. My research therefore contributes to an understanding of the managerial engagement in terms of these temporality dynamics. By balancing the tensions that emerge from the temporality dynamics, management can make temporal work in strategizing productive for the organization. Hence, a reconfiguration of the practices to reconcile future and past has a significant impact on temporality dynamics. Managerial engagement to actively balance and steer the temporality dynamics therefore figures as a promising way to alter the strategic trajectory and move the organization successfully forward.

5.2 Answers to the research question

This dissertation has elaborated on temporal work in strategizing. The initial impetus for this research endeavor was captured in its research question:

> *How does management reconcile future and past in strategizing*
> *in order to make it productive for future value creation?*

By engaging in temporal work and via the configuration of specific practices, management reconciles future and past. These practices are sustained by continuous efforts of temporality-comprehensive sensemaking. These efforts enable the interpretation of the organization's future(s) and past(s) and are therefore crucial to establish joint strategic accounts. These accounts and the configuration of the practices to reconcile future and past provide the organization with the basis to successfully move forward towards its future value creation.

To understand how management reconciles future and past, the theoretical framework provides a viable approach. The five key organizational dimensions provide an intelligible context for the location of the practices within the framework. This context helps to explain the practices and also provides insights into how the practices are interrelated. The theoretical framework emphasizes the dynamics that emerge from an organization's past(s) and future(s). These dynamics are interdependent and embedded in organizational flux: Interpretations of the past might influence projections of the future and vice versa. The theoretical framework helps to identify how these dynamics emerge and unfold as well as how an organization manages to reconcile future and past. Recognizing the different temporality dynamics is an important necessity for management to actively engage in managing these dynamics. These dynamics are important in understanding the organization's temporal work in strategizing which, in turn, is highly significant for the way in which it moves forward.

PART 6 - CONCLUSION

This part concludes the dissertation. Chapter 6.1 provides a summary of my research endeavor. Chapter 6.2 concerns the implications of my study for strategy research and research in SAPP. In Chapter 6.3, I elaborate on the practical implications that result from my research. In Chapter 6.4, I indicate the limitations of my dissertation and outline further research in the realm of temporal work in strategizing.

6.1 Summary of the dissertation

This dissertation started with a fascinating research puzzle: Managers need to engage in the creation and realization of future projections, but at the same time, they have an organizational context and a past that is disciplining in the sense that it enables or restrains distinct strategic moves. Management therefore needs to relate these different temporal dimensions in a meaningful way. How management reconciles future and past is thus highly relevant for the organization's strategizing and therefore crucial for its ability to establish the preconditions for the organization's future value creation and its corresponding moving forward.

In order to address this research puzzle, I adopted a practice and process view and relied on recent developments in the literature on SAPP. I was able to demonstrate that time and temporality are important concepts in this field of research. Subsequently, I conceptualized time and temporality in order to apply these notions to my research endeavor. In this context, sensemaking plays an important role regarding interpretations of future and past. Since sensemaking is mainly regarded as a retrospective notion, I developed a more future-oriented approach to sensemaking. This approach allowed me to integrate theoretical insights regarding time, temporality, and temporality-comprehensive sensemaking into a theoretical framework. The framework provides a viable approach to conceptualize how future and past are reconciled in an organization.

I then detailed the methodology of this empirical study. I described my methodological background (practice and process perspective, grounded theory approach) and outlined how the single case study can help to generate insights in terms of my research endeavor. Hence, I provided a detailed account of the research setting and the empirical context by describing the researched organization. I then retraced how I collected and analyzed the data and concluded the methodology part by presenting the empirical data.

The empirical study revealed nine practices in which management engages to reconcile future and past: mobilizing history, adjusting the organizational setup, inducing decisions, creating strategic accounts, setting boundaries, zooming in and zooming out, mosaic working, aligning innovation with strategy and organization, and submarining. These practices were described in-depth by means of their main characteristics, illustrated with extracts from the empirical data and connected to their main sensemaking narrative.

Based on the close observation of a strategic innovation project, I located the practices within a process map. This approach facilitated an understanding of the practices in practice. I then contextualized the nine practices to reconcile future and past in the theoretical framework. This contextualization added depth to the explanation of the context of the practices and also illustrated the explanatory power of the theoretical framework. The contextualization of the practices generated further insights, especially regarding four temporality dynamics: stabilization work, future work, integration work, and (re)creation work. These temporality dynamics are inherent when management engages in temporal work in strategizing. I drew attention to the significance of the practices to reconcile future and past as well as the key organizational dimensions and suggested that the temporality dynamics have specific tendencies in terms of their temporal orientation. I concluded the findings of the research by highlighting the pervasiveness of sensemaking efforts in temporal work in strategizing.

In the discussion of this dissertation, I elaborated on the three main contributions of this research. I was first able to shed light on temporal work in strategizing and especially on how management reconciles different temporal dimensions in its strategy work. Second, this dissertation enhanced our understanding of temporality-related sensemaking by integrating more future-oriented notions of sensemaking in a comprehensive conceptualization of sensemaking. Third, I was able to demonstrate managerial engagement regarding temporal work in strategizing by illustrating how management draws on practices to reconcile future and past in their strategy work.

6.2 Research implications

In my research endeavor, I have disclosed a substantial gap in strategy research in terms of temporal work in strategizing. By addressing this gap, this dissertation not only contributes to the literature on SAPP but also reveals significant implications for strategy research in general. In this chapter, I outline the four most relevant implications for research.

First, time and temporality are fundamental aspects of strategizing. Strategizing is embedded in time and fundamentally draws on temporality. The future and the past, as primary temporal dimensions, cannot not be neglected when researching the strategizing efforts of an organization's management. Practices to reconcile future and past are an important means to grasp how management handles the different temporal dimensions. Considering aspects of time and temporality is crucial in understanding the strategy work of an organization and its moving forward.

Second, this research has shown that the integration of future-oriented and prospective notions of sensemaking allows for a temporality-related and comprehensive conceptualization of sensemaking that, in turn, figures as an important lens to reveal aspects of temporal work in strategizing. Sensemaking is thereby integral to practices regarding temporal work in strategizing, which implies that a combined practice and process view with a temporality-comprehensive conceptualization of sensemaking can open up new perspectives and generate productive insights regarding temporal work in strategizing.

Third, from a methodological point of view, the notion that time can be considered a dependent or independent variable creates interesting avenues of research. While this dissertation does not advocate for dependent or independent variables, it encourages researchers to conscientiously consider the importance of time for the research setting. As such, a practice view of time and temporality might allow researchers to bridge the gap between dependent and independent variables without neglecting significant aspects of time.

Fourth, research on temporal work in strategizing requires empirical studies. While time and temporality figure as abstract concepts with a vast theoretical hinterland (Law 2004), theorizing alone will rapidly reach its limits in terms of productive insights. Since time is always time in use, empirical studies regarding temporal work in strategizing are indispensable. Through its focus on activities embedded in the flow of events, SAPP provides a rich lens through which to research related matters.

6.3 Practical implications

While this dissertation substantially contributes to SAPP research, it also generates several insights for practitioners of strategy work. This chapter summarizes the four most relevant practical implications of this dissertation.

First, reconciling future and past in strategizing is not merely a theoretical concern but has a significant impact on how organizations move forward. Therefore, reconciling future and past, as well as temporal work in strategizing, should be a concern for an organization's management. Hence, managerial engagement is crucial in terms of the configuration of the practices. Actively configuring practices to reconcile future and past and contextualizing these practices with respect to the five key organizational dimensions serves as a means for managers to influence how an organization moves forward.

Second, strategizing is not solely oriented towards the future. Provocatively speaking, strategizing is more about the past than the future, because it is deeply rooted in and emerges from the past. Therefore, the mobilization of the past becomes a highly significant and delicate task of management engaging in strategy work. Management must be aware that not only the future but also the past is infused with uncertainty and ambiguity. Where, when, and how management refers to the past has an influence on the creation and interpretation of projections about the future. Before reconciling the different temporalities, management should therefore also scrutinize the way it mobilizes its past and the consequences of this mobilization in terms of the organization's strategizing.

Third, uncertainty is inherent in interpretations of the future and the past. Management can address uncertainty by a deliberate and thorough reconciling of future and past. Making explicit what is happening when an organization moves forward in relation to its temporal work in strategizing facilitates reflection on related practices and processes. An organization's management can then openly address and explain issues related to uncertainty. This explanation allows for the creation of uncertainty-absorbing joint accounts (Spee and Jarzabkowski 2017) or provisional settlements (Girard and Stark 2002; Kaplan and Orlikowski 2013), which form the basis of an organization's successful moving forward. In this respect, reconciling future and past resonates with the work of Hernes and Irgens (2013), in which management is required to keep things mindfully on track and engage in the creation of continuity as an important means of learning.

Fourth, management should be aware that the reconciliation of future and past is fundamental for an organization to establish the preconditions for its future value creation. Through a thoughtful and deliberate negotiation of time and temporality, management can advance its understanding of how the organization moves forward towards its future value creation and what role temporality plays in this context. This understanding allows one to discover where temporal work is required and subsequently presents opportunities for management to engage in temporality-aware strategizing. This, in turn, leads to a successful synthesis of past and future (Jarzabkowski 2003; Langley 1999; Mintzberg 1994, 2009) and substantively drives the moving forward of an organization.

6.4 Limitations and further research

While my research contributes to the SAPP literature and provides manifold insights in terms of temporal work in strategizing, it also has limitations and highlights the potential for further research. In this last chapter, I therefore indicate the limitations of this dissertation and highlight opportunities for further research in the field of temporal work in strategizing. I begin with two key limitations.

First, although the key organizational dimensions in the theoretical framework have proven their validity, the dimensions need to be stabilized. This stabilization implies that the framework needs to be endorsed and underpinned with further theoretical cogency. Further research has to ensure that the five dimensions relate to the aspects that are relevant in terms of reconciling future and past in strategizing.

Second, the empirical insights of this dissertation derive from a single case study of an innovation-driven technology company. While the organization provided an apt context for this research because of the organization's nature, aspects related to innovation and technology might have been overemphasized to a certain degree. Future research should therefore also consider other companies in order to affirm the validity of the theoretical framework and practices in other contexts.

In addition, three lines of argument might be pursued in further research efforts to elucidate temporal work in strategizing.

First, and as already insinuated above, research on temporal work in strategizing would benefit from more empirical studies in other contexts. Thus, not only should the contexts should vary, but also the focus of management communities. While this study has drawn information from a relatively large group of people in management (executive management as well as second- and third-line management), further research could, for example, focus on management teams in innovation divisions or on the practices to reconcile future and past that occur at the level of executive management. This focus would sharpen the unit of analysis and allow precise and in-depth insights in terms of temporal work in strategizing. The practices to reconcile future and past could then be examined in a concerted and selective fashion. This examination would contribute to a deepened understanding of the practices in terms of how they emerge, how they draw on their context (i.e., the key organizational dimensions), and what the outcomes of the practices are.

A second possibility for future research is to examine the nexus between sensemaking and practices and processes. The question should thereby be what role sensemaking plays in temporal work and how exactly it is interwoven with practices to reconcile future and past. In addressing this question, it seems productive to use the theoretical framework developed in this dissertation, since it helps to ground sensemaking to organizational realities and assign it to specific dimensions. By narrowing down sensemaking in such a manner, research can distance itself from being discretionary and detached from what really happens in an organization. Integrating research efforts regarding sensemaking with SAPP research could provide productive insights in terms of temporal work in strategizing and could benefit strategy research in general.

Third, further research could investigate the role of practices to reconcile future and past in terms of disruptive innovations. Here, I am referring to the point raised Section 4.3.3, namely that it is unlikely that incumbent organizations can engage in the creation of disruptive innovations. Further research could examine how the practices to reconcile future and past, as well as their temporality dynamics, influence the emergence of potentially disruptive innovations. It can be argued that a strong alignment of temporality dynamics – especially between strategy and innovation – prevents the emergence of disruptive innovations because the existing context of a typical incumbent, influenced by the past, absorbs the disruptive innovation and thereby diminishes its disruptive characteristics, so that it fits into the existing organizational context. Practices to reconcile future and past – configured in a specific and productive way – could then contribute to the unfolding of disruptive innovations. In this respect, the concept of disruptive innovation could also benefit from further research regarding temporal work in strategizing.

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