Suvi Einola

The interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice

"How can we know what we think until we see what we do"

▲ ▲ ▲

Vaasan yliopisto
UNIVERSITY OF VAASA

ACADEMIC DISSERTATION

*To be presented, with the permission of the Board of the School of Management
of the University of Vaasa, for public examination
in Auditorium Nissi (K218) on the 8th of June, 2018, at noon.*

Julkaisun nimike
Sosiomateriaalisen -, kognitiivisen - ja paradoksinäkökulman keskinäinen vuorovaikutus strategia käytäntönä –tutkimusalalla : "Miten voimme tietää, mitä ajattelemme, ennen kuin näemme, mitä teemme"

Tiivistelmä
Mikrotasoisiin strategisiin käytäntöihin painottuva strategia käytäntönä -tutkimus on kasvanut merkittävästi viime vuosina. Vaikka strategia käytäntönä -tutkimus on tutkinut sosiomateriaalisten, kognitiivisten ja paradoksaalisten näkökulmien merkitystä strategiassa, aiemmat tutkimukset eivät ole tutkineet näiden lähestymistapojen keskinäistä vuorovaikutusta.

Tämä väitöskirja pyrkii omalta osaltaan tuomaan uutta strategia käytäntönä -kirjallisuuteen ja ymmärtämään sosiomateriaalisen, kognitiivisen, ja paradoksinäkökulman vuorovaikutusta strategia käytäntönä -tutkimusalalla. Väitöskirjan empiirinen osa koostuu viidestä tutkimusartikkelista, jotka pohjautuvat julkisesta ja yksityisistä organisaatioista kerättyihin aineistoihin.

Tutkimustulokset havainnollistavat eri näkökulmien keskinäistä vuorovaikutusta ja kompleksisuutta strategiatyössä, jossa kognitiiviset rakenteet määrittelevät organisaation strategiatyötä. Tulokset tuovat esiin sosiomateriaalisten käytäntöjen mahdollistavan roolin organisaation strategiatyössä: sosiomateriaaliset käytännöt mahdollistavat ja luovat rakennetta sekä strategiakeskusteluille että strategiatyölle. Lisäksi sosiomateriaaliset käytännöt tarjoavat keinoja tasapainoilla strategiatyössä ja strategisessa muutoksessa esiin nousevien paradoksien kanssa. Tämä tutkimus luo viitekehyksen lisäämään ymmärrystä sosiomateriaalisen, kognitiivisen ja paradoksinäkökulmien keskinäisestä vuorovaikutuksesta strategia käytäntönä -tutkimusalalla

Asiasanat
Strategia, strategiatyö, käytäntö, toimija, strategia käytäntönä, merkityksellistäminen, paradoksi, kognitiivinen näkökulma, sosiomateriaaliset käytännöt, osallistaminen

Number of pages	**Language**
166	English

Title of publication
The interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice : "How can we know what we think until we see what we do"

Abstract
The strategy-as-practice research has grown noticeably in recent years to emphasize the micro-level activities in strategy. Whilst previous research have acknowledged the importance of sociomaterial, cognitive, and paradoxical perspectives in strategy, studies combining these approaches have been missing.

This dissertation seeks to contribute to the strategy as practice (SAP) literature and aims to "make sense of the interplay between the sociomaterial, cognitive, and paradox views in the field as strategy as practice". The empirical part of the thesis comprises five articles from three different datasets collected both public and private organizations.

The results of the study illustrate the interplay of different views and the complexity of strategy work, and suggest that cognitive structures frame organizational strategy work. Furthermore, the findings suggest that sociomaterial practices facilitate strategy work by both enabling and structuring the strategic discussions and the process of strategy work. Finally, sociomaterial practices provide means how to balance between paradoxes faced during strategy work and strategic change situations. The present study creates a framework to increase our understanding about the interplay between the sociomaterial, cognitive, and paradox views in the research field of strategy as practice.

To my daughters Inna and Iisa

"Promise me you'll always remember:

You're braver than you believe,

and stronger than you seem,

and smarter than you think"

A.A. Milne

Hopefully this dissertation demonstrates to you both

there is nothing in the world you cannot do.

Love, mum

ACKNOWLEDGEMENT

X

I dedicate this dissertation to my amazing daughters Iisa and Inna. With you two in my life, I have everything. You are my shining stars and the meaning of my life. Inna, I have learned a lot from your compassion and determination, you have a unique ability to be simultaneously both. Iisa, I admire your high energy and joyfulness, life with you is never dull. You have taught me what stamina is. With you two, my life is a beautiful adventure. I love you both from the bottom of my heart. I also want to thank your dad for sharing the parenthood with me. When looking you two growing to be such lovely, kind and smart girls, I believe we have done something right.

Finally, my dear Marko. My husband, my workmate, and my dearest debate partner. It is hard to find words to thank you enough for everything you have done for me. Without you, I probably would not have started this dissertation. You have always believed in me, even in times I have not. I have learned so much from you. Your perseverance, resilience and passionate attitude towards research has inspired me (and to be honest, sometimes almost driven crazy). You have always had time for me and my questions, you have always been interested in my opinions, and you have always challenged my thinking. I do love our discussions and the dialogical connection we have. Everybody should have someone like you in their lives. Thank you for being in mine and letting me be me.

Vaasa, April 2018

Suvi Einola

Contents

Figures

Tables

Publications

This dissertation is based on five appended articles that are:

[1]   Einola, S & Kohtamäki, M. 2016. Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategiatyössä. *Hallinnon tutkimus* 35 (3), 189-203, 2016.[1]

[2]   Einola, S & Kohtamäki, M, Rabetino, R. Modeling the paradoxes in servitization. (under review in *International Journal of Production Economics*).

[3]   Einola, S, Kohtamäki, M., Parida, V. & Wincent, J. 2017. Modeling retrospective relational sensemaking in the context of R&D offshoring. *Industrial Marketing Management* 63, 205-216, 2017.[2]

[4]   Einola, S. 2017. Making sense of strategic decision making. *Real-Time Strategy and Business Intelligence: Digitizing practices and systems*, Palgrave Macmillan, 149-166, 2017.[3]

[5]   Kohtamäki, M & Einola, S. Participative strategy in the city of Vaasa. *Exploring Strategy, Text and Cases, 11th edition, Pearson Education* 525-531, 2016.[4]

---

[1] Reproduced with the kind permission of Hallinnon tutkimus.
[2] Reproduced with the kind permission of Elsevier.
[3] Reproduced with the kind permission of Palgrave Macmillan.
[4] Reproduced with the kind permission of Pearson Education.

1 INTRODUCTION

In this chapter I introduce the research background, the motivation, the current research gaps and the research structure.

1.1 Background and motivation

> *"How can **we** know what **we** think, until **we** see, what we **do**"*

Paraphrasing Weick's famous sentence *"how can I know what I think until I see what I say"* (Weick, 1998, p.307) the title of the study describes the sensemaking process, where action is not guided by thought, but, thought is guided by action. Respecting Weick's work in and around sensemaking, this study builds on social construction of reality, and highlights the role of the organizational perspective in building shared understanding of strategy. The study emphasizes the organizational view over the individual, as well as doings over sayings, which has inspired the re-formulation of Weicks well-known phrase.

Organizations have been searching for a shared understanding while developing their strategies to renew and adapt to the rapidly changing environment for decades (Daft & Weick, 1984; Mintzberg, 1978; Wooldridge & Floyd, 1990). From the 1950's, strategy scholars have presented variety of approaches, mainly progressing from structured planning to emergent strategies, from content to process, and from process to practice (Ansoff, 1965; Mintzberg, Waters, & Wiley, 1985; Porter, 1980a; Whittington, 1996). To advance the micro-perspective on strategy work, a phenomenon coined as a practice turn entered the field of strategy research (Golsorkhi, Rouleau, Seidl, & Vaara, 2015). Practice theory started to challenge the prevalent ways of thinking about strategy and doing strategy research in the beginning of the new century (Jarzabkowski, 2004; Whittington, 2002). While traditional strategy research is interested in processes, resources, structures and systems, the practice turn brought researchers in the area of *"the total nexus of interconnected human practices"* (Schatzki, Knorr Cetina, & von Savigny, 2001, p. 11). The practice turn brought strategy researchers to study the activities and practices around strategy work, which is defined as the field of strategy-as-practice (SAP) research (Vaara & Whittington, 2012). Strategy-as-practice research focuses mainly, though not exclusively, on three concepts of strategy work; practice, practitioners, and praxis (Whittington, 2006).

Both strategy process and practice research has grown considerably in recent years. Strategy-as-practice research has grown to emphasize the micro-level

strategic activities to accept and acknowledge not only the formal strategic practices, but also strategic emergence, in contrast to overemphasizing the detailed, formal strategic planning (Hutzschenreuter & Kleindienst, 2006) conducted only by the top management (Jarzabkowski, Balogun, & Seidl, 2007; Mantere, 2008).

Although strategy-as-practice research has successfully *"helped to advance social theories in strategic management"* (Vaara & Whittington, 2012, 285), the existing literature is lacking discussion and evidence about the interaction between sociomaterial and cognitive views in strategy as practice. Moreover, SAP studies have mostly neglected the paradoxical tensions emerging in organizations planning and implementing strategic transitions. In addition, sociomaterial practices can play a significant role in strategy work and may help organizations to cope with paradoxical tensions. There is a need to expand the strategy-as-practice field and study the roles of sociomateriality and cognitive view in strategy work and organizational paradoxes.

To extend the current strategy as practice literature, this study concentrates on the interplay between the cognitive, sociomaterial, and paradox views in the field of strategy as practice (Figure 1). To do so, the study includes five articles, each of which reveals different perspectives of the practices of strategy work. First, the cognitive view on strategy has its roots in social constructionism, where reality is seen socially constructed through interaction (Berger & Luckman, 1966). The cognitive perspective on strategy focuses on the interconnections between strategic decision-making processes and cognitive structures (Porac & Thomas, 2002). Cognitive structures enables sensemaking (Bundy, Shropshire, & Buchholtz, 2013; Thomas, Clark, & Gioia, 1993) and interpretation during the cognitive process of strategy work (Narayanan, Zane, & Kemmerer, 2011). While the cognitive view on strategy focuses on cognitive structures and processes (Walsh, 1995), the sociomaterial view as a second approach attempts to describe the intertwined connection between the social and the material in the interaction process of strategy work (Balogun, Jacobs, Jarzabkowski, Mantere, & Vaara, 2014; Jarzabkowski & Kaplan, 2015). Thirdly, the paradox view offers an alternative perspective to the traditional contingency fit (Lewis, 2000; Smith & Lewis, 2011), where either-or decisions are made based on competition, environment, and the size of the organization. The paradox view engages organizations in both-and decisions in situations, where *"contradictory yet interrelated elements that exist simultaneously and persist over time"* (Smith & Lewis, 2011, p. 386) makes it unworkable to choose one edge of the paradox over another.

The main motivation for conducting this study was the genuine eagerness to understand *"what is going on"* in both public and private organizations during their strategy work. This eagerness has emerged from years of work in developmental roles in public organizations, in where differences compared to the private sector have been highlighted for decades. Or as Brown (2010) highlights the specificity of public sector: *"the combination of complex policy and programmatic challenges, highly politicized institutional environments, and rule-bound administrative systems limited the managerial discretion to develop and execute strategy"* (Brown, 2010, p. 212). In this study, both public and private organizations are studied, and the results of the associated articles and of practical work experience make it possible to summarize that when strategy is something an organization does, rather than something organizations have (Jarzabkowski, 2004; Whittington, 2006), the role of the institutions diminishes and the core questions are no longer related to the organizational form, but instead revolve around the questions of what (practice) and how (praxis) and who (practitioner).

That said, although the role of the organizational form is not at the core of this research, this study appreciates the vast research field of administrative sciences, in where the role of organizational form is seen not only as contextual detail, but rather core explanatory subject. The differences between public and private organizations are often evaluated through three viewpoints; ownership, funding and control: Public organizations are collectively owned by the members of the communities, funded mainly by taxation, and controlled by political forces, while private companies are owned by entrepreneurs or shareholders, paid by customers, and controlled by market forces (Rainey, 1976, Boyne, 2002). Since 1980s, New Public Management –approach (NPM) has challenged traditional public management scholars by bringing private sector practices and market orientation to improve public service performance (Walker, Brewer, Boyne & Avellaneda, 2011). Core ideas of NPM- reducing bureaucracy and regulation and increasing market orientation- are adopted to Finnish public sector reforms already since 1990s (Haveri 2002, 2015). The most critical public management scholars claim *"that differences between public and private organizations are so great that business practices should not be transferred to the public sector"* (Boyne, 2002), while on the other end, some scholars argue that *"all organizations are public"* (Bozeman 1987), only the level of publicness vary. Even though there are certain divergences between the logics of public and private organizations as discussed above, this study does not focus on differences concerning organizational forms, but concentrates on strategy as practice from three different viewpoints in public and private organizations.

1.2 Research questions

This dissertation intends to improve understanding about the role of sociomaterial practices, cognitive structures and processes, and paradoxes in the context of public and private organizations' strategy work, and the broader context of strategic change. The study aims to:

Make sense of the interplay between the sociomaterial, cognitive, and paradox views in the field of strategy as practice

This main agenda is approached from different perspectives by focusing on three specific research questions:

What kind of sociomaterial practices enable strategy work and how?

What is the role of cognitive view in strategic change and strategic decision making?

How do organizational paradoxes influence strategy work and strategic change?

Figure 1 illustrates how different views represented by the three research questions and five articles in this dissertation intertwine around strategy as practice research
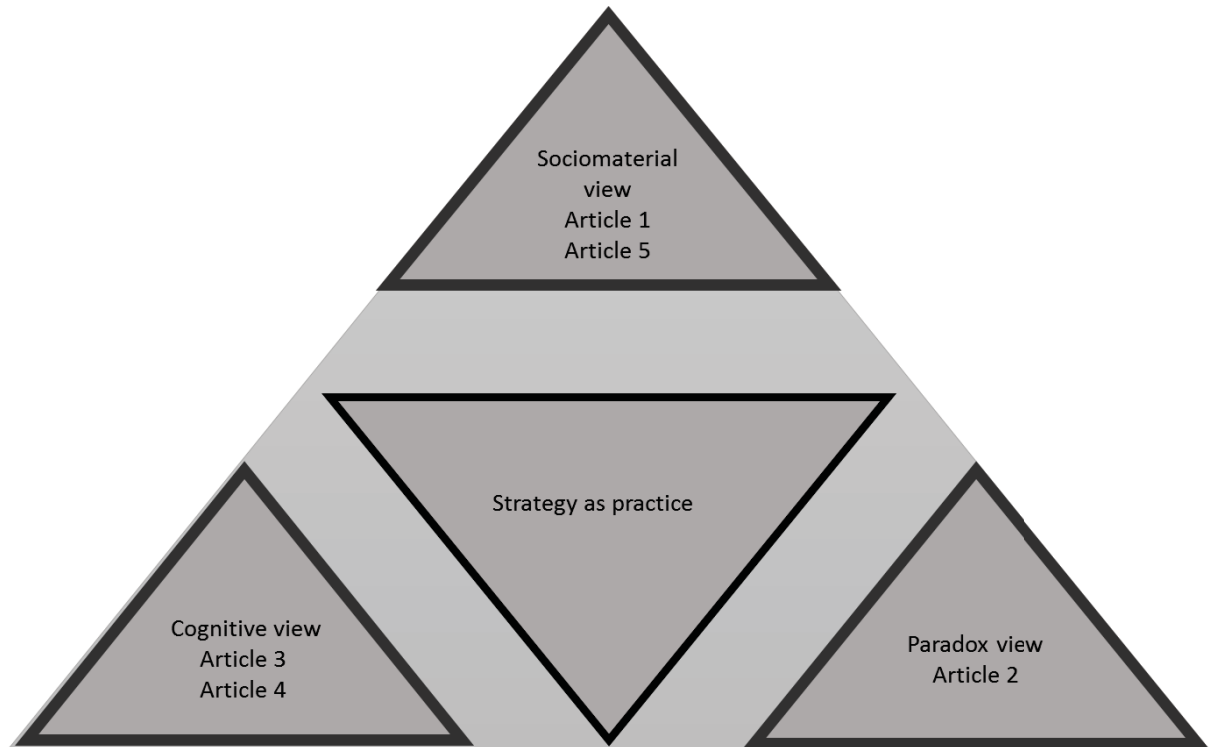
Figure 1. The framework of this dissertation.

The study intends to contribute to the strategy as practice (SAP) literature by utilizing the literatures on sociomaterial practices, organizational paradoxes, and the cognitive view, when studying datasets collected from both public and private organizations. This study contributes by 1) building a sociomaterial framework and illustrating the use of sociomaterial tools in a participative strategy process, 2) developing the concept and framework for sensemaking, cognitive structures and processes in strategy work 3) constructing a paradox framework and coping practices in strategy work and strategic change, and finally, 4) building a framework for the interplay between the sociomaterial, cognitive, and paradox views in the field of strategy as practice.

1.3   Structure of the dissertation

This dissertation includes two parts: The first, introductory part of the study, and the second part, which consists of five articles. The first part of the study includes research questions, the theoretical section, methodology and data, and a review of the results and conclusions (see figure 2). The purpose of the first part is to give the reader a conceptual background on the theories influencing this dissertation and to establish the theoretical contribution for the whole dissertation.
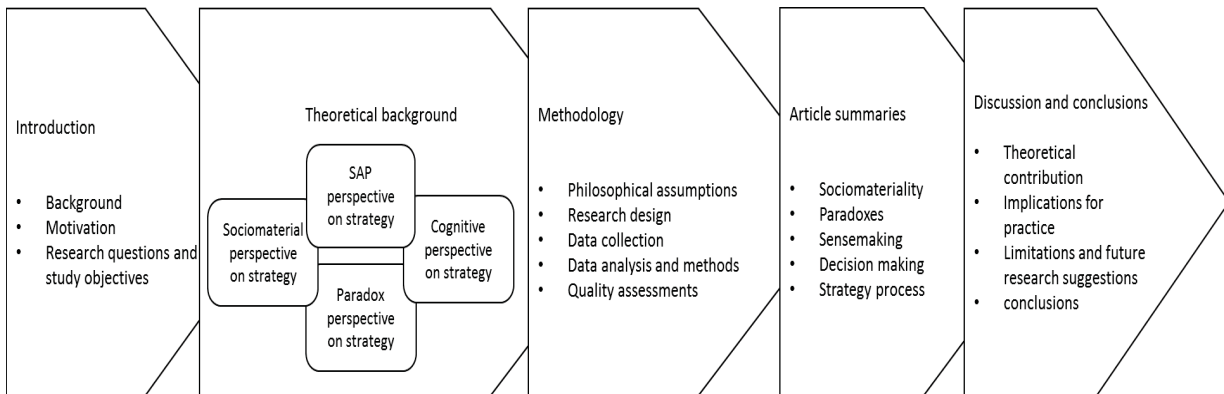
Figure 2.   Structure of the first part of the dissertation.

The second part contains five articles summarized in Table 1. Articles 1 and 5 are co-authored with Professor Marko Kohtamäki, Article 2 is co-authored with Professor Marko Kohtamäki and Associate Professor Rodrigo Rabetino, Article 3 is co-authored with Professor Marko Kohtamäki, Professor Vinit Parida, and Professor Joakim Wincent. Article 4 is sole authored. I am the first author in Articles 1, 2, 3 and 4, and the second author in Article 5, and had the main responsibility for data collection in Articles 1, 2, 4 and 5. I had the main responsibility for data analysis and writing the manuscripts, and I also managed the review processes in all the articles with the exception of Article 2. More precise description of the roles of researches in each article can be found from chapter 3.2, *empirical data collection and analysis* and from the appendix (p.74).

Table 1. A summary of articles included in the dissertation

	Article 1	Article 2	Article 3	Article 4	Article 5
Research focus	Sociomaterial practices in strategy work	Modeling the paradoxes in servitization	Retrospective relational sensemaking	Strategic decision making from a cognitive view	Participation and strategy tools in strategy work
Key concepts	Sociomateriality, strategy as practice	Paradox, servitization	Retrospective sensemaking, relational learning	Strategic cognition, decision making	Strategy as practice
Research strategy	Participative action-research in a single case	Comparative case study	Comparative case study	Conceptual study	Teaching case study
Research context	Strategy work in a public organization	Paradoxes and coping practices in servitizing companies	R&D offshoring relationship	Strategic decision making in organizations	Strategy work in a public organization
Data	Observations in strategy workshops, interviews	Interviews, secondary sources	Interviews, group interviews, secondary sources	Literature data	Observations, interviews, documentary data
Main findings	The sociomaterial view on the participative strategy process The use strategy tools	Paradox framework and a model for servitization Coping practices	Concept and framework for retrospective relational sensemaking Mechanisms of retrospective relational sensemaking	Framework for the cognitive process of strategic decision making and strategy work	Framework and tools for teaching strategy work

2   THEORETICAL BACKGROUND

This chapter describes the theoretical foundations of the dissertation. It starts with a review of strategy and practice theories, continue to the field of strategy-as-practice, and present the cognitive, paradox, and sociomaterial views connected to the strategy-as-practice. Finally, the interplay between different approaches is presented.

Strategy research has been approached from different angles; including those of planning, positioning, and emergent, for decades. Ansoff convinced academics with his complex strategic planning tool to devise strategy in organizations (Ansoff, 1965), where strategy was seen as the work of the upper echelons, and progressing with clear steps from analyzing and planning to implementing and controlling. In the early 1980s, Porter (Porter, 1980a, 1980b) introduced his generic strategies, where the main message was the positioning of the organization either with lower cost, differentiation or focus. Mintzberg (Mintzberg, 1978) introduced the social practices of strategy work to the discussion in the late 1970s and early 1980s. Mintzberg also showed the vulnerability of strategy planning by distinguishing the intended strategy and realized strategy, and highlighted the role of emergent strategy (Mintzberg & Waters, 1985). Despite Mintzberg's seminal work around social practices and emergent strategy as early as in 1980s, most of the strategy research has concentrated on strategic planning, implementation, and the process view on strategy, until recent decades, when the practice view on strategy started to challenge the dominant ways of thinking about strategy.

2.1   The practice view on strategy

Emerging from the contemporary social theory at the beginning of the 1980s, practice theory (Golsorkhi et al., 2015) was created "*to respect both the efforts of individual actors and the workings of the social*" (Whittington, 2006, p. 614). The practice turn was influenced by social theorists such as Bourdieu, Foucault, Giddens and others, and because of the multiple impulses and perspectives influencing the emergence of practice turn, one can claim that there is still no one unified practice approach (Schatzki et al., 2001). Nevertheless, practice theory was developed to underline the role of micro-practices while also offering critique of the views of individualists and societism as seeing either individual human actors or the large social picture, but neglecting the micro level (Whittington, 2006). The practice turn aimed to focus on both the individual and the social, thus enabling researchers to turn "*a sociological eye upon a practice*" (Whittington, 2002, p. 1). The practice approach, later labeled strategy as practice, challenged researchers to

study the activities and practices around strategy work (Vaara & Whittington, 2012).

2.1.1   The strategy as practice perspective on strategy

While conventional strategy research sees strategy as something organizations have, the strategy as practice (SAP) view takes a different standpoint and claims strategy *"as something people do"* (Jarzabkowski, 2005, p. 1; Johnson, Langley, Melin, & Whittington, 2007) and defines strategy as *"situated accomplished activity"* (Jarzabkowski et al., 2007, p. 7), where the role of practices, practitioners and praxis is at the center. The strategy as practice perspective is interested in the practices of strategy work, the real activity of managers, (Whittington, 1996), and focuses on social activities, practices, and processes, which takes part in strategy work and strategizing in and around organizations (Golsorkhi et al., 2015). Although strategy as practice is interested in the micro-level processes of strategy work, Seidl and Whittington (2014) caution scholars not to forget the larger phenomena and create 'micro-isolationism' (see also Bamberger, 2008), where the social context is forgotten and actors are studied in isolation (Jarzabkowski & Seidl, 2008).

The strategy-as-practice approach suggests researchers focus on the actual work of strategizing that strategists in organizations undertake (Whittington, 1996, 2003), because strategy work (strategizing) depends on practices that affect both development and the outcome of strategies (Vaara & Whittington, 2012). Considering practices as a means of involving numerous discourses, concepts, and techniques that enable strategy work, (Jarzabkowski & Spee, 2009), the strategy-as-practice approach sees practices as a dynamic entities that reflect, enable and produce strategy. Even though strategy tools are important, they are not at the center of SAP research, but are seen as tools to enable building a shared understanding about the strategy and activities needed (Vaara & Whittington, 2012).

As *"organizational strategies take place in collective actions by organizational members"* (Mantere, 2013, p. 1409), through strategy work and participation organization can build a shared language that enables a shared understanding and organizational identity to evolve (Balogun & Johnson, 2004; Mantere & Vaara, 2008). Strategy is seen as emergent, dynamic and social learning process (Mintzberg & Lampel, 1999), in which the role of practitioners, strategists, and practices is highlighted (Jarzabkowski, 2004; Jarzabkowski & Spee, 2009; Whittington, 2002).

2.1.2   Practice, practitioner and praxis

Strategy as practice research focuses mainly (albeit not exclusively) on three key concepts of strategy: practices, praxis and the practitioner. The three concepts are tightly interrelated (Giddens, 1984). Schatzki and colleagues define practices as "*arrays of human activity*" (Schatzki et al., 2001, p. 11), which Jarzabkowksi and Spee specify to be "*means of doing in which organizing is constituted, rather than static concepts or objects to be employed*" (Jarzabkowski & Spee, 2009: 82). Practices include material and social tools, through which strategy work is either enabled or inhibited (Dameron, Lê, & LeBaron, 2015; Jarzabkowski & Spee, 2009). Practices, the tools for strategy (Whittington, 2002) involve discourses (Fenton & Langley, 2011; Rouleau & Balogun, 2011; Vaara, Kleymann, & Seristö, 2004), routines (Feldman & Pentland, 2003; Hendry & Seidl, 2003), and material artifacts (Jarzabkowski & Kaplan, 2015; Jarzabkowski, Spee, & Smets, 2013; Orlikowski & Scott, 2008).

Practices structure the praxis (Suddaby, Seidl, & Lê, 2013), while praxis is the actual activity, the doing of practice, which is done by the practitioner (Whittington, 2006). Praxis includes all the work necessary when creating and executing the strategy, such as formal and informal board meetings and conversations, presentations and workshops (Hendry & Seidl, 2003; Whittington, 2006). Following Whittington (2006, p. 620), praxis "*is an artful and improvisatory performance*", of which components practitioners can change when facing complexities and ambiguities when doing the practice, praxis (Samra-Fredericks, 2003). Practitioners are described to include all those who are involved in strategy work (Vaara & Whittington, 2012). The role of practitioners has been emphasized in numerous studies in the field of practice (Mantere, 2008; Mantere & Vaara, 2008; Paroutis & Pettigrew, 2007; Rouleau, 2005). To summarize the studies of practitioners, the performance of the practitioner plays a central role in organization's strategy work.

The strategy-as-practice view on strategy is present in each of the articles included on the thesis. The dissertation focuses especially on practices in strategy work and strategic change both public and private organizations. Building on practice theory, thesis discusses of the role of sociomaterial practices, cognitive structures and processes, and paradoxical practices organizations undertake in their strategizing activities.

2.2 Cognitive view on strategy

Cognition is defined in the Oxford dictionary as *"the mental action or process of acquiring knowledge and understanding through thought, experience and the senses"* ("Oxford dictionaries," n.d.). Weick (1979) is describes cognition as a self-referential process in which people filter experiences through their cognitive frames, and choose the explanations that confirms their existence. The cognitive view on strategy has its roots in the social construction of reality (Berger & Luckman, 1966), where reality is seen as something socially constructed and socially shared to build common understandings. Members of an organization build a common understanding while interacting with each other, and by so doing, simultaneously construct organizational values, and rules, and make assumptions in interaction with each other (Huff, 1982; Nadkarni & Narayanan, 2007).

2.2.1 Cognitive structures and processes in strategy work

The cognitive view on strategy links cognitive aspects and strategy at both the individual and organizational levels in both individual and organizational level (Hahn, Preuss, Pinkse, & Figge, 2015; Narayanan et al., 2011; Walsh, 1995) via two constituents: cognitive structures and cognitive processes (Figure 3). Narayanan et al. (2011) identify three elements of cognitive structures: strategy frames, organizational routines and organizational identity. Strategy frames are also discussed in earlier literature by portraying the phenomena as a schema construct (Walsh, 1995), a mental model (Cannon-Bowers & Salas, 1993), a shared cognition (Cannon-Bowers & Salas, 2001), cognitive frameworks (Bogner, Barr, & Robinson, 2000) or as strategy frames (Narayanan et al., 2011). The phenomenon is also analyzed through cognitive maps developed through shared beliefs (Axelrod, 1976; Langfield-Smith, 1999). Strategy frames acts as *"cognitive filters that admit certain bits of information into the strategizing process while excluding others"* (Porac & Thomas, 2002, p. 178). Managers work history and experiences influence their cognitive frames, as a previous career affect both their perceptions of the reality and search mode (Beyer et al., 1997). If managers are used to working on internally-oriented activities, such as accounting or engineering, they tend to highlight the task orientation and internal efficiency. Hence, externally- or customer-oriented managers, for example marketing or R&D, tend to focus more on meeting competing demands of different stakeholders and therefore their cognitive frames are usually broader than internally focused managers (Hambrick & Mason, 1984; Maon, Lindgreen, & Swaen, 2008).

Cognitive structures; strategy frames, organizational routines and organizational identity, enable sensemaking by including executives beliefs about strategy work,

the environment, and the connected processes (Finkelstein & Hambrick, 1996; Porac & Thomas, 2002). To put it differently, cognitive structures acts as the tools for the sensemaking process (Bundy et al., 2013; Thomas et al., 1993). Although cognitive structures are seen as more stable behavioral patterns, both cognitive structures and processes evolve over time in organizations, and heavily influences organizations' strategy work and strategic initiatives (Narayanan et al., 2011).

Cognitive processes are described as including the things executives know, believe, and think they know (Finkelstein & Hambrick, 1996). Narayanan et al. (2011) divide cognitive processes into 1) strategy formulation, 2) strategy implementation, 3) strategic change and 4) organizational learning. This study adopts framework of strategic cognition (Einola, 2017), and defines cognitive processes as phases of the strategy work process, which includes knowledge acquisition, sensemaking, decision making, and strategic adaptation. Cognitive structures and processes are influencing in organizational strategizing, processes faster and more visible, while structures slower and more unconsciously.
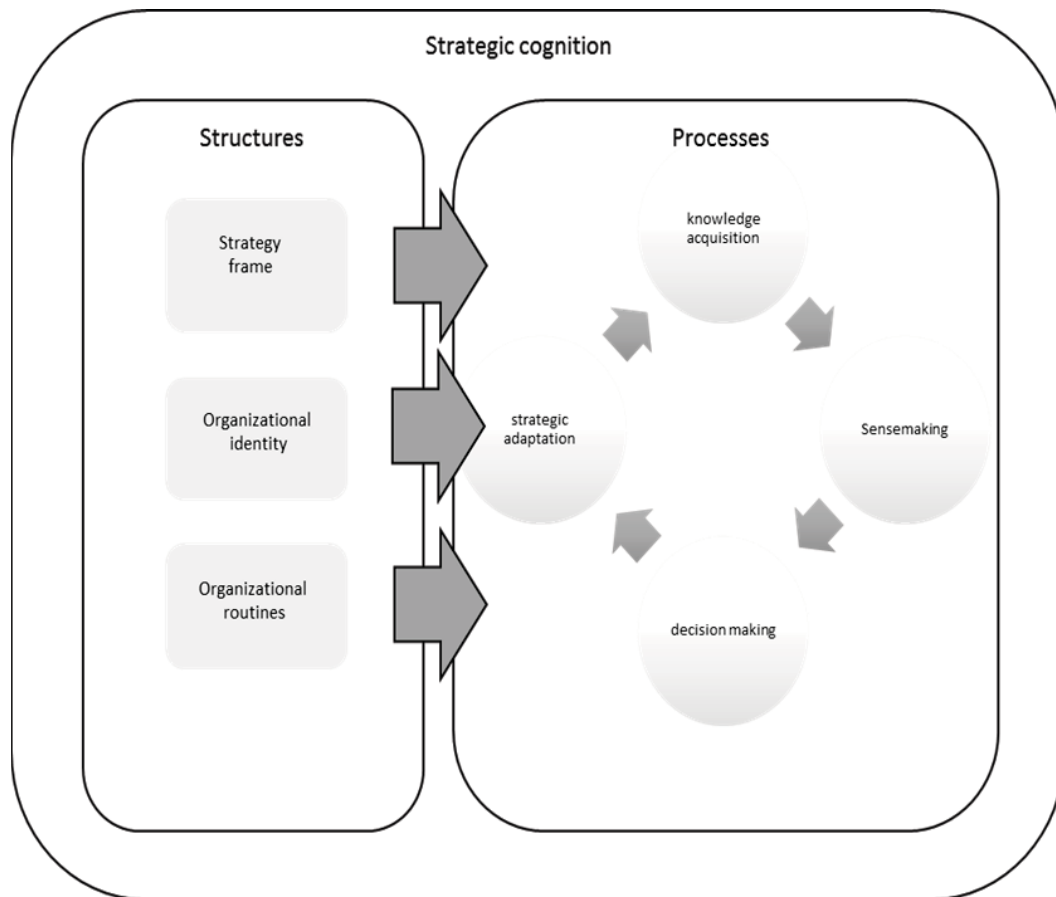
Figure 3.   The framework of cognitive structures and processes in strategy work.

2.2.2   Sensemaking

"We considered ourselves lost and waited for the end. And then one of us found a map in his pocket. That calmed us down.

We pitched a camp, lasted out the snowstorm and then with the map we discovered our bearing. And here we are.

The lieutenant borrowed this remarkable map and had a good look at it. He discovered to his astonishment that it was not a map of the Alps but of the Pyrenees".

<div align="center">(Weick, 1995, p. 54) originally by Miroslaw Holub</div>

The sensemaking poem above that Weick (1995) made famous, illustrates well the sensemaking process. In that process, people are retrospectively trying to answer for what they believe they ought to have been doing (Gioia, 2006; Mangham & Pye, 1991; Weick, 1995). Sensemaking happens through conversations and interpretations made in ongoing dialogical discourses, when trying to make sense of the reality and the surrounding world (Gephart, 1993; Giddens, 1984). Weick and colleagues. (2005, p. 409) claim that organizations and situations are talked into being. The interplay between action, talk, and interaction is at the core of the sensemaking process. The process of sensemaking enables organizations to build not only a shared language, but also shared thinking, and organizational learning (Nahapiet & Ghoshal, 1997). The sensemaking process involves actions and interpretations through which an organization aims to understand the surrounding world through retrospection (Weick, 1995).

Sensemaking spring into action when something unusual happens, while in routine business situations the organization proceeds as if on autopilot. When something peculiar awakens an actor from their routines, it triggers sensemaking and its first phase enactment to engage (Weick, 1988). In the enactment phase, actors start to notice and observe the ambiguous situation, and bracket things to bring order to obscurity and to group the notions formed following a peculiar happening (Weick et al., 2005). After noticing and bracketing, the second phase of sensemaking is selection. In the selection phase, labeling and categorizing reduces interpretations. In this phase, mental models and discussions frame the labeling process, to enable the construction of a plausible story about what has been happening (Tsoukas & Chia, 2002; Weick et al., 2005). After labeling, actors categorize possible explanations, which remain unconfirmed until the last sensemaking phase, retention, where the story gains greater stability. In the retention phase the plausible story is "*talked into being through the interactive*

exchanges of organizational members to produce a view of circumstances including the people, their objects, their institutions and history" (Taylor & Van Every, 2000, pp. 33–34; Weick et al., 2005).

Mangham and Pye (1991, pp. 27–28) describe sensemaking as a "*cyclical ongoing process of sense reading and sense wrighting"* (in the sense that a shipwright "wrights"). Sensemaking occurs in both individual and organizational levels, as sensemaking at the individual level shapes the organizational level sensemaking processes and outcomes (Rouleau & Balogun, 2011). In addition to retrospective sensemaking studies, scholars have put addressed to prospective sensemaking (Stigliani & Ravasi, 2012; Wright, 2005), sensegiving (Gioia & Chittipeddi, 1991; Maitlis & Lawrence, 2007), and sensebreaking (Mantere, Schildt, & Sillince, 2012). In this study, the sensemaking process is viewed through a retrospective lens (Einola, Kohtamäki, Parida, & Wincent, 2017), especially in a context of relational R&D offshoring, in where the organizational members are retrospectively trying to understand the phases of strategic change in relational R&D collaboration.

2.2.3   The cognitive view on decision making

Strategic decisions have for decades been seen as *"important, in terms of actions taken, the resources committed, or the precedents set"* (Mintzberg, Raisinghani, & Théorêt, 1976, p. 246). Strategic decisions and decision making is claimed to be crucial for the success of organizations because of its role in determining the course taken by organizations (Eisenhardt & Zbaracki, 1992), which explains the popularity of strategic decision-making research among strategy process scholars (Amason, 1996; Bromiley & Rau, 2016; Hutzschenreuter & Kleindienst, 2006).

Studies from the Carnegie school (March & Simon, 1958), argued that complex decisions are more affected by the interpretations of a decision maker, than the result of mathematical calculations or objective observations. To the alternative perspective of mathematical modeling of decision making, Simon introduced the idea of bounded rationality (Simon, 1957) to show how people are only partially rational, and that cognitive limitations affect to decision making. Building on the Carnegie School, Hambrick and Mason (1984) identified how manager's cognitive base, values, age, education, experiences and personalities heavily influence to their interpretations of a situation and the strategic choices they made. Pihkala and colleagues (2007) show systematic differences between the views of politicians and other decision makers when aiming to develop regional adaptation, and as a solution, they highlight the role visionary, leadership, and networking capability in development and decision making. Furthermore, Bromiley and Rau (2016) divide factors influencing the strategy process and strategic decision making into

social and behavioral and cognitive influences. Social and behavioral influences include constructs that influence a decision maker's behavior or actions, are natural to executives, and/or happen in interaction with each other. Cognitive influences relate to managers thinking and are connected to information processing (Bromiley & Rau, 2016).

While earlier research highlights the role of rationality and bounded rationality in decision making, recent and more managerial studies deepen the understanding of the cognitive biases influencing strategic decision making (Johnson, Scholes, & Whittington, 2008; Kahneman, Rosenfield, Gandhi, & Blaser, 2016). Biases, such as over optimism, loss aversion, champions' bias, the principal agent problem, and sunflower syndrome are recognized as affecting decision-making processes (Lovallo & Sibony, 2006). Real-time information can play a role in preventing biases and their impact, which is a topic discussed in this dissertation's fourth article. Organization-level data gathering, data analysis and the structured usage of data in decision making certainly enhances decision making. That said, as "*leadership of a complex organization is a shared activity, and the collective cognitions, capabilities, and interactions of the entire TMT* (top management team) *enter into strategic behaviors"* (Hambrick, 2007, p. 334)*,* no amount of data can ensure that decisions made are exactly the correct ones. This notion in mind, this study highlights the role of participation of practitioners in decision-making to ensure multifaceted phenomenon acquires different organizational perspectives to improve decision making.

2.3   Paradox view on strategy

"I always lie"

(Megarian school of philosophy, 4th century BC)

With no doubt, one of the most famous philosophical (logical) paradoxes is the Liar paradox presented by the ancient Greek philosophers. If the statement above is true, the speaker is always lying, and then the statement made is false, because the speaker told the truth.

The paradox view has started to challenge the more conventional contingency approach since the beginning of the new millennium. As contingency theory highlights either-or decisions, paradox theory appreciates the both-and approach in strategy work and decision making (Jay, 2013). While contingency theory suggests finding the most suitable fit for each situation, to choose among competing tensions, and to choose the option that matches strategy with structure

(Chandler, 1962), paradox theory aims to acknowledge the tensions and effort put into divergent demands simultaneously (Cameron, 1986; Lewis, 2000; Smith & Lewis, 2011). Paradox theory attempts to provide an alternative approach to the sometimes-oversimplified contingency approach.

Poole and Van de Ven (1989) categorize paradoxes on three different levels; the general, rhetorical and logical. The general level refers to all sorts of contradictions, and the term paradox is used loosely to show an interesting inconsistency. In rhetorical studies "*paradox designates a trope which presents an opposition between two accepted theses*" (Poole & Van de Ven, 1989, p. 563). The third level, the logical (or philosophical), has a meaning special to the paradox theory approach, which *"consists of two contrary or even contradictory propositions to which we are led by apparently sound arguments"* (Poole & Van de Ven, 1989, p. 563). The Liar paradox above is a classic example of logical paradox.

Smith and Lewis (Smith & Lewis, 2011, p. 382) define a paradox as comprising "*contradictory yet interrelated elements that exist simultaneously and persist over time*". Putnam and colleagues (2016, 72) expand the paradox definition of Smith and Lewis to be *"contradictions that persist over time, impose and reflect back on each other, and develop into seemingly irrational or absurd situations because their continuity creates situations in which options appear mutually exclusive, making choices among them difficult"*. Although these elements seem easy to handle while they remain in isolation, when appearing simultaneously, they are irrational and complicated (Lewis, 2000, Putnam, Fairhurst & Banghart, 2016). The paradox approach appreciates the complexity of organizational life and encourages organizations to work with and through those paradoxes. The contradictions may occur in the model of identities, practices, perspectives, or demands (Lewis, 2000). Paradoxes have interested scholars in different contexts, such as a) leader-member relationships (Lüscher and Lewis 2008; Denison, Hooijberg, and Quinn 1995; Smith and Tushman 2005), b) management teams (Amason, 1996; Smith, 2014) d) private contexts (Andriopoulos & Lewis, 2010; Jarzabkowski, Le, & Van de Ven, 2013; Sitkin, See, Miller, Lawless, & Carton, 2011), e) hybrid contexts (Jay, 2013), f) public organizations (Beech, Burns, Caestecker, MacIntosh, & MacLean, 2004; Haveri, 2006; Jarzabkowski & Sillince, 2007; Roberts, 2002) and g) social enterprises (Smith, Gonin, and Besharov 2013).

2.3.1   Organizational paradoxes

In this study, organizational paradoxes are viewed using the Smith and Lewis (2011) categorization, in that they are dividing into learning, organizing,

belonging, and performing. A learning paradox refers to the knowledge base on an organization. This form of paradox arises especially in organizational change situations. In such change situations, actors often fail to capture the new knowledge and incorporate it into existing mental models, routines and structures (Lewis, 2000). Exploration and exploitation (O'Reilly & Tushman, 2008) can be seen as one of the core elements of the paradox of learning (Smith, 2014; Smith & Tushman, 2005). The familiar old incremental development seems often a better, easier, and safer choice than the new and unknown. Explorative learning and radical innovation requires double loop learning (Agryris, 1991; March, 1991; Raisch & Birkinshaw, 2008). The core question of the learning paradox would be how to simultaneously support radical renewal and innovations while exploiting existing knowledge and resources.

The paradox of organizing also occurs particularly in periods of change. It appears from the tensions between stability and flexibility, collaboration and competition, and empowerment and direction (Lüscher & Lewis, 2008; Smith & Lewis, 2011, p. 383). The paradox of organizing deepens understanding of contradictory organizational processes. For example, organizational routines are important to managing the everyday life of organizations, while simultaneously routines often inhibit required changes. To balance between routines and change is paradoxical, yet central to success (Feldman & Pentland, 2003). The organizing paradox also occurs when thinking of organizational structures, as illustrated in this dissertation's second article. The tension between separation and integration when re-structuring a manufacturing company toward servitization was one of the most challenging among the companies studied. The core question of the organizing paradox would be how can we maintain efficiency and simultaneously achieve agility.

The paradox of performing arises from tensions between multiple goals and competing strategies. Often short-term performance, and the desire for financial excellence determine strategic choices in organizations, although it might be, that long-term sustainability requires balancing multiple dimensions and goals simultaneously (Cameron, 1986; Smith & Lewis, 2011). The core question of the performing paradox would be how to be successful in both the short- and long-term.

The paradox of belonging has its roots in collective and individual identity. The commonly used phrase *"think globally, act locally"* offers a good example of a belonging paradox. As organizations become ever more global, simultaneously their local identities foster tensions between different units and organizational levels (Lewis, 2000; Smith & Lewis, 2011). Employees are concurrently taking part

in different groups and tasks with different types of mental models and identities, as noticed also in this dissertations article around servitization paradoxes. These tensions between identities requires an organization to acknowledge and appreciate different identities inside the organization to be able to balance and to work with them. Thus, the latest research around identity suggest identity is a process instead of being some kind of stable position (Gioia & Patvardhan, 2012; Gioia, Patvardhan, Hamilton, & Corley, 2013). Even though identity might be more changeable than stable, competition between different identities inside of an organization seems to be inevitable. The main question of the belonging paradox would revolve around who we are as an organization, when we are continually changing.

This study connects the paradox view in strategy work by building a framework for paradoxes of servitization, and later on, integrating the paradox view with cognitive and sociomaterial view. Strategic change companies face during servitization fosters paradoxes, that organizations cannot solve by choosing either/or solutions as suggested in previous strategy studies. Paradoxes force organizations to balance between at first sight illogical aspects, such as having simultaneously product engineering mindset and building customer-centric solutions mindset, and exploiting the product business while simultaneously exploring the solution business. By doing so, companies enable both logics to grow, and aim to balance between the logics to appreciate and nurture both sides of the paradoxes.

2.4   The sociomaterial view on strategy

The research on sociomateriality has increased in the field of management in recent decades (Orlikowski, 2007; Orlikowski & Scott, 2008), and more specific also within the strategy-as-practice studies (Jarzabkowski, Burke, & Spee, 2015; Jarzabkowski & Kaplan, 2015; Jarzabkowski & Pinch, 2013; Vaara & Whittington, 2012). Orlikowski (Orlikowski, 2007, p. 1438) defines sociomateriality as *"the constitutive entanglement of the social and the material in everyday organizational life"*, in where research of the field aims to understand and describe the intertwined interaction between the social and material (Balogun et al., 2014; Jarzabkowski & Pinch, 2013). Orlikowski (2007) claims that for decades organization studies have overlooked the role of the material in organizing, although actors act and interact through material forms and spaces.

Strategy as practice research has previously focused mainly on discursive practices, before the field of sociomateriality introduced and enabled to elaborate

and combine technology aspects with practitioners and practices (Balogun et al., 2014). Sociomateriality is interested in the interaction between actors and objects, material artifacts; strategy tools, presentation tools, sticky notes, frameworks, and analytical software (Balogun et al., 2014; Jarzabkowski & Kaplan, 2015). Strategy as practice is particularly intrigued *"with the way that sociomaterial aspects such as tools, locations, and spatial arrangement configure strategic interaction between bodies and things"* (Balogun et al., 2014, p. 185).

2.4.1   Strategy tools as sociomaterial artifacts

Strategy tools have previously been seen mainly as either techniques to facilitate strategy work or as an analyzing instrument to aid knowledge production (Moisander & Stenfors, 2009). Strategy tools are defined as frameworks, concepts, models, or methods used during strategy work (Jarzabkowski & Kaplan, 2015; Sotirios Paroutis, Franco, & Papadopoulos, 2015). The most common strategy tools, such as the Five Forces (Porter, 1980a), the BCG matrix (Henderson, 1979), or the Strategy map (Kaplan & Norton, 2004) are used in organizations throughout the world to rationalize strategic decision making processes (Jarratt & Stiles, 2010), despite strategy tools being criticized as unhelpful or even harmful for organizations (March, 2006; Mintzberg, 1994).

Strategy tools can also been seen as sociomaterial artifacts, *"the materialization of strategic thinking; the technologies of rationality that shape managerial behavior during strategy work"* (Vuorinen, Hakala, Kohtamäki, & Uusitalo, 2017). Sociomateriality approaches the role of strategy tools through an interaction lens: the interaction between material, practices and practitioners enables sensemaking and builds a shared understanding (Balogun et al., 2014; Leonardi & Barley, 2008; Orlikowski & Scott, 2008).

2.4.2   Participation as sociomaterial practice

As Orlikowski (2007) suggests, all organizational practices can be seen as sociomaterial practices to highlight the fundamental interconnection between the social and material in organizational life. When a shared strategic understanding is built through interaction between material, the social and the actors themselves, through ongoing discourses conducted at different organizational levels (Gioia & Chittipeddi, 1991; Mantere & Vaara, 2008), it is crucial that actors are able to participate in those discourses. The true participation of actors promotes a better understanding of the necessary changes (Stensaker, Falkenberg, & Gronhaug, 2008, Vartiainen, Ollila, Raisio & Lindell, 2013). The participation of middle

managers not only helps implement organizational strategies (Kim & Mauborgne, 1998), but is also key when doing strategy work, because of their discursive sensemaking roles when *"performing the conversation"* and *"setting the scene"* (Rouleau & Balogun, 2011, p. 954). Previously strategy work was seen as a task only for the upper echelons, but more recent strategy research highlights that strategists, or practitioners, can be found at all organizational levels (Vaara & Whittington, 2012).

Although participation is central in strategy work (Collier, Fishwick, & Floyd, 2004), it does not necessarily lead to more rapid development of the organization (Jarzabkowski & Balogun, 2009). Mantere and Vaara (Mantere & Vaara, 2008, p. 342) recognized that *mystification, disciplining and technologization* are the types of discourses that inhibit effectively participation in strategy work. Also pseudo-participation seems to have only negative effects leading to wasting time, and resources and undermining morale (Bruhn, Zajac, & Al-Kazemi, 2001). While pseudo-participation seems to be problematic, so is the absence of participation, which often leads to nonalignment with shared strategic goals (Balogun & Johnson, 2004; Laine & Vaara, 2007; Stenvall & Virtanen, 2007). Ultimately, genuine participation seems to add collective commitment, which enables more effective strategic actions (Ashmos, Duchon, McDaniel, & Huonker, 2002). In addition, according to Mantere and Vaara, (Mantere & Vaara, 2008, p. 342) discourses on *"self-actualization, dialogization, and concretization"* enable and facilitate participation in strategy work. In this dissertation, sociomaterial practices are approached especially from the viewpoints of strategy tools and participation practices (Einola & Kohtamäki, 2016). The sociomaterial view is linked with cognitive and paradox views and shown the interplay between different views in the field of strategy as practice.

2.5   The interplay between the sociomaterial, cognitive, and paradox views

Though the sociomaterial, cognitive and paradox approaches are in growing interest among strategy as practice researchers, most of the scholars study these approaches in isolation. This dissertation aims to follow the recent calls for studies to bridge different theories and approaches in the field of strategy as practice and organizational theory (Durand, 2012; Suddaby et al., 2013). In this dissertation, the practice view on strategy is emphasized in each of the articles included in the thesis and in addition, strategy as practice is bridged with the sociomaterial, cognitive and paradox views. By doing so, this dissertation builds a unique

framework of the interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice.

Article 1 is discussing the role of sociomaterial practices in organizations strategy work, Article 2 is focusing on paradoxes and balancing practices in organizations strategic change, Article 3 is describing the sensemaking process and practices when outsourcing the R&D, Article 4 is concentrating on the role of cognition in strategy work and strategic decision making, and finally, Article 5 is portraying the participative strategy process as a teaching case study. Article 5 is included to the dissertation to demonstrate the extensive managerial contribution of the study. Dissertation as whole illustrates the role of the sociomateriality, cognition, and paradoxes on organizations strategy work, aiming to build a framework presenting and describing the interplay between different views in the field of strategy as practice. As practices include the social and material tools which enable or hinder the strategy work, the dissertation discusses both the social and material views.

In this dissertation, all actors of an organization are seen as practitioners, strategists, of strategy work, which highlights the interactive and participative role of strategy work. The role of the participation as social practice is crucial, as through participation organizational members commit their selves and their future actions in line with organizations strategy. Strategy work itself can be seen as trigger for sensemaking process aiming to build shared understanding and shared language about the strategic logic, actions and goals. The use of strategy tools as sociomaterial practices support building shared understanding by enabling the appearance of polyphonic views, which is highly important for both organizations identity work and organizational development more generally. Moreover, strategy tools also support to structure and bracket the diverse discussions toward a shared strategic understanding and decision making.

Strategy-as-practice is also viewed through cognitive lens, where cognitive structures (means for sensemaking) and cognitive processes of strategy work are playing the central role. Cognitive structures, socially constructed frames that evolve over time and influence to the strategy work (Huff, 1982; Nadkarni & Narayanan, 2007; Porac, Thomas, & Baden-Fuller, 1989), define the amount and quality of knowledge that is taken into account in organizations strategy work. This dissertation presents the important role of the cognitive aspects on strategy work by increasing understanding of cognitive structures and processes. In addition, this study links cognitive view into paradox view, in where cognitive structures are tightly interconnected with the paradox of belonging and the paradox of organizing, while cognitive processes are mainly interrelated with the paradox of

learning and the paradox of performing as demonstrated in the discussion chapter (see also Feldman & Pentland, 2003; Feldman & Rafaeli, 2002; Lewis, 2000).

This dissertation contributes to the strategy as practice literature by building a framework and model of the interplay between sociomaterial, cognitive, and paradox view in the field of strategy as practice. The framework shows the interconnectedness of sociomaterial, cognitive and paradox views, and describes rather complex roles of different aspects in strategy as practice. The framework and the contribution in detail is elaborated in chapter 5.1*, discussion and theoretical contribution.*

3   RESEARCH DESIGN

This section describes the research design of the thesis consisting of three elements: 1) Philosophical assumptions, which emphasize the underlying basic beliefs guiding this thesis, and explaining my 'worldview' (Burrell & Morgan, 1979, p. 24; Guba & Lincoln, 1994, p. 107), 2) empirical data collection and analysis, and 3) quality assessment.

3.1   Philosophical assumptions of the study

This chapter briefly reviews the different relevant philosophical approaches and explains the underlying philosophical assumptions of this study; the paradigm and the ontological, the epistemological, and the methodological choices made. In their seminal work, Burrell and Morgan (1979) identified four paradigms: the *functionalist, radical humanist, radical structuralist and the interpretive,* by identifying the meta-theoretical assumptions in organization theorists' works. Furthermore, Cuba and Lincoln defined a paradigm as a basic belief system, which they categorize into five different paradigms: *positivism, postpositivism, critical theories, and constructivism* (earlier coined as naturalistic inquiry) and since 2005, the *participatory paradigm* (Guba & Lincoln, 1994; Lincoln & Guba, 1985; Lincoln, Lynham, & Guba, 2018). Johnson and colleagues (2006) propose four modes of engagement for management research; *positivism, neo-empiricism, critical theory, and affirmative postmodernism.* In their categorization they avoid using the term paradigm to follow rigor Kuhnian sense, in where Kuhn (Kuhn, 1970) criticized management research of absence of paradigmatic development because of diverse theoretical and methodological approaches used in the field (Johnson, Buehring, Cassell, & Symon, 2006). Despite the paradigm categorization differences between social theorists, a fundamental foundation of the paradigm remains the same; to guide the researcher both ontologically and epistemologically with the methodological choices made in the study (Burrell & Morgan, 1979; Guba & Lincoln, 1994).

The positivist paradigm views the only true or valid knowledge to be scientific knowledge found in research, where both the researcher and the object of the research are independent from each other, and the findings of the research are observable, quantifiable, replicated and "true" (Guba & Lincoln, 1994; Johnson & Duberley, 2003). The positivist paradigm refers to, or reflects, Burrell's and Morgan's (1979) functionalist paradigm, where the studied subject is approached from the objectivist, realist and positivist points of view, and the role of the researcher is to collect data and analyze it through an objective approach. The roots

of the functionalist paradigm are in the work of French sociological positivists, such as Comte (Burrell & Morgan, 1979; Johnson et al., 2006). The positivist paradigm-also referred to as the functionalist paradigm- has been the dominant paradigm in the physical and social sciences for centuries. Where the positivist paradigm's ontological assumption relies on naïve realism, postpositivism has its ontological basis in critical realism, where objective reality can only be understood as incomplete. The postpositivist paradigm assumes that a researcher's history, background, knowledge et cetera can affect their observations, and aims to affect the biases created by the researcher (Guba & Lincoln, 2005).

The paradigm of critical theories (see also Burrell & Morgan 1979, the radical humanist) assumes, that reality is shaped by social, cultural and economic issues over time (Guba & Lincoln, 1994; Lincoln et al., 2018). The critical theories paradigm has its ontological roots in historical realism, in where virtual reality is shaped by social, political, cultural, and economic values (Lincoln et al., 2018). The role of the researcher is transactional and subjectivist, and the values of the researcher influence the research.

Under the interpretive paradigm, (Burrell and Morgan 1979) (see also Lincoln & Cuba 1994, on constructivism and Johnson et al. 2006, on affirmative postmodernism), realities are socially constructed, mental, and specific in their real nature (Berger & Luckman, 1966). The interpretive paradigm holds that there is no absolute, true reality, but reality is constructed and reconstructed in and around individuals. The researcher and the object of the research interact, and by doing so, create findings as the research proceeds. The deepest aim of the interpretivist is to understand the "*social world at the level of subjective experience*" (Burrell & Morgan, 1979, p. 28; Lincoln et al., 2018).

Burrell and Morgan (Burrell & Morgan, 1979, p. 1) state that "*all theories of organization are based upon a philosophy of science and a theory of society*". Furthermore, they categorize philosophical assumptions as ontology, epistemology, human nature, and methodology. Ontology answer the question "*what is the nature of reality*" (Blaikie, 2007, p. 13); meaning is the reality objectively and externally real, or produced through individual, subjective, cognition (Burrell & Morgan, 1979). Seidl and Whittington (2014) divide strategy-as-practice research to tall (meso and macro-levels included in study) and flatt (horizontal) ontologies, which illustrates the nature of ontology in a captivating way. Furthermore, epistemology is the theory of knowledge, which in social sciences answers the question "*how can social reality be known*" (Blaikie, 2007, p. 18), or as Guba and Lincoln (Guba & Lincoln, 1994, p. 108) put it: "*What is the nature of the relationship between the knower or would-be knower and what can*

be known?" Because of the interconnection between ontological and epistemological assumptions, the answer to later question is dependent on the answer to the prior one.

This dissertation, studying the interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice follows the interpretive paradigm, where reality is socially and symbolically constructed in organizational realities, and the knowledge is built on the interaction between organizational members (Gioia & Pitre, 1990). This dissertation follows the interpretive paradigm, but also recognizes and appreciates both the multiparadigm perspective (Gioia & Pitre, 1990; Lewis & Grimes, 1999) and the cross-paradigm view (Poole & Van de Ven, 1989). The field of organization studies acknowledges the narrowing aspect of any single paradigm when studying the nature of complex organizational reality (Burrell & Morgan, 1979; Gioia & Pitre, 1990).

While the interpretative paradigm guides this study, its ontology relies on subjectivist and relativist view of reality, where reality is local and specific and co-constructed with others (Berger & Luckman, 1966; Guba & Lincoln, 2005). The epistemological stance on the grounds of knowledge relies on subjective and interactional assumptions. These ontological and epistemological choices also reflect the researchers' position on the subject studied, which is rather active and facilitative (Lincoln et al., 2018).

Looking at each of the articles separately, might reveal some variation in their philosophical underpinnings: Article 1, studying the role of sociomaterial practices, deploy an action research- type of approach, which could be seen as bridging the paradigm boundaries (Gioia & Pitre, 1990) between constructivism and participatory paradigms (Guba & Lincoln, 2005). Article 2 as comparative case study, have elements from both interpretivist and functionalist (or positivist) paradigms, using paradox view as theoretical lens and comparing multiple cases in rather objectivist manner. Article 3 uses comparative case study methodology to develop a framework for understanding retrospective relational sensemaking in R&D offshoring relationships. If following Welch et al. (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki, 2011) both Articles 2 and 3 can even be seen as demonstrating a positivist philosophical orientation, as both articles create a conceptual model based on a comparative case study. In addition, previous theoretical frameworks play an important role in both articles. Nevertheless, both sensemaking and paradox approaches can be viewed as dynamic phenomena, and because of the nature of the approaches, the interpretative paradigm is present as well.

Article 4 is a conceptual, albeit interpretative paper that aims to make sense of strategic decision making using a cognitive view. The article is based on prior literature and interpretations of discussions with managers (formal interviews and informal discussions in workshops etc.) in different levels and different organizations during many years. Article 5 is a teaching case study from the strategy work of a city organization. The aim of the article is to describe the strategy work, the process, and the tools clearly, so that the case can be used when teaching strategy to students. Therefore, the underlying philosophical assumptions are not self-evident, although during the actual work, the interpretative and participatory paradigms were applied.

To conclude the discussion of the philosophical assumptions of my study, I position my dissertation within interpretivist worldview appreciating multiparadigmatic approaches. The main objective of this thesis has been to understand and describe the interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice. The thesis is based on the nature of the world being co-constructed in social realities rather than objectively true: hence, the interpretative paradigm, relativist ontology, and transactional epistemology is applied. Finally, as a researcher, and as a person, interpretative worldview represents the nature of the world for me, and therefore, the interpretative foundation *feels the most real and right* for my thesis.

3.2   Empirical data collection and analysis

The articles included in this dissertation utilize three different qualitative datasets, which I explain in more detail in this section alongside the analyzing processes behind each of the articles. Table 2 summarizes the methodological choices made in the study.

The data for Article 1 were collected during a strategy process in a public-sector organization in the years 2012-2015. The strategy research project started in November 2012 with top management team strategy workshops. I was familiar with the organization due to prior working experience in one of its divisions. At the beginning of the research process, I was permitted to attend top management team strategy meetings and take notes but was prohibited from participating in those discussions. After a few months of observation, my role increased as I became a facilitator and developer in the city's strategy process. At that point, action-research –type approach was selected to align with my profound interaction with the participant organization, which was critical to gain in-depth insight into organizational practices. This active development role enabled the collection of in-

depth observation data between the years 2012 and 2015. I acted as an action researcher and facilitated 95 participative strategy workshops at different organizational levels and maintained a field diary that was updated after the workshops. A strategy workshop usually lasted around three hours, although there were also workshops that lasted all day. The diary, the main author's notes and documents from the strategy workshops provided 350 pages of data.

The data also include three rounds of semi-structured interviews I conducted in January 2013, in September 2013, and the fall of 2014, a total of 26 interviews. The interviews lasted between 42 minutes and 122 minutes. All interviews were recorded and fully transcribed, producing 537 pages of transcribed text. In the beginning of the first-round interviews interviewees were asked to relate their educational and work history. Subsequently, the interviewees were asked to discuss the development and success of the case organization, and the possible reasons behind that. The semi-structured part of the interview consisted of questions around strategy and the development of the city organization. In the second round of interviews, the questions addressed the strategy work of the city of Vaasa, the strategy tools used in the process and the experiences of the strategy process itself. The third round of interviews included strategy questions and in addition asked interviewees to recount critical incidents (Carvalho & Brito, 2012; Gremler, 2004) in the case organization within the last two years and to elaborate further on the processes around those events. I believe that my active development role and trustworthy relationships with organizational members at multiple levels facilitated the collection of in-depth data from the case organization. In addition to strategy workshops and interviews broad documentary data was also collected. The data include previous strategy documents, annual reports, and personnel reports. As one of the main strengths of a case study is the possibility to use many sources of data and many techniques in collecting and analyzing it (Dooley, 2002), article 1 utilizes this feasibility extensively.

The reasoning of the study is abductive, characterized by the interplay between practice and theory and the social world experienced by its members from the inside. The sociomaterial practices, the structure of strategy workshops, ways of participation and strategy tools were all evolving and developing during the action-type- research process building the shared understanding of both the city's strategy and its strategy process. To give an example; the purest form of the value curve- strategy tool places an organization in relation to its competitors and considers the "blue ocean" that might be found. However, the city organization decided to use it differently and evaluate its current state of affairs and set targets for value propositions instead of comparing itself against other cities.

The data for the second article were collected in between November 2012 to December 2016 as a part of research project on industrial services. We conducted interviews in four case companies, focusing primarily on companies' servitizing practices, processes, and the challenges they face during their servitization attempts. To guarantee anonymity, the companies are coded in the article as company A, B, C, and D. In company A we conducted 11 interviews, in company B 11, in company C 12, and in company D 12 interviews, a total of 46 interviews. My role was mainly to conduct interviews in companies A and C, although I also conducted few interviews in company D. All the interviews were recorded and transcribed, producing 896 pages of transcribed text. The interviewees were selected from the different organizational levels and business units based on their experience in the case company, meaning that the interviewees had sufficient experience in the organization to be able to retrospectively report on complex and lengthy processes in and around servitization. The interviews were semi-structured and asked interviewees to describe the companies' long servitization processes and practices. Often interviewees related the difficulties their companies were facing throughout their servitization efforts. That being case, interviewees were invited to discuss the possible solutions. The data were analyzed by utilizing the Gioia method (Corley & Gioia, 2004). Initially we coded the data using the interviewees' exact words and phrases and finding patterns, to build first order categories. As we progressed on second order themes, we found the problems companies were facing in the servitization process were often contradictory and even paradoxical. Going back and forth between theory and practice (Lynham, 2000), the main paradoxes were identified from the second order categories. The reasoning of the second article is abductive, although one might say that during the research process researchers also took somewhat realistic steps. Nevertheless, as abductive reasoning develop theory by going back and forth between theory and data (Eriksson & Kovalainen, 2008) and includes the meanings and interpretations that people use in their everyday lives (Blaikie, 2007), this study builds on abductive reasoning. Reiteration and continuous refinement typical in multiple case studies (Dooley, 2002) was present in this study.

Article 3 studies the retrospective sensemaking process in R&D collaboration in two Swedish customer companies and their four Indian suppliers. Article 3 adopts abductive reasoning (Eriksson & Kovalainen, 2008) and exploratory multiple case study research design (Eisenhardt, 1989). Article utilizes 56 interviews and four focus group interviews from both sides of the relationship. The Swedish customer companies are allocated the following pseudonyms to ensure their anonymity: Alphacorp and Betacorp, and the four Indian suppliers are labeled Delphitech, Nippon, Alpinetech and Grippen. During the first stage, 22 interviews were conducted in the customer companies, 12 at Alphacorp and 10 at Betacorp. Those

interviews concentrated on the challenges, actions, and learning perspectives on the customer side of the relationships. During the next stage data were collected in the supplier companies Alpinetech, Nippon, Delphitech and Grippen to elicit their perspectives on the early stages of R&D collaboration. In all, 34 interviews from both the managerial and the operational levels of the supplier companies concentrating on the key events and challenges, were conducted. Finally, four focus group interviews, two in each customer company, were arranged to deepen the understanding of the relationships and offshore R&D collaboration. All interviews were recorded and fully transcribed. The data were analyzed using the constant comparison technique (Nag, Corley, & Gioia, 2007), which allowed us to identify patterns from the dataset. We began coding our data by using common words and phrases the interviewees used. This phase established the basis for the first order items. In the next phase we focused on analyzing the first order items to find linkages between items. That analysis generated 14 second order themes at the higher abstraction level. In the final stage, we moved between the second order themes and theory to create more abstract third-order dimensions. The data also include observational data from operational and strategic meetings and archival data to support the interview data.

Article four is a conceptual study, a book chapter, and as such, does not include interview data, but builds mainly on prior literature. Nevertheless, while writing this book chapter, I utilized the interview data collected for the first and second articles especially when stressing on the biases of decision making and building the concept of strategy work. In addition, the data (observations and interviews) collected in business intelligence research project during 2014-2016 have been feeding my thoughts about strategic decision making and the role of BI-information. Finally, I believe that informal discussions with managers in different organizations have also been influencing to the thoughts wrote down in this book chapter.

Article five is a teaching case example included in book Exploring strategy (Johnson, Whittington, Scholes, Angwin, & Regnér, 2017). The article has managerial contribution and describes the participative strategy process in the city of Vaasa in the years 2012-2015 and as such, does not include interview data. However, the massive data collection described within the first article, has been the profound basis for building the concept of strategy work in city of Vaasa, and for writing this book chapter.

Table 2.   The summary of methodological choices of the study

	Article 1	Article 2	Article 3	Article 4	Article 5
Title	Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategiatyössä	Modeling the paradoxes in servitization	Modeling retrospective relational sensemaking in the context of R&D offshoring	Making sense of strategic decision making	Participative strategy in the city of Vaasa
Research design	action-research – type study	comparative case study	comparative case study	conceptual study	teaching case study
Methodological approach	hermeneutical	hermeneutical	hermeneutical	-	-
Reasoning	Abductive	Abductive	Abductive	-	-
Data	-95 strategy workshops - field diary notes - 26 interviews -documentary data	-56 interviews - observational data - archival data	-46 interviews - observational data - archival data	-prior literature -interviews conducted in different research processes	-strategy workshops - interviews -documentary data

3.3   Quality assessments

The criteria for evaluating the quality of qualitative research has debated for decades (Johnson et al., 2006; Lincoln & Guba, 1985; Welch & Piekkari, 2017). The traditional positivist view, where the main emphasis has been the evaluation of reliability and validity, has been utilized in the vast majority of qualitative studies, regardless of the nature, the paradigm, underlying the study. Lincoln and Cuba (1985) challenged the positivist quality evaluation convention as early as in 1985 and proposed that the criteria for interpretative studies should be credibility, transferability, dependability, and confirmability. After a few years Guba and Lincoln (1994) decided those criteria might have too many parallels with positivist approaches, and proposed authenticity criteria of fairness, ontological authenticity, educative authenticity, catalytic authenticity, and tactical authenticity. Although (or because) the criteria for evaluation is created by the research community itself (Welch & Piekkari, 2017), there is no consensus on the criteria. Where Gioia and colleagues (2013) emphasize the trustworthiness criteria, Schwandt (1996) proposes to abandoning criteriology for regulative norms entirely. As the opinions on quality criteria varies between scholars, Johnson and colleagues (Johnson et al., 2006) underlines the role of philosophical positioning when applying the evaluation criteria for a study.

Bansal and Corley (2011) in their editorial for the *Academy of Management Journal (AMJ)* encourage qualitative researchers to target flexibility and creativity and to underline authenticity, transparency, reflexivity, and engagement in their qualitative studies. In this study, I follow the notions of Bansal and Corley to explain the quality assessments of the study. All interviews used in this thesis were recorded and fully transcribed, and the analysis was made by two or more researchers, which helped to deepen the understanding of the phenomena through an iterative interaction process between the researchers emphasizing the reflexivity. The interviews were complemented with secondary sources, such as internal documents, company presentations, and annual reports to enhance the understanding and confirm the analysis and to ensure authenticity.

The data and analysis methods are not only described in the articles but also designed to offer valuable descriptions of the phenomenon and the findings to increase transparency. Especially in articles 2 and 3 the voice of the interviewees is central showing the evidence for our conclusions and offering rich descriptions to emphasize the transparency of the studies. If the voice of the interviewees is central in Articles 2 and 3, in Article 1 voice of the researcher plays active role, which Bansal and Corley (2011) term the second important aspect of transparency. Being action research, the role and voice of researcher has been present throughout the research process and has deeply influenced all phases of the process. The researcher voice is coupled with reflexivity, which asks the researcher to question herself, and question who she becomes in the interaction with respondents (Guba & Lincoln, 2005). I am deeply grateful for not having to undertake this journey of becoming alone, but with experienced colleagues, with whom I have repeatedly had the possibility to reflect on empirical, theoretical, and philosophical questions within different articles. Reinhatrz (1997) argues that we researchers have three types of selves we bring with us: research-based selves, brought selves, and situationally shaped selves. These different selves with distinctive voices we as researchers bring into action in the different research settings. Especially when collecting the data from City of Vaasa, where the role of researchers was more active practitioner than distant researcher, these different selves brought into situations were present continually. Ongoing dialogues with co-author and officials in City of Vaasa were important to reflect critically self or different selves and roles, actions undertook, and observations made. When co-authoring the Articles 2 and 3, reflexivity took place especially in data analyzing process. As the data for these papers consists vast amount of interviews collected from different companies, reflecting repeatedly the different interpretations of researchers, was the key to stress the validity of the results.

The forth important quality aspect according to Bansal and Corley (2011) is engagement, the ability to describe the discovered insight and the way it was deepened further. In Articles 2, and 3, the process of finding the insight is described in detail by using the "Gioia- method" (Corley & Gioia, 2004). The visual model of the method illustrate the data analysis process and the logic of analysis, the engagement. Method not only helps reader to follow the choices made in data analysis phase and but also shows evidence for conclusions. Furthermore, interviewees direct quotations provided in articles both portray and elucidate the authentic sayings and narrates the perceived reality in case organizations.

The rigorous quality assessments - the data collection, analysis and methods- of this study are discussed in more detailed manner in each of the article included to the dissertation.

4 REVIEW OF THE RESULTS: ARTICLE SUMMARIES

The aim of this dissertation is to make sense of the interplay between sociomaterial, cognitive and paradox views in the field of strategy as practice. This objective is delivered by the five articles following the main body of this dissertation, each of which approach the research agenda from different viewpoints. The summary of each article is provided below in order to give reader a short introduction to the research questions, data, and the contributions of each article.

4.1 Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategiatyössä

While competition drives municipalities to compete with each other to attract companies and a skilled workforce and to achieve competitive advantage, it simultaneously generates the need for strategic thinking in city organizations. Despite the obvious need for strategy work, there has still been criticism of the strategy work undertaken and the strategy tools utilized in public-sector organizations. On the other hand, researchers have directed their attention towards the social and discursive aspects of strategy work in the public sector, such as participation and power (Mantere & Vaara, 2008; Vaara, Sorsa, & Pälli, 2010). Far less attention has been directed to the sociomaterial practices used as part of organizations' strategy work.

Article 1 (translated: The role of sociomaterial practices in the strategy work of city organization) aims to explain the role of sociomaterial practices in municipality's strategy work. The article focuses on analyzing the role of sociomateriality in strategy work in the city of Vaasa, a medium-sized city in Western Finland. Data were collected during the city of Vaasa strategy process in the years 2012-2015. Data consist of large observation data from over 90 strategy workshops and interview data from 26 interviews.

This article contributes to strategy-as-practice research, and more specifically to sociomateriality research in the context of public organizations. The concept of sociomateriality aims to describe the continuous intertwined interaction between the social and material (Balogun et al., 2014; Jarzabkowski et al., 2015; Jarzabkowski & Pinch, 2013). At the center of sociomateriality research are strategy tools, analytics software, sticky notes, presentations tools as well as meetings, strategy workshops, and the interaction between situations, actors and material (Balogun et al., 2014; Jarzabkowski & Spee, 2009; Kaplan, 2011). Sociomateriality scholars sees the role of tools as part of the interplay between

material, practice and practitioner, through which actors build interaction (Leonardi & Barley, 2008; Orlikowski & Scott, 2008). Hence, strategy tools just like strategy workshops can be seen to be important not only in the sensemaking process, but also in structuring discussions and achieving results (Jarzabkowski & Kaplan, 2015).

In composing the article, researchers adopted an action-research-type approach and facilitated over 90 participative strategy workshops in the city of Vaasa organization in all divisions and at various organizational levels. Sociomaterial strategy tools were used to facilitate the discussions, to structure the process and to build shared understanding. The strategy tools used were: 1) the strategic capabilities framework, 2) a value curve, 3) a strategy map (figure 4) and 4) a goals, measures, and strategic initiatives-table. The strategy tools and the process evolved and developed according to the feedback participants gave.

The article builds a framework of a participative strategy process including four different strategy tools that can be used at different organizational levels during a participative strategy process. In addition, the article describes sociomaterial practices that can be utilized in strategy work. Finally, the article clarifies the meaning of participation in strategy work and in strategy implementation.
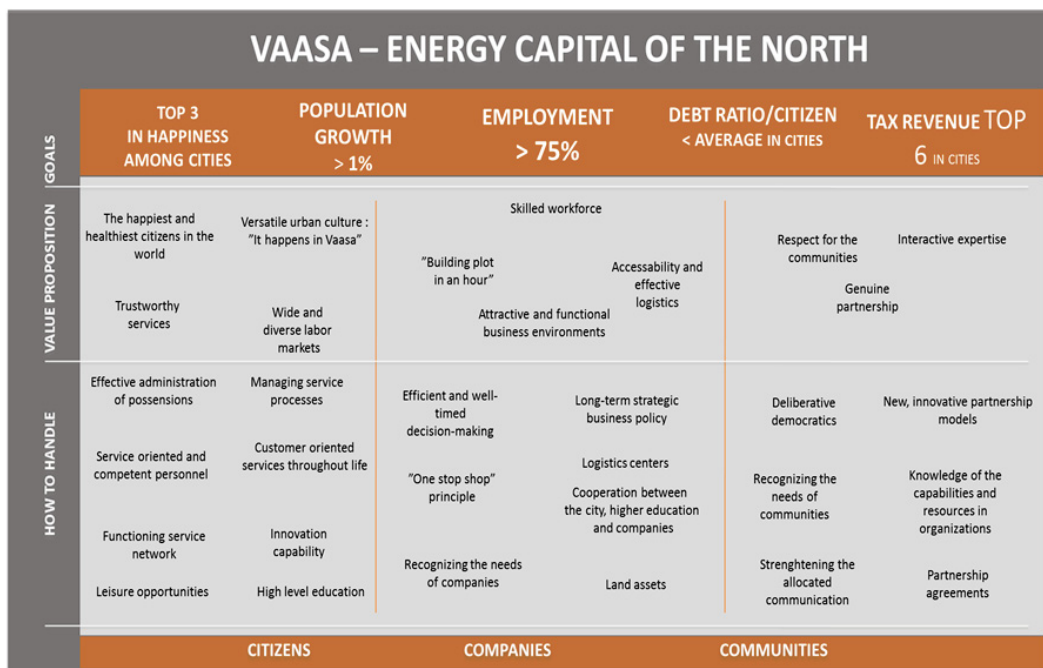
Figure 4.   Strategy map as a sociomaterial tool

4.2   Modeling the paradoxes in servitization

Within the last decade manufacturing companies have been expanding from standardized products and add-on services toward customized solutions while seeking new business opportunities. Although studies have shown that manufacturers can achieve significant advantages when servitizing (Gebauer & Fleisch, 2007), companies seem to struggle with it. Previous studies have identified challenges that companies are facing in the course of their strategic change from being a product-oriented company toward becoming a service-oriented company. However, most studies examine the phenomenon through the contingency theory lens.

Article 2 aims to provide an alternative lens (Lewis, 2000; Smith & Lewis, 2011) on the challenges of servitizing by illustrating how organizational paradoxes challenge the servitization processes in manufacturing companies. Strategic change toward servitization forces companies to balance two different logics: standardized products (+add-on services) and customized solutions (+ advanced services). Article 2 analyzes the paradoxes and paradoxical practices that emerge when a manufacturer of standardized products and add-on services aims to expand to customized solutions. The study analyzes 46 interviews in four case companies and additional documentary data.

The article improves the understanding of how organizational paradoxes emerge and influence servitization and also develops a paradox framework (figure 5, applied to servitization from organizational paradoxes, Smith & Lewis, 2011,) by creating a model to illustrate how the paradox approach increases the knowledge of the paradoxical tensions between products and solutions. Moreover, this article addresses the role of the coping practices applied to manage organizational paradoxes.

Learning::Belonging	Learning	Learning::Organizing
Explorative learning towards solutions while preserving product engineering mindset	Continuously developing product business vs. explorative learning towards new solutions business	Explorative learning towards solutions while maintaining the separated product and service organizations
Belonging	Belonging::Organizing / Learning::Performing	Organizing
Having product engineering vs. customer-centric solutions mindset	Preserving product engineering mindset while organizing to support solutions / Explorative learning towards solutions while maintaining short-term goals to support also product and service performance	Separating product and service business units (or departments) vs. simultaneously co-operating for design and delivery of solutions
Belonging ::Performing	Performing	Performing::Organizing
Maintaining product engineering mindset while developing long-term goals to support customized solutions	Emphasizing short-term goals in product businesses vs. adopting long-term financial goals for solutions	Setting long-term goals to support customized solutions while maintaining separate product and service organizations

Figure 5.   Organizational paradoxes in servitization: balancing product and solution logics

4.3   Modeling retrospective relational sensemaking in the context of R&D offshoring

Although retrospective sensemaking has been reported to be relevant especially in contexts where complexity and uncertainty of tasks inhibit effective learning (Weick et al., 2005), it has remained largely unstudied in the context of R&D offshoring.

Article 3 tried to narrow that research gap by modelling retrospective relational sensemaking occurrence in R&D offshoring between manufacturers and their suppliers. This study developed a framework and model for understanding and accepting the role of retrospective relational sensemaking in offshore R&D relationships. To do so, the study adopted a comparative case study approach and analyzed data from 56 interviews from both sides of the relationship. The interviews revealed details of offshore R&D offshore between two Swedish international companies and their four offshore R&D partners.

The article developed the concept and synthesized an explicit framework to improve the understanding of how a retrospective relational sensemaking process unfolds in an R&D offshoring partnership (figure 6). Furthermore, the article aimed to provide information about the practices and mechanisms of relational sensemaking, the article demonstrates how retrospective sensemaking brings order to confusion through interpretation and collective explanation of what actually occurred in the studied relationships (Pye, 2005; Weick, 1995).
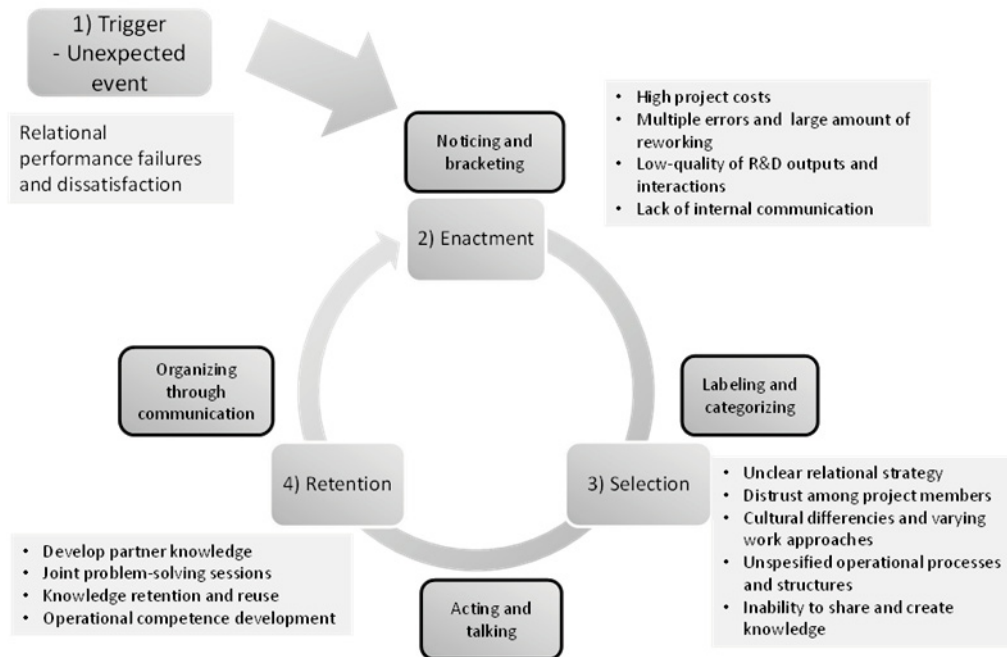
Figure 6. The relational sensemaking process in offshoring relationships

4.4 Making sense of strategic decision making

As business environments are rapidly changing, the role of real-time strategic decision making seems to be crucial. While strategic decision making is complex in itself, the real-time requirement is often overwhelming. There is an increasing interest in both behavioral and social aspects of the strategic decision making of top management teams, but far less consideration has been invested into the cognitive issues at the management team level (Bromiley & Rau, 2016). The role of cognitive processes and cognitive structures, - the cognitive approach (Narayanan et al., 2011) - can make an important contribution to the decision-making discourse.

Article 4 is a book chapter that aims to deepen knowledge of the cognitive aspects, structures and processes as well as the sensemaking processes both at the level of

management and that of individuals. The book chapter is a conceptual study that uses literature data as its main data source, although numerous interviews conducted by the author in several companies and public-sector organizations also shaped the chapter.

The book chapter suggests that organizations should pay more attention to knowledge acquisition to establish objective evaluations of facts and avoid the most common biases in strategy work and in decision making more generally. To do so, business intelligence systems should be deployed and the resulting analyses should be systematically used to facilitate real-time strategic decision making. In addition, the study highlights that organizations should support middle managers and employee participation in their strategy work, in order to make sense of the present state of affairs, to build shared cognitive maps among actors, and to facilitate decision making. Figure 7 presents the concept of strategy work, which includes the use of BI-information as part of knowledge acquisition, sensemaking to find shared understanding, decision making to conclude the discussions, and finally, strategic adaptation to retain the new strategy.
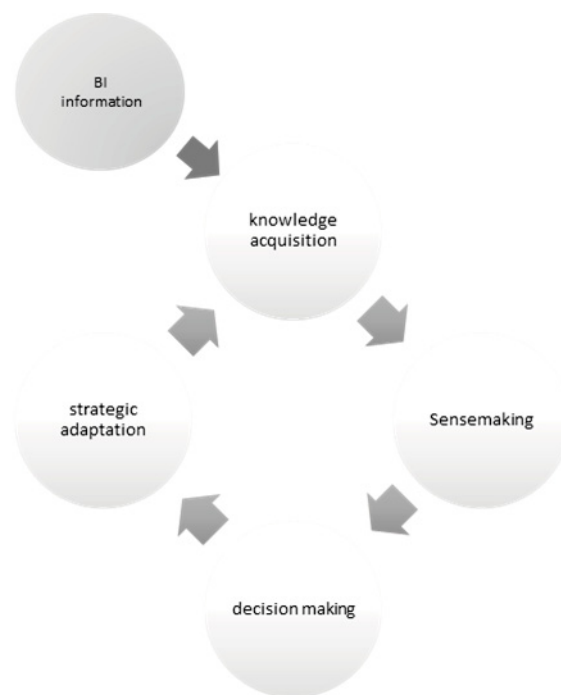
Figure 7.   Building the concept of strategy work

4.5   Participative strategy in the city of Vaasa

The last article of this dissertation is a teaching case example. The teaching case shows how the city of Vaasa launched a strategy work process, through which strategy would be planned, implemented and continuously re-crafted.

The article explains the strategy process that took place in the city of Vaasa between 2012 and 2015 and also presents four different strategy tools used during the strategy process. The framework of strategic capabilities acted as a first strategy tool. To build a shared understanding about the strategic capabilities of the city of Vaasa, workshop groups embarked on strategy work by mapping the municipality's strategic resources and processes. The second strategy tool built on Blue Ocean strategy (Kim & Mauborgne, 2005) focusing on the components of the customer value proposition and finally building a value curve relevant to the city of Vaasa. The third strategy tool, a strategy map (Kaplan & Norton, 2004), was lightly redefined and builds on the outputs of the two strategy tools used earlier in the process. The strategy map enabled managers to build a shared understanding of the strategic logic of the city of Vaasa and to explain it using only one picture. Finally, a spreadsheet table was utilized to synthesize targets, measures, and strategic initiatives. The strategy work as such was synchronized to the budgeting and HR- practices as illustrated by a yearly management clock (figure 8). The aim of this article was to describe the strategy process clearly and in an interesting manner so that it might be used as a case example in university teachers' strategy lectures when teaching the use of strategy tools or participative strategy process or strategy work more generally.
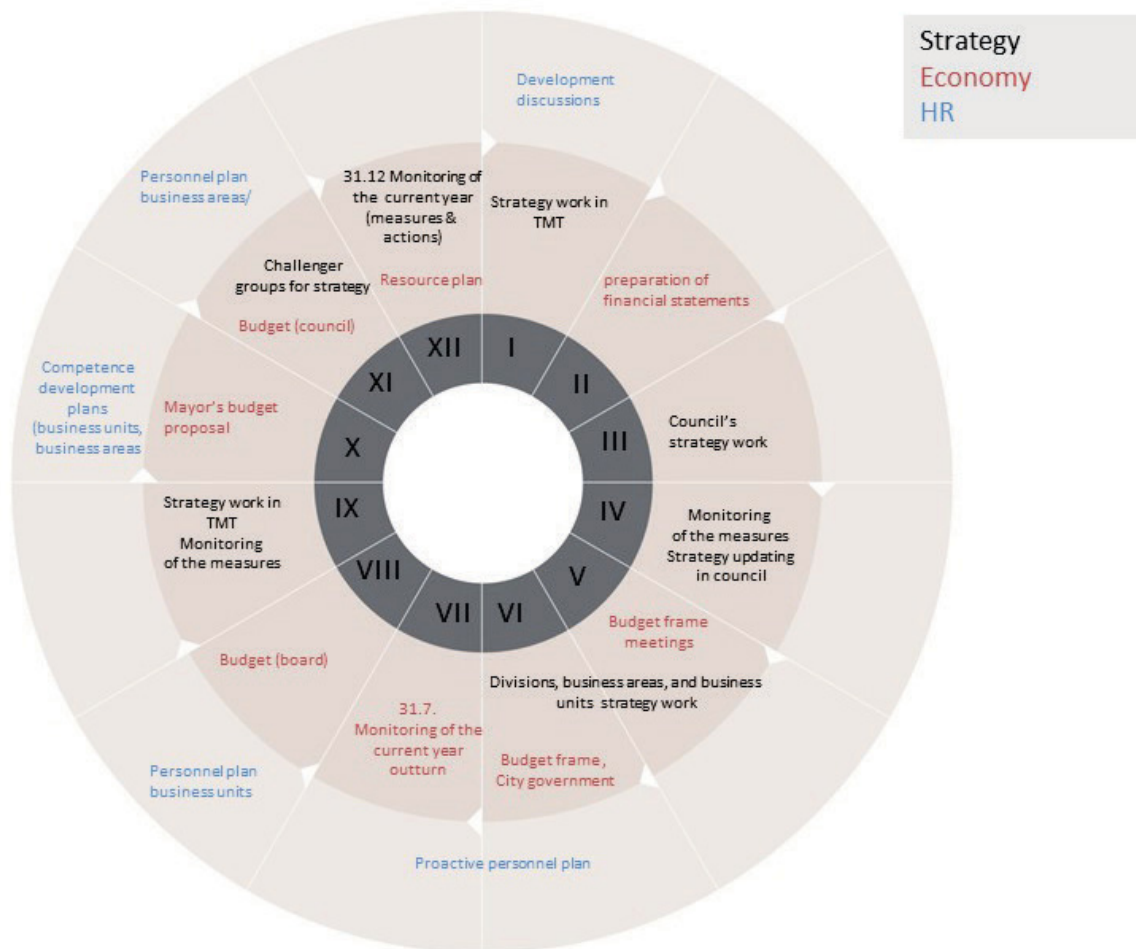
Figure 8.   Yearly management clock

5 DISCUSSION AND CONCLUSIONS

In this chapter I summarize the theoretical contributions and managerial implications of this dissertation. Moreover, I discuss the limitations and promising future research possibilities in the field of strategy as practice.

5.1 Discussion and theoretical contribution

This dissertation aims to make sense of the interplay between the sociomaterial, cognitive, and the paradox views in the field of strategy as practice. It attempts to answer three different research questions and perspectives presented in five articles included to dissertation, and builds a framework, to illustrate the above-mentioned interplay. The first research question concerns the sociomaterial practices enabling strategy work. Articles 1 and 5 answers to this question by building a framework of participative strategy work and illustrating the sociomaterial practices in the context of public organization. The second research question asks the role of cognitive view in strategic change and strategic decision making, which is answered in Articles 3 and 4 by modelling the sensemaking process in strategic change situation and shedding light to the role of cognition in strategic decision making. Finally, the third research question concentrates on the influence of organizational paradoxes in strategy work and strategic change. This question is addressed in Article 2 by developing a paradox framework in the context of servitization. Next, I describe briefly the contribution of each of the articles singly and then the contribution of the entire dissertation.

Article 1 seeks to answers the research question: *What kind of sociomaterial practices enable the participative strategy process in a municipality's strategy work?* Whereas strategy research has directed growing interest towards social and discursive views of strategy work even in the municipal sector, far less attention has been applied to the sociomaterial practices guiding organizations' strategy work. The first article brings new perspectives to the discussion by analyzing the role of sociomateriality in strategy work in a city organization. As the first contribution, this article builds a framework of the participative strategy process, which includes four strategy tools used during that strategy process. Secondly, this article describes the sociomaterial practices available to a public organization during its strategy work, and thirdly, the article helps to understand the meaning of participation in the context of strategy work. As a practical implication, the article presents a strategy work concept that can aid managers in their strategy work in public organizations. The article is published in *Hallinnon tutkimus*.

Article 2 answers the research question*: How do organizational paradoxes challenge the servitization of manufacturing companies?* During the last decades manufacturing companies have been seeking new business opportunities by expanding their portfolios from selling products towards selling customized solutions as is shown in previous studies: however those previous studies tend to look at the problems companies face through a contingency theory lens, where the problem is solved based on an either/or decision, depending on the internal and external situation. Article 2 claims that the strategic change toward servitization forces companies to balance the paradoxes that arise from a situation where companies need to focus both standardized products and customized solutions. The article contributes to the servitization literature by improving the understanding of how organizational paradoxes emerge and influence servitization and by developing a paradox framework to illustrate how the paradox approach enhances the knowledge on the paradoxical tensions between products and solutions. In addition, we highlight coping practices and their role in managing organizational paradoxes. The article is under review process of the *International Journal of Production Economics*.

Article 3 aims to answer the research question: *How retrospective relational sensemaking occurs in R&D offshoring between manufacturers and their suppliers?* Retrospective sensemaking remains somewhat unstudied in the R&D offshoring context. Article 3 aims to fill the research gap by developing a framework to understand retrospective relational sensemaking in the context of R&D offshoring. As its main contribution, article develops the concept of retrospective relational sensemaking and synthesizes a framework to facilitate the understanding of relational sensemaking. As its second contribution, it provides information about the practices and mechanisms of retrospective relational sensemaking. The article has been published in *Industrial Marketing Management*.

Article 4 seeks to answer the research question: *What is the role of cognition in strategic decision making?* Although the role of strategic decision making is crucial for the success of companies, researchers still know relatively little about the cognitive factors influencing strategic decision making (Bromiley & Rau, 2016). Article 4 extends the knowledge of the cognitive aspects, cognitive structures and processes affecting strategy. To contribute to the discourse of strategic cognition, the book chapter develops the concept of strategy work including four interacting phases of strategy work: knowledge acquisition including the use of BI-information, sensemaking for building a shared understanding, decision making to determine the discussions, and finally, strategic adaptation to retain the new knowledge and strategy.   The study

emphasizes also the role of cognitive structures constraining the cognitive process of strategy work. Book chapter is published in the book *Real-Time Strategy and Business Intelligence* (publisher Palgrave Macmillan).

Article 5 answers the research question*: How to build an effective strategy process in parallel with the generic expectations of democracy and equality in a public-sector organization?* The article combines four strategy tools and participative practices, building a framework for the strategy process in both public and private organizations. As its first contribution, this teaching case study enables university teachers to use the participative strategy process of the city of Vaasa as a teaching case for strategy lectures. Furthermore, as its second contribution, it provides for managers a constructive approach towards participative strategy work in organizations. As the third contribution, it shows how this combination of strategy tools and strategic practices creates a unique participative strategy process, in which people can truly participate and through participation, engage. The teaching case example is published in *Exploring strategy* (publisher Pearson Education).

As the contribution of this dissertation is twofold, each of the articles making their own contributions as briefly explained above, and the whole dissertation making an integrative contribution by building the framework of the interplay between the sociomaterial, cognitive and paradox views in the field of strategy as practice, I next elaborate on the interplay between different theoretical views.

As its first contribution, this dissertation builds the framework of the interplay between sociomaterial tools and the cognitive process of strategy work. In this dissertation the cognitive view on strategy is divided into cognitive structures and processes. This dissertation defines the cognitive process of strategy work as including: 1) knowledge acquisition to gain in-depth information about the environment and the state of art of the organization, 2) sensemaking to build a shared understanding, 3) decision making to conclude the discussions and the knowledge gained, and finally 4) strategic adaptation to implement and retain the strategy. However, the process of strategy work is not straightforward, but a dynamic and cyclical interaction process between different phases of strategy work. Figure 9 shows the interplay between sociomaterial practices and the cognitive process of strategy work. Sociomaterial practices facilitate the strategy work described in the first article. When analyzing the case of the city of Vaasa, the first strategy tool used during the process, the strategic capabilities framework is particularly facilitating the first two phases of the strategy work of the organization, knowledge acquisition and sensemaking processes. The strategic capabilities -tool was utilized to analyze the organization's core resources and processes to identify the most valuable and rare resources and processes on which

city of Vaasa could build its future success. While the strategic capabilities framework as a strategy tool helped knowledge acquisition and analyzing the valuable processes and resources, it also facilitated developing a shared understanding by triggering the sensemaking process. A sensemaking process enables an organization to develop a shared language and shared thinking (Nahapiet & Ghoshal, 1997; Weick et al., 2005), through its three phases; enactment, selection and retention. The second strategy tool applied in Article 1, the value curve, also nurtured the sensemaking process. While the value curve was utilized to identify and develop a shared understanding of the customer segments and the components of the value promise, the tool provided a platform to make sense and develop shared thinking on strategic intents.
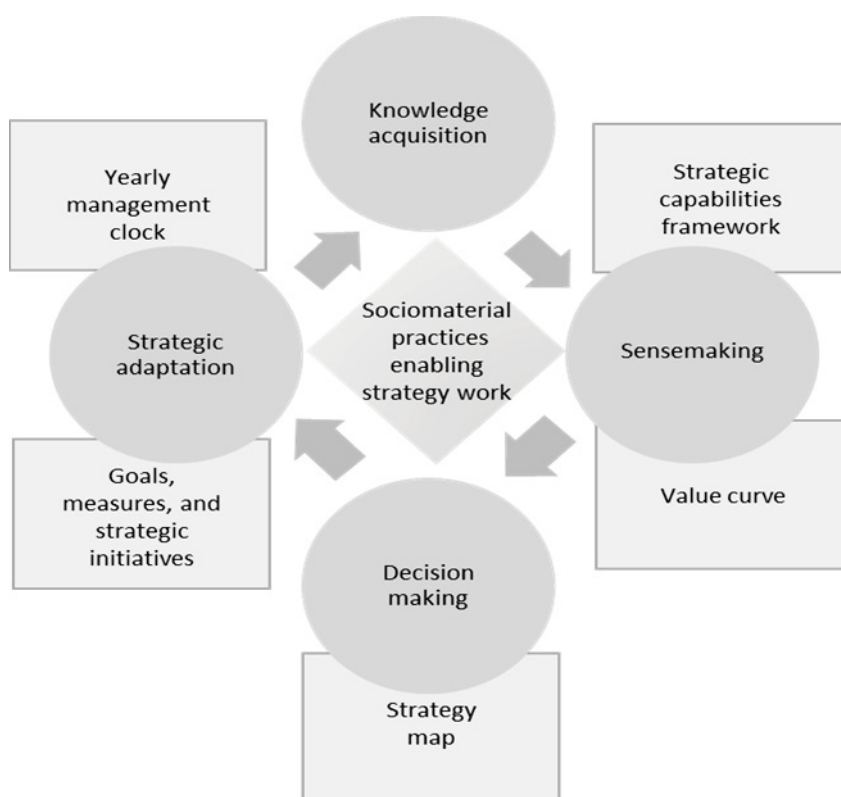
Figure 9.   The interplay between sociomaterial practices and strategy work

The third sociomaterial strategy tool, the strategy map, integrates the outputs of earlier phases of strategy work and summarizes the strategy. As such, it aids the complex strategic decision-making phase (phase 3 of the cognitive process of strategy) by pushing managers to discuss, understand and decide on the strategic logic of their organization. As shown in Article 4, strategic decision making is both crucial for organizations' success and simultaneously, extremely challenging. The strategy map can help understand and structure the decision making. The fourth strategy tool, an Excel spreadsheet table including the most important goals,

measures and strategic initiatives summarized in one page, is linked to the fourth phase of strategy work, strategic adaptation. Use of the goal table facilitates strategic adaptation by forcing the organization to distill the number of measures down to the most important ones and helps implement the strategy through the strategic initiatives planned in the table. Finally, the yearly management clock structures the cognitive process of strategy work by embedding strategy revisions into an annual management action plan. As the interplay between the cognitive process of strategy work and the sociomaterial view is quite clearly shown in above, let me next explicate the interplay between the cognitive view and the paradox view.

The second contribution of this dissertation is to describe the interplay between cognitive structures, the cognitive process of strategy work and the paradox view. Cognitive structures comprise strategy frames, organizational identity and organizational routines. Cognitive structures serve as 'tools' or means for the sensemaking process and more broadly, for the process of strategy work. Although cognitive structures are more stable than processes, they develop as time passes. Shared cognitive maps, in other words strategy frames, are socially constructed in interaction between organizational members (Huff, 1982; Nadkarni & Narayanan, 2007; Porac et al., 1989), and influence to the strategy work by developing assumptions about the organization, the environment and actions. Whereas a strategy frame filters the information that gets through to the cognitive process of strategy work (Porac & Thomas, 2002), sociomaterial practices, strategy tools and participation help to enlarge an organization's strategy frame by feeding the thoughts of managers and providing new knowledge in interaction with each other.

Building on its theoretical contribution, this dissertation shows the interconnection between cognitive structures and processes and organizational paradoxes. This dissertation adopts four dimensions of organizational paradoxes presented by Smith and Lewis (2011): 1) belonging, 2) organizing, 3) learning, and 4) performing. The paradox of belonging and the paradox of organizing are interconnected with cognitive structures, while the paradox of learning and the paradox of performing are mainly interrelated with cognitive processes. One might say that organizational identity as cognitive structure is the most dynamic and evolving as different identities create ambiguity among members of an organization, as shown in Article 2. Organizational identity is interconnected with the paradox of belonging, where competing identities cause tensions between different groups in an organization. As different groups have different mindsets and values, it creates a paradox which cannot be solved by choosing one over another, because such a decision would foster new problems and paradoxes for the organization and its strategy work. Accordingly, it is essential that organizations

are able to balance between different mindsets and identities to facilitate the strategy process and by doing so, enhance the development of organizational identity.

Organizational identity is connected to organizational routines, which are seen *"as recurring patterns of behaviour of multiple organizational members involved in performing organizational tasks"* (Feldman & Rafaeli, 2002, p. 311). Organizational routines play a significant role in organizational change and stability (Feldman & Pentland, 2003; Feldman & Rafaeli, 2002). As organizations often have a simultaneous, and paradoxical, requirement for change and stability, the paradox of organizing is clearly linked to organizational routines as described in Article 2 in where the case companies were struggling with the existing structure and routines, while simultaneously aiming to alter their orientation toward servitization. To be able to embrace solutions, the companies in question had to employ strategic practices to balance the demands of their production units and their routines and concurrently developing service units and new routines.

The paradox of learning is interconnected with cognitive structures, as "*the ability to frame new knowledge within understandings, routines and structures enable actors to comprehend and adjust variations*" (Lewis, 2000). With that notion in mind, the paradox of learning is particularly linked with the cognitive process of strategy work, especially with the first and the last phases of strategy work: knowledge acquisition and strategic adaptation. As the knowledge acquisition phase would require a realistic lens, the comfort of the past strategy frame often prevents actors from seeing the whole picture. Managers often choose those parts of knowledge and those interpretations that support their current frame. When they select a familiar interpretation, organizations are nurturing incremental learning, and thus exploitation, while simultaneously needing exploration to spur new and innovative ideas. The paradox of learning requires balancing between exploration and exploitation, daring to believe the trustworthiness of the data and explore new opportunities while simultaneously exploiting the business-as-usual status in the present.

The boundaries between the phases of the cognitive process of strategy work are not precise: in contrast the process is dynamic, ongoing, and a cyclical movement between different phases. Taking an example from the phases of knowledge acquisition and sensemaking; the processes of gaining new knowledge, interpreting it and building a shared understanding about the knowledge are intertwined. The process of sensemaking is described in Article 3, which shows the interaction and interpretation efforts in the R&D offshoring context in order to make sense of the surrounding world. Sensemaking as part of strategy work, has

the same aims: to build a shared understanding about the reality. The phases of sensemaking- enactment, selection and retention- enable an organization to build a shared understanding of the collected data, acquired knowledge and the current state of affairs to advance the decision-making phase. As discussed earlier, strategic decision making is crucial for organizations' success, and it can be facilitated with the help of strategy tools. Nevertheless, often organizations have differing and competing demands and goals, termed paradox of performing. Competing goals foster tensions between the divisions and organizational members and complicate decision making, as shown in Article 2, where short-term goals for products and basic services conflicted with the long-term goals required to establish a solution business. For the case organizations, success required them to balance different goals to perform adequately in both short- and long-term, rather than relying on any single business logic.

As its final, and main contribution, this dissertation builds a framework and a model (Figure 10) of the interplay between the sociomaterial, cognitive, and paradox views in the field of strategy as practice. The framework summarizes the discussion above, and illustrates the different views, the interplay, and the complexity of strategy work, in which cognitive structures (a strategy frame, organizational identity, and organizational routines) frame organizational strategy work and its phases (knowledge acquisition, sensemaking, decision making, and strategic adaptation). Moreover, strategy work is enabled by sociomaterial practices, which both facilitate and structure the discussions around strategy. Finally, sociomaterial practices serve as balancing mechanisms between organizational paradoxes faced by both public and private organizations in their strategy work.
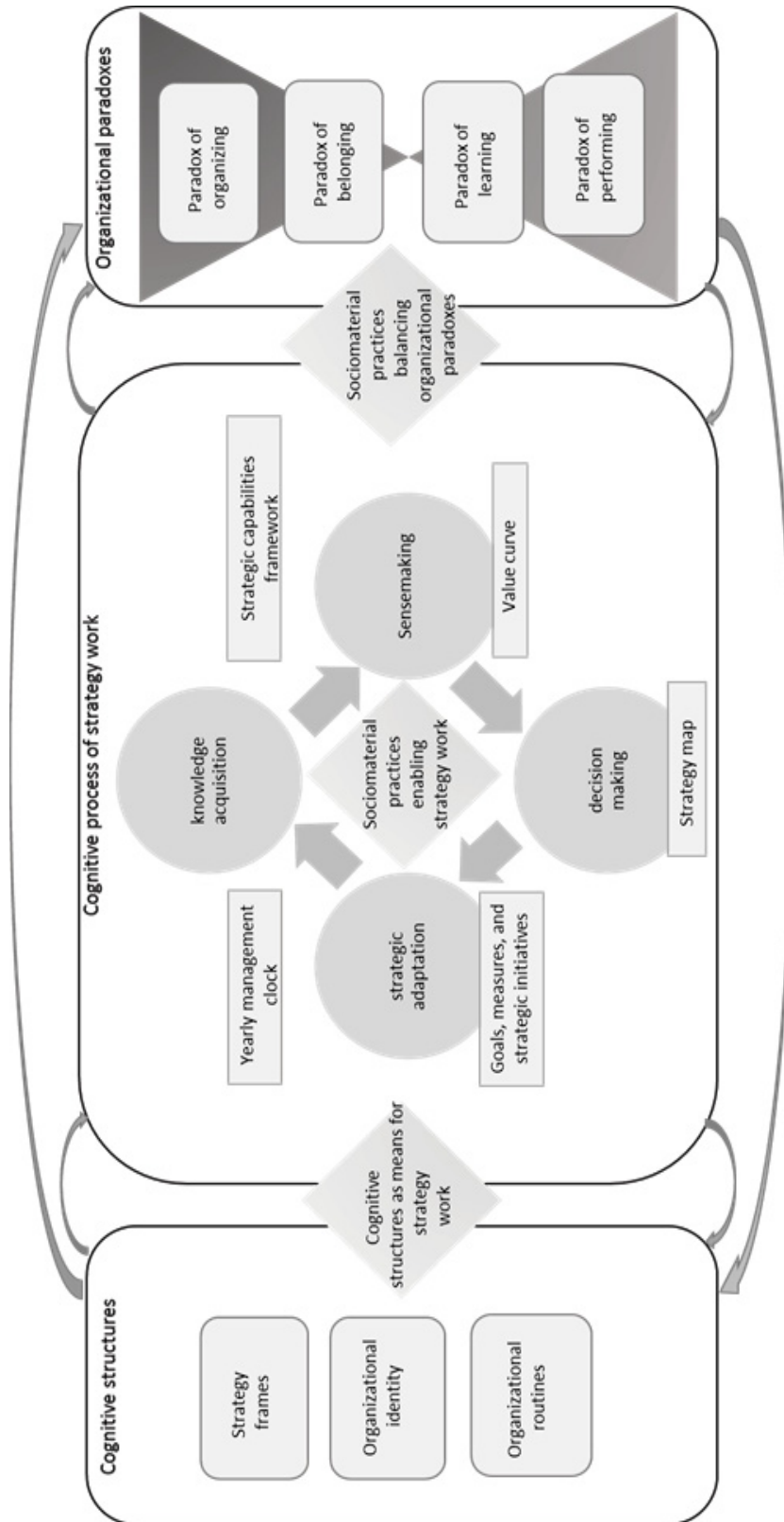
Figure 10. The framework of the interplay between the sociomaterial, cognitive
and paradox views in the field of strategy as practice

5.2   Implications for practice

The results of this dissertation also offer some managerial contributions. All of the articles are designed to add practical value for managers involved in strategy, strategic decision making and organizational development more generally. This dissertation's results combine the sociomaterial, cognitive and paradox views with the field of strategy as practice. As strategy as practice highlights the role of managers (practitioners), in strategy work and strategizing, the results of the study can illuminate the different ways in which managers can address the practices of strategy work. Below, I briefly describe the managerial implications of each article and then, the managerial implications of the whole dissertation.

The results of Article 1 describe the sociomaterial practices available to managers in a public-sector organization in their strategy process. The sociomaterial practices in question are participation, strategy workshops and a combination of strategy tools. The role of sociomaterial practices, such as participation, is often under-valued in organizations despite its clear benefits to commitment and strategy implementation. Article 1 can help managers see the facilitating role of participation and strategy tools as well as other sociomaterial practices. The strategy tools applied in this article, the strategic capabilities framework, the value curve, and the strategy map, are user-friendly, meaning managers can utilize the tools in their strategy work relatively easily to both facilitate and structure discussions. The tools also build upon each other, so the strategy process applied with the help of these tools, progresses efficiently and can ultimately gather the strategic logic of an organization and confirm it on the strategy map. Although the study examined a public-sector organization, the strategy tools used and the approach applied could be easily adapted to suit a private-sector organization too.

Article 2 has managerial implications for both manufacturers and service supplier companies, and more generally for companies facing strategic changes. For managers, the study shows the importance of recognizing that performance malfunction and disappointment are likely in the early stages of a new collaboration, and how crucial it is to invest enough time (and money) to build a shared understanding and trust among relationship partners. Article 2 built a retrospective relational sensemaking framework, which provides an organized way to understand what is going on in the course of the peculiar happenings in the early stages of an R&D offshore collaboration. those happening acts as the triggers that start the process, noticing and bracketing the notions of the events, labeling, and categorizing troubles, and addressing ways of solving them. Relational sensemaking has a significant role, especially in contexts of considerable knowledge asymmetries, where the relational partners are often unaware of the

other actors' expectations and actions. The R&D offshoring context often involves physical and psychological distance, and accordingly, managers should make efforts to reduce knowledge asymmetries. Those efforts could include the development of formal routines and capabilities to engage in retrospective sensemaking, which is fundamental fostering learning and decreasing the probability of similar happenings. Finally, to avoid biased view of happenings, it is beneficial to receive insight from both sides of the relationships to enable learning from critical events.

The results of Article 3 provide practical implications for manufacturing and technology companies. The results highlight the paradoxes that emerge when a form expands from a product to solution orientation. The framework for servitization paradoxes developed in this study enables managers to identify and accept the tensions that emerge from the strategic decision to embrace a solutions orientation. Organizational paradoxes that arise during servitization are something companies need to balance, because these paradoxes cannot be resolved by making a strategic decision selecting one over another. While such paradoxes cannot be resolved, managers need to focus on how to cope with the paradoxes. Article 3 can help managers to understand and appreciate the paradoxes and cope with them in their everyday organizational life.

Article 4 is a managerial book chapter, which provides knowledge about strategic decision making, biases that can cost harm in decision making, cognitive grounds of decision making and the role of sensemaking in decision making. As such, managers can use the book chapter when evaluating and developing the strategic decision making of their own or of their organization.

Article 5 is a teaching case example, and as such, has explicit managerial value. It describes the participative strategy process that took place in the city of Vaasa between 2012 and 2015. It describes the process and the approach with such accuracy that it can be used as teaching case in universities strategy lectures. Article 5 provides case notes and questions for teachers teaching the strategy process. Although the case example is designed particularly for teaching, being part of the world's best sellins strategy book, it provides useful knowledge for many managers in organizations looking ways to address strategy work and process of strategy.

The managerial implications of this dissertation can be summarized as illustrating 1) the sociomaterial practices that facilitate strategy work, 2) the role of cognitive structures as the means for the strategy work, and 3) the strategic practices to help understand and address the challenges and paradoxes organizations face in their strategy work. When managers understand the role of cognitive structures,

identity, routines, and strategy frames, in their strategy work, they can acknowledge the limitations those structures set on strategy work and with the help of sociomaterial practices, expand the view. Sociomaterial practices support managers in their strategy processes by enabling participation, and by both facilitating and structuring the processes. Sociomaterial practices and tools help organizations in all the phases of strategy work - knowledge acquisition, sensemaking, decision making and strategic adaptation. Understanding the concept and role of sensemaking enables managers to consciously put effort into building a shared understanding of the current situation and the goals of their organization. Finally, when they grasp that organizations often face paradoxical situations, which cannot be resolved by either/or decisions but which require management to appreciate and balance between contradictory elements if they are to be successful, managers can seek solutions to advance the balancing rather than pushing their organization toward an artificial unity.

5.3   Limitations and future research suggestions

As in all studies, this dissertation has its limitations that can -taking a positive perspective- provide fruitful ideas for future research. Starting with acknowledging the limitations, the results of the articles included in the dissertation are not generalizable, although the frameworks and models built can help organizations to improve understanding of the studied phenomena, such as sociomateriality, organizational paradoxes, sensemaking, strategic decision making and strategy work. Collecting generalizable data from these rich phenomena can be particularly challenging and can also run counter to the idea of the social construction of reality, which underlies the studied themes. Furthermore, the final framework of the interplay between the sociomaterial, cognitive and paradox views in the field of strategy, is the product of my interpretation of the studied phenomenon, and as such, is as limited as one person's view can be. However, the framework is built on years of research in the field, and is the result of many iterations, and finally, has been reviewed and approved by many esteemed colleagues in the same field.

Future studies could address the interplay between sociomaterial practices and paradoxes to see if, or how sociomateriality facilitate balancing the organizational paradoxes in strategy work. Furthermore, it would be extremely interesting to study the role of the top management team's sensemaking when balancing paradoxes. I would like to suggest utilizing the practice approach (Schatzki et al., 2001; Vaara & Whittington, 2012) in both servitization studies and inter-organizational network research to expand the interpretations of the studied

phenomenon. In addition, both research fields would benefit from a narrative approach interpreting the dynamics and the role of discourse during the intra- and inter- organizational processes. Although the list for future suggestions could be extended, I end with the most personal wish for future research: I would be flattered to see someone using, building further, or testing the framework illustrating the interplay between the sociomaterial, cognitive, and paradox views in the field of strategy as practice, in the hope it could provide a tool with real potential for understanding and explaining the complexity and multidimensionality of strategy work in different organizations.

5.4 Conclusions

The fundamental purpose of this dissertation was to understand the complex phenomena of strategy, strategizing, and strategy work, and to make sense of the interconnectedness and the interplay between the different viewpoints of strategy as practice.

This dissertation builds on the sociomaterial, cognitive and paradox views, and studies the interconnection of those viewpoints and the interplay between them in the field of strategy as practice. As a key contribution this study builds a framework and model of the interplays between sociomaterial, cognitive and paradox views, through which the complexity of strategy work can be illustrated and addressed. To conclude this dissertation, I summarize briefly the interplay shown in the final framework. Cognitive structures - strategy frames, organizational identity, and organizational routines- are acting as the means enabling and framing organizational strategy work and its phases - knowledge acquisition, sensemaking, decision making, and strategic adaptation. Strategy work is enabled and facilitated by sociomaterial practices, while strategic practices are used to understand and balance between the organizational paradoxes organizations face in their strategy work and strategic change more generally. Studied views are tightly interconnected in the process of strategy work, which shows the complexity of strategy work and therefore challenges the over-simplified views on strategy. Although it is beneficial for organization to be able to pack strategy as simple rules (Eisenhardt & Sull, 2001) which are easy to remember, even more important is to truly address the polyphonic nature of the organizations, to participate practitioners and build together the shared understanding of the organization and its goals. That way organization can genuinely balance and cope between the paradoxes emerging from organizational lives.

In the spirit of each time, organizations emphasize different issues while strategizing. The disposition of the current era is highlighting the role of digitalization and big data. The future role of machines is seen as reliable analyzers and strategic decision makers, while the role of the human factor is seen even as root cause for errors and missteps, which is intended to reduce. This dissertation takes a step to the other direction and emphasize the role of practitioners and practices in strategy as practice by showing the complex phenomenon of strategy work, in where only true reality is the one constructed together, and only true knowledge is the one learned together. Whereas big data and digitalization can serve as a great assistance in complex strategizing, the main effort in organizations should be put into empower practitioners to steep one selves into meaningful discourses in and around strategy work.

While strategy work is vitally important to the success of an organization, practitioners have quite an exhaustive task to keep in mind all of the aspects affecting strategy work. To close the circle, I conclude my dissertation with a reference to its title: *How can we know what we think until we see what we do?* As life can be understood only in retrospection, but must be lived looking ahead, keeping all different aspects in mind might not be the thing, but the most important task might be to bear in mind the exhortation to *just do it*.

References

Agryris, C. (1991). Teaching smart people how to learn. *Harvard Business Review*, (May-June), 99–109.

Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox fot top management teams. *Academy of Management Journal*, *39*(1), 123–148.

Andriopoulos, C., & Lewis, M. (2010). Managing innovation paradoxes: Ambidexterity lessons from leading product design dompanies. *Long Range Planning*, *43*(1), 104–122.

Ansoff, I. (1965). *Corporate strategy*. New York: McGraw-Hill.

Ashmos, D., Duchon, D., McDaniel, R., & Huonker, J. (2002). What a mess! participation as a simple managerial rule to "complexify" organizations. *Journal of Management Studies*, *39*(2), 189–206.

Axelrod, R. (1976). *Structure of decision: The cognitive maps of political elites*. Princeton, N.J.: Princeton University Press.

Balogun, J., Jacobs, C., Jarzabkowski, P., Mantere, S., & Vaara, E. (2014). Placing strategy discourse in context: Sociomateriality, sensemaking, and power. *Journal of Management Studies*, *51*(2), 175–201. https://doi.org/10.1111/joms.12059

Balogun, J., & Johnson, G. (2004). Organizational restructuring and middle manager sensemaking. *Academy of Management Journal*, *47*(4), 523–549. https://doi.org/10.2307/20159600

Bamberger, P. (2008). From the editors beoynd contextualization: Using context theories to narrow micro-macro gap in management research. *Academy of Management Journal*, *51*(5), 839–846.

Bansal, P., & Corley, K. (2011). The coming of age for qualitative research: Emracing the diversity of qualitative methods. *Academy of Management Journal*, *54*(2), 233–237.

Beech, N., Burns, H., Caestecker, L. De, MacIntosh, R., & MacLean, D. (2004). Paradox as invitation to act in problematic change situations. *Human Relations*, *57*(10), 1313–1332. https://doi.org/10.1177/0018726704048357

Berger, P. L., & Luckman, T. (1966). *The social construction of reality: A tratise in the sociology of knowledge*. Garden City, NY: Doubleday.

Beyer, J. M., Chattopadhyay, P., George, E., Glick, W. H., Ogilvie, D., & Pugliese, D. (1997). The selective perception of managers revisited. *Academy of Management Journal*, *40*, 716–737.

Blaikie, N. (2007). *Approaches to Social Enquiry*. Cambridge: Polity Press.

Bogner, W. C., Barr, P. S., & Robinson, J. M. (2000). Making Sense in Hypercompetitive Environments : A Cognitive Explanation for the Persistence of High Velocity Competition, *11*(2), 212–226.

Boyne, G. (2002).Public and private manahgement: What's the difference? *Journal of Management Studies, 39*(1), 97-122.

Bozeman, B. (1987). *All organizations are public*. London: Jossey-Bass.

Bromiley, P., & Rau, D. (2016). Social, behavioral, and cognitive influences on upper echelons during strategy process: A literature review. *Journal of Management*, *42(1), 174-202*. http://doi.org/10.1177/0149206315617240

Brown, T. (2010). The evolution of public sector strategy. *Public Administration Review*, *70*(December), 212–215.

Bruhn, J. G., Zajac, G., & Al-Kazemi, A. A. (2001). "Ethical perspectives on employee participation in planned organization change: A survey of two state public welfare agencies". *Public Performance and Management Review*, *25*(2), 208–228.

Bundy, J., Shropshire, C., & Buchholtz, A. (2013). Strategic cognition and issue salience : Toward an explanation of firm responsiveness to stakeholder concerns. *Academy of Management Review*, *38*(3), 352–376. http://doi.org/10.5465/amr.2011.0179

Burrell, G., & Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis: Elements of the Sociology of Corporate Life. Sociology*. Heinemann Educational Books. http://doi.org/10.1177/003803858001400219

Cameron, K. (1986). Effectiveness as paradox: Consensus and conflict in conceptions of organizational effectiveness. *Management Science*, *32*(5), 539–553.

Cannon-Bowers, J. A., & Salas, E. (1993). Shared mental models in expert team decision making. In N. J. Castellan (Ed.), *Current issues in individual and group decision making* (pp. 221–246). Hillsdale: Lawrence Erlbaum Associates.

Cannon-Bowers, J. A., & Salas, E. (2001). Reflections on shared cognition. *Journal of Organizational Behavior*, *22*(2), 195–202. http://doi.org/10.1002/job.82

Carvalho, C., & Brito, C. (2012). Assessing users´ perceptions on how to improve public services. *Public Management Review*, *14*(4), 451–473.

Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the American industrial enterprise*. Cambridge: Massachusetts Institute of Technology Press.

Collier, N., Fishwick, F., & Floyd, S. W. (2004). Managerial involvement and perceptions of strategy process. *Long Range Planning*, *37*(1), 67–83. http://doi.org/10.1016/j.lrp.2003.11.012

Corley, K., & Gioia, D. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, *49*(2), 173–208. http://doi.org/10.2307/4131471

Daft, R., & Weick, K. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9, 284–295.

Dameron, S., Lê, J. K., & LeBaron, C. (2015). Materializing strategy and strategizing material: Why matter matters. *British Journal of Management*, *26*(S1), S1–S12. http://doi.org/10.1111/1467-8551.12084

Denison, D. R., Hooijberg, R., & Quinn, R. E. (1995). Paradox and performance : Toward a theory of behavioral complexity in managerial leadership. *Organization Science*, *6*(5), 524–540.

Dooley, L. M. (2002). Case study research and theory building. *Advances in Developing Human Resources*, *4*(3), 335–354. http://doi.org/10.1177/1523422302043007

Durand, R. (2012). Advancing strategy and organization research in concert: Towards an integrated model? *Strategic Organization*, *10*(3), 297–303. http://doi.org/10.1177/1476127012453290

Einola, S. (2017). Making sense of strategic decision making. In M. Kohtamäki (Ed.), *Real-time strategy and business intelligence: Digitizing practices and systems* (pp. 149–166). Cham: Palgrave Macmillan.

Einola, S., & Kohtamäki, M. (2016). Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategiatyössä. *Hallinnon Tutkimus*, *35*(3), 189–203.

Einola, S., Kohtamäki, M., Parida, V., & Wincent, J. (2017). Retrospective relational sensemaking in R&D offshoring. *Industrial Marketing Management*, *63*, 205–216. http://doi.org/10.1016/j.indmarman.2016.10.001

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, *14*(4), 532–550.

Eisenhardt, K. M., & Sull, D. N. (2001). Strategy as simple rules. *Harvard Business Review*, *79*(1), 106–116.

Eisenhardt, K. M., & Zbaracki, M. (1992). Strategic decision making. *Strategic Management Journal*, *13*, 17–37.

Eriksson, P., & Kovalainen, A. (2008). *Qualitative methods in business research*. London: Sage.

Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, *48*(1), 94–118. http://doi.org/10.1038/nn1246

Feldman, M. S., & Rafaeli, A. (2002). Organizational routines as sources of connections and understandings. *Journal of Management Studies*, *39*(3), 309–331. http://doi.org/10.1111/1467-6486.00294

Fenton, C., & Langley, A. (2011). Organization Studies Narrative Turn, (July). http://doi.org/10.1177/0170840611410838

Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadreship: Top executives and their effects on prganizations*. St Paul: West Publishing Company.

Gebauer, H., & Fleisch, E. (2007). An investigation of the relationship between behavioral processes, motivation, investments in the service business and service revenue. *Industrial Marketing Management*, *36*(3), 337–348.

Gephart, R. P. J. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of Management Journal*, *36*(6), 1465–1514. http://doi.org/10.2307/256819

Giddens, A. (1984). *The constitution of society*. Berkeley: University of Califonia Press.

Gioia, D. (2006). On Weick: An appreciation. *Organization Studies*, *27*(11), 1709–1721. http://doi.org/10.1177/0170840606068349

Gioia, D., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Joumal*, *12*(6), 433–448.

Gioia, D., Corley, K., & Hamilton, A. (2013). Seeking qualitative rogor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, *16*(1), 15–31.

Gioia, D., & Patvardhan, S. (2012). Identity as process and flow. In M. Schultz, S. Maguire, A. Langley, & H. Tsoukas (Eds.), *Constructing identity in and around organizationa* (pp. 50–62). Oxford: Oxford University Press.

Gioia, D., Patvardhan, S., Hamilton, A., & Corley, K. (2013). Organizational identity formation and change. *The Academy of Management Annals*, *7*(1), 123–193. http://doi.org/10.1080/19416520.2013.762225

Gioia, D., & Pitre, E. (1990). Multiparadigm perspectives on theory building. *Academy of Management Review*, *15*(4), 584–602.

Golsorkhi, D., Rouleau, L., Seidl, D., & Vaara, E. (2015). *The Cambridge handbook of strategy as practice*. Cambridge University Press.

Gremler, D. D. (2004). The critical incident technique in service research. *Journal of Service Research*, *7*(1), 65–89. http://doi.org/10.1177/1094670504266138

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks: Sage.

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (Third edit, pp. 191–215). Thousand Oaks, California: Sage Publications.

Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2015). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, *40*15(1), 18–42. http://doi.org/10.5465/amr.2012.0341

Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, *32*(2), 334–343.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, *9*, 193–206.

Haveri, A. (2002). The new public management and local government reforms in Finland. *Hallinnon tutkimus,* Helsinki

Haveri, A. (2006). Complexity in local government change: Limits to rational reforming. *Public Management Review*, *8*(1), 31–46. http://doi.org/10.1080/14719030500518667

Haveri, A. (2015). Nordic local government: A success story, but will it last? *International Journal of Public Sector Management*, Vol 28(2), 136-149.

Henderson, B. D. (1979). *Henderson on Corporate Strategy*. Cambridge MA: Abt Books.

Hendry, J., & Seidl, D. (2003). The structure and significance of strategic episodes: Social systems theory and the routine practices of strategic change. *Journal of Management Studies*, *40*(1), 175–196. http://doi.org/10.1111/1467-6486.00008

Huff, A. S. (1982). Industry influence on strategy reformulation. *Strategic Management Journal*, *3*(January 1981), 119–131. http://doi.org/10.1002/smj.4250030204

Hutzschenreuter, T., & Kleindienst, I. (2006). Strategy-process research: What have we learned and what is still to be explored. *Journal of Management*, *32*(5), 673–720.

Jarratt, D., & Stiles, D. (2010). How are methodologies and tools framing managers' Strategizing practice in competitive strategy development? *British Journal of Management*, *21*(1), 28–43. http://doi.org/10.1111/j.1467-8551.2009.00665.x

Jarzabkowski, P. (2004). Strategy as practice: Recursiveness, adaptation, and practices-in-use. *Organization Studies*, *25*(4), 529–560. http://doi.org/10.1177/0170840604040675

Jarzabkowski, P. (2005). *Strategy as practice: An activity-based approach.* London: Sage Publications.

Jarzabkowski, P., & Balogun, J. (2009). The practice and process of delivering integration through strategic planning. *Journal of Management Studies*, *46*(8), 1255–1288.

Jarzabkowski, P., Balogun, J., & Seidl, D. (2007). Strategizing: The challenges of a practice perspective. *Human Relations*, *60*(1), 5–27. http://doi.org/10.1177/0018726707075703

Jarzabkowski, P., Burke, G., & Spee, P. (2015). Constructing spaces for strategic work: A multimodal perspective. *British Journal of Management*, *26*(S1), S26–S47. http://doi.org/10.1111/1467-8551.12082

Jarzabkowski, P., & Kaplan, S. (2015). Strategy tools-in-use: A framework for understanding "technologies of rationality" in practice. *Strategic Management Journal*, *36*, 537–558. http://doi.org/10.1002/smj

Jarzabkowski, P., Le, J. K., & Van de Ven, a. H. (2013). Responding to competing strategic demands: How organizing, belonging, and performing paradoxes coevolve. *Strategic Organization*, *11*(3), 245–280. http://doi.org/10.1177/1476127013481016

Jarzabkowski, P., & Pinch, T. (2013). Sociomateriality is "the New Black": Accomplishing repurposing, reinscripting and repairing in context. *M@n@gement*, *16*(5), 579–592. http://doi.org/10.1016/j.cpr.2010.02.004

Jarzabkowski, P., & Seidl, D. (2008). The role of meetings in the social practice of strategy. *Organization Studies*, *29*(11), 1391–1426. http://doi.org/10.1177/0170840608096388

Jarzabkowski, P., & Sillince, J. (2007). A rhetoric-in-context approach to building commitment to multiple strategic goals. *Organization Studies*, *28*(11), 1639–1665.

Jarzabkowski, P., & Spee, P. (2009). Strategy-as-practice: A review and future directions for the field. *International Journal of Management Reviews*, *11*(1), 69–95. http://doi.org/10.1111/j.1468-2370.2008.00250.x

Jarzabkowski, P., Spee, P., & Smets, M. (2013). Material artifacts: Practices for doing strategy with "stuff." *European Management Journal*, *31*(1), 41–54. http://doi.org/10.1016/j.emj.2012.09.001

Jay, J. (2013). Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Academy of Management Journal*, *56*(1), 137–159.

Johnson, G., Langley, A., Melin, L., & Whittington, R. (2007). *Strategy as practice: Research directions and resources*. Cambridge: Cambridge University Press.

Johnson, G., Scholes, K., & Whittington, R. (2008). *Exploring corporate strategy* (8th editio). Prentice Hall, Financial Times.

Johnson, G., Whittington, R., Scholes, K., Angwin, D., & Regnér, P. (2017). *Exploring corporate strategy*. Harlow: Pearson Education Limited.

Johnson, P., Buehring, A., Cassell, C., & Symon, G. (2006). Evaluating qualitative management research: Towards a contingent criteriology. *International Journal of Management Reviews*, *8*(3), 131–156. http://doi.org/10.1111/j.1468-2370.2006.00124.x

Johnson, P., & Duberley, J. (2003). Reflexivity in Management Research *. *Journal of Management Studies*, *40*(5), 1279–1303. http://doi.org/10.1111/1467-6486.00380

Kahneman, D., Rosenfield, A. M., Gandhi, L., & Blaser, T. (2016). Noise: How to overcome the high, hidden cost of inconsistent decision making. *Harvard Business Review*, *2016*(October). http://doi.org/10.1353/abr.2012.0147

Kaplan, R., & Norton, D. (2004). *Strategy maps- converting intangible assets into tangible outcomes*. Boston, Massachusetts: Harvard Business Review Press.

Kaplan, S. (2011). Strategy and PowerPoint: An inquiry into the epistemic culture and machinery of strategy making. *Organization Science*, *22*(2).

Kim, W., & Mauborgne, R. (1998). Procedural justice, strategic decision making and the knowledge of the economy. *Strategic Management Journal*, *19*(4), 323–339.

Kim, W., & Mauborgne, R. (2005). Blue ocean strategy: From theory to practice. *California Management Review*, *47*(3), 105–121.

Kuhn, T. (1970). *The structure of scientific revolutions* (2nd editio). Chicago: Chicago University Press.

Laine, P.-M., & Vaara, E. (2007). Struggling over subjectivity: A discursive analysis of strategic development in an engineering group. *Human Relations*, *60*(1), 29–58. http://doi.org/10.1177/0018726707075279

Langfield-Smith, K. (1999). Exploring the need for a shared cognitive map. *Journal of Management Studies*, *1999*(May), 349–368.

Leonardi, P. M., & Barley, S. R. (2008). Materiality and change: Challenges to building better theory about technology and organizing. *Information and Organization*, *18*(3), 159–176. http://doi.org/10.1016/j.infoandorg.2008.03.001

Lewis, M. (2000). Exploring paradox: Toward a more comprehensive guide. *The Academy of Management Review*, *25*(4), 760–776. http://doi.org/10.2307/259204

Lewis, M., & Grimes, A. (1999). Metatriagulation: Building Theory from Multiple Paradigms. *Academy of Management Review*, *24*(4), 672–690. http://doi.org/10.2307/259348

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Thousand Oaks: Sage Publications.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic Controversies, Contradictions, and Emerging Confluences, Revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *Sage Handbook of Qualitative Research* (pp. 108–150). Thousand Oaks, California: Sage Publications.

Lovallo, D. P., & Sibony, O. (2006). Distortions and deceptions in strategic decisions. *McKinsey Quarterly*, (1), 18–29.

Lynham, S. A. (2000). Theory building in the human resource profession. *Human Resource Development Quartely*, *11*(2), 159–178.

Lüscher, L., & Lewis, M. (2008). Organizational change and managerial sensemaking: Working through paradox. *Academy of Management Journal*, *51*(2), 221–240.

Maitlis, S., & Lawrence, T. (2007). Triggers and enablers of sensegiving in organizations. *Academy of Management Journal*, *50*(1), 57–84.

Mangham, I. L., & Pye, A. J. (1991). *The doing of managing*. Oxford: Blackwell.

Mantere, S. (2008). Role expectations and middle manager strategic agency. *Journal of Management Studies*, *45*(2), 294–316.

Mantere, S. (2013). What is organizational strategy? A language-based view. *Journal of Management Studies*, *50*(8), 1408–1426.

Mantere, S., Schildt, H. a., & Sillince, J. a. a. (2012). Reversal of Strategic Change. *Academy of Management Journal*, *55*(1), 172–196.

Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization Science*, *19*(2), 341–358. http://doi.org/10.1287/orsc.1070.0296

Maon, F., Lindgreen, A., & Swaen, A. (2008). Thinking of the organization as a system: The role of managerial perceptions in developing a corporate social responsibility strategic agenda. *Systems Research and Behavioral Science, 25*, 413–426.

March, J. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71–87.

March, J. (2006). Rationality, foolishness, and adaptive intelligence. *Strategic Management Journal*, *27*(3), 201–214. http://doi.org/10.1002/smj.515

March, J., & Simon, H. (1958). *Organizations*. Oxford: Wiley Organizations.

Mintzberg, H. (1978). Patterns in strategy formation. *Management Science*, *24*(9), 934–948. Retrieved from http://web.a.ebscohost.com.ezproxy.normandie-univ.fr/ehost/pdfviewer/pdfviewer?vid=3&sid=88d94b91-047e-44bf-aad6-00bd8eb1a69d%40sessionmgr4009

Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*.

Mintzberg, H., & Lampel, J. (1999). Reflecting on the strategy process. *Sloan Management Review*, *40*(3), 21–30.

Mintzberg, H., Raisinghani, D., & Théorêt, A. (1976). The structure of "unstructured" decision processes. *Administrative Science Quarterly*, *21*(2), 246–275.

Mintzberg, H., & Waters, J. (1985). Of strategies, deliberated and emergent. *Strategic Management Joumal*, *6*(3), 257–272.

Mintzberg, H., Waters, J. A., & Wiley, J. (1985). Of strategies , deliberate and emergent. *Strategic Management Journal*, *6*(3), 257–272.

Moisander, J., & Stenfors, S. (2009). Exploring the edges of theory-practice gap: Epistemic cultures in strategy-tool development and use. *Organization*, *16*(2), 227–247.

Nadkarni, S., & Narayanan, V. K. (2007). The evolution of collective strategy frames in high- and low-velocity industries. *Organization Science*, *18*(4), 688–710. http://doi.org/10.1287/orsc.1070.0268

Nag, R., Corley, K., & Gioia, D. (2007). The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge crafting. *Academy of Management Journal*, *50*(4), 821–847.

Nahapiet, J., & Ghoshal, S. (1997). Social capital, intellectual capital and the creation of value in firms. *Academy of Management Proceedings*, (1), 35–39.

Narayanan, V., Zane, L., & Kemmerer, B. (2011). The cognitive perspective in strategy: An integrative review. *Journal of Management*, *37*(1), 305–351. http://doi.org/10.1177/0149206310383986

O'Reilly, C. a., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, *28*, 185–206. http://doi.org/10.1016/j.riob.2008.06.002

Orlikowski, W. J. (2007). Sociomaterial practices: Exploring technology at work. *Organization Studies*, *28*(9), 1435–1448. http://doi.org/10.1177/0170840607081138

Orlikowski, W. J., & Scott, S. V. (2008). Sociomateriality: Challenging the separation of technology, work and organization. *Academy of Management Annals*, *2*(1), 433–474. http://doi.org/10.1080/19416520802211644

Oxford dictionaries. (n.d.). Retrieved from https://en.oxforddictionaries.com/definition/cognition

Paroutis, S., Franco, L. A., & Papadopoulos, T. (2015). Visual interactions with strategy tools: Producing strategic knowledge in workshops. *British Journal of Management*, *26*(S1), S48–S66. http://doi.org/10.1111/1467-8551.12081

Paroutis, S., & Pettigrew, A. (2007). Strategizing in the multi-business firm: Strategy teams at multiple levels and over time. *Human Relations*, *60*(1), 99–135.

Pihkala, T., Harmaakorpi, V. & Pekkarinen, S. (2007). The role of dynamic capabilites and social capital in breaking socio-institutional inertia in regional development. International Journal of Urban and Regional Research, 31(4), 836-52.

Poole, M. S., & Van de Ven, A. H. (1989). Using paradox to build management and organization theories. *The Academy of Management Review*, *14*(4), 562. http://doi.org/10.2307/258559

Porac, J., & Thomas, H. (2002). Managing cognition and strategy: Issues, trends and future directions. In A. Pettigrew, H. Thomas, & R. Whittington (Eds.), *Handbook of strategy and management* (pp. 165–181). London: Sage.

Porac, J., Thomas, H., & Baden-Fuller, C. (1989). Competitive Groups As Cognitive Communities: the Case of Scottish Knitwear Manufacturers. *Journal of Management Studies*, *26*(4), 397–416. http://doi.org/10.1111/j.1467-6486.1989.tb00736.x

Porter, M. (1980a). *Competitive strategy: Techniques for Analyzing Industries and Competition*. New York: Free Press.

Porter, M. (1980b). How competitive forces shape strategy. *The McKinsey Quarterly*, 34–51.

Putnam, L., Fairhurst, G., & Banghart, S. (2016). Contradictions, dialectics and paradoxes in organizations: A constitutive approach. The Academy of Management Annals, 10(1), 65-171.

Pye, A. (2005). Leadership and organizing: Sensemaking in action. *Leadership*, *31*(1), 31–50. http://doi.org/10.1177/1742715005049349

Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management*, *34*(3), 375–409. http://doi.org/10.1177/0149206308316058

Rainey, H. (1979). Perceptions of incentives in business and government: implications for civil service reform. *Public Administration Review*, 39, 440-448.

Reinharz, S. (1997). Who am I? The need for variety of selves in the field. In R. Hertz (Ed.), Reflexivity and voice (pp.3-20). Thousand Oaks, CA: Sage.

Roberts, N. C. (2002). Keeping public officials accountable through dialogue: Resolving the accountability paradox. *Public Administration Review*, *62*(6), 658–669.

Rouleau, L. (2005). Micro-practices of strategic sensemaking and sensegiving : How middle managers interpret and sell change every day. *Journal of Management Studies*, *42*(7), 1413–1441.

Rouleau, L., & Balogun, J. (2011). Middle managers, strategic sensemaking, and discursive competence. *Journal of Management Studies*, *48*(5), 953–983. http://doi.org/10.1111/j.1467-6486.2010.00941.x

Samra-Fredericks, D. (2003). Strategizing as lived experience and strategists' everyday efforts to shape strategic direction. *Journal of Management Studies*, *40*(1), 141–174. http://doi.org/10.1017/CBO9780511618925.010

Schatzki, T., Knorr Cetina, K., & von Savigny, E. (2001). *The practice turn in contemporary theory.* (T. Schatzki, K. Cetina, & E. von Savigny, Eds.). Routledge. http://doi.org/10.1016/S0956-5221(03)00029-0

Schwandt, T. A. (1996). Farewell to criteriology. *Qualitative Inquiry*, (2), 58–72.

Seidl, D., & Whittington, R. (2014). Enlarging the strategy-as-practice research agenda: Towards taller and flatter ontologies. *Organization Studies*, *35*(10), 1407–1421. http://doi.org/10.1177/0170840614541886

Simon, H. A. (1957). *Models of man; social and rational.* Oxford: Wiley.

Sitkin, S., See, K., Miller, C., Lawless, M., & Carton, A. (2011). The paradox of stretch goals: Organizations in pursuit of the seemingly impossible. *Academy of Management Review*, *36*(3), 544–566.

Smith, W. K. (2014). Dynamic decision making : A model of senior leaders managing strategic paradoxes. *Academy of Management Journal*, *57*(6), 1592–1623. http://doi.org/10.5465/amj.2011.0932

Smith, W. K., Gonin, M., & Besharov, M. L. (2013). A review and research agenda for social enterprise. *Business Ethics Quarterly*, *23*(3), 407–442.

Smith, W., & Lewis, M. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, *36*(2), 381–403. http://doi.org/10.5465/AMR.2011.59330958

Smith, W., & Tushman, M. (2005). Managing strategic contradictions: A top management model for managing innovation streams. *Organization Science*, *16*(5), 522–536.

Stensaker, I., Falkenberg, J., & Gronhaug, K. (2008). Implementation activities and organizational sensemaking. *The Journal of Applied Behavioral Science*, *44*(2), 162–185.

Stenvall, J., & Virtanen, P. (2007). *Muutosta johtamassa*. Helsinki: Edita.

Stigliani, I., & Ravasi, D. (2012). Organizing thoughts and connecting brains: Material practices and the transition from individual to group-level prospective sensemaking. *Academy of Management Journal*, *55*(5), 1232–1259.

Suddaby, R., Seidl, D., & Lê, J. (2013). Strategy-as-practice meets neo-institutional theory. *Strategic Organization*, *11*(3), 329–344.

Taylor, J., & Van Every, E. (2000). *The emergent organization: Communication as its site and surface*. Mahwah, NJ: Lawrence Erlbaum Associates.

Thomas, J., Clark, S., & Gioia, D. (1993). Strategic sensemaking and organizational performance: linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal. Academy of Management*, *36*(2), 239–70. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10125120

Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science, 13*(5), 567–582. http://doi.org/10.1287/orsc.13.5.567.7810

Vaara, E., Kleymann, B., & Seristö, H. (2004). Strategies as discursive constructions: The case of airline alliances. *Journal of Management Studies, 41*(1), 1–35. http://doi.org/10.1111/j.1467-6486.2004.00419.x

Vaara, E., Sorsa, V., & Pälli, P. (2010). On the force potential of strategy texts: a critical discourse analysis of a strategic plan and its power effects in a city organization. *Organization, 17*(6), 685–702. http://doi.org/10.1177/1350508410367326

Vaara, E., & Whittington, R. (2012). Strategy-as-practice : Taking social practices seriously. *The Academy of Management Annals, 6520*(6:1), 285–336. http://doi.org/10.1080/19416520.2012.672039

Vartiainen, P., Ollila, S., Raisio, H. & Lindell, J. (2013). *Johtajana kaaoksen reunalla- kuinka selviytyä pirullisista ongelmista*. Gaudeamus.

Vuorinen, T., Hakala, H., Kohtamäki, M., & Uusitalo, K. (2017). Mapping the landscape of strategy tools: A review on strategy tools published in leading journals within the past 25 years. *Long Range Planning.* http://doi.org/10.1016/j.lrp.2017.06.005

Walker, R., Brewer, G., Boyne, G. & Avellaneda, C. (2011). Market orientation and public service performance: New public management gone mad? Public Administration Review, 71(5), 707-717.

Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science, 6*(3), 280–321. http://doi.org/10.1287/orsc.6.3.280

Weick, K. (1979). *The social psychology of organizing* (2nd edition). Reading, MA: Addison- Wesley.

Weick, K. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305–317.

Weick, K. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weick, K., Sutcliffe, K., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science, 16*(4), 409–421.

Welch, C., & Piekkari, R. (2017). How should we (not) judge the "quality" of qualitative research? A re-assessment of current evaluative criteria in International Business. *Journal of World Business, 52*(5), 714–725. http://doi.org/10.1016/j.jwb.2017.05.007

Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mäntymäki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies, 42*(5), 740–762. http://doi.org/10.1057/jibs.2010.55

Whittington, R. (1996). Strategy as practice. *Long Range Planning*, *29*(5), 731–735. http://doi.org/10.1016/0024-6301(96)00068-4

Whittington, R. (2002). Practice perspectives on strategy: Unifying and developing a field. *Academy of Management Proceedings*. http://doi.org/10.5465/APBPP.2002.7517994

Whittington, R. (2003). The Work of Strategizing and Organizing: For a Practice Perspective. *Strategic Organization*, *1*(1), 117–125. http://doi.org/10.1177/147612700311006

Whittington, R. (2006). Completing the practice turn in strategy research. *Organization Studies*, *27*(5), 613–634. http://doi.org/10.1177/0170840606064101

Wooldridge, B., & Floyd, S. (1990). The strategy process, middle management involvement, and organizational performance. *Strategic Management Journal*, *11*, 231–241.

Wright, A. (2005). The role of scenarios as prospective sensemaking devices. *Management Decision*, *43*(1), 86–101. http://doi.org/10.1108/00251740510572506

Appendix

Appendix 1: My role in each of the articles

Article 1: Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategia-työssä. *Hallinnon tutkimus* 35 (3), 189-203, 2016. Article 1 is co-authored with Professor Marko Kohtamäki. The article has not previously been used as part of the dissertation. I am the first author of the article, facilitated over 100 strategy workshops, build the interview frames, carried out all the interviews, and had the main responsibility for data analysis and writing the manuscript. I also managed the review process of the article.

Article 2: Modeling the paradoxes in servitization. (under review in *International Journal of Production Economics*). Article 2 is co-authored with Professor Marko Kohtamäki and Associate Professor Rodrigo Rabetino. The article has not previously been used as part of the dissertation. I am the first author of the Article, and I had the main responsibility for data collection, analysis, and writing the manuscript. In Article 2 Rodrigo Rabetino managed the review process.

Article 3: Modeling retrospective relational sensemaking in the context of R&D offshoring. *Industrial Marketing Management* 63, 205-216, 2017. Article 3 is co-authored with Professor Marko Kohtamäki, Professor Vinit Parida, and Professor Joakim Wincent. The article has not previously been used as part of the dissertation. I am the first author of the Article, and had the main responsibility of theory building about sensemaking and writing the manuscript. I also managed the review process of the Article. Vinit Parida had the main responsibility of data collection.

Article 4

Einola, S. 2017. Making sense of strategic decision making. In book *Real-Time Strategy and Business Intelligence: Digitizing practices and systems*, Palgrave Macmillan, 149-166, 2017. Article 4 is sole authored.

Article 5: Participative strategy in the city of Vaasa. *Exploring Strategy, Text and Cases, 11th edition, Pearson Education* 525-531, 2016. The article has not previously been used as part of the dissertation. Article is co-authored with Professor Marko Kohtamäki. I am the second author of the Article. Article base on strategy and research work in City of Vaasa, where I facilitated over 100 strategy workshops, had main responsibility of data collection and analysis. Marko Kohtamäki had the main responsibility of writing the manuscript and he also managed the review process.

Authors order in each of the articles illustrates the responsibilities and work load of the researches.

Sosiomateriaalisten käytäntöjen rooli kuntaorganisaation strategiatyössä

Suvi Einola & Marko Kohtamäki

TIIVISTELMÄ

Kunnat, kuten muutkin julkiset organisaatiot ovat joutuneet hyväksymään kilpailun yritysten sijoittumisesta alueelleen pystyäkseen tarjoamaan kuntalaisilleen työtä, palveluita ja hyvinvointia. Kunnan menestyminen kuntien välisessä kilpailussa, työnantajamarkkinoilla ja palveluiden tuottajana, vaatii vahvaa strategista ajattelua ja johtamista. Tämä tutkimus analysoi sosiomateriaalisten käytäntöjen roolia kuntaorganisaation strategiatyössä hyödyntämällä lähes sadan strategiaworkshopin havaintoja sekä 26 haastattelua. Tutkimus kontribuoi julkisorganisaatioiden strategiateoriaan 1) tuottamalla kuvan julkisorganisaation osallistavasta ja monitasoisesta strategiaprosessista, 2) kuvaamalla millaisia sosiomateriaalisia käytäntöjä kuntaorganisaatio voi strategiatyössään hyödyntää sekä 3) auttamalla ymmärtämään osallistamisen merkitystä strategiatyölle ja strategian toteuttamiselle. Julkisorganisaatioiden johtajille tutkimus tuottaa neljä työkalua sisältävän toimintamallin, jota johtajat voivat hyödyntää strategiatyötä suunnitellessaan.

ABSTRACT

The competition that drives municipalities to compete over companies and workforce, generates the need for strategic thinking in city organizations. The present study concentrates on analyzing sociomateriality in strategy work in a public sector organization, and by means of action research in a single case, produces a rich concept for the strategy work, with multitude of experiences from the process. By collecting observation data from over 90 strategy workshops and interview data from 26 interviews, this study contributes to strategy-as-practice research in the context of public organizations. For managers of public organizations, this study presents a concept, with four strategy tools that will assist managers in initiation strategy processes in cities and other public or non-profit organizations.

JOHDANTO

Digitalisaation ja globalisaation tuottama kilpailu luo merkittävän haasteen kuntakentän uudistumiselle. Kunnat, kuten muutkin julkiset organisaatiot ovat joutuneet hyväksymään kilpailun yritysten sijoittumisesta alueelleen pystyäkseen tarjoamaan kuntalaisilleen työtä, palveluita ja hyvinvointia. Kuntien taloustilanteen kiristymisen myötä yhä suuremmiksi haasteiksi nousevat kunnan palveluiden tehokas järjestäminen ja osaavan henkilökunnan rekrytointi. Kunnan menestyminen kuntien välisessä kilpailussa, työnantajamarkkinoilla ja palveluiden tuottajana, vaatii vahvaa strategista ajattelua ja johtamista. Kuntakentän erityispiirteet, dualistinen päätöksentekojärjestelmä sekä verovaroin toimiminen, tuovat strategiatyöhön lisähaasteita, joita yksityisellä sektorilla ei kohdata. Viimeaikainen strategiatutkimus on korostanut strategiatyön sosiaalisia näkökulmia, ja osallistavan strategiatyöskentelyn on nähty tukevan henkilöstön sitoutumista, mikä voi puolestaan edesauttaa strategioiden toimeenpanoa (Laine & Vaara, 2007). Kuntien strateginen johtaminen on kuitenkin kaukana helposta, ja kunnan strategista johtamista voitaneenkin kuvailla viheliäiseksi ongelmaksi jo sinällään (Kosonen, 2015; Vartiainen, Ollila, Raisio, & Lindell, 2013).

Strategiaa ja strategista johtamista on tutkittu vuosikymmeniä (Ansoff, 1980; Mintzberg, 1987; Porter, 1990) strategiatutkimuksen painottuessa erityisesti yrityssektorille. Näin voitaneen sanoa siitäkin huolimatta, että strategiatutkimusta on jonkin verran tehty myös julkisella sektorilla erityisesti strategia käytäntönä -tutkimuksen parissa (Kornberger & Carter, 2010; Kornberger & Clegg, 2011; Vaara, Sorsa, & Palli, 2010; Vaara & Whittington, 2012), mutta

myös perinteisemmän prosessitutkimuksen piirissä (esim. Neilimo, 1998; Rannisto, 2005; Sotarauta & Mustikkamäki, 2001). Strategian ja strategiatutkimuksen tarpeellisuudesta julkisella sektorilla on esitetty myös kriittisiä mielipiteitä (esim. Stenvall & Suikkanen, 2003). Tämä kritiikki on linjassa vastaavien yrityssektorin perinteistä strategista suunnittelua kritsoivien puheenvuorojen kanssa, joiden mukaan perinteinen strateginen suunnittelu etääntyy henkilöstöstä tuottaen tyhjiä, käytännöllisesti katsoen hyödyttömiä strategisia suunnitelmapapereita, jotka implementoinnin yhteydessä valuvat hiekkaan (Mintzberg, 1994; Taylor, 1997). Johtavat strategiakoulukunnat näkevät kuitenkin strategisen ajattelun kehittämisen tärkeänä, jopa elinehtona kuntien ja valtioiden kilpaillessa menestyvistä yrityksistä ja osaavasta työvoimasta (Brown, 2010; Kornberger & Clegg, 2011; Vaara ym., 2010; Walker, Andrews, Boyne, Meier, & O'Toole, 2010). Siinä missä perinteinen, erityisesti suunnittelukoulukuntaa edustava strategiakirjallisuus on korostanut strategisen analyysin roolia (Andrews, 1971; Ansoff, 1965; Chandler, 1962), vähemmälle huomiolle on jäänyt mukautuva, dynaaminen ja osallistava strategia, jollaiselle kuntaorganisaatioissa olisi tilausta (Hutzschenreuter & Kleindienst, 2006; Laine & Vaara, 2015; Walker ym., 2010). Viimeaikaisessa strategia käytäntönä -tutkimuksessa osallistumisen nähdään olevan avainasemassa strategiatyön kehittämisessä (Laine & Vaara, 2015; Mantere & Vaara, 2008). Strategia käytäntönä -tutkimus on kehittynyt erityisesti viimeisen vuosikymmenen aikana tarkastelemaan mikrotason strategiakäytäntöjä laadullisesti ja tapauspohjaisesti (Jarzabkowski & Sillince, 2007; Jarzabkowski, 2004; Johnson, Melin, & Whittington, 2003).

Kuntasektorilla tehtävä strategiatyö on varsin moninaista (Laine & Vaara, 2015; Rannisto, 2005). Uusi kuntalaki (410/2015), joka merkittävältä osin astuu voimaan 1.6.2017, velvoittaa kunnat strategiatyöhön, joskaan kuntalaki ei määritä tapaa, jolla strategiatyötä tehdään. Näin ollen kunnat voivat jatkossakin tehdä strategiatyötä siinä laajuudessa ja sellaisella osallistavuuden asteella kuin kunnassa mielekkääksi koetaan, siitäkin huolimatta, että keskijohdon rooli strategiatyössä ja strategioiden jalkautuksessa on tunnistettu keskeiseksi (mm. Balogun & Johnson, 2004; Floyd & Wooldridge, 1992; Mantere, 2008). Julkinen sektori hyötyy strategia-

tutkimuksesta (Boyne & Walker, 2010: 186), joka huomioi kompleksiset tulkinnat kompleksisessa todellisuudessa (Lado, Boyd, Wright, & Kroll, 2006) unohtamatta organisaatioiden käytännöllistä tarvetta yksinkertaisille ohjenuorille (Eisenhardt & Sull, 2001). Julkinen sektori tarvitsee strategiatutkimusta, joka huomioi erityispiirteet, jotka koostuvat "yhdistelmästä kompleksisia poliittisia ja ohjelmallisia haasteita erittäin politisoituneessa institutionaalisessa ympäristössä, jota johdetaan hyvin sääntösidotuissa hallinnollisissa järjestelmissä" (Brown, 2010: 212).

Tämä tutkimus pyrkii täyttämään julkisen sektorin strategiatutkimuksessa olevaa aukkoa vastaamalla tutkimuskysymykseen *millaiset sosiomateriaaliset käytännöt mahdollistavat osallistavan strategiaprosessin rakentumista kuntaorganisaation strategiatyössä?* Tämä tutkimus vastaa kysymykseen analysoimalla lähes sadan strategiatyöpajan havaintoja ja kokemuksia sekä kuvailemalla osallistavan strategiatyön sosiomateriaalisia käytäntöjä, jotka mahdollistavat organisaatiossa yhteisen ymmärryksen rakentumista. Näin ollen, tämä tutkimus vastaa Vaaran ja Whittingtonin (2012: 315) ja Laineen ja Vaaran, (2015:18) esille nostamaan tutkimustarpeeseen, jonka mukaan tutkimusta tarvitaan niistä toimista, joilla yhteistä käsitystä strategiasta voidaan vahvistaa moniäänisessä ja paljon diversiteettiä sisältävissä olosuhteissa, jota poliittisessa ohjauksessa toimiva kuntaorganisaatio vääjäämättä edustaa. Tämä tutkimus kontribuoi julkisorganisaatioiden strategiateoriaan 1) tuottamalla kuvan julkisorganisaation osallistavasta ja monitasoisesta strategiaprosessista, 2) kuvaamalla millaisia sosiomateriaalisia käytäntöjä kuntaorganisaatio voi strategiatyössään hyödyntää sekä 3) auttamalla ymmärtämään osallistamisen merkitystä strategiatyölle ja strategian toteuttamiselle. Julkisorganisaatioiden johtajille tuotamme neljä työkalua (ydinkyvykkyydet, arvolupaus, strategiakartta, tavoitteet, mittarit ja toimenpiteet) sisältävän toimintamallin strategiatyötä varten, jota johtajat voivat strategiatyötä suunnitellessaan hyödyntää sekä kaupungeissa että muissa julkisissa organisaatioissa.

TEOREETTINEN VIITEKEHYS

Tässä tutkimuksessa strategiatyö nähdään prosessina, jossa strategiaa luodaan ja muokataan

jatkuvasti uudelleen (Moisander & Stenfors, 2009; Regner, 2008; Rouleau, 2005). Strategiatyö nähdään työskentelynä, jossa strategian laatiminen ja toteuttaminen ovat ennemminkin rinnakkaisia prosesseja kuin lineaarisesti etenevä pitkän tähtäimen suunnitelma (Mintzberg & Lampel, 1999). Emergentin strategia-ajatuksen mukaisesti strategia on sitä, mitä organisaatio tekee ja strategeja voidaan löytää eri organisaatiotasoilta (Mintzberg & Lampel, 1999; Rouleau & Balogun, 2011). Kaiken kaikkiaan moderni strategiakirjallisuus näkee strategian jatkuvana sopeutumisena ja korostaa tarvetta osallistaa organisaation jäseniä strategiatyöhön (Laine & Vaara, 2015; Mantere & Vaara, 2008), sillä strategian onnistunut toteutus on riippuvainen henkilöstön päätöksestä *osallistua* (Floyd & Wooldridge, 1992; Hutzschenreuter & Kleindienst, 2006: 701), *sitoutua* (Dooley, Fryxell, & Judge, 2000) ja *oppia* (Miller, Wilson, & Hickson, 2004; Sirén & Kohtamäki, 2016).

Strategia käytäntönä

Strategia käytäntönä on kiinnostunut strategian muotoutumiseen johtavasta toiminnasta sekä tavoista, joilla strategiaa ja erilaisia strategiamalleja rakennetaan (Whittington, 1996). Strategia käytäntönä -tutkimus näkee käytännöt keinoina, jotka pitävät sisällään lukuisia rutiineja, keskusteluja, käsitteitä ja tekniikoita, joiden avulla strategiatyö mahdollistuu (Jarzabkowski & Spee, 2009). Käytännöt nähdään dynaamisina ja muuttuvina strategiatyötä heijastavina, mahdollistavina ja tuottavina kokonaisuuksina. Vaikka työkalut ovat strategiatyössä tärkeitä, strategia käytäntönä-tutkimuksen mukaan strategiatyöskentelyssä ei ole kysymys vain – tai edes enimmäkseen – työkaluista, vaan käytännöistä, joiden avulla organisaatiossa luodaan yhteistä näkemystä strategisista aktiviteeteista, jotka johtavat kilpailuetuun (Santalainen, 2009; Vaara & Whittington, 2012). Organisaation strategiatyöllä pyritään rakentamaan yhteistä käsitteistöä (Mantere, 2010; Mantere, 2013; Seidl, 2007), ja yhteistä tapaa ajatella kehittämällä organisaation strategista identiteettiä ja yhteistä ymmärrystä (Narayanan, Zane, & Kemmerer, 2011). Tämän näkökulman kanssa linjassa on ajatus, jonka mukaan strategiatyö ei rajoitu vain johtoportaaseen (Paroutis & Pettigrew, 2007), vaan strategiatyöhön olisi hyvä osallistaa henkilöstöä (Balogun &

Johnson, 2004; Mantere, 2008; Rouleau, 2005). Osallistamisen kautta organisaatio voi rakentaa yhteistä käsitystä strategiasta. Strategia nähdään emergentiksi, dynaamiseksi ja sosiaaliseksi strategisen oppimisen prosessiksi (Mintzberg & Lampel, 1999; Vaara & Whittington, 2012), joka hyödyntää organisaation toimijoita laajasti, mutta ei silti täysin sulje pois formaalia suunnittelua (Mintzberg & Waters, 1985; Sirén & Kohtamäki, 2016).

Huomionarvoista on, että strategia käytäntönä -tutkimukset eivät kohdistu yksittäisiä poikkeuksia lukuun ottamatta keskijohtoa alemmas organisaation hierarkiassa, vaikka kyseinen tutkimushaara tarjoaakin siihen hyvät mahdollisuudet (Jarzabkowski, Balogun, & Seidl, 2007; Mantere, 2008). Myös kuntasektorin aiemmassa strategiatutkimuksessa lähiesimiesten ja henkilöstön näkökulma on jätetty vähälle huomiolle, ja kuntien strategioita rakennetaankin edelleen usein lähinnä johtajien ja poliittisten päätöksentekijöiden tasolla (Paroutis & Pettigrew, 2007). Strategian toteuttaminen on edelleen usein nähty operationaalisena yksityiskohtana, eikä toteuttamisen merkityksellisyyttä kilpailukyvyn parantamisessa ole riittävästi korostettu (Hutzschenreuter & Kleindienst, 2006), vaikka keskijohdon roolia onkin joissakin tutkimuksissa painotettu (Balogun & Johnson, 2005; Floyd & Wooldridge, 1992).

Sosiomateriaalisuus kuntaorganisaation strategiatyössä

Sosiomateriaalisuus on saanut yhä kasvavaa huomiota viimeaikaisessa strategia käytäntönä -tutkimuksessa (Jarzabkowski, Burke, & Spee, 2015; Jarzabkowski, Spee, & Smets, 2013; Jarzabkowski & Pinch, 2013; Kaplan, 2011; Orlikowski & Scott, 2008), aiemman tutkimuksen keskittyessä pääosin diskursiivisiin käytäntöihin strategiatyössä (Jarzabkowski ym., 2015; Vaara & Whittington, 2012). Materiaalisuuden käsite on kotiutunut strategia käytäntönä- tutkimukseen tekniikan ja yleisen organisaatiotieteen tutkimuksesta (Orlikowski & Scott, 2008). Erityisesti tietotekniikan puolella tutkimus materiaalisuudesta on kuitenkin edelleen eriyttänyt toimijan ja materiaalisuuden käsitteet käsitellen niiden välistä vuorovaikutusta (Jarzabkowski & Pinch, 2013). Sosiomateriaalisuuden käsite pyrkii kuvaamaan jatkuvaa sosiaalisen ja materiaalisen yhteen-

kietoutunutta vuorovaikutusprosessia (Balogun, Jacobs, Jarzabkowski, Mantere, & Vaara, 2014; Jarzabkowski ym., 2015; Jarzabkowski & Pinch, 2013). Sosiomateriaalisen tutkimuksen keskiössä ovat työkalut, tilat, tilanteet: strategiatyökalut, analytiikkaohjelmistot, strategiadokumentit, Power-Point esitykset, Post-It laput, yhtä lailla kuin strategiaworkshopit, tapaamiset sekä tilanteiden, toimijoiden ja materiaalisen yhteen kietoutuminen (Balogun ym., 2014; Jarzabkowski ym., 2013; Jarzabkowski & Pinch, 2013; Kaplan, 2011).

Siinä missä strategiatyökalut on parhaimmillaankin aiemmin nähty vain strategiatyön tekniikoina ja tiedontuotannon välineinä (Moisander & Stenfors, 2009), näkee sosiomateriaalisuuden tutkimus työkalujen roolin materian, käytäntöjen ja toimijoiden välisen yhteen nivoutuneen suhteen osana, jonka kautta toimijat rakentavat vuorovaikutusta (Leonardi & Barley, 2008; Orlikowski & Scott, 2008). Siten myös strategiatyökaluilla aivan kuten strategiaworkshopeilla voidaan nähdä olevan tärkeä rooli paitsi organisaation yhteisen ymmärryksen rakentumisessa, myös keskustelun jäsentämisessä ja tulosten saavuttamisessa (Jarzabkowski & Kaplan, 2015).

Osallistaminen yhteistä ymmärrystä ja oppimista mahdollistamassa

Yhteinen strateginen ymmärrys rakennetaan sekä yksilö- että organisaatiotasolla sosiaalisen maailman tulkinnoissa, jotka syntyvät dialogisen yhteyden ja jatkuvien yhteisten keskusteluiden kautta (Gephart, 1993; Gioia & Chittipeddi, 1991). Organisaation yhteisen ymmärryksen rakentuminen mahdollistaa paitsi yhteisen kielen syntymisen, myös yhteisen ajattelun kehittymisen, ja sitä kautta organisaation oppimisen (Nahapiet & Ghoshal, 1997). Yhteisen ymmärryksen rakentuminen määritellään toimintojen ja tulkintojen prosessiksi, joiden avulla organisaatio pyrkii ymmärtämään ympäröivää maailmaa (Weick, 1995). Weickin ja kumppaneiden (2005) mukaan yhteinen ymmärrys rakentuu retrospektion kautta, kun ymmärrys toiminnan syistä ja seurauksista kehittyy. Retrospektio muokkaa organisaation strategista identiteettiä (Nag, Corley, & Gioia, 2007), joka vaikuttaa toimijoiden toimintaan tulevaisuudessa. Organisaation johto rakentaa organisaation toimintaa ja strategiaa yhteisen ymmärryksen

rakentumisen prosessien kautta jatkuvassa vuorovaikutuksessa organisaation muiden tasojen kanssa (Giddens, 1984). Yhteisen ymmärryksen rakentumisen prosessi voidaankin nähdä generaattorina jatkuvalle ja emergentille organisaation muutokselle (Tsoukas & Chia, 2002).

Johtoryhmän rooli yhteisen ymmärryksen luomisessa rakentuu muutoksen muovaajan, arkkitehdin ja ohjaajan rooleista (Gioia & Chittipeddi, 1991). Organisaatioympäristöjen kompleksisuuden ja dynaamisuuden myötä johtoryhmän rooliksi informaatiopaljoudessa on muotoutunut merkityksellisten tulkintojen luominen ja tarjoaminen (Thomas, Clark, & Gioia, 1993). Johtoryhmän tulkinnat vaikuttavat suoraan organisaation toimintavaihtoehtoihin ja tuloksiin, joten niiden nähdään olevan avainasemassa organisaation menestymisen kannalta (Dutton & Duncan, 1987).

Keskijohdon avainrooli organisaation kehittämisessä toteutuu tietämyksen kehittäjänä, vastaanottajana ja hyödyntäjänä (Balogun & Johnson, 2004; Rouleau & Balogun, 2011). Keskijohdon tulkinnat johdon muutossuunnitelmista sekä näiden tulkintojen vaikutukset toimintaan, ajattelutapaan ja vuorovaikutukseen muiden kanssa, ovat avainasemassa organisaatiota kehitettäessä (Balogun & Johnson, 2004; Balogun, 2005; Gioia & Chittipeddi, 1991). Keskijohdolla on tärkeä rooli yhteisen ymmärryksen luomisessa, kun keskijohto osaltaan 1) fasilitoi keskustelua ja toisaalta 2) kuvailee tilannetta (Rouleau & Balogun, 2011). Keskijohdolla tulee olla kyky aidosti keskustella ja viestiä merkityksellisesti ja sitouttavasti (Rouleau & Balogun, 2011). Keskijohto parhaimmillaan ohjaa keskustelua sekä vertikaalisesti (ylimmän johdon ja suorittavan portaan välillä) että myös horisontaalisesti (esim. keskijohdon keskinäisessä kommunikaatiossa) oman organisaation sisällä ja organisaatioiden välillä (Balogun, 2005). Organisaatiot luonnollisesti vaihtelevat sen suhteen, millaisen mandaatin ne keskijohdolle strategiatyössä antavat, kuten organisaatioteorian klassisessa keskustelussa vallan ja vastuun keskittämisestä ja hajauttamisesta on kuvattu (Salminen, 1993).

Vaikka osallistamisella on olennainen rooli onnistuneessa strategiatyössä (Collier, Fishwick, & Floyd, 2004), ei se yksistään johda organisaation nopeampaan kehittymiseen (Jarzabkowski & Balogun, 2009). Työntekijöiden näennäinen

osallistaminen voi sen sijaan vaikuttaa kielteisesti kuluttaen aikaa, moraalia ja resursseja (Bruhn, Zajac, & Al-Kazemi, 2001). Aito osallistaminen luo paremman käsityksen tarvittavista muutoksista (Stensaker, Falkenberg, & Gronhaug, 2008) ja lisää kollektiivista sitoutumista, mikä mahdollistaa tehokkaan strategisen toiminnan (Ashmos, Duchon, McDaniel, & Huonker, 2002; Liedtka, 2000). Aikaisemmat tutkimukset osoittavat, että henkilöstön osallistaminen strategiatyöhön vähentää "muutoksen tiellä olevia esteitä luomalla psykologisen omistajuuden, mahdollistamalla kriittisen tiedon jakamista ja kannustamalla työntekijöitä palautteenantoon muutoksen toteuttamisen aikana" (Fernandez & Rainey, 2006).

METODOLOGIA

Tutkimus on toteutettu case- kontekstissa keskisuuressa suomalaisessa kaupungissa vuosina 2012-2015 toimintatutkimuksellisia menetelmiä hyödyntäen. Päätutkija toimi osana kuntaorganisaatiota osallistuen kaupunkitason ja eri toimialojen yksiköiden strategiatyöskentelyyn aktiivisesti keräten tietoa strategiaprosesseista tutkimusnäkökulmasta. Toimintatutkimus on sosiaalinen prosessi, jossa tutkija aktivoi ja kehittää toimintaa ollen muutoksessa mukana ymmärryksen ja tulkinnan lisääntyessä vähitellen. Toimintatutkimuksen ytimessä nähdään olevan pyrkimys saattaa yhteen toiminta ja reflektio, teoria ja käytäntö, jossa yhdessä tutkittavan organisaation kanssa pyritään etsimään käytännöllisiä ratkaisuja organisaatioiden haasteisiin (Reason & Bradbury, 2001). Osallistavassa toimintatutkimuksessa korostuu tutkimuskohteena olevan yhteisön jäsenten osallistuminen tutkimukseen (esim. Lüscher & Lewis, 2008). Strategiseen johtamiseen pyritään vaikuttamaan tutkimuksen, intervention avulla. Tämän toimintatutkimuksen tavoitteena oli osallistaa kuntaorganisaation työntekijöitä eri tasoilta strategiaprosessin kaikissa vaiheissa tavoitteena kehittää yhteistä ajattelua strategiasta, sekä parantaa strategian toteuttamisen edellytyksiä (Carr & Kemmis, 1986). Toimintatutkijan rooli mahdollisti tutkijoiden aktiivisen osallistumisen strategiatyön fasilitointiin. Toisaalta päätutkijan työtehtävien sisältö kaupungin organisaatiossa mahdollisti pääsyn aineistoihin, joihin muutoin ei olisi tutkimuksen keinoin pääsyä.

Taulukko 1. Tutkimusaineisto.

Lähde	Lukumäärä
Haastattelut	26
Kaupunginjohtaja	3
Sivistystoimen johtaja	3
Sosiaali- ja terveysjohtaja	3
Teknisen toimialan johtaja	3
Kehitysjohtaja	2
Henkilöstöjohtaja	2
Hallintojohtaja	3
Talousjohtaja	2
Kaupunginvaltuutettu	3
Kansanedustaja	1
Strategiaworkshopit	95
Osallistujat	n.1000
Kaupunkitaso	17
Toimialataso	11
Tulosaluetaso	27
Palvelualuetaso	14
Palveluyksikkötaso	12
Esimieskoulutuksen strategiaosio	11
Osallistujat	420

Tässä tutkimuksessa tutkimusaineisto (taulukko 1) koostuu a) osallistujien havainnoinnista strategiatapaamisissa eri organisaatiotasoilla, b) osallistavien strategiatyöpajojen havainnoinnista ja c) puolistrukturoiduista haastatteluista. Tutkimuksen alkuvaiheessa päätutkija toimi case-organisaatiossa kehittämissuunnittelijana, jonka ansiosta tutkija tunsi case-organisaation toiminnan. Päätutkijan työtehtäviin kuului organisaation strategiatyön fasilitointi, mikä mahdollisti strategiatapaamisten ja työpajojen havainnoinnin ja dokumentoinnin organisaation eri tasoilla. Päätutkijan työtehtävien ansiosta organisaation työntekijät tunsivat päätutkijan jo entuudestaan, joten luottamus oli olemassa jo tutkimuksen alkuvaiheessa. Tämä mahdollisti avoimien keskusteluiden käymisen organisaation tilanteesta ja haasteista. Tutkijat fasilitoivat yli 90 strategiatyöpajaa vuosien 2012–2015 aikana. Strategiatyöpajat toteutettiin työntekijöitä osallistaen kuudella eri organisaatiotasolla: 1) valtuustotaso 2) johtoryhmätaso 3) toimialataso 4) tulosaluetaso 5) palvelualuetaso sekä 6) tulosyksikkötaso.

TULOKSET

Sosiomateriaaliset käytännöt kuntaorganisaation strategiatyössä

Tutkimus kuvaa sosiomateriaalisia käytäntöjä; osallistamista, strategiaworkshoppeja sekä strategiatyökaluja, joita keskisuuressa suomalaisessa yliopistokaupungissa strategiatyössä hyödynnettiin. Vaasan kaupungin asukasluku on n. 67000 asukasta, joista 70 prosenttia suomenkielisiä, 25 prosenttia ruotsinkielisiä ja 5 prosenttia äidinkieleltään muunkielisiä (määrä jakaantuu n. 100 eri kielen kesken). Kaupunkiorganisaatiossa työskentelee noin 6000 työntekijää neljällä eri toimialalla (sosiaali- ja terveys, sivistystoimi, tekninen toimiala ja hallinto). Vaasan kaupungin johtoryhmä uudistui lähes kokonaan vuosina 2010–2012, jolloin kaupunkiin valittiin uusi kaupunginjohtaja, kolme uutta toimialajohtajaa, kehitysjohtaja ja henkilöstöjohtaja. Organisatorinen muutos yhdessä talouden taantuman kanssa johti haluun uudistaa kaupunkistrategiaa ja strategista päätöksentekoa kohti ketterämpää ja osallistavampaa prosessia. Strategiaprosessin tavoitteena oli organisaation kehittäminen dynaamisemmaksi ja ketterämmäksi. Kuten yksi haastateltavista johtajista tammikuussa 2013 totesi: *"meillä pitäis olla selkeempi fokus siihen, että me halutaan olla tietyllä alueella ihan huippuja"* (johtaja 2, tammikuu 2013). Johtoryhmän tahtotilaa kuvastaa hyvin myös haastateltavan kommentti prosessin alkuvaiheessa: *"meillä yhteiskunta muuttuu hirvittävää vauhtia tänä päivänä, muutostahti on niin kova, niin sä et pysty vanhoilla jäykillä järjestelmillä enää pysymään mukana, vaan sun pitää luoda tilaa sille ketteryydelle ja tilaa myös sille uudelle kasvulle"* (johtaja 1, tammikuu 2013). Seuraavissa kappaleissa kuvataan strategiaprosessia sekä sosiomateriaalisia käytäntöjä; työkaluja ja menetelmiä, joilla organisaation yhteistä strategista ajattelua pyrittiin kehittämään.

Vaasan kaupungin kaupunkistrategia käynnistyi loppuvuodesta 2012 uuden kaupunginvaltuuston valinnan jälkeen. Kaupungin johtoryhmä oli linjannut tavoitteeksi kehittää kaupungin strategiatyötä osallistavammaksi, reaaliaikaisemmaksi ja nopeammin reagoivaksi: *"Ennen mentiin semmosilla järjestelmillä, jossa ylhäältä määrättiin ja tehtiin viisvuotissuunnitelmia ja kaikki oli aina tarkoin määriteltynä,* *että mitä tulee, kun tehdään näin. Mutta tänä päivänä kun niitä ulkoisia vaikutteita ja ulkoisia tekijöitä on niin äärettömän paljon, jotka vaikuttaa nopeesti siihen kehitykseen, niin sun pitää luoda se perus-frame ja sen sisällä sitten kasvaa ne uudet mahdollisuudet"* (johtaja 1, tammikuu 2013). Johtoryhmä toteutti jo strategiaprosessin alkuvaiheessa muutoksen muovaajan ja arkkitehdin rooliaan näkyvästi (vrt. Gioia & Chittipeddi, 1991): *"johdon esimerkki on hyvin tärkeässä asemassa ja avoimuus, että kerrotaan asioista, että saadaan koko organisaatio, kaikki työntekijät mukaan rakentamaan yhteistä organisaatiota"* (johtaja 4, kesäkuu, 2013). Prosessin alkuvaiheessa valtuuston jäsenille lähetettiin kaupungin strategista johtamista ja strategisia painopistealueita kartoittava kysely. Kyselyyn vastasivat kaikki kaupunginvaltuutetut ja strategiatyö käynnistettiin kyselyn tuloksiin pohjautuen. Kaupunginvaltuutetut toivat esille tarpeen osallistaa strategiatyöhön laajasti valtuutettujen lisäksi eri toimialojen työntekijöitä.

Ennen varsinaista strategiatyöskentelyn aloittamista tutkijat työstivät yhdessä kaupungin johtoryhmän kanssa sosiomateriaalista näkökulmaa ja käytäntöjä strategiatyöhön. Yhteisten keskustelujen jälkeen muotoutui osallistavan strategiaprosessin kuvaus, joka huomioi eri organisaatiotasojen osallistamisen lisäksi myös kuntalaiset mm. strategiatyölle avattujen facebook-sivujen muodossa. Tutkijat työstivät ja esittelivät johtoryhmälle niin kutsutun työkalupaketin, jota tultaisiin hyödyntämään koko kaupungin strategiatyöskentelyssä. Tämä työkalupaketti yhdessä strategiaworkshoppien ja laajan osallistamisen kanssa toimi organisaation valitsemina sosiomateriaalisina käytäntöinä, joiden tavoitteena oli luoda yhteistä ymmärrystä kuntaorganisaatiossa. Työkalupaketti koostui neljästä strategisesta lähestymistavasta, joita täydennettiin myöhemmin johtamisjärjestelmän kehittämisellä. Työkalut olivat aikajärjestyksessä:

1) Maailman paras (resurssiperustaisen teorian mukainen kyvykkyyksien tunnistamiseen tarkoitettu työkalu), (Barney, 1991; Long & Vickers-Koch, 1995).

2) Arvolupaus (Sinisen meren strategiasta peräisin oleva arvolupausten osa-alueisiin keskittyvä työkalu), (Kim & Mauborgne, 2005).

3) Strategiakartta (Tasapainotetun mittariston ulottuvuuksia hyödyntävä, ja edellisten

työkalujen opit tiivistävä työkalu organisaation strategisen logiikan määrittelemiseksi), (Kaplan & Norton, 2004).

4) Tavoitteet, mittarit ja strategiset toimenpiteet (Strategiakartan logiikan mukaisesti organisaation keskeisten tavoitteiden ja mittareiden määrittely, tavoitteiden saavuttamista edistävien strategisten toimenpiteiden määrittely) (Kaplan & Norton, 2004).

Edellä kuvatun konseptin kyvykkyyksiin ja arvolupauksiin liittyvät työkalut tuottavat tietoa, joka tiivistyy strategiakarttaan. Näin strategiakarttaan voidaan tuottaa tietoa vähittäin, ja työskentelyprosessi toimii sujuvammin. Strategiakartta tiivistää organisaation strategisen logiikan lähtien menestykseen (talouteen) liittyvistä tavoitteista ja mittareista, asiakasarvolupauksen osa-alueista, prosesseista ja aktiviteeteista edeten aina resursseihin ja osaamisiin. Toisin sanoen, osaamisesta ja resursseista tuotetaan prosesseilla asiakasarvoa (Long & Vickers-Koch, 1995), mikä mahdollistaa menestymiseen liittyvien tavoitteiden saavuttamisen. Lopuksi strategiakartan määrittelemän logiikan mukaisesti tunnistetaan keskeiset tavoitteet, mittarit ja strategiset toimenpiteet. Toimintatapa (konsepti), mukaan lukien työkalut, niiden käyttämisen järjestys ja tapa toimia, rakennettiin vastaamaan kaupunkistrategian tarpeita huomioiden julkisen organisaation erityispiirteet ja painottaen ohjausta kohti ketterämpää toimintatapaa. Kehitetyn toimintatavan vahvuudet voidaan tiivistää seuraavasti:

- Konsepti tiivistää organisaation strategisen logiikan, keskeiset toimintaa ohjaavat mittarit, ja strategiset toimenpiteet,
- on riittävän yksinkertainen ja selkeä ollakseen helppokäyttöinen ja mahdollistaakseen koko henkilöstön osallistamisen,
- pitää sisällään menestymisen mittarit, asiakasarvon, keskeiset prosessit ja resurssit,
- on dokumentoitavissa tiiviisti muutamalle kalvoille – tiiveimmässä muodossaan yhdelle kalvolle, jolloin raportoidaan ainoastaan strategiakartta.

Maailman paras

Kaupunkistrategian ensimmäisenä osa-alueena ja kivijalkana toimii resurssiperustaisen teorian lähestymistapa (Vaasan kaupungin strategia),

josta erityisesti ydinkyvykkyysajattelua on hyödynnetty strategiatyön pohjana. (Barney, Ketchen, & Wright, 2011; Barney, 1991) kuvaa ydinkyvykkyyksien olevan ainutlaatuisia, vaikeasti korvattavia ja vaikeasti kopioitavia. Tutkijat (Eisenhardt & Martin, 2000) näkevät ydinkyvykkyyksien koostuvan monista hyvin tunnetuista prosesseista kuten tuotekehityksestä ja strategisesta päätöksentekokyvystä. Ydinkyvykkyydet luovat kilpailuetua muuttamalla resurssipohjaa; luomalla, yhdistämällä ja vapauttamalla resursseja (Eisenhardt & Martin, 2000).

Kaupunkiorganisaation johtajan näkökulmasta ydinkyvykkyys tiivistyy seuraavaan:

Pitää olla maailman paras jossain, että pärjää (johtaja 1, tammikuu 2013)

Vaasan kaupungin kilpailuedun nähdään rakentuvan viiden keskeisen osa-alueen varaan: Näitä elementtejä ovat hyvinvointi, nopealiikkeisyys, kansainvälisyys, historiallisuus ja energisyys. Tämän työkalun kohdalla pienryhmät työstivät ajatuskarttoja, jotka esiteltiin koko valtuustolle, ja joista tiivistettiin yhteinen näkemys. Tästä keskusteltiin jälkikäteisesti sekä johtoryhmässä että valtuustossa. Olennaista oli, että tuotettu kokonaisnäkemys heijasteli kattavasti eri pienryhmien tuotoksia, jotta osallistujat kokivat prosessin tuotoksen omakseen.

Keskeiset menestymisen elementit näkyivät hyvin myös haastateltavien puheissa: "*meillä on aika vahva työperäinen maahanmuutto nimenomaan Vaasassa ja perheille ja lapsille on sitten kehitetty englanninkielistä koulutusta… houkuttelevuutta on kehitetty kulttuurielämästä, vapaa-ajan mahdollisuuksista ja muista tällasista*" -johtaja 1, tammikuu, 2013

Arvolupaus

Arvolupauksen kehittämisessä hyödynnetty teoreettinen viitekehys ja työkalu nojaa sinisen meren strategiaan (Kim & Mauborgne, 2005). Sinisen meren strategian ydinajatus piilee erilaistamisessa. Punaisella merellä kilpailevat kaikki, sininen meri sen sijaan on kilpailematon, koska vastaavaa tapaa toimia ei markkinoilla vielä ole. Työkalu auttaa organisaatiota tunnistamaan arvolupauksen osa-alueet, ja käymään ohjattua keskustelua jotta yhteinen näkemys

löydettäisiin. Kaupunkistrategiaa työstettäessä arvolupausta (Vaasan kaupungin strategia) muokattiin kaupungin toiveiden mukaisesti siten, että kaupunkia ei peilattu vasten muita kaupunkeja, vaan kaupunki arvioi nykytilaansa ja tavoitetilaansa kyseisen työkalun avulla. Kaupunki määritteli pääasiakkaikseen kuntalaiset, yritykset ja yhteisöt. Sinisen meren strategian mukaista työkalua hyödyntäen kaupunki määritteli ne arvolupauksen osa-alueet, jotka kullekin yllämainitulle asiakasryhmälle luvataan.

Strategiakartta

Kolmantena työkaluna kaupunkistrategiaa työstettäessä käytettiin strategiakarttaa. Strategiakartta pohjautuu Kaplanin ja Nortonin (1996) tunnettuun tasapainotettuun tuloskorttiin. Strategiakartassa yhdistyvät organisaation

menestymiseen liittyvä taloudellinen näkökulma, asiakasnäkökulma, prosessien näkökulma sekä osaamisten ja resurssien näkökulma. Menetelmää kehitettiin tätä prosessia varten siten, että tasapainotetun mittariston oppiminen ja uudistuminen korvattiin resursseilla ja osaamisella, jotta kartta noudatteli resurssiperustaisen teorian logiikkaa, eli prosessit mahdollistavat asiakasarvon tuoton resursseista ja osaamisista (Long & Vickers-Koch, 1995). Vaasan kaupungin strategiakartassa (kuvio 1) kuvataan kriittiset taloudelliset tavoitteet, asiakasarvolupaukset, kehitettävät prosessit, resurssit ja osaamiset. Olennaisinta on, että strategiakartta tiivistää organisaation strategisen logiikan, eli tekijöiden väliset suhteet, joiden yhteisvaikutuksesta kilpailuedun ajatellaan syntyvän, ja tavoitteet saavutettavan. Kuvio tiivistää siis myös noiden tekijöiden välisen logiikan eri asiakasryhmittäin.

Kuvio 1.   Vaasan kaupungin strategiakartta.

Tavoitteet mittarit ja toimenpiteet

Työkalupaketin viimeisen työkalun tavoitteena on aiemman työskentelyn pohjalta selkeyttää ja konkretisoida kaupungin tavoitteita, mittareita ja toimenpiteitä (Vaasan kaupungin strategia). Konkreettisista toimenpiteistä päättäminen (investoinnit/ priorisoinnit) ja niiden kirjaaminen osoittautui erityisen haastavaksi tehtäväksi. Päätöksiä varten tutkijat olivat koonneet yhdessä kaupungin kehittäjien kanssa ehdotuksia investoinneista ja priorisoinneista, jotka kehittäisivät kaupunkia uuden strategian mukaisesti. Näistä huolimatta toimenpiteet jäivät ajoittain varsin abstraktille tasolle ensimmäisen vuoden strategiatyössä.

Strategiaprosessi käytännössä

Valtuustotasoinen strategiatyö käynnistyi valtuuston kaksipäiväisellä strategiaseminaarilla vuoden 2013 alussa. Valtuuston tahtotila kaupungin kehittämiseen oli käsin kosketeltavan päämäärätietoinen: ”*kaikessa pitäs pyrkii siihen, että joko sä oot maailman paras tai Euroopan paras tai Suomen paras ja kaikki muut voi unohtaa*” (valtuutettu 1, 2013).

Strategiaseminaariin osallistuivat valtuutetut, kaupungin johtoryhmä sekä viranhaltijoita eri toimialoilta. Osallistamisen merkitystä haluttiin korostaa prosessin alkuvaiheesta lähtien kuten aiemmassa tutkimuksessa on esitetty, sillä osallistamisen kautta voidaan vahvistaa henkilöstön sitoutumista (Collier ym., 2004; Laine & Vaara, 2015). Valtuutetut työstivät pienryhmissä kutakin aihealuetta sovittuja strategiatyökaluja hyödyntäen. Pienryhmiä johtivat kaupungin johtoryhmän jäsenet tutkijoiden toimiessa ryhmien sparraajina. Näin johtoryhmän jäsenet pystyivät tarjoamaan merkityksellisiä tulkintoja kaupungin tilanteesta ja tahtotilasta yhteisen strategisen ajattelun kehittämiseksi (Thomas ym., 1993).

Kahden päivän seminaarityöskentelyn tuloksia työstettiin eteenpäin yhdessä kaupungin sisäisten kehittäjien ja tutkijoiden toimesta. Sisäisten kehittäjien ja tutkijoiden ydinryhmä tiivisti aikaansaatuja Power Point- kalvoja käyden vuoropuhelua kaupungin johtoryhmän kanssa. Tiivistyneen strategiasisällön työstämistä jatkettiin eteenpäin valtuuston kanssa kuukauden kuluttua ensimmäisestä kaksipäiväises-

tä strategiatyöpajasta. Valtuuston strategiatyöskentelyn rinnalla käynnistyi toimialatasoinen strategiatyö kaikilla kaupungin toimialoilla. Toimialajohtajat veivät valtuustotasoisen strategiatyön viestejä toimialalleen yhdessä päätutkijan ja sisäisen kehittäjän kanssa. Tuossa työssä strategiatyökalut valtuuston ja johtoryhmän luomine sisältöineen toimivat materiana, joka pyrki edesauttamaan yhteisen ymmärryksen rakentumista. Toimialatasoisten strategiatyöpajojen mahdollistama keskijohdon osallistaminen nähtiin kaupunkiorganisaatiossa tärkeänä sekä strategiatyön jalkauttamisen, mutta myös strategiatyön kehittämisen välineenä: ”*Meil on yli 300, melkein 400 esimiestä. Niitten myötä se nousee tai kaatuu, et kuinka me saadaan niille se ajatus ja ymmärrys siitä (strategiatyöstä)*” (johtaja 5, kesäkuu 2013). Keskijohdolla oli tärkeä rooli strategisten syötteiden antajana, ylimmän johdon viestin vastaanottajana ja tulkitsijana, sekä myös viestin välittäjänä toiminnallaan, ajattelullaan ja vuorovaikutuksellaan (Balogun & Johnson, 2004; Balogun, 2005; Gioia & Chittipeddi, 1991). Toimialatyöskentelyn jälkeen sisäiset kehittäjät ja tutkijat työstivät strategiamateriaalia eteenpäin yhdessä johtoryhmän kanssa. Valtuusto hyväksyi ylistäen ja yksimielisesti uuden kaupunkistrategian kokouksessaan kesäkuussa 2013.

Strategian hyväksymisen jälkeen toimialojen tulosalueet ja palvelualueet aloittivat oman strategiatyönsä samoilla työkaluilla ja menetelmillä päätutkijan ja sisäisten kehittäjien toimiessa työryhmien fasilitaattorina. Samaan aikaan kaupungin esimiesten tietotaidon lisäämiseksi kaupunki järjesti esimiehille ja johtajille suunnatun vuoden mittaisen esimieskoulutuksen, jonka yhtenä osa-alueena oli strateginen johtaminen. Tuon koulutuksen läpikävi vuosien 2012–2015 aikana yli 400 kaupungin esimiestä ja johtajaa. Esimieskoulutuksen strategiaosio koostui samoista työkaluista kuin kaupungin varsinainen strategiatyö. Esimieskoulutuksen strategiaosioon liittyi myös käytännön harjoitus, jossa jokainen koulutukseen osallistunut esimies oli mukana tekemässä kaupunkistrategiaan pohjautuvaa yksikkötasoista strategiaa valitsemalleen organisaatiolle.

Kaupungin johtoryhmä linjasi kaupunkistrategian jatkotyöstämisen marraskuussa 2013. Kaupungin johtoryhmä päätti, että strategia-

työ on velvoittavaa sosiaali- ja terveystoimessa palvelualuetasolle saakka, teknisessä toimessa tulosaluetasolle saakka sekä sivistystoimessa sopivan kokoisiin toiminnallisiin kokonaisuuksiin saakka sivistystoimen organisaatiomuutoksen ollessa kesken. Vuonna 2014 strategiaa työstettiin kaupunginvaltuustossa, kaupungin johtoryhmässä, toimialatasolla, sekä tulos- ja palvelualuetasolla.

Helmikuussa 2014 kaupungin johtoryhmä kokoontui yhdessä toimialojen tulosaluejohtajien kanssa käymään läpi kunkin toimialan ja tulosalueen keskeisiä strategisia linjauksia tutkijoiden toimiessa työryhmätyöskentelyn ohjaajina. Tapaamisen materiaalista koostettu tieto loi perustan valtuuston ja johtoryhmän strategiatyölle, joka vuonna 2014 toteutettiin toimialakohtaisesti. Työskentelyn tavoitteena oli erityisesti strategisen ohjauksen lisääminen konkreettisten toimenpiteiden kautta. Sosiaali- ja terveystoimi, sivistystoimi, sekä tekninen toimi päivittivät toimialatasoiset strategiansa keväällä 2014. Toimialatasoisiin strategiatyöpajoihin osallistuivat toimialojen johtoryhmät, eli käytännössä tulosaluejohtajat, talous- ja henkilöstövastaavat, kehittämispäälliköt sekä henkilöstön edustajat.

Valtuuston, kaupungin johtoryhmän, toimialojen työskentelyn pohjalta kaupunkistrategia päivitettiin keväällä 2014. Kaupunginvaltuusto hyväksyi strategiapäivityksen toukokuussa 2014. Strategiapäivityksen jälkeen sisäisten kehittäjien ryhmä lähti yhdessä päätutkijan kanssa päivittämään tulosalueiden ja palvelualueiden strategioita syksyllä 2014. Sosiaali- ja terveystoimessa tulosalueita vuonna 2014 oli 4, teknisessä toimessa 11, sivistystoimen organisaatiomuutoksen vuoksi toimialalle koottiin kolme strategiatyöryhmää. Strategiatyöryhmiin osallistui tulosaluekohtaisesti vaihdellen toimialajohtaja, tulosaluejohtaja, palvelualuejohtaja, lähiesimiehet, tiiminvetäjät ja työntekijät. Tulosaluetasoisen työskentelyn jälkeen siirryttiin sosiaali- ja terveystoimessa palvelualuetasoiseen strategiatyöhön, kun taas sivistystoimessa ja teknisessä toimessa samanlaista palvelualuerakennetta ei ollut. Myös tulosyksiköille tarjottiin mahdollisuutta strategiatyöskentelyyn, joskaan kaupungin johtoryhmä ei tätä tulosyksiköiltä velvoittanut. Johtoryhmä jatkoi strategiatyötä loka-marraskuussa kuullen tulos- ja palvelualueilla syntyneen strategiatyön tiivistykset, joita johtoryhmä

hyödynsi valmistautuessaan seuraavan vuoden strategiatyöhön.

Kuntalaisia pyrittiin osallistamaan strategiatyöhön erilaisin keinoin: mm. kansalaisraateja, World Cafe'ita, Facebook-sivuja ja haasteryhmiä kokeiltiin. Facebook-sivujen osalta keskustelu jäi toivottua vähäisemmäksi, mutta muutoin kuntalaisten osallistuminen oli yllättävänkin aktiivista. Erityisesti haasteryhmät keräsivät kiitosta, ja haasteryhmien toiminta tullee jatkumaan Vaasan kaupungin kehittäessä kuntalaisten osallistumismahdollisuuksia. Haasteryhmien yksinkertaisena ideana on ollut kaupungin johtoryhmän lähettämä kutsu toimia kaupunkistrategian haastajaryhmänä. Tähän mennessä kutsun ovat saaneet nuorisovaltuusto, ikäneuvosto sekä korkeakouluopiskelijat. Vuosittain toistuneeseen, ja useilla eri tasoilla edenneeseen strategiaprosessiin osallistettiin keskijohtoa, lähiesimiehiä ja kuntalaisia strategiatyöhön tavalla, jota ei ollut aiemmin hyödynnetty.

Strategian toteuttamisen haasteena voidaan nähdä monen tulosyksikön osalta valtiontasoinen ohjaus, joka joissain tapauksissa näyttäytyi ristiriidassa kaupunkitason intressin kanssa. Myös vahvojen ammatti-identiteettien ammattikunnissa, kuten esim. opettajilla ja lääkäreillä, identifioituminen tapahtui useammin ammatin kuin organisaation kautta, mikä asetti kaupunkiorganisaation yhteisen näkemyksen muodostumisen ajoittain haasteelliseksi. Ehkäpä strategiatyö voidaankin nähdä myös yhteisen identiteetin rakentamisen prosessina (Gioia & Patvardhan, 2012; Gioia, Patvardhan, Hamilton, & Corley, 2013).

Valtuustotasolla kokemukset osallistavista strategiaseminaareista ja strategiatyöskentelystä ylipäätään olivat positiiviset: *"se itse prosessi on mun mielest ollu hirveen tärkee näille ihmisille eikä se välttämättä se viimenen paperi oo niin hirveen tärkee ... ihmiset on joutunu miettimään niitä asioita, että mitkä jutut on tärkeitä ja varmaan on jääny takaraivoon jotain, mitä voi miettii myös yksittäisessä lautakunnassa, jossa on yksittäisen pykälän kohdalla , et viekö tää ny meitä lähemmäs sitä, minne meijän pitäs olla olla menos vaiko ei"* (valtuutettu 1, kesäkuu 2013). Kaupunginvaltuusto hyväksyi uuden kaupunkistrategian yllättävänkin yksimielisesti. Osallistamisella nähtiin olevan ratkaiseva rooli yhteisen strategisen ymmärryksen kehittämisessä: *"Jotenkin varmaan se sitoutuminen*

siihen (strategiaan) tapahtui prosessin aikana, että sitten se leimattiin nuijan kopautuksella, ja kaupunginjohtajan lyhyellä esittelyllä" (johtaja 2, kesäkuu 2013).

JOHTOPÄÄTÖKSET JA POHDINTA

Teoreettinen kontribuutio

Tämä tutkimus kontribuoi strategia käytäntönä -tutkimukseen julkisen sektorin kontekstissa tuottamalla tietoa sosiomateriaalisista käytännöistä strategiatyön prosessissa. Tutkimuksen teoreettinen kontribuutio voidaan jakaa kolmeen osaan.

Ensiksi, tutkimus kontribuoi tuottamalla kuvan julkisorganisaation osallistavasta ja monisoisesta strategiaprosessista. Tutkimuksessa esiteltiin poliitikkojen, johtoryhmän, keskijohdon, lähiesimiesten, työntekijöiden ja kuntalaisten osallistumisen mahdollistava strategiaprosessi. Tutkimus kontribuoi strategia käytäntönä -kirjallisuuteen kehittämällä sosiomateriaalisista käytännöistä ja työkaluista julkisorganisaatioille sopivan konseptin. Tämän tutkimuksen lähestymistapa ja kehitetty toimintamalli on erityinen, sillä tutkimus on ensimmäinen, joka paketoi sosiomateriaalisia strategiatyökaluja ja menetelmiä edellä esitetyn kaltaiseksi konseptiksi.

Toiseksi, tämä tutkimus avaa sitä, millaisia sosiomateriaalisia strategiatyökaluja voidaan hyödyntää julkissektorin kuntaorganisaation kontekstissa. Strategiatyökalut olivat: 1) ydinkyvykkyydet, 2) arvolupaus 3) strategiakartta 4) tavoitteet, mittarit ja toimenpiteet. Valitut työkalut tukivat Vaasan kaupungin tavoitetta ketteryyden ja osallistamisen lisäämisestä kaupungin strategiatyöhön. Työkalut täydensivät toisiaan, prosessi eteni aina aiemman työskentelyn päälle rakentaen, ja työkalut olivat riittävän helppokäyttöisiä osallistavassa työskentelyssä organisaation eri tasoilla. Oikeiden työkalujen löytämiseen käytettiin paljon aikaa ja energiaa. Valittujen työkalujen linkittyminen toisiinsa ja niiden välisen suhteen rooli kaupunkistrategian kehittymisessä on merkityksekäs. Työkalut ja niiden järjestys on rakennettu siten, että strategia etenee johdonmukaisesti kunkin osa-alueen rakentuessa edellisen osa-alueen päälle luoden koherentin kokonaisuuden.

Ydinkyvykkyyteen liittyvä näkökulma sai organisaation pohtimaan kilpailuetunsa lähteitä, eli sitä perustaa, mille kaupungin kehittämistä ollaan rakentamassa. Strategiatyöpajoissa ydinkyvykkyyttä määriteltiin kuvaamalla sitä resurssien, osaamisten, toimintatapojen ja prosessien kokonaisuutta, joiden yhdistelmänä kilpailuetu muodostuu (Barney ym., 2011; Barney, 1991; Long & Vickers-Koch, 1995). Tämä näkökulma auttoi osallistujia määrittelemään yhteistä käsitystä kilpailuedun perusteista ja siten kehittämään yhteistä näkemystä strategiasta.

Arvolupaus-viitekehyksen (Kim & Mauborgne, 2005) avulla organisaatio määritti keskeiset asiakasryhmänsä sekä ne arvolupauksen komponentit, jotka tuottavat arvoa asiakkaalle nyt ja tulevaisuudessa. Organisaatio arvioi nykytilaansa arvolupausten osalta, sekä määritteli organisaation kilpailuedun kannalta kriittisimmät osiot asettaen yhteisen tulevaisuuden tavoitetilan priorisoiden arvolupauksia. Työkalu mahdollisti laajassa kuntaorganisaatiossa yhteisen ymmärryksen rakentumista, paitsi organisaation keskeisistä asiakasryhmistä, myös keskeisistä strategisista painopisteistä organisaation menestymisen mahdollistajina. Vastakkainasettelu yrityssektorille painottuvien investointien ja peruspalveluiden tuottamisen välillä lienee tuttu haaste lähes kaikissa kuntaorganisaatioissa. Arvolupaus-viitekehyksen käyttö mahdollisti merkityksekkäiden sisältökeskusteluiden käymisen kuntaorganisaation eri tasoilla. Kuntaorganisaation menestymisen taustalla olevan logiikan avaaminen varsinkin tulos- ja palvelualueiden strategiatyöpajoissa oli tärkeää yhteisen ymmärryksen kehittämiseksi. Keskustelut investointien roolista yritysten etabloitumisen mahdollistajina, ja sitä kautta kestävän rahoituspohjan rakentaminen palveluiden tuottamiseksi avasi uudenlaista strategista ajattelua myös lähiesimiehille.

Strategiakartan (Kaplan & Norton, 2004) rooli organisaation strategiatyössä oli kokoava. Organisaatio tiivisti viisi keskeistä taloudellista tai menestymiseen liittyvää tavoitetta, joiden toteutuminen mahdollistaisi organisaation menestymisen. Taloudellisten tavoitteiden asettaminen osoittautui erityisen haastavaksi tulos- ja palvelualuetasoisessa strategiatyöskentelyssä. Taloudellisen näkökulman mittaamista kyseenalaistettiin paljon varsinkin varhaisessa strategiaprosessin vaiheessa. Budjetissa pysyminen nähtiin usein riittäväksi taloudelliseksi tavoitteeksi, mikä kuvastaa hyvin kuntaorganisaa-

tion keskijohdon ajattelutavan eroa verrattuna yrityspuolelle. Lähtötilanteen ollessa kuvatun kaltainen, käyttivät tutkijat ja sisäiset kehittäjät paljon aikaa strategiatyöpajoissa taloudellisten tavoitteiden merkityksen avaamiseen. Organisaation menestymisen mittaaminen taloudellisten tavoitteiden kautta avautui lukuisten keskusteluiden ja yhteisten pohdintojen kautta. Kuntaorganisaatiossa elänyt diskurssi mittaamisen mahdottomuudesta hävisi lähes kokonaan kahden vuoden prosessin myötä. Keskustelut rakensivatkin organisaation yhteistä strategista ajattelutapaa dynaamisemmaksi ja eteenpäin pyrkivämmäksi.

Kolmanneksi, tutkimus auttaa ymmärtämään osallistavaa strategiaprosessia ja osallistamisen merkitystä strategiatyölle ja strategian toteuttamiselle (Laine & Vaara, 2015; Mantere & Vaara, 2008). Laajassa kuntaorganisaatiossa osallistavan strategiaprosessin toteuttaminen vaatii paitsi hyvää suunnittelua, myös johtohenkilöiden sitoutumista prosessiin sekä aikaresurssien että taloudellisten resurssien muodossa. Organisaation eri tasojen osallistaminen mukaan strategiatyöhön edellyttää aitoa halua kuulla ja hyödyntää eri organisaatiotasojen näkökulmia strategiatyöhön. Strategiatyöhön osallistaminen ei pelkästään riitä, vaan osallistamisella aikaansaatuja näkökulmia täytyy kyetä uskottavasti integroimaan kaupunkitasoiseen strategiatyöhön. Tässä tutkimuksessa laajalle osallistamiselle annettiin paljon painoarvoa. Eri organisaatiotasoja osallistamalla pyrittiin paitsi laajentamaan näkökulmia organisaation strategiatyöhön, myös helpottamaan strategian jalkauttamista, joka tässä tutkimuksessa nähtiin tiiviinä osana koko strategiaprosessia. Strategian vuosittainen päivittäminen mahdollisti eri organisaatiotasojen strategiatyön näkyväksi tekemisen ja eteenpäin viemisen ja tarjosi väylän vaikuttamiseen ja kuulluksi tulemiseen.

2000-luvulla strategisen suunnittelun merki-

tys julkisella sektorilla mm. Yhdysvalloissa on kasvanut (Bryson, 2010). Myös Suomessa strategian rooli kuntaorganisaation johtamisessa saanee lisää jalansijaa viimeistään uuden kuntalain astuessa voimaan vuonna 2017, jolloin strategiatyö on velvoittavaa jokaisessa Suomen kunnassa. Tässä tutkimuksessa kehitetty konsepti pyrkii selkiyttämään strategista lähestymistapaa ja mahdollistamaan sellaisen strategian kehittämisen, joka parhaimmillaan ohjaa organisaation toimintaa ja kokonaisuutena tehostaa organisaation kehittämistä. Oikotietä organisaation yhteisen strategisen ymmärryksen kehittämiseen konsepti ei tarjoa, vaan yhteisen ymmärryksen rakentuminen ja organisaation nopeampi kehittyminen vaatii aikaa, taloudellisia panostuksia sekä aitoa halua jatkuvaan kehitystyöhön.

Tämä tutkimus rajoittuu yhteen tapaukseen, joten tutkimuksen tuottamat tulokset eivät sinällään ole yleistettävissä muihin konteksteihin, joskin tehty työ on ollut laaja-alaista ja syvällistä. Jatkossa sosiomateriaalisten käytäntöjen tutkimusta voisi laajentaa paitsi muihin kaupunkeihin, myös muihin konteksteihin ja analyysiyksiköihin. Mielenkiintoista olisi esimerkiksi tutkia yksittäisten toimijoiden ja erityisesti kehollisuuden roolia strategiaworkshopeissa. Tässä tutkimuksessa keskijohdon roolia painotettiin läpi strategiatyön, sillä keskijohdon rooli nähtiin erityisen merkitykselliseksi. Jatkotukimusta voitaisiin tehdä myös sellaisten strategisten aloitteiden etenemisestä, jotka lähtevät keskijohdosta. Kiinnostavaa olisi myös esimerkiksi toimintatutkimuksellisin menetelmin tutkia sitä, miten keskijohtoa voitaisiin paremmin valtuuttaa toimijuuteen jo strategiatyön alkuvaiheissa ylimmän johdon toimiessa enemmänkin ohjaavassa kuin sisällön tuottajan roolissa. Koska sosiomateriaalisuus on aina konteksti – ja tilannesidonnaista (Jarzabkowski & Pinch, 2013), voisi edellä kuvattu asetelma tuottaa mielenkiintoista uutta tietoa strategiatutkimuksen kentälle.

LÄHTEET

Andrews, K. (1971). *The concept of corporate strategy*. New York: Dow-Jones Irwin.

Ansoff, I. (1965). *Corporate strategy*. New York: McGraw-Hill.

Ansoff, I. (1980). Strategic issue management. *Strategic Management Journal*, *1*(2), 131–148.

Ashmos, D., Duchon, D., McDaniel, R., & Huonker, J. (2002). What a mess! Participation as a simple managerial rule to "complexify" organizations. *Journal of Management Studies*, *39*(2), 189–206.

Balogun, J. (2005). From intended strategies to unintended outcomes: The impact of change

recipient sensemaking. *Organization Studies*, *26*(11), 1573–1601.

Balogun, J., Jacobs, C., Jarzabkowski, P., Mantere, S., & Vaara, E. (2014). Placing strategy discourse in context: Sociomateriality, sensemaking, and power. *Journal of Management Studies*, *51*(2), 175–201.

Balogun, J., & Johnson, G. (2004). Organizational restructuring and middle manager sensemaking. *Academy of Management Journal*, *47*(4), 523–549.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Barney, J., Ketchen, D. J., & Wright, M. (2011). The future of resource-based theory: Revitalization or decline? *Journal of Management*, *37*(5), 1299–1315.

Boyne, G. A., & Walker, R. M. (2010). Strategic management and public service performance: The way ahead. *Public Administration Review*, *70*(December), 185–192.

Brown, T. (2010). The evolution of public sector strategy. *Public Administration Review*, *70*(December), 212–215.

Bruhn, J. G., Zajac, G., & Al-Kazemi, A. A. (2001). "Ethical perspectives on employee participation in planned organization change: A survey of two state public welfare agencies". *Public Performance and Management Review*, *25*(2), 208–228.

Bryson, J. M. (2010). The future of public and nonprofit strategic planning in the United States. *Public Administration Review*, *70*(December), 255–268.

Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, Knowledge and Action Reserch*. London: Falmer.

Chandler, A. D. (1962). *Strategy and structure: Chapters in the history of the American industrial enterprise*. Cambridge: Massachusetts Institute of Technology Press.

Collier, N., Fishwick, F., & Floyd, S. W. (2004). Managerial involvement and perceptions of strategy process. *Long Range Planning*, *37*(1), 67–83.

Dooley, R., Fryxell, G., & Judge, W. (2000). Belaboring the not-so-obvious: consensus, commitment, and ctrategy implementation speed and success. *Journal of Management*, *26*(6), 1237–1257.

Dutton, J. E., & Duncan, R. B. (1987). The creation of momentum for change through the process of strategic issue diagnosis. *Strategic Management Journal*, *8*(3), 279–295.

Eisenhardt, K. M., & Sull, D. N. (2001). Strategy as simple rules. *Harvard Business Review*, *79*(1), 106–116.

Eisenhardt, K., & Martin, J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, *21*(10/11), 1105–1121.

Fernandez, S., & Rainey, H. G. (2006). Managing successful organizational change in the public sector. *Public Administration Review*, *66*(2), 168–176.

Floyd, S. W., & Wooldridge, B. (1992). Middle management involvement in strategy and its association with stategic type: A research note. *Strategic Management Journal*, *13*, 153–167.

Gephart, R. P. J. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of Management Journal*, *36*(6), 1465–1514.

Giddens, A. (1984). *The constitution of society*. Berkeley: University of Califonia Press.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Joumal*, *12*(6), 433–448.

Gioia, D. a., Patvardhan, S. D., Hamilton, A. L., & Corley, K. G. (2013). Organizational identity formation and change. *The Academy of Management Annals*, *7*(1), 123–193.

Gioia, D., & Patvardhan, S. (2012). Identity as process and flow. In M. Schultz, S. Maguire, A. Langley, & H. Tsoukas (Eds.), *Constructing identity in and around organizationa* (pp. 50–62). Oxford: Oxford University Press.

Hutzschenreuter, T., & Kleindienst, I. (2006). Strategy-process research: What have we learned and what is still to be explored. *Journal of Management*, *32*(5), 673–720.

Jarzabkowski, P. (2004). Strategy as practice: Recursiveness, adaptation, and practices-in-use. *Organization Studies*, *25*(4), 529–560.

Jarzabkowski, P., & Balogun, J. (2009). The practice and process of delivering integration through strategic planning. *Journal of Management Studies*, *46*(8), 1255–1288.

Jarzabkowski, P., Balogun, J., & Seidl, D. (2007). Strategizing: The challenges of a practice perspective. *Human Relations*, *60*(1), 5–27.

Jarzabkowski, P., Burke, G., & Spee, P. (2015). Constructing spaces for strategic work: A multimodal perspective. *British Journal of Management*, *26*(S1), S26–S47

Jarzabkowski, P. & Kaplan, S. (2015). Strategy tools-in-use: A framework for understanding "technologies of rationality" in practice. *Strategic Management Journal*, 36 (537-558).

Jarzabkowski, P., Spee, P., A., & Smets, M. (2013). Material artifacts: Practices for doing strategy with "stuff." *European Management Journal*, *31*(1), 41–54.

Jarzabkowski, P., & Pinch, T. J. (2013). Socio-materiality is "the New Black": Accomplishing repurposing, reinscripting and repairing in context. *M@n@gement*, *16*(5), 579–592.

Jarzabkowski, P., & Sillince, J. (2007). A rhetoric-in-context Approach to building commitment to multiple strategic goals. *Organization Studies*, *28*(11), 1639–1665.

Jarzabkowski, P., & Spee, A. P. (2009). Strategy-as-practice: A review and future directions for the field. *International Journal of Management Reviews*, *11*(1), 69–95.

Johnson, G., Melin, L., & Whittington, R. (2003). Micro strategy and strategizing : Towards an activity-based view. *Journal of Management Studies*, *40*(1), 3–22.

Kaplan, R. S., & Norton, D. P. (1996). Using the balanced scorecard as a strategic management system. *Harvard Business Review*, *74*(1), 75–85.

Kaplan, R. S., & Norton, D. P. (2004). *Strategy maps- converting intangible assets into tangible outcomes*. Boston, Massachusetts: Harvard Business Review Press.

Kaplan, S. (2011). Strategy and PowerPoint: An inquiry into the epistemic culture and machinery of strategy making. *Organization Science*, *22*(2).

Kim, W., & Mauborgne, R. (2005). Blue ocean strategy: From theory to practice. *California Management Review*, *47*(3), 105–121.

Kohtamäki, M., Kraus, S., Mäkelä, M., & Rönkkö, M. (2012). The role of personnel commitment to strategy implementation and organisational learning within the relationship between strategic planning and company performance. *International Journal of Entrepreneurial Behaviour & Research*, *18*(2), 159–178.

Kornberger, M., & Carter, C. (2010). Manufacturing competition: how accounting practices shape strategy making in cities. *Accounting, Auditing & Accountability Journal*, *23*(3), 325–349.

Kornberger, M., & Clegg, S. (2011). Strategy as performative practice: The case of Sydney 2030. *Strategic Organization*, *9*(2), 136–162.

Kosonen, M. (2015). Johtaminen muutoksen ajurina. Haettu sivulta http://www.sitra.fi/blogi/julkishallinnon-johtaminen/johtaminen-muutoksen-ajurina.

Kuntalaki 410/2015. Haettu sivulta http://www.finlex.fi/fi/laki/ajantasa/2015/20150410?-search%5Btype%5D=pika&search%5Bpika%5D=kuntalaki.

Lado, A. A., Boyd, N. G., Wright, P., & Kroll, M. (2006). Paradox and theorizing within the resource-based view. *Academy of Management Review*, *31*(1), 115–131.

Laine, P.-M., & Vaara, E. (2007). Struggling over subjectivity: A discursive analysis of strategic development in an engineering group. *Human Relations*, *60*(1), 29–58.

Laine, P.-M., & Vaara, E. (2015). Participation in strategy work. In D. Golsorkhi, L. Rouleau, D. Seidl, & E. Vaara (Eds.), *Cambridge Handbook of Strategy as Practice*. Cambridge: Cambridge University Press.

Leonardi, P. M., & Barley, S. R. (2008). Materiality and change: Challenges to building better theory about technology and organizing. *Information and Organization*, *18*(3), 159–176.

Liedtka, J. (2000). Strategic planning as a contributor to strategic change: a generative model. *European Management Journal*, *18*(2), 195–206.

Long, C., & Vickers-Koch, M. (1995). Using core capabilites to create competitive advantage. *Organizational Dynamics*, *24*(1), 7–22.

Lüscher, L. S., & Lewis, M. W. (2008). Organizational change and managerial sensemaking: Working through paradox. *Academy of Management Journal*, *51*(2), 221–240.

Mantere, S. (2008). Role expectations and middle manager strategic agency. *Journal of Management Studies*, *45*(2), 294–316.

Mantere, S. (2010). A Wittgensteinian perspective on strategizing. In L. Golsorkhi, L. Rouleau, D. Seidl, & E. Vaara (Eds.), *Cambridge handbook of strategy as practice* (pp. 155–167). Cambridge: Cambridge University Press.

Mantere, S. (2013). What Is organizational strategy? A language-based view. *Journal of Management Studies*, 50(8), 1408-1426.

Mantere, S., & Vaara, E. (2008). On the problem of participation in strategy: A critical discursive perspective. *Organization Science*, *19*(2), 341–358.

Miller, S., Wilson, D., & Hickson, D. (2004). Beyond planning strategies for succesfully implementing strategic decisions. *Long Range Planning*, *37*(3), 201–218.

Mintzberg, H. (1987). The Strategy Concept I: Five Ps For Strategy. *California Management Review*, *30*(1), 11–24.

Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*.

Mintzberg, H., & Lampel, J. (1999). Reflecting on the strategy process. *Sloan Management Review*, *40*(3), 21–30.

Mintzberg, H., & Waters, J. (1985). Of strategies, deliberated and emergent. *Strategic Management Joumal*, *6*(3), 257–272.

Moisander, J., & Stenfors, S. (2009). Exploring the edges of theory-practice gap: Epistemic

cultures in strategy-tool development and use. *Organization*, *16*(2), 227–247.

Nag, R., Corley, K. G., & Gioia, D. (2007). The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge crafting. *Academy of Management Journal*, *50*(4), 821–847.

Nahapiet, J., & Ghoshal, S. (1997). Social capital, intellectual capital and the creation of value in firms. *Academy of Management Proceedings*, (1), 35–39.

Narayanan, V., Zane, L., & Kemmerer, B. (2011). The cognitive perspective in strategy: An integrative review. *Journal of Management*, *37*(1), 305–351.

Neilimo, K. (1998). Strategiaprosessin kehittäminen maakuntatasolla: Case Pirkanmaa. Vammala: Kunnallisalan kehittämissäätiö.

Orlikowski, W. J., & Scott, S. V. (2008). Sociomateriality: Challenging the separation of technology, work and organization. *Academy of Management Annals*, *2*(1), 433–474.

Paroutis, S., & Pettigrew, A. (2007). Strategizing in the multi-business firm: Strategy teams at multiple levels and over time. *Human Relations*, *60*(1), 99–135.

Porter, M. E. (1990). *Competitive advantage of nations*. New York: The Free Press.

Rannisto, P.-H. (2005). *Kunnan strateginen johtaminen: Tutkimus seinänaapurikuntien strategiaprosessien ominaispiirteistä ja kunnanjohtajista strategisina johtajina*. Tampereen yliopisto.

Reason, P., & Bradbury, H. (2001). *Handbook of action research*. London: Sage Publications.

Regner, P. (2008). Strategy-as-practice and dynamic capabilities: Steps towards a dynamic view of strategy. *Human Relations*, *61*(4), 565–588.

Rouleau, L. (2005). Micro-practices of strategic sensemaking and sensegiving : How middle managers interpret and sell change every day. *Journal of Management Studies*, *42*(7), 1413–1441.

Rouleau, L., & Balogun, J. (2011). Middle managers, strategic sensemaking, and discursive competence. *Journal of Management Studies*, *48*(5), 953–983.

Salminen, A. (1993). *Hallintotiede: Organisaatioiden hallinnolliset perusteet*. Helsinki: Painatuskeskus.

Santalainen, T. (2009). *Strateginen ajattelu & toiminta*. Helsinki: Talentum.

Seidl, D. (2007). General strategy concepts and the ecology of strategy discourses: A systemic-discursive perspective. *Organization Studies*, *28*(2), 197–218.

Sirén, C., & Kohtamäki, M. (2016). Stretching strategic learning to the limit: The interaction between strategic planning and learning. *Journal of Business Research*, *69*(2), 653–663.

Sotarauta, M., & Mustikkamäki, N. (2001). Alueiden kilpailukyvyn kahdeksan elementtiä. Helsinki: Suomen Kuntaliitto.

Stensaker, I., Falkenberg, J., & Gronhaug, K. (2008). Implementation activities and organizational sensemaking. *The Journal of Applied Behavioral Science*, *44*(2), 162–185.

Stenvall, J., & Suikkanen, A. (2003). Julkinen strategiaviidakko on purettava. *Hallinnon Tutkimus*, (2), 103–104.

Taylor, B. (1997). The return of strategic planning-once more with feeling. *Long Range Planning*, *30*(3), 334–344.

Thomas, J. B., Clark, S. M., & Gioia, D. a. (1993). Strategic sensemaking and organizational performance: linkages among scanning, interpretation, action, and outcomes. *Academy of Management Journal. Academy of Management*, *36*(2), 239–70.

Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science*, *13*(5), 567–582.

Vaara, E., Sorsa, V., & Palli, P. (2010). On the force potential of strategy texts: a critical discourse analysis of a strategic plan and its power effects in a city organization. *Organization*, *17*(6), 685–702.

Vaara, E., & Whittington, R. (2012). Strategy-as-practice : Taking social practices seriously. *The Academy of Management Annals*, *6520*(6:1), 285–336.

Vaasan kaupungin strategia. Haettu sivulta https://www.vaasa.fi/sites/default/files/vaasan_kaupunkistrategia_2016-2017_kv11052015.pdf

Walker, R. M., Andrews, R., Boyne, G. A., Meier, K. J., & O'Toole, L. J. (2010). Wakeup call: Strategic management, network alarms, and performance. *Public Administration Review*, *70*(5), 731–741. x

Vartiainen, P., Ollila, S., Raisio, H., & Lindell, J. (2013). *Johtajana kaaoksen reunalla- Kuinka selviytyä pirullisista ongelmista*. Tallinna: Gaudeamus.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, *16*(4), 409–421.

Whittington, R. (1996). Strategy as practice. *Long Range Planning*, *29*(5), 731–735.

MODELING THE PARADOXES IN SERVITIZATION

Suvi Einola
Marko Kohtamäki
Rodrigo Rabetino

Abstract

This study analyzes the paradoxes that emerge when a manufacturer of standardized products and add-on services expands to customized solutions. Applying the comparative case study methodology (46 interviews in four case companies and an analysis of documentary data), this study contributes to the literature on servitization by increasing our understanding of how organizational paradoxes emerge and influence servitization. Hence, by extending the literature on the paradoxes in servitization, this study provides valuable guidelines to companies attempting to cope with the paradoxes that emerge when producing standardized goods and customized solutions within a single company.

1. Introduction

Servitization, or the process through which a company expands from selling products and basic services to delivering customized solutions, is far from simple, and companies seem to struggle with it (Baines et al., 2016; Brady et al., 2005; Galbraith, 2002; Visnjic Kastalli et al., 2013). The rapidly increasing research (Kowalkowski et al., 2017) provides some knowledge about the challenges of servitization (Alghisi & Saccani, 2015; Martinez, Bastl, Kingston, & Evans, 2010; Turunen & Finne, 2014) and the factors that may constrain servitization, such as path dependency and inertia, organizational culture, coordination of supplier network, and misunderstood customer expectations (Bustinza et al., 2017; Gebauer et al., 2005; Martinez et al., 2010; Oliva and Kallenberg, 2003; Saccani et al., 2014). However, despite the evidence presented regarding various factors that mitigate servitization and the emerging adaptation of the concepts of paradoxes and tensions in the servitization literature (Brax, 2005; Gebauer et al., 2005), the literature is limited by its focus on widespread and well-known contingency theory (Burns and Stalker, 1961), which has *"inspired decades of research exploring how contexts influence the effectiveness of opposing alternatives"* (Smith & Lewis, 2011: 381). Although the servitization studies do provide knowledge of factors that mitigate servitization, the servitization literature is missing alternative narratives (Luoto et al., 2017), such as the systematic application of the paradox theory.

The paradox approach provides an alternative lens to the "contingency theory" (Jay, 2013; Lewis, Andriopoulos, & Smith, 2014; Smith & Lewis, 2011), which suggests that instead of choosing "either-or," an organization should accept "both-and" in an attempt to cope with organizational paradoxes. Although the existing literature on industrial services acknowledges many common challenges in servitization (Alghisi and Saccani, 2015; Ng and Nudurupati, 2010), previous studies typically suggest that organizations must make clear choices to reconcile contradictory dimensions. To extend this debate, we build on the paradox theory and argue that when servitizing, manufacturers engage in a new business logic, for what reason they cannot choose between standardized products (and services) and customized solutions. Instead, they must balance two different logics: standardized products (+ add-on services) and customized solutions (+ advanced services). Thus, instead of moving from products to services, servitizing companies must balance contradictory logics (Windahl and Lakemond, 2010). We define customized solutions as tailored product-service solutions that require customization according to customer needs (Baines and Lightfoot, 2013a; Kowalkowski et al., 2015; Lightfoot and Gebauer, 2011; Rabetino et al., 2015; Ulaga and Reinartz, 2011). Customized solutions typically involve customization not only of products but also of service elements, such as advanced services (Baines & Lightfoot, 2013b; Lightfoot & Gebauer, 2011). Thus, for most manufacturing companies, servitization is a transition process from standardized products to customized solutions that involves movement from add-on services to advanced services. However, the transition is not complete: it requires a balancing of various business logics. This tension causes organizational paradoxes to emerge, which we refer to here as "paradoxes in servitization." Because both standardized products (+ add-on services) and customized solutions (+ advanced services) are important to a servitized firm, organizational paradoxes cannot be solved but instead persist over time. Although the prior servitization literature includes two significant studies that have touched upon the issue of the service paradox (Brax, 2005; Gebauer et al., 2005), the servitization literature is missing a systematic application of the paradox theory.

This study is one of the first steps in the journey of analyzing servitization through the paradox lens by addressing the following research question: *How do organizational paradoxes challenge the servitization of manufacturing companies?* Applying the paradox theory (Smith & Lewis, 2011) and data from four leading Finnish manufacturing companies, this study contributes to the servitization literature by identifying paradoxes and tensions that either impede or prevent servitization. While scrutinizing the service paradox metaphor, this study

discusses the tensions involved in servitization and contributes by creating a theoretical framework to analyze and understand the paradoxes of servitization. This study is one of the first to address these emerging paradoxes during this process, which we argue are among the main reasons for the back-and-forth, servitization-deservitization movement that researchers have recently recognized in manufacturing firms (Böhm et al., 2016; Kowalkowski et al., 2017, 2015). For managers of manufacturing companies, this article illustrates key paradoxes that companies encounter during the service transformation. Therefore, this study provides a valuable framework to facilitate the process of servitization.

2. Theory

2.1. Paradox theory

In contrast to contingency theory, the paradox approach provides an alternative lens through which organizations can be examined (Jay, 2013). Whereas the contingency theory suggests that organizations should select a strategy and structure appropriate for the current business environment, the paradox lens suggests that instead of selecting "either-or," an organization should accept "both-and" (Smith and Lewis, 2011). Accordingly, the either-or approach to paradoxes is inadequate (Smith et al., 2010), and an organization must instead cope with paradoxes (Calton and Payne, 2003; Jay, 2013; Poole and van de Ven, 1989).

To avoid confusion among a variety of labels such as "tension," *"dilemma,"* and *"dialectic"* (Smith & Lewis, 2011: 385), we build on Smith and Lewis's (2011: 386) definition of organizational paradox, in which paradoxes are *"contradictory yet interrelated elements that exist simultaneously and persist over time. Such elements seem logical when considered in isolation but irrational, inconsistent, and even absurd when juxtaposed."* Comparing the concept of paradox to a dilemma, a dilemma can be defined as a situation in which one can evaluate advantages and disadvantages and then decide either-or. The dialectic concept refers to a process in which tensions are resolved through integration, potentially leading to another paradox at some point. Thus, paradoxes emerge when contradictory but interrelated elements coexist and persist over time.

Smith and Lewis (2011; see also Lewis 2000; Lüscher and Lewis 2008) identify four dimensions of organizational paradoxes: a) *learning*, b) *organizing*, c) *performing* and d) *belonging*. *Learning paradoxes* refer to paradoxical organizational systems that support radical renewal and change while effectively exploiting existing organizational resources. Emerging from

competing organizational practices, *paradoxes of organizing* result from conflicts between existing routines and change, direction and empowerment, control and flexibility (Smith & Lewis, 2011: 384). In addition, stakeholders' competing interests may facilitate the emergence of competing performance targets, which are known as *paradoxes of performing*. Tensions may emerge between functional targets and organizational-level targets, between a variety of strategic logics, or between individuals and functional targets. Moreover, to reflect on and identify the competing objects of identification—the self, the team, the customer relationship and the company—the model employs the concept of *belonging*. Highlighting co-existing tensions that persist over time, organizations must cope with these types of paradoxes that require the simultaneous facilitation of change and routine. In addition to the main paradoxes, paradoxes may emerge among learning, organizing, performing and belonging.

2.2. Paradoxes in servitization

The process of "transforming manufacturers to compete through product-service systems (PSS) rather than products alone" has been commonly labeled servitization (Baines, Lightfoot, Smart, & Fletcher, 2011, p 638). Studies on servitization have provided mixed evidence on the performance outcomes of servitization, suggesting that the link between servitization and performance can be direct and linear (Homburg et al., 2002), non-linear (Fang et al., 2008; Kohtamäki et al., 2013b) or even non-existent (Gebauer et al., 2005; Neely, 2008). Companies vary with respect to how successful they are in servitization, although the great narrative in servitization literature seems to be relatively homogeneous in favoring servitization (Luoto et al., 2017).

The servitization literature analyzes the challenges or mitigating factors from two perspectives: the contextual, contingency perspective and the perspective of tensions. The vast majority of the servitization literature adopts the former, contingency theoretical perspective, suggesting a variety of mitigating factors such as organizational inertia (Brady et al., 2005), an embedded manufacturing culture (Martinez et al., 2010), manufacturing-driven micro-foundations (Kindström, Kowalkowski, and Sandberg 2013), cognitive barriers (Gebauer et al., 2005; Gebauer & Friedli, 2005), and the failure to recognize productive opportunities (Cohen, Agrawal, & Agrawal, 2006; Spring & Araujo, 2013). In contrast to contingency theory, servitization studies have only rarely adopted the latter perspective, the perspective of tensions, or more accurately, the paradox theoretical perspective.

5

Although the previous servitization research has not systematically used the paradox theory to analyze service transformation, researchers have begun to incorporate the concept of paradox, or tension in servitization. Somehow, both the phenomenon and the concept of tension have been embedded in the servitization research from its infancy, without scholars truly engaging with the paradox theory. For instance, in their early work, Oliva and Kallenberg (2003) identified the tension between product logic and service logic. They highlighted the tradeoff between product and service: how an increase in product quality could reduce the revenues of maintenance services or how the increase in service quality could reduce the sales of new products as a result of extending the old product's lifecycle (Oliva and Kallenberg, 2003). Visnjic, Van Looy and Neely (2013, p. 111) warned about potential tensions that emerge *"between those responsible for product revenues and those responsible for service revenues."* Gebauer et al. (2005: 14) suggested a concept of "service paradox" and argued that *"[w]here there is such a paradox, substantial investment in extending the service business leads to increased service offerings and higher costs, but does not generate the expected correspondingly higher returns."* We argue that a paradox is created between customization and standardization, tension that is inherently embedded in solutions provision: the tension between customized solutions (+ advanced services) and the need to continue making standard products (+ add-on services). For manufacturers, it seems obvious that despite moving toward customer-centric customization-based service logic, basic products and services must be maintained. Effectiveness and efficiency are complementary logics. Thus, the paradox between customization and standardization is constantly present when manufacturing customized solutions and providing advanced services. On the one hand, servitizing firms are highly dependent on products that generate innovations, revenues and profits, and they facilitate the revenues and profits generated by services. In the product logic, efficiency is at least partially achieved through standardization (Kowalkowski et al., 2015; Ramírez, 1999). On the other hand, solution providers, which are at least partially driven by customer needs, search for new sources of revenues and profits from customized solutions, which often include advanced services (Baines & Lightfoot, 2013b; Lightfoot & Gebauer, 2011). Thus, both logics are needed (Windahl and Lakemond, 2010), and therefore, servitizing manufacturers cannot make an either-or decision but they must cope with both, causing a paradox that persists over time (both-and). Therefore, the paradox of servitization generates a variety of organizational paradoxes (Figure 1) with which the manufacturing company must cope.

Underlying paradox

Organizational paradoxes
in servitization

Standardized products
(+ add-on services)

vs.

Customized solutions
(+ advanced services)

Learning: :Belonging	Learning	Learning: :Organizing
Belonging	Belonging: :Organizing Learning: :Performing	Organizing
Belonging: :Performing	Performing	Performing: :Organizing
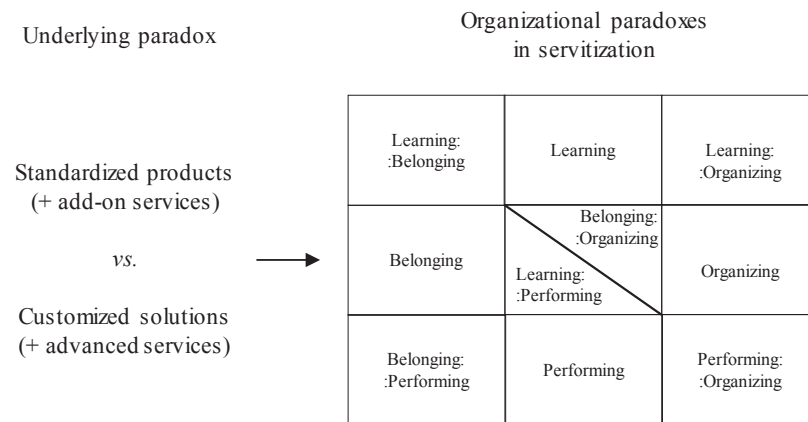
Figure 1. Underlying paradox between standardization and customization generates the organizational paradoxes in servitization (figure originally Smith & Lewis, 2011).

Delivering both standardized products and customized solutions that utilize partially the same resources and capabilities results in persistent organizational paradoxes, which can help explain the back-and-forth movement between servitization and deservitization strategies (Böhm et al., 2016; Kowalkowski et al., 2015). We suggest the paradox approach as an alternative explanation to contingency theory because the servitization of manufacturing is ultimately a struggle between standardized and customized: How do organizational paradoxes challenge the servitization of manufacturing companies?

3. Methodology

3.1. Research strategy

A multiple-case study approach is utilized to conduct the analysis. The qualitative research method is the most suitable approach to comprehending managerial theories and novel perspectives (Harker, 1998). Case studies are a suitable tool when examining phenomena that have not been extensively analyzed (Leonard-Barton, 1990). The use of case studies is a valid strategy to exhaustively explore issues that are difficult to replicate (Dubois and Araujo 2007; Dyer and Wilkins 1991; Eisenhardt and Graebner 2007; Siggelkow 2007). Considering the complexity of servitization and organizational paradoxes, a comparative case study can be considered a reasonable choice.

3.2. Case selection

The empirical section of this article includes data from four global Finnish industrial corporations in the metal and machinery industries. Using a straightforward, purposeful case selection, this research focuses on leading manufacturing firms that have been expanding from products and add-on services to customized solutions. According to our research data, these companies have also experienced struggles between the standardization of products and services and the customization of solutions and advanced services. All the case companies are successful, international, publicly listed manufacturing companies that have been implementing servitization for years. These firms have provided not only products and add-on services but also customized solutions and advanced services. Based on our lengthy experience with the case companies, we knew that they had experienced challenges regarding servitization from products to customized solutions (Eisenhardt and Graebner 2007; Yin 1994). We found that the cases were also "information-rich" and worthy of detailed exploration (Patton 2002, p. 231). Next, we present basic information about each case company (Table 1).

Table 1. Case and data description.

CASE	Firm size (net sales)	% Net sales from services	Core products	Core services	Respondents' titles	Pages*	Minutes
A	4,725 M€ (2012)	40%	Marine propulsion systems and power plants	Spare parts and operations and maintenance services and solutions for the entire life cycle of its installations	Pricing Manager, Services (AM9)	23	105
					Vice President 1, Integrated Solutions (AM6)	17	79
					Director 1, Project Management (AM8)	9	50
					Vice President 2, Product Business Unit (AM4)	12	52
					Director 2, Strategic Business Development (AM7)	11	49
					Director 3, Business Intelligence (AM1)	8	45
					General Manager 1, Agreements (AM5, 10)**	59	235
					Director 4, Logistics (AM2)	18	76
					Vice President 3, Services (AM3)	14	66
					Director 5, Key Account Management (AM11)	28	105
B	2,099 M€ (2013)	40%	Lifting equipment for the manufacturing and process industries, shipyards, ports and terminals	Service programs consisting primarily of various consultation- and maintenance-related services	Service Director (BM7)	12	70
					District Manager 1 (BM1)	18	80
					District Manager 2 (BM3)	19	90
					Area Manager (BM4)	19	90
					Director of Product and Services Development (BM6/8)**	46	235
					Global Category Manager (BM2)	15	85
					Product Manager (BM5)	24	38
					Head of IT (BM9)	18	61
					Director, Technology (BM10)	10	90
					Senior Vice President, Industrial Cranes (BM11)	12	45
C	2,703 M€ (2014)	38%	Product lines and technologies for the pulp, paper, and power industries	Expert services, and maintenance services that involve spare and wear parts and consumables	Director, Agreements (CM6)	28	49
					Service Business Development Manager (CM7)	28	63
					Manager, Engineering and Project Management (CM2)	21	84
					Technology Manager (CM1)	46	92
					President, Service Business (CM4)	19	138
					Product Development Manager (CM3)	29	61
					Senior Manager, Concept Development (CM5)	32	120
					Vice President, Strategy (CM8)	18	145
					Vice President, Strategy (CM9)	17	73
					Manager, Strategic Development (CM10)	17	54
					Director, Reporting and Analytics Solutions (CM11)	44	59
					Business Line President (CM12)	14	131
D	2,087 M€ (2012)	23%	Technologies for the metal and mineral processing industries	Spare parts, maintenance and technical services, modernization, and operations	Product Service Support Manager (DM1)	9	50
					Head of Services (DM2)	17	40
					Specialist, Life Cycle Costing (DM3)	16	77
					Director, Strategy and Sales Development (DM4/6)**	38	163
					Director, Account Management (DM5)	21	78
					Process Owner (DM7)	24	101
					Director, Service Business Development (DM8, DM12)**	27	94
					Vice President (DM9)	13	47
					Head of Business Unit (DM 10)	12	45
					Director, Digitization (DM11)	14	51
				TOTAL		896	3547

* Single-spaced text, Times New Roman font, size 12. ** Two interviews.

3.3. Data collection and analysis process

Adopting a synthesizing practice (Kindström and Kowalkowski, 2014; Rabetino et al., 2017; Storbacka et al., 2013), this study uses interview data to identify paradoxes and coping practices during servitization. We analyzed 46 face-to-face interviews (896 transcribed pages) about the servitization process in the four selected cases. These interviews were conducted by the authors as a part of a research project on industrial services from November 2012 to December 2016. Although the data collection does not represent a longitudinal effort, the interviews primarily focused on describing companies' long-lasting servitization processes and related practices. While considering the past, the core part of the semi-structured interview guide focused on retrospectively identifying not only practices and challenges but also possible solutions during the implementation of long-lasting, ongoing servitization processes. To cover these issues within complex and lengthy processes, interviewees were selected from several organizational levels and business units based on their years of experience in the company (people who have experienced and were involved in the servitization process). The interviews were recorded and transcribed verbatim directly after each meeting. To guarantee the anonymity of the firms and interviewees, cases and verbatim quotations are identified using codes. Table 1 presents additional details about the interviews.

During the analysis, when moving from descriptive to explanatory phases and from concrete to abstract understandings (Huberman and Miles, 1994), we discovered that the servitization practices were contradictory, and various tensions seem to mitigate servitization. After further analyzing the data, we understood that the emerging issues corresponded well to the ideas of the paradox approach. Based on our preliminary analysis, we reviewed the paradox approach and decided to test the framework from Smith and Lewis (2011) to develop a model for the context of servitization. Going further, we analyzed data on each case company and compared the cases (Eisenhardt, 1989; Huberman and Miles, 1994) to assess whether previously recognized paradoxes were present in each company and how they affected servitization processes in the various firms. We utilized "Gioia- method" to analyze the data, which figure 1 illustrates (Corley and Gioia, 2004).

10

First order categories   Second order themes   Main paradoxes

- Exploiting traditional product business
- Focus on technology and hard core equipment
- Emphasis on the on-time delivery and high quality equipment

Exploitation of product business

- Exploring new business logic
- Emphasis on the customer value and services
- Emphasis on customers when conducting strategic decisions

Exploration towards solution business

Paradox of learning

- Product orientation
- Emphasis on engineering
- Discursive emphasis on product features
- Product thinking

Product-engineering mindset

- Problem-solving attitude
- Consulting organization
- Process engineering
- Life-cycle thinking

Solutions mindset

Paradox of belonging

- Manufacturing
- Add-on services
- Separated product and service organizations

Separated product and service business units

- Collaboration across divisional borders
- Collaborative relationships within value system
- Organizing to support servitization

Co-operation for delivering solutions

Paradox of organizing

- Short-term objectives
- Emphasis on CAPEX

Short term targets for product business

- Long-term objectives
- Emphasis on OPEX
- Life-cycle projects

Solution business goals

Paradox of performing

Figure 2. Illustration of the data structure.

To increase the validity of this research, the interviews were complemented with other sources of information (e.g., internal documents, company presentations, and annual reports). Triangulation of passive and active data (Dubois and Gadde, 2002) was applied as a

mechanism to recognize the core tensions and paradoxes during servitization both to verify the exactitude of the information (Yin, 1994) and to increase the reliability of the study (Beverland and Lindgreen, 2010).

4. Findings

To analyze the paradoxes in servitization, we studied four global technology and service suppliers with headquarters in Finland that offer systems and solutions, spare parts and consumables, professional services, upgrading services, and maintenance and operation services for the entire product lifecycle. In 2012, the case companies' net sales ranged from 2,000 to 4,700 million Euros, and the share of service-related sales ranged from 23% to 40% of the total sales. Here, we present and discuss the main and emerging paradoxes in servitization. Drawing from the empirical data and analyzing the data against the paradox model and servitization literature, we develop the paradox approach to the servitization context. Tables 2 and 3 introduce the results of the cross-case analysis between the four case companies. Table 2 presents the main paradoxes, and Table 3 presents the emerging paradoxes. Figure 3 introduces the paradox model in servitization.

Accordingly, the main paradoxes arise between 1) a product engineering vs. a customer-centric solution mindset (belonging), 2) separating product and service business units vs. simultaneously cooperating in the design and delivery of solutions (organizing), 3) continuously developing a product business vs. explorative learning toward a new solution business (learning), and 4) emphasizing short-term goals in product businesses vs. adopting long-term financial goals for solutions (performing).

In addition, we identify six emerging paradoxes in servitization: 5) explorative learning toward solutions while preserving a product engineering mindset (learning and belonging), 6) explorative learning toward solutions while maintaining the separate product and service organizations (learning and organizing), 7) explorative learning toward solutions while maintaining short-term goals to support product and service success (learning and performing), 8) maintaining a product engineering mindset while developing long-term goals to support customized solutions (belonging and performing), 9) preserving a product engineering mindset while organizing to support solutions (belonging and organizing), and 10) setting long-term goals to support customized solutions while maintaining separate product and service organizations (performing and organizing).

4.2.1 The main paradoxes in servitization

The paradox of learning

Using the comparative data analysis, we found that the paradox of learning in servitization materialized from the companies' aspiration to continue exploitative learning (incremental development) in the product business while simultaneously implementing explorative learning (radical innovation) in search of new customized, integrated solutions, which would include some advanced service components (Story et al., 2016). These complementary development paths—one toward the incremental development of somewhat standard product and production operations and the other more explorative logic toward customized, integrated and advanced solutions—require very different types of learning capabilities. Whereas the incremental development of product operations demands the capabilities of continuous improvement and single-loop learning, customized solutions—a concept significantly separate from the company's prior business logic—require explorative double-loop learning and continuous innovation.

Although the former logic expects practices for continuous incremental innovation in product development and operations, the latter logic calls for a more radical rethinking of offerings, process innovation, and explorative learning capabilities. Incremental development requires relatively few capabilities of resource reconfiguration, while learning toward solutions might demand a significant reconfiguration of capabilities. This echoes Brax's (Brax, 2005; Gebauer and Fleisch, 2007) arguments that servitization requires a radical shift in an operational model. Thus, the development of very different types of learning capabilities and cultures generates a paradox of learning. This paradox between exploitative and explorative learning may become frustrating for developers attempting to reach very different learning demands, as has been suggested by the ambidexterity literature (Fischer et al., 2010; Raisch and Birkinshaw, 2008). Companies may even experience what the literature coins an exploitation trap, which steers the company to focus on profits resulting from exploitation at the cost of exploration (Sirén et al., 2012).

The paradox of belonging

Emerging from tension between a conventional engineering mindset and the solutions and knowledge-based consulting mindset required when selling solutions, the paradox of belonging was present in the studied case organizations. Observed to excel at developing

technologies but often missing an in-depth understanding of what solution selling is about—customer value, business impact, customer engagement and problem solving—the case firms struggled to update their existing engineering identity with a solutions mindset more geared toward the customer (Galbraith, 2002). Because one could not be sacrificed to the other, these two organizational mindsets (a product engineering orientation vs. a customer-centric orientation) must coexist to create an effective solution provider organization. It seemed obvious to our interviewees that both were needed, but the tension was truly a paradox that could not be easily, if at all, dissolved in their solutions business. It was clear that fitting a bundle of products and advanced services to customer needs to increase customers' process performance (Hinterhuber, 2008; Töytäri et al., 2015) generates tension with the excitement of inventing new product features. The engineering mindset seemed to lead sales teams to address and emphasize product technologies at the cost of customer orientation.

The paradox of organizing

In servitization, the paradox of organizing stems from the tension between the need to separate product, service and solution business units while facilitating collaboration regarding the design and delivery of integrated solutions (customized products + advanced services). The studied manufacturers had organized their service business structure separately from their product business in an effort to facilitate service sales and delivery (Gebauer et al., 2005; Oliva & Kallenberg, 2003). Adopting a somewhat similar idea, one of the case companies had separated its solution organization into a dedicated unit, thereby establishing separate units for product, service and solution integration. While having separate service and solution units may support more aggressive service and solutions sales growth, separate organizational units make it even more challenging to bundle products and services when selling customized solutions because those units have separate targets, their own ways of working, different leadership and identities (e.g., engineering vs. customer-centric). In an integrated organization, product-oriented decisions have been found to dominate and overshadow the service business and in particular, the solution business (the exploitation trap noted above) (Rabetino et al., 2017; Wise and Baumgartner, 1999). Thus, expansion toward solutions becomes challenging because the organization must generate alternative practices for bundling products and services across organizational boundaries while maintaining high product and service sales (product units for product sales and service units for service sales).

Table 2. Main paradoxes in servitization.

Paradox	Verbatim extracts
Learning	"The challenge is that we need to maintain and develop our own capabilities in a large scope to follow up the development of our own products; we must also follow our competitors' newest signals so that we can offer services." (BM1) "It's a fundamental change really, going from only thinking about the technology, only thinking about the hardcore equipment to start thinking of all the services related to that and also to think about the customer from a different perspective and angle as well. We not only think about the satisfaction of on-time delivery and good high-quality equipment but also that customer satisfaction comes from how well we respond on small issues, how well we are responding to big strategic decisions, and how well we consult on those issues. So, the barrier really is internal for us, to change our behavior." (DM2)
Belonging	"… our *[product]* sales and our service organization, those are totally different people who sell and who actually provide the services. And they have different interests..." (BM5) "Those people are completely different; they are acting more like a consulting organization, they have different cost structures, and the people are different. When we talk about technicians, it's more like a sort of traditional service organization. This kind of product engineering organization is more of an expert organization, but a process engineer organization is a very different type." (CM4) "I have seen really good engineers who are excellent when speaking about technology features and functionalities and they understand products and the industry really well. But what they don't have, what they don't understand, is that solution selling is about consulting" (DM5)
Organizing	"The division is very strong in *[company name removed]* and when we talk about solutions, the solutions often cross divisional borders. That must change, must be studied, and that's what we have seen coming." (AM8) "We had this organizational structure that we needed to think over…and now as our most recent change we decided to put whole service development under same structure." (BM8) "…in our current structure, the backlog is generated by cooperation among our business units. We have five business units that are still somewhat operating like silos…" (CM5) "Earlier, services was its own business area, it was its own silo, and it focused purely on services and pushed them heavily. Then, we demolished the structure, to get more cooperation, to help people to understand that there should not be service business and CAPEX, when we are talking about projects" (DM5)
Performing	"…because CAPEX is another division and OPEX is another division, and now we are attempting to mix the money between divisions and this is then the mindset that is quite difficult for the people who say hey, what is he doing, he's taking money from me and putting it there, you understand? What shall I say to my boss, we [*one business unit*] have a negative margin and they [*another business unit*] have a much more positive margin?" (AM5) "…The problem is that when selling the machine, CAPEX is not that interested in offering services, because they are selling their own efficiency, and the measure of their bonuses is how many products are sold. You don't get any extra for selling services…" (CM11) "…it's quite clear in our strategy that services are a really important factor for this company. But as you go down in the organization, there are many people who do not regard services as an important thing or do not understand the customer value or the internal value that you get from an ongoing business compared to the business on the CAPEX side. Maybe they don't understand what kind of margins we are talking about when we talk about service compared to conventional CAPEX." (DM2)

The paradox of performing

The paradox of performing in servitization arises from the tension between the short-term goals for products and basic services and the long-term business goals for solution business. The power balance between products and solutions tends to favor products. Moving from

products to solutions, the case companies already had successful, strong product businesses that operated effectively and therefore generated continuous short-term sales and profits, which obviously pleased shareholders. Moreover, the reward systems in these companies favored short-term profits, further boosting short-term optimization. Profits from solutions were more difficult to define (separate for product and service divisions), their scalability was lower and their delivery times were longer; profits from solutions emerge in the longer term, unlike the short-term profits from products. In addition, customized solutions had lower scale economies, and they tend to be more complex to sell, design, purchase and deliver, generating large transaction costs (Kohtamäki et al., 2013a). For servitization to be successful, short- and long-term goals should be balanced.

4.2.2 Emerging paradoxes in servitization

The paradox between learning and belonging

Paradoxes emerge also between the main paradoxes, for instance, between learning and belonging. The paradox between learning and belonging emerges when the manufacturer struggles to develop operations toward solutions while attempting to preserve its product engineering identity. Thus, in this paradox, explorative organizational learning toward solutions satisfies the conventional, and important engineering identity: both are important for the viability of the manufacturing firm. Manufacturing companies need explorative learning to reconfigure resources for customized solutions. However, they also must cherish their engineering identity to facilitate the continuous development of new technologies and products, in parallel with the advanced services included in solutions. A conventional product engineering identity may often become a barrier to adaptation and change when explorative learning toward solutions challenges the existing organizational identity. This appeared challenging for the case companies, which must cope with the paradox emerging between learning and belonging.

The paradox between learning and organizing

When expanding toward customized solutions, companies explore and develop new capabilities, routines, and structures while attempting to maintain structures and routines that would also facilitate the sales and delivery of more basic products and services. A tension is created in the exploration of customized solutions while preserving structures to maintain effective production, supply chain and delivery. Thus, although the firm must radically develop new operations to provide advanced services and solutions, it must simultaneously

preserve structures to maintain the high utilization of production capacity throughout the supply chain. Maintaining organizational structures and routines that support the product business conflicts with the effective configuration and delivery of customized solutions.

The paradox between learning and performing

The paradox between learning and performing emerges between explorative learning toward solutions while attempting to support product and service performance in the short term. Although the case companies had to maintain their short-term efficiency in developing and selling reliable products, they simultaneously needed to invest in the reconfiguration of resources and capabilities to deliver customized solutions. Consequently, explorative learning toward solutions conflicts with short-term performance goals of the product business, and companies find it challenging to balance explorative learning and the achievement of short-term performance targets.

Table 3. Emerging paradoxes in servitization.

Paradox	Verbatim extracts
Learning and belonging	"…whatever we do, going forward will likely involve sacrificing something we do today because customers are looking for continuously decreasing operational costs. This is easier said than done, however, because it really requires quite some innovations and business development, so you need completely different types of colleagues as well, particularly coming from that genuine technical background that we had." (AM3) "We need to find people with service attitude and technical skills. If the attitude is correct, you are able to develop lots of things. The service business requires a certain kind of attitude, but technical expertise is also important" (BM7)
Learning and organizing	"…when we try to adapt, we have difficulties with our production because they have to adapt; there are difficulties because the cost and the profit is based on making standardized products." (AM12) "Integration (of services and products) needs to happen at the customer interface at the latest. That's why we heavily promote this type of account team thinking in which different business units work together to manage customer case. This is the only way to bring different businesses together, by starting from customer needs. Of course, customer needs change during the life cycle. And when you are operating globally, customers have different type of businesses in different life cycle phases, so you need almost everything, but in different parts of the world at different times. Therefore, this is a very complex network to manage." (DM5)
Learning and performing	"…one transformation within competences is to move from these sales of spare parts and individual field service jobs into these longer agreements. So, we must improve our processes there and be able to maintain our good profitability in the midst of all this change." (AM7) "Academics and consultants have said that we should move from product orientation to customer orientation, that this service-driven logic is important. We try to figure what this servitization is, and we invent something that people do, which is immaterial, and find those who we can prize. Then, we start to think about where we can find customers for our solutions, and then, we return to our starting point: We are pushing our solutions down our customers' throats. When the customer does not want them, we give them a discount and we are back to where we started, we do not see the value" (DM4)
Belonging and performing	"…this type of change in management, that's really the ultimate challenge. We need to really get this message through the organization and get everybody to become customer-focused, creative, and innovative rather than only technically focused. In addition, we must be able to continuously develop that into a profitable business." (AM3) "If the market situation had been different, we wouldn't have invested in services. Product selling is appreciated: some of us refer to product sellers as elephant hunters. So, those elephant hunters would still be heroes making trades worth hundreds of millions if the market situation were not so challenging." (CM11) "It is hard to get to value thinking because we are taught to think about our costs, our products, our profitability, our next year's budget. Everyone is worried about that and counting last year, and when you come to the point of telling them that

	we should think the customer, everyone is saying that they don't have time because we need to do business. It is a big cultural issue, to change the culture and the mindset to go to customers and see the world from there." (DM4)
Belonging and organizing	"…we have this kind of traditional split that the services unit handles what happens after the asset has been taken into use and the product unit deals primarily with what's between the idea and the realization of that idea into a physical asset. It can be a burden in the sense that it creates this type of DNA that one is very strongly identified with this kind of engineering and manufacturing, and delivering something." (AM6) "That type of technical knowledge is possible to transfer from unit to another. But a service culture, that is much harder; that won't transfer with a few employees. You need to have a big enough organization to be able to do that" (BM7) "At certain times, services have been a separate business unit, and sometimes, part of the production line… when we have been separate, cooperation has been quite complicated and full of tension" (CM6) "We have a sort of traditional business and in parallel we've made efforts to create a service business, which has cost us the competition of resource allocation. They are not only competing with the same sales resources but also (on the technology side) competing with the premises of product development."(DM9)
Performing and organizing	"Well, we have these different business units. This complicates the situation; the product unit counts how much *[money]* they need to earn, and of course the service unit is counting because they also need to get their share. This is a big problem." (BM4) "…because every unit wants to maximize its own share, and I guess we have been considered just as creating costs for them… this is some sort of sub-optimization from our side, too." (CM6) It's also about power. Who is the decision maker? So, let's say we have a product that you sell for 10 million, but the life-cycle revenue is 80 million. Who should make pricing decisions when we sell the actual equipment? Is it important to get the installed base, to get the life-cycle revenue? And you can understand from earlier that the product lines were making all the decisions about these things. So with respect to this kind of power, many fights have taken place." (DM2)

The paradox between belonging and performing

The paradox between belonging and performing emerges when company management intends to facilitate servitization by setting targets for customized solutions and advanced services that conflict with the product engineering mindset. Thus, the goal-setting target to support solution sales conflicts with the product engineering and manufacturing identity: large customized and customer-oriented projects satisfy the goals of production, standardization and engineering. The paradox emerges because company management intends to utilize goal setting to support customized solutions while attempting to preserve the product engineering identity relevant to generating product innovations and preserving manufacturing efficiency. The central question here is how to preserve the product engineering mindset, which is central to the success of product organization, while growing the revenues and profits of customized solutions.

The paradox between belonging and organizing

Emerging when the company creates new types of structures and routines to support customized solutions while maintaining a product engineering identity, the paradox between belonging and organizing occurs. This paradox describes a situation in which solution-oriented structures conflict with the old, conventional engineering identity—new routines geared toward customized solutions satisfy the product engineering identity and customer-

oriented structures satisfy product orientation. The argument emerging from the paradox theory is that neither can be sacrificed, but both are important and must be preserved: managing servitization is not about either-or, but about both-and.

The paradox between performing and organizing

Finally, the paradox between performing and organizing emerges when manufacturing companies begin to develop operations to support customized solutions by setting long-term solution-oriented performance targets while maintaining conventional product and service organizations to support product and service development. An emphasis on solution performance clashes with the interests of the product organization, causing internal conflicts attributable to dissatisfied members of product teams. This is a case in point in which power is transferred from conventional product and service organizations to customized or integrated solutions. Change in the power balance easily causes conflicts. The paradox emerges because the goals place more emphasis on customized solutions while the company maintains its product organization, causing potential anxiety among product teams about the effect of the solution's emphasis on their performance and the role of the product organization within the company. It would be an error to believe that choosing either-or resolves this tension. The argument from the paradox theory is that there is no solution but to cope with the emerging tension. The paradox persists because both standardized products (+ add-on services) and customized solutions (+ advanced services) are vital for servitization to succeed. Thus, maintaining balance becomes the central managerial challenge in servitization: this is an argument that emerges from the paradox theory, from both-and.

Figure 3. Organizational paradoxes in servitization: balancing product and solution logics. (Developed for the context of servitization based on Smith and Lewis, 2011.)

<table>
<tr><td>

Learning::Belonging

Explorative learning towards solutions while preserving product engineering mindset

</td><td>

Learning

Continuously developing product business vs. explorative learning towards new solutions business

</td><td>

Learning::Organizing

Explorative learning towards solutions while maintaining the separated product and service organizations

</td></tr>
<tr><td>

Belonging

Having product engineering vs. customer-centric solutions mindset

</td><td>

Belonging::Organizing

Preserving product engineering mindset while organizing to support solutions

Learning::Performing

Explorative learning towards solutions while maintaining short-term goals to support also product and service performance

</td><td>

Organizing

Separating product and service business units (or departments) vs. simultaneously co-operating for design and delivery of solutions

</td></tr>
<tr><td>

Belonging ::Performing

Maintaining product engineering mindset while developing long-term goals to support customized solutions

</td><td>

Performing

Emphasizing short-term goals in product businesses vs. adopting long-term financial goals for solutions

</td><td>

Performing::Organizing

Setting long-term goals to support customized solutions while maintaining separate product and service organizations

</td></tr>
</table>

5. Conclusion

5.1. Theoretical contribution

This study set out to analyze servitization through the paradox theory. As an alternative to the extensive contingency theoretical research conducted in the past, we aimed to extend the servitization literature by highlighting the paradoxes that appear when manufacturing firms intend to balance between standardized products (+ add-on services) and customized solutions (+ advanced services). Whereas the contingency theoretical literature suggests that organizations should decide between either-or, the paradox approach sees that organizations must cope with both-and. However, the decision to adopt a both-and approach creates multiple organizational paradoxes, which we modeled in Figure 2.

Although the previous industrial service literature has introduced the concept of the service paradox (Gebauer et al., 2005), the paradox approach has not been systematically used or developed to analyze tensions that manufacturing companies face during servitization. The paradox approach provides a valuable alternative, as the servitization process transforms the business logic from standardized products and add-on services to customized solutions and advanced services (Baines & Lightfoot, 2013b; Kowalkowski et al., 2015; Lightfoot & Gebauer, 2011). Accordingly, previous servitization studies have identified the tension between standardization and customization (Kowalkowski et al., 2015), which is actually a paradox in the context of manufacturing. In the current business environment and its existing technologies, a solution provider cannot escape the tension between standardization and customization; the tension is persistent because the manufacturers must not only search for cost effectiveness through standardization but also serve industrial customers by customizing solutions. Consequently, organizational paradoxes evolve around learning, organizing, performing and belonging. Obviously, these paradoxes exist when the manufacturer engages in customization: if the manufacturer produces only standardized products, the paradoxes will not occur, at least the way we have described in this study.

Overall, we address the question of paradox in servitization as an alternative to the contingency theory, which has been the leading approach not only in management theory in general but also in the servitization literature. With its precise focus on these paradoxes, this study is the first to build a conceptual bridge between servitization and the paradox literature. We developed the Smith and Lewis (2011) paradox framework for application to the servitization literature, creating a model that illustrates how the paradox approach may shed light on the paradoxical tensions between standardized products and customized solutions. We suggest the developed model as a theoretical contribution for the servitization theory, because many research suggestions can be drawn from the paradox model of servitization. Addressing this integration provides significant opportunities for the future research and management of servitizing manufacturing companies. Therefore, our study provides not only an important contribution but also insights for future studies utilizing the paradox approach.

In addition, this study is the first to acknowledge the need for coping practices in the spirit of the paradox approach to highlight the balance between products and solutions instead of choosing either-or. Following up on the conventional management theory has led the

servitization theory to concentrate on decisions between products or services (Oliva and Kallenberg, 2003). The recurrent servitization theory has expressed doubt regarding servitization while searching for alternative narratives (Kowalkowski et al., 2017; Luoto et al., 2017) while failing to utilize the paradox approach to the fullest extent. Is there a limitation in relying only on the contingency-theoretic approach to servitization? Our answer is yes: the servitization literature cannot rest only on the either-or assumption but must expand beyond utilizing contemporary theories to find alternative explanations for the challenges companies face during servitization.

We also offer the paradoxes encountered as one explanation for the "back-and-forth" servitization-deservitization movement acknowledged in the servitization literature (Kowalkowski et al., 2017; Valtakoski, 2015). Perhaps the paradox approach can provide an alternative approach to explain the servitization-deservitization movement in the future servitization research. Thus, this study makes an important contribution by highlighting the roles and opportunities provided by the paradox approach and coping practices to manage persistent organizational paradoxes. Moreover, our findings also support Spring and Araujo's (Spring and Araujo, 2016) suggestion that products create a relatively unstable platform to develop a service business. In the current business environment of globalization and digitization, products and solutions are under constant development. Therefore, companies need practices to cope with unstable customized solutions that develop constantly according to customer needs and new resources.

5.2. Managerial contribution

The results of this study provide a significant practical contribution for manufacturing and technology companies. The results highlight the significant paradoxical tension emerging from expansion from products to customized solutions. The paradox framework developed in this study enables companies to identify the organizational paradoxes that arise during servitization and, therefore, to accept the constant tensions that spur from the strategic decision to expand toward solutions. Second, understanding the underlying factors behind paradoxes may enable managers to appreciate paradoxes while helping them understand why these paradoxes cannot be solved. Because managers must focus on how to cope with paradoxes rather than how to solve them, this article provides a potential starting point for learning how to cope with these paradoxes. As such, this study can provide comfort for managers balancing between products and solutions. The paradox approach may enable

further understanding of the obstacles of servitization and the mystery of the servitization-deservitization movement.

5.3. Limitations and suggestions for future servitization research

This study has limitations that should be considered. First, the paradox model is not intended to be exhaustive but instead to represent the paradoxes found in these cases, given data limitations. Despite our best efforts with the selected case companies, we were obviously unable to provide an all-encompassing picture of paradoxes. Our detailed empirical data collected through years of interviews and observations enabled us to grasp the contributive collection of paradoxes and to encourage further research to delve deeper in the paradoxes of servitization. To accomplish this task, a processual approach would also be valuable. Servitization research would benefit from processual research and narrative analysis when interpreting the organizational dynamics and the role of discourses during the process. Further research is needed to provide richer illustrations of these paradoxes. Development of the paradox approach in the context of servitization is not an issue that can be covered by one or a few studies; instead, it is a potential stream of empirical research that calls for significant conceptualization and theory development in future studies. We hope that this study is one of the first steps on this journey of developing the paradox approach to servitization.

This article focuses on the inherent paradoxes faced by the organizations analyzed here, but it does not scrutinize the paradoxes created by the external environment and its multiple stakeholders. Instead, the approach utilized and developed herein intends to facilitate the recognition of the paradoxes faced by manufacturing companies when they move from products and add-on services to customized solutions.

The framework provides a potential tool for future research that focuses on the paradoxes experienced by manufacturing companies. Although the list of paradoxes is not complete, we believe that our results address how to extend the servitization literature by using the paradox approach. Studies involving other cases may provide additional paradoxical challenges; therefore, further studies of the paradoxes in servitization should be conducted.

23

References

Alghisi, A., Saccani, N., 2015. Internal and external alignment in the servitization journey – overcoming the challenges. Prod. Plan. Control 1–14. doi:10.1080/09537287.2015.1033496

Baines, T., Lightfoot, H., Smart, P., Fletcher, S., 2011. Servitization of manufacture: Exploring the deployment and skills of people critical to the delivery of advanced services. J. Manuf. Technol. Manag. 24, 637–646. doi:10.1108/17410381111160988

Baines, T., Ziaee, A., Bustinza, O.F., Guang, V., Baldwin, J., Ridgway, K., 2016. Servitization: Revisiting the state-of-the-art and research priorities. Int. J. Oper. Prod. Manag. 1–28. doi:10.1108/IJOPM-06-2015-0312

Baines, T.S., Lightfoot, H., 2013a. Servitization of the manufacturing firm: Exploring the operations practices and technologies that deliver advanced services. Int. J. Oper. Prod. Manag. 34, 2–35. doi:10.1108/IJOPM-02-2012-0086

Baines, T.S., Lightfoot, H.W., 2013b. Made to Serve: How manufacturers can compete through servitization and product-service systems. John Wiley & Sons, Chichester.

Beverland, M., Lindgreen, A., 2010. What makes a good case study? A positivist review of qualitative case research published in Industrial Marketing Management, 1971-2006. Ind. Mark. Manag. 39, 56–63. doi:10.1016/j.indmarman.2008.09.005

Böhm, E., Eggert, A., Thiesbrummel, C., 2016. Service transition: A viable option for manufacturing companies with deteriorating financial performance? Ind. Mark. Manag. doi:10.1016/j.indmarman.2016.04.007

Brady, T., Davies, A., Gann, D.M., 2005. Creating value by delivering integrated solutions. Int. J. Proj. Manag. 23, 360–365. doi:10.1016/j.ijproman.2005.01.001

Brax, S., 2005. A manufacturer becoming service provider–Challenges and a paradox. Manag. Serv. Qual. 15, 142–155. doi:10.1108/09604520510585334

Burns, T., Stalker, E., 1961. The management of innovation. Travistock, London.

Bustinza, O., Vendrell-Herrero, F., Baines, T., 2017. Service implementation in manufacturing: An organisational transformation perspective. Int. J. Prod. Econ. 192.

Calton, J., Payne, S., 2003. Coping with paradox: Multistakeholder learning dialogue as a pluralist sensemaking process for addressing messy problems. Bus. Soc. 42, 7–42. doi:10.1177/0007650302250505

Cohen, M.A., Agrawal, N., Agrawal, V., 2006. Winning in the aftermarket. Harv. Bus. Rev. 84, 129–138.

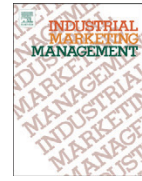Corley, K.G., Gioia, D. a., 2004. Identity Ambiguity and Change in the Wake of a Corporate

Spin-off. Adm. Sci. Q. 49, 173–208. doi:10.2307/4131471

Dubois, A., Araujo, L., 2007. Case research in purchasing and supply management: Opportunities and challenges. J. Purch. Supply Manag. 13, 170–181.

Dubois, A., Gadde, L.-E., 2002. Systematic combining: an abductive approach to case research. J. Bus. Res. 55, 553–560.

Dyer, W.G., Wilkins, A.L., 1991. Better Stories, Not Better Constructs, To Generate Better Theory: a Rejoinder To Eisenhardt. Acad. Manag. Rev. 16, 613–619.

Eisenhardt, K.M., 1989. Building theories from case study research. Acad. Manag. Rev. 14, 532–550. doi:10.2307/258557

Eisenhardt, K.M., Graebner, M.E., 2014. Theory building from cases: Opportunities and challanges. Acad. Manag. J. 50, 25–32. doi:Article

Fang, E. (Er), Palmatier, R.W., Steenkamp, J.-B.E.., 2008. Effect of service transition strategies on firm value. J. Mark. 72, 1–14. doi:10.1509/jmkg.72.5.1

Fischer, T., Gebauer, H., Gregory, M., Ren, G., Fleisch, E., 2010. Exploitation or exploration in service business development? J. Serv. Manag. 21, 591–624. doi:10.1108/09564231011079066

Galbraith, J.R., 2002. Organizing to Deliver Solutions. Organ. Dyn. 31, 194–207. doi:10.1016/S0090-2616(02)00101-8

Gebauer, H., Fleisch, E., 2007. An investigation of the relationship between behavioral processes, motivation, investments in the service business and service revenue. Ind. Mark. Manag. 36, 337–348. doi:10.1016/j.indmarman.2005.09.005

Gebauer, H., Fleisch, E., Friedli, T., 2005. Overcoming the service paradox in manufacturing companies. Eur. Manag. J. 23, 14–26. doi:10.1016/j.emj.2004.12.006

Gebauer, H., Friedli, T., 2005. Behavioral implications of the transition process from products to services. J. Bus. Ind. Mark. 20, 70–78.

Harker, M., 1998. The role of marketing in the company turnaround process. Ind. Mark. Manag. 27, 315–327.

Hinterhuber, A., 2008. Customer value-based pricing strategies: Why companies resist. J. Bus. Strategy 29, 41–50. doi:10.1108/02756660810887079

Homburg, C., Hoyer, W.D., Fassnacht, M., 2002. Service Orientation of a Retailer's Business Strategy: Dimensions, Antecedents, and Performance Outcomes. J. Mark. 66, 86–101. doi:10.1509/jmkg.66.4.86.18511

Huberman, M., Miles, M., 1994. Data management and analysis methods, in: Denzin, N., Lincoln, Y. (Eds.), Handbook of Qualitative Research. Thousand Oaks, London, pp.

25

428–444.

Jay, J., 2013. Navigating paradox as a mechanism of change and innovation in hybrid
    organizations. Acad. Manag. J. 56, 137–159. doi:10.5465/amj.2010.0772

Kindström, D., Kowalkowski, C., 2014. Service innovation in product-centric firms: a
    multidimensional business model perspective. J. Bus. Ind. Mark. 29, 96–111.

Kindström, D., Kowalkowski, C., Sandberg, E., 2013. Enabling service innovation: A dynamic
    capabilities approach. J. Bus. Res. 66, 1063–1073. doi:10.1016/j.jbusres.2012.03.003

Kohtamäki, M., Partanen, J., Möller, K., 2013a. Making a profit with R&D services: The
    critical role of relational capital. Ind. Mark. Manag. 42, 71–81.
    doi:10.1016/j.indmarman.2012.11.001

Kohtamäki, M., Partanen, J., Parida, V., Wincent, J., 2013b. Non-linear relationship between
    industrial service offering and sales growth: The moderating role of network
    capabilities. Ind. Mark. Manag. 42, 1374–1385. doi:10.1016/j.indmarman.2013.07.018

Kowalkowski, C., Gebauer, H., Oliva, R., 2017. Service growth in product firms: Past, present,
    and future. Ind. Mark. Manag. 60, 82–88. doi:10.1016/j.indmarman.2016.10.015

Kowalkowski, C., Windahl, C., Kindström, D., Gebauer, H., 2015. What service transition?
    Rethinking established assumptions about manufacturers' service-led growth strategies.
    Ind. Mark. Manag. 45, 59–69. doi:10.1016/j.indmarman.2015.02.016

Leonard-Barton, D., 1990. A Dual Methodology for Case Studies: Synergistic Use of a
    Longitudinal Single Site with Replicated Multiple Sites. Organ. Sci. 1, 248–266.

Lewis, M., 2000. Exploring paradox: Toward a more comprehensive guide. Acad. Manag.
    Rev. 25, 760–776. doi:10.2307/259204

Lewis, M.W., Andriopoulos, C., Smith, W.K., 2014. Paradoxical leadership to enable strategic
    agility. Calif. Manage. Rev. 56, 58–78.

Lightfoot, H., Gebauer, H., 2011. Exploring the alignment between service strategy and
    service innovation. J. Serv. Manag. 22, 664–683. doi:10.1108/09564231111175004

Luoto, S., Brax, S.A., Kohtamäki, M., 2017. Critical meta-analysis of servitization research:
    Constructing a model-narrative to reveal paradigmatic assumptions. Ind. Mark. Manag.
    60, 89–100.
    doi:http://www.sciencedirect.com/science/article/pii/S0019850116300669

Lüshcer, L.S., Lewis, M.W., 2008. Organizational change and managerial sensemaking:
    Working through paradox. Acad. Manag. J. 51, 221–240.
    doi:10.5465/AMJ.2008.31767217

Martinez, V., Bastl, M., Kingston, J., Evans, S., 2010. Challenges in transforming

manufacturing organisations into product-service providers. J. Manuf. Technol. Manag. 21, 449–469.

Neely, A., 2008. Exploring the financial consequences of the servitization of manufacturing. Oper. Manag. Res. 1, 103–118. doi:10.1007/s12063-009-0015-5

Ng, I., Nudurupati, S.S., 2010. Outcome-based service contracts in the defence industry – mitigating the challenges. J. Serv. Manag. 21, 656–674. doi:10.1108/09564231011079084

Oliva, R., Kallenberg, R., 2003. Managing the transition from products to services. Int. J. Serv. Ind. Manag. 14, 160–172. doi:10.1108/09564230310474138

Patton, M.Q., 2002. Qualitative Research and Evaluation Methods, Third Edit. ed. Sage, Thousand Oaks, CA.

Poole, M.S., van de Ven, A.H., 1989. Using paradox to build management and prganization theories. Acad. Manag. Rev. 14, 562–578. doi:10.2307/258559

Rabetino, R., Kohtamäki, M., Gebauer, H., 2017. Strategy map of servitization. Int. J. Prod. Econ. 192.

Rabetino, R., Kohtamäki, M., Lehtonen, H., Kostama, H., 2015. Developing the concept of life-cycle service offering. Ind. Mark. Manag. 49, 53–66. doi:10.1016/j.indmarman.2015.05.033

Raisch, S., Birkinshaw, J., 2008. Organizational ambidexterity: Antecedents, outcomes, and moderators. J. Manage. 34, 375–409. doi:10.1177/0149206308316058

Ramírez, R., 1999. Value co-production: Intellectual origins and implications for practice and research. Strateg. Manag. J. 20, 49–65. doi:10.1002/(SICI)1097-0266(199901)20:1<49::AID-SMJ20>3.0.CO;2-2

Saccani, N., Visintin, F., Rapaccini, M., 2014. Investigating the linkages between service types and supplier relationships in servitized environments. Int. J. Prod. Econ. 149, 226–238.

Siggelkow, N., 2007. Persuasion With Case Studies. Acad. Manag. J. 50, 20–24.

Sirén, C., Kohtamäki, M., Kuckertz, A., 2012. Exploration and exploitation strategies, profit performance and the mediating role of strategic learning: Escaping the exploitation trap. Strateg. Entrep. J. 6, 18–41.

Smith, W.K., Binns, A., Tushman, M.L., 2010. Complex Business Models: Managing Strategic Paradoxes Simultaneously. Long Range Plann. 43, 448–461. doi:10.1016/j.lrp.2009.12.003

Smith, W.K., Lewis, M.W., 2011. Toward a theory of paradox: A dynamic equilibrium model

27

of organizing. Acad. Manag. Rev. 36, 381–403. doi:10.5465/AMR.2011.59330958

Spring, M., Araujo, L., 2016. Product biographies in servitization and the circular economy. Ind. Mark. Manag. doi:10.1016/j.indmarman.2016.07.001

Spring, M., Araujo, L., 2013. Beyond the service factory: Service innovation in manufacturing supply networks. Ind. Mark. Manag. 42, 59–70. doi:10.1016/j.indmarman.2012.11.006

Storbacka, K., Windahl, C., Nenonen, S., Salonen, A., 2013. Solution business models: Transformation along four continua. Ind. Mark. Manag. 42, 705–716. doi:10.1016/j.indmarman.2013.05.008

Story, V.M., Raddats, C., Burton, J., Zolkiewski, J., Baines, T., 2016. Capabilities for advanced services: A multi-actor perspective. Ind. Mark. Manag. 60, 54–68. doi:10.1016/j.indmarman.2016.04.015

Töytäri, P., Rajala, R., Alejandro, T.B., 2015. Organizational and institutional barriers to value-based pricing in industrial relationships. Ind. Mark. Manag. 47, 53–64. doi:10.1016/j.indmarman.2015.02.005

Turunen, T., Finne, M., 2014. The organisational environment's impact on the servitization of manufacturers. Eur. Manag. J. 32. doi:10.1016/j.emj.2013.11.002

Ulaga, W., Reinartz, W.J., 2011. Hybrid offerings: How manufacturing firms combine goods and services successfully. J. Mark. 75, 5–23.

Valtakoski, A., 2015. Explaining servitization failure and deservitization: A knowledge-based perspective. Ind. Mark. Manag. doi:10.1016/j.indmarman.2016.04.009

Visnjic Kastalli, I., Van Looy, B., Neely, A., 2013. Steering manufacturing firms towards service business model innovation. Calif. Manage. Rev. 56, 100–123. doi:10.1525/cmr.2013.56.1.100

Windahl, C., Lakemond, N., 2010. Integrated solutions from a service-centered perspective: Applicability and limitations in the capital goods industry. Ind. Mark. Manag. 39, 1278–1290. doi:10.1016/j.indmarman.2010.03.001

Wise, R., Baumgartner, P., 1999. Go downstream - The new profit imperative in manufacturing. Harv. Bus. Rev. 77, 133–142.

Yin, R.K., 1994. Case study research: Design and Methods, (2nd ed.). ed. Sage, Newbury Park, CA.

Contents lists available at ScienceDirect

Industrial Marketing Management

CrossMark

Retrospective relational sensemaking in R&D offshoring

Suvi Einola, Ph.D. Student [a,*], Marko Kohtamäki, Professor/Visiting Professor [a,b],
Vinit Parida, Professor [a,b], Joakim Wincent, Professor [b,c]

[a] *University of Vaasa, Department of Management, PO Box 700, FI 65101 Vaasa, Finland*
[b] *Entrepreneurship and Innovation, Luleå University of Technology, PO Box 700, FI 65101 Vaasa, Finland*
[c] *Hanken School of Economics, PO Box 479, FI-00101 Helsinki, Finland*

A B S T R A C T

To address the increasing relational challenges in international R&D collaboration, the present study develops a framework for understanding retrospective relational sensemaking in R&D offshore relationships. Using a comparative case study methodology, this study analyzes relational data from 56 interviews regarding four R&D offshore relationships between two large Swedish multinational companies and four R&D offshore partners. This study contributes to existing sensemaking theory by constructing a framework for retrospective relational sensemaking, including triggers and the phases of enactment, selection, and retention, to improve relational learning in R&D offshore relationships.

© 2016 Elsevier Inc. All rights reserved.

1. Introduction

Although offshoring of R&D tasks is regarded as the "next generation of offshoring," it represents a significant coordination challenge for most companies (Manning, Raghavan, & Schutze, 2008). In contrast to the less demanding tasks that have historically been targets for offshoring, this next generation of offshoring includes a wide spectrum of high-value-added activities that are associated with R&D, such as computer-aided design (CAD)—drawing, modeling and drafting—re-engineering, embedded system development, new technology development, research on new materials and services, prototype design, and product development. By nature, these activities are highly uncertain and complex; thus, specifying and agreeing on tasks and deliverables ex ante is difficult. Moreover, the geographical distance, intercultural issues, and difficulties with contracting and predicting what needs to be executed create coordination and comprehension challenges, which implies that the realization of offshoring R&D is often different from that which was actually planned (Booz & Co., 2007; Grimpe & Kaiser, 2010; Rilla & Squicciarini, 2011). Given this background, the actors involved in offshoring often have a discrepancy of what "makes sense", which inhibits learning from and developing offshoring activities during the implementation phase. Thus, the selected R&D offshoring context represents a relevant setting in which to study relational sensemaking.

Building on Weick, Sutcliffe, and Obstfeld (2005), this study intends to demonstrate how retrospective sensemaking, as a process of social construction, aims to bring order into flux through an ex post collective interpretation and explanation of what actually happened in the studied offshoring relationships (Pye, 2005; Weick, 1995).

Although prior research has provided some models of the importance of relational learning (Dyer & Hatch, 2004; Huikkola, Ylimäki, & Kohtamäki, 2013; Knight & Pye, 2005; Lin, Wu, Chang, Wang, & Lee, 2012; Selnes & Sallis, 2003), development (Kale & Singh, 2007), and sensemaking (Medlin & Törnroos, 2014; Möller, 2010), relational sensemaking has received limited attention (Henneberg, Naudé, & Mouzas, 2010). In particular, the distinctive character of retrospective sensemaking in relationships remains significantly understudied. Retrospective sensemaking is particularly relevant in contexts in which uncertainty, risks, and the complexity of tasks decrease the potential for effective learning from planning or threaten the development of valid predictions regarding how to accomplish goals in, for instance, the R&D offshoring context (Weick, Sutcliffe & Obstfeld, 2005). The potential for low levels of trust, the great distance between partners and the complexity of the tasks to be executed call for a better understanding of sensemaking after tasks have been executed without relying on ex ante planning. Not only the lack of studies but also the relevance of studying sensemaking in such contexts has been highlighted by Henneberg et al. (2010, 357), who argue that "*no systematic research exists within this area of linking sense-making and networking empirically, i.e., providing 'thick' descriptions about the interrelations of these two concepts.*" Moreover, despite some insightful exceptions (Halinen,

Törnroos, & Elo, 2013; Medlin & Törnroos, 2014; Möller, 2010; Ramos, Henneberg, & Naudé, 2012), efforts have been limited to the prospective view of sensemaking and the use of cognitive maps to enhance shared understanding (Abrahamsen, Henneberg, & Naudé, 2012; Ford & Redwood, 2005; Henneberg, Mouzas, & Naudé, 2006; Öberg, Henneberg, & Mouzas, 2012; Ramos, 2008). Although these have been important efforts and have advanced the sensemaking perspective in interorganizational research, previous studies have primarily approached the sensemaking concept prospectively or by developing approaches towards cognitive maps. Colville and Pye (2010) argue that retrospective sensemaking and cognitive mapping, although related, are slightly different perspectives; cognitive mapping does not concentrate on the processes or mechanisms behind joint explanations; it instead draws a static illustration of the current situation in the form of a network map. To date, the interorganizational literature has overlooked the concept of retrospective relational sensemaking; therefore, an analysis of the retrospective sensemaking process and mechanisms in the context of R&D offshoring provide unique contributions.

The present study aims to address the research gap regarding how retrospective relational sensemaking occurs in R&D offshoring between manufacturers (i.e., customers) and their service providers (i.e., suppliers). These relationships involve professionals from both sides of the studied relationships and, therefore, from different national and organizational contexts, engaging in relational sensemaking processes despite their separate frames of reference. Building on the sensemaking literature (Weick, 1988; Weick, 1993) and drawing from empirical data collected from 56 interviews with representatives on both sides of four R&D offshoring relationships, the present study extends research on interorganizational sensemaking (Medlin & Törnroos, 2014; Möller, 2010) and network cognition (Abrahamsen et al., 2012; Colville & Pye, 2010; Mouzas, Henneberg, & Naudé, 2008) by 1) developing the concept of retrospective relational sensemaking, 2) providing knowledge about the mechanisms of retrospective relational sensemaking, and 3) synthesizing an explicit framework to facilitate retrospective relational sensemaking. For managers of R&D offshoring, the present study provides insights into how to make sense of and develop activities to increase value and reduce relational costs.

2. Retrospective relational sensemaking in the R&D offshoring context

2.1. Sensemaking in the context of R&D offshoring

R&D offshoring involves the relocation of in-house R&D activities to external parties located in other countries to meet global operational requirements (Massini, Perm-Ajchariyawong, & Lewin, 2010; Rilla & Squicciarini, 2011). Offshoring of back-office and IT activities has been common in the past, but there has been a recent increase in offshoring of more advanced activities, such as R&D tasks, due to the need to achieve cost advantages (Maskell, Petersen, & Dick-Nielsen, 2007; Nieto & Rodríguez, 2011). Resulting R&D offshoring relationships may occur with quite significant geographical distances between partners who have a limited knowledge base and different cultural backgrounds (Grimpe & Kaiser, 2010; Li, Karakowsky, & Lam, 2002). For example, Parida, Wincent, and Kohtamäki (2013) highlight the transfer of R&D activities from Western countries to India. However, offshoring complex R&D activities involves various challenges, as these activities are emergent in character, require trust (Bäck & Kohtamäki, 2015; Kwon & Suh, 2005; Lewicki, Tomlinson, & Gillespie, 2006; Lindberg & Nordin, 2008; Rayruen & Miller, 2007) and involve vast knowledge asymmetries (Rilla & Squicciarini, 2011). By knowledge asymmetries, the literature references a situation in which, ex ante, R&D suppliers are unfamiliar with the true needs of customers, whereas customers may be unaware of suppliers' competences (Stump, Athaide, & Joshi, 2002). Therefore, ex ante, crafting exact, detailed plans about R&D work is difficult, and, during the collaboration, plans often change and new plans emerge. These

challenges are particularly evident in the R&D offshoring context, where partners operate in distant locations and have different cultural backgrounds (Parida, Wincent, & Oghazi, 2016).

Interorganizational network studies acknowledge the challenge of relational or network coordination and even question whether relationships or networks can be managed at all (Håkansson & Ford, 2002; Möller, 2006; Möller & Halinen, 1999; Ritter, Wilkinson, & Johnston, 2004). For instance, Ritter et al. (2004: 175) question whether any company can control a network—instead, according to them, partners coordinate, negotiate and develop a common understanding about needed activities. A potential general agreement is that, even if coordination beyond organizational boundaries is challenging, firms must succeed in it and thus need relational capabilities that enable network coordination and knowledge sharing (Dyer & Hatch, 2004; Dyer & Hatch, 2006; Kohtamäki, Partanen, & Möller, 2013; Möller & Svahn, 2004), particularly when operating overseas. Relational coordination enables partners to make sense of emergent R&D activities, thereby learning through relational retrospection; that is, by looking backward, partners can analyze and understand what went wrong and develop better ways of working for the future.

2.2. Defining retrospective relational sensemaking

Ongoing R&D activities in relationships, similar to general organizational activities, can be viewed as negotiated orders for ambiguous work that are enacted among the organizational partners involved (Tsoukas & Chia, 2002; Weick et al., 2005). Building on process theory (Bakken & Hernes, 2006; Van de Ven & Poole, 2005) and the retrospective sensemaking approach, this study analyzes the process of interactions and interpretations in an attempt to make sense of the surrounding world (Gephart, 1993). By retrospection, we reference a process in which action is not driven primarily by sense; instead, sense is guided by action and a retrospective understanding of that action (Gioia, 2006; Weick, 1995). As "*sensemaking makes organizing possible*" (Weick, 2001: 95), this retrospective look at actions and interactions enables the development of shared understanding in the context of R&D offshoring relationships (Fig. 1). As such, the concept of retrospective relational sensemaking in the R&D offshoring context is realized through collective communications, interpretations and meaning-shaping interactions in the relationships among R&D partners in sequences that connect actions to outcomes (Giddens, 1984). The context of R&D offshoring generates specific challenges for retrospective sensemaking. In an intra-organizational context, actors operate within the same organizational strategy, structure and culture; however, in the interorganizational context of R&D offshoring, the actors involved in the sensemaking process come from different organizations that operate under different strategies, structures and organizational cultures. In addition, significant physical and cultural distances (Batt & Purchase, 2004; McGrath & O'Toole, 2014) have important implications in the sensemaking process, such as the added knowledge asymmetry between actors who come from different cultural backgrounds (Liu, Gould, Rollins, & Gao, 2014; Möller & Svahn, 2004). Physical distance also makes it difficult to engage in face-to-face interactions, which are important for trust development and knowledge sharing (Lewicki et al., 2006).

As illustrated in Fig. 1, retrospective relational sensemaking takes place as a dual, cyclical and ongoing interaction process of sense reading and sense formation (Mangham & Pye, 1991; Medlin & Törnroos, 2014; Welch & Wilkinson, 2002), a retrospective explanation of what people
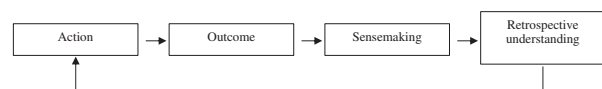

Fig. 1. Process of retrospective relational sensemaking.

think they should have been doing (Gioia, 2006; Mangham & Pye, 1991; Weick, 1995). The shared understanding that develops then feeds back into relational routines, rituals, norms and beliefs. Therefore, somewhat similar to organizations, although much more loosely coupled, offshoring relationships provide an interactive platform for sensemaking by facilitating the enactment, shaping and implementation of knowledge (Kohtamäki, Kraus, Mäkelä, & Rönkkö, 2012; Medlin & Törnroos, 2014; Selnes & Sallis, 2003). Despite being more loosely coupled than organizations or local R&D relationships, R&D offshoring relationships are more tightly coupled than arm's-length market relationships. In these activities, relational integration is needed to facilitate trust, knowledge sharing, sensemaking and relational learning (Kohtamäki et al., 2012), although the interplay between these factors is far from simple (Selnes & Sallis, 2003).

2.3. Phases of retrospective relational sensemaking

Prior research highlights the need for sensemaking in high-pressure situations in which tightly knit groups of actors operate in close interaction (Weick, 1995), which is relevant for understanding R&D offshoring work, where distantly operating R&D workers seek to work as a team to achieve common goals. The relational sensemaking process springs into action when discrepancies interrupt normal project work and **trigger** sensemaking and **enactment** (Weick et al., 2005). In our research context, enactment consists of noticing and bracketing, where R&D workers interpret "*something that has already occurred during the organizing process, but does not yet have a name, has never been recognized as a separate autonomous process, object, event*" (Magala, 1997). In the two sub-processes of enactment, noticing refers to deviation from regular work in an R&D project, such as irregular contact and cancellations or quality issues. The sub-process of bracketing refers to a process in which the R&D team intends to bring order to the chaos by grouping the observations. Obviously, these sub-processes are influenced by the cultural distance that exists on a team whose members have different cultural backgrounds. Thus, explicating knowledge and reaching a shared understanding may become more difficult in an offshoring context than in a local intra-organizational context. Together, these mechanisms produce perceptions of the trigger that enables selection from an array of potential interpretations.

The second phase of sensemaking, **selection**, aims to generate common ground by labeling and categorizing the enacted phenomena that "*have to be forcibly carved out of the undifferentiated flux of raw experience and conceptually fixed and labeled so that they can become the common currency for communicational exchanges*" (Chia, 2000, p.517; Weick et al., 2005). Labeling and categorizing reduces possible interpretations through the use of attention, mental models and articulation to generate a locally plausible story about what happened (Tsoukas & Chia, 2002; Weick et al., 2005), to label the events, and to enable the selection of incidents (Weick et al., 2005). In this phase, R&D workers differentiate, classify, and coin circumstances (Chia, 2000, p.517). After labeling, actors categorize the resulting notions to reduce interpretations, which remain tentative until the retention phase (Weick et al., 2005). In essence, the selection phase reduces the number of interpretations for the retention phase, in which the final interpretation is made.

The situation gains further solidity in the third phase of the sensemaking process, **retention**, where a "*situation is talked into being through the interactive exchanges of organizational members to produce a view of circumstances including the people, their objects, their institutions and history, and their siting in a finite time and place*" (Weick et al., 2005). During the retention process, the interpretation of the events in the R&D offshoring relationship become connected to the prior experience of collaboration; therefore, they can be used to guide forthcoming collaborative action (Weick, 1969). The retention phase operates as a mechanism to feed knowledge into relational systems, structures and processes (Huikkola et al., 2013; Krush, Agnihotri, Trainor, & Nowlin, 2013; Selnes & Sallis, 2003).

In summary, the present study considers relational sensemaking to involve both conversational and social practices that occur verbally and non-verbally (Gephart, 1993; Gioia & Chittipeddi, 1991). Practices "*are means of doing in which organizing is constituted, rather than static concepts or objects to be employed*" (Jarzabkowski & Spee, 2009, p. 82), and they "*involve the various routines, discourses, concepts and technologies through which this strategy labour is made possible*" (Jarzabkowski and Whittington, 2008, p.101). Interorganizational action and sensemaking interact in the joint construction and reconstruction of relational practices (Giddens, 1984). The present study highlights and analyzes the specific practices of retrospective relational sensemaking in the context of R&D offshoring relationships.

3. Methodology

3.1. Research setting and data

Whereas the dominant focus of most large multinational companies has been on offshoring information technology and back-office business processes, a third major service growth stream relates to offshoring advanced engineering services and R&D activities. According to Manning et al. (2008), this shift requires research attention and represents the next generation of offshoring practices. Due to the complexities associated with R&D offshoring, companies are quite often challenged with relational and coordination problems (Grimpe & Kaiser, 2010; Rilla & Squicciarini, 2011), which calls for a greater emphasis on sensemaking activities (Parida et al., 2013). Therefore, this research context provides a suitable setting for examining diverse relational challenges and developing a model for relational sensemaking.

This study builds on a larger data collection from four R&D offshoring relationships (Parida, Wincent, and Oghazi, 2016). This involve two Swedish customers, i.e., Alphacorp and Betacorp, and four Indian suppliers, i.e., Delphitech, Nippon, Alpinetech and Grippen (the company names have been replaced with pseudonyms to ensure anonymity). These relationships were selected for investigation for the following reasons. First, driven by globalization and increasing competition, both customer companies established offshore collaboration units in Bangalore, India, in the early 2000s. Their early involvement in R&D offshore relationships offered the potential to gain detailed insights into how the relationships evolved over time. Thus, the present cases provide a unique opportunity for studying the entire process of retrospective relational sensemaking. Second, these relationships concentrate on R&D tasks that are related to complex products in the manufacturing industry, suggesting the higher likelihood of relational challenges, such as information asymmetry, which would benefit from sensemaking. Third, to be able to capture the detailed scope and extent of R&D offshore relationships, we investigated all R&D offshore relationships from the perspective of the two customer companies. Finally, although we do not claim that our results are empirically generalizable, the four relationships represent a broader geographic entity, that is, manufacturing companies from Western countries that are acquiring R&D services from Asian suppliers, such as India. (See Table 1)

More specifically, the first customer company, Alphacorp (revenue €209 million; no of employees 3500), is a worldwide industry-leading construction equipment provider that offers products and services to customers from diverse industries (e.g., mining, road construction, and utilities) in more than 100 countries. We examined Alphacorp's two R&D offshore relationships with two supplier companies, which were the only offshore relationships of this customer. Delphitech (revenue €3.6 billion; no of employees 88,000)is an Indian multinational supplier of information technology services, business support services and advanced engineering solutions. It offers services to customers from 49 countries. Nippon (no of employees 150) is an India-based multinational business unit that offers advanced engineering consultancy services to multiple large automotive and marine companies.

Table 1
Background information on the studied relationships.

	Customer-supplier relationship 1		Customer-supplier relationship 2	
	Betacorp (C1)	Alpinetech (S1)	Betacorp (C1)	Grippen (S2)
Main products/services Type of R&D services provided in the particular relationship	Aerospace component provider Prototype design, engineering support, CAD drawing, and simulations	IT service provider	Aerospace component provider Product tailoring, product design, prototype construction, and code development	R&D service provider
	Customer-supplier relationship 3		**Customer-supplier relationship 4**	
	Alphacorp (C2)	Delphitech (S3)	Alphacorp (C2)	Nippon (S4)
Main products/services	Construction equipment and related services	IT services, business upport services and advanced engineering	Construction equipment and related services	Advanced engineering and new product development services
Type of solutions provided in the relationship	Product development, reengineering, programming, and application development		Prototype development, system design, testing, and engineering support	

The second customer company, Betacorp (Revenue €1.225 million; no of employees 13,000), is a large global developer and manufacturer of components for both civil and military airplane engines, rocket engines for space applications, and gas-turbine engines. We examined the R&D offshore relationships of Betacorp with two supplier companies, which were this customer company's only offshore relationships. Alpinetech (revenue €3.6; no of employees 83,000) is an India-based global IT service supplier that offers software consulting, enterprise transformation, remote infrastructure management, engineering and R&D services and business process outsourcing (BPO). Grippen (no of employees 3900) is a small, newly established R&D service supplier specializing in the aerospace industry. It has a strategic relationship with Betacorp and provides services across several functional areas (e.g., hot structure and cold structure modeling).

3.2. Research approach and data analysis

We adopted an abductive and exploratory multiple case study research design (Eisenhardt, 1989) because we sought to gain rich data on the studied phenomena. Moreover, this approach enabled us to provide details regarding not only the benefits associated with offshoring advanced engineering and R&D activities but also the possibility of performing a cross-case analysis to learn about generalization possibilities (Yin, 2003). The advantage of such an approach is that it facilitates the presentation and detection of the underlying dynamics of such situations (Siggelkow, 2007). In total, 56 interviews and four focus group interviews were undertaken during the various stages of data collection. Respondents were promised anonymity to reduce social desirability bias.

Fig. 2 depicts the three steps of the empirical study. First, we focused on understanding the R&D offshoring journey and the key events associated with early-stage R&D offshoring from customers' perspectives. For this purpose, we conducted 22 explorative interviews (12 Alphacorp respondents and 10 Betacorp respondents) at prominent global offshoring sites of the customer companies, where they engaged in collaboration with four suppliers. Those interviews addressed challenges, mitigation actions and learning perspectives. Moreover, because few studies have investigated the effects of advanced engineering and R&D, we expected to find a different set of challenges for the offshoring activities that were the focus of our study compared with traditional (e.g., information technology) offshoring activities. The respondents in this phase were managers who had been part of the teams that developed their companies' initial offshore collaborations.

In the next step, we collected data from the four R&D services supplier companies, inquiring about their perspectives on the R&D offshore journey, key events and challenges that they have faced with their customers in the early stages of collaboration. This process resulted in 34 interviews at Alpinetech, Nippon, Delphitech and Grippen. The respondents were selected from both managerial (e.g., group leaders and collaboration initiators) and operational (e.g., team leaders and members) levels because respondents from those levels could provide examples of their experiences about the key events and challenges faced when working with offshore customers from different perspectives. Finally, we conducted four focus group interviews (two at Alphacorp and two at Betacorp) that involved respondents with managerial and operational backgrounds (6–10 participants). These focused interviews attempted to verify and validate the relationships and
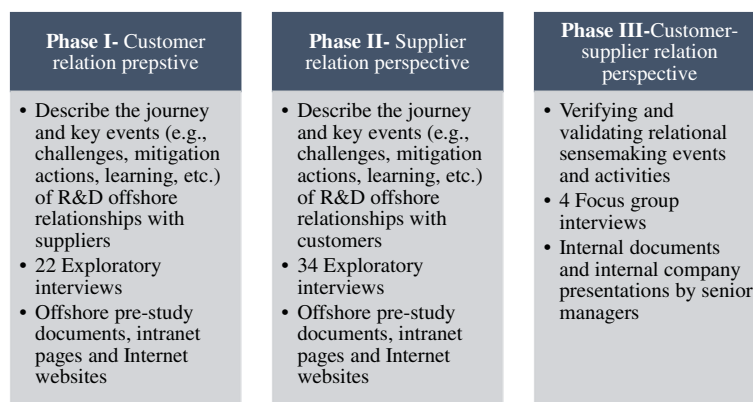
Phase I- Customer relation prepstive	**Phase II-** Supplier relation perspective	**Phase III-** Customer-supplier relation perspective
• Describe the journey and key events (e.g., challenges, mitigation actions, learning, etc.) of R&D offshore relationships with suppliers • 22 Exploratory interviews • Offshore pre-study documents, intranet pages and Internet websites	• Describe the journey and key events (e.g., challenges, mitigation actions, learning, etc.) of R&D offshore relationships with customers • 34 Exploratory interviews • Offshore pre-study documents, intranet pages and Internet websites	• Verifying and validating relational sensemaking events and activities • 4 Focus group interviews • Internal documents and internal company presentations by senior managers

Fig. 2. Overview of this study's data collection efforts.

patterns related to offshore sensemaking activities over the course of the four R&D offshore collaborations..

The workshops involved selected respondents from the two customer firms. To ensure reliability, most interviews were conducted by multiple investigators, which both increased the probability of obtaining unexpected results and ensured confidence in the results. The interviews were transcribed within 24–48 h and were then discussed within the group to identify patterns and/or themes (Nag, Corley, & Gioia, 2007). Secondary data were also collected throughout the data collection period in the form of either observations or archival data. We also attended and observed several operational and strategic meetings at the case companies. Observations and reflections during the interviews were also integrated into the interview transcriptions for further analysis. Different forms of archival sources were used during different phases (see Fig. 2). In particular, offshore pre-study documents, intranet pages, Internet websites, offshore growth progress documents, published news articles, internal documents and internal company presentations by senior managers were also analyzed to obtain an empirical triangulation of the offshore collaboration process.

3.3. Data analysis

We adopted data analysis methods based on constant comparison techniques (Nag et al., 2007; Strauss & Corbin, 1990). This approach allowed us to identify patterns within a large, complex dataset. Moreover, it offered a method for effectively and accurately finding linkages within analytical themes. The data analysis emphasizes the need for a series of iterations that lead to different themes and overarching dimensions for developing theoretically and empirically grounded frameworks. In the following section, we attempt to describe the sequence of actions taken during the data analysis.

In our initial step, we began coding the data and documents using common words, phrases, terms and labels, which were provided by our respondents. This step formed the basis of our first-order codes (Van Maanen, 1988). As suggested by Nag, Corley and Gioia (2007, p.828), "*we then reread each interview several times, each time marking phrases and passages that were similar to and different from each other, to discern similarities and differences among*" the respondents. These first-order codes were recorded in the exact language used by the respondents to express their views. Once certain patterns within these codes were visible, they formed the basis for first-order category development, which refers mainly to retrospective relational sensemaking in the context of R&D offshoring.

The next stage focused on an analysis of the first-order items, which led to the identification of patterns and linkages within those items. These identified links consisted of theoretically distinctive groups, which were regarded as second-order themes. Our analysis resulted in fourteen second-order themes, which were formed at a higher abstraction level than the first-order categories. In accordance with received validity claims from the literature, these themes were further refined based on the interplay between data from the interviews and secondary sources, such as internal documents and presentations. Moreover, internal validity tests were conducted to ensure greater accuracy within the themes that emerged, which was achieved by means of e-mail correspondence and follow-up discussions with selected respondents. The second-order analysis involved the following steps. First, the respondents' accounts were examined via qualitative content analysis to generate explanation towards retrospective sensemaking process. Second,
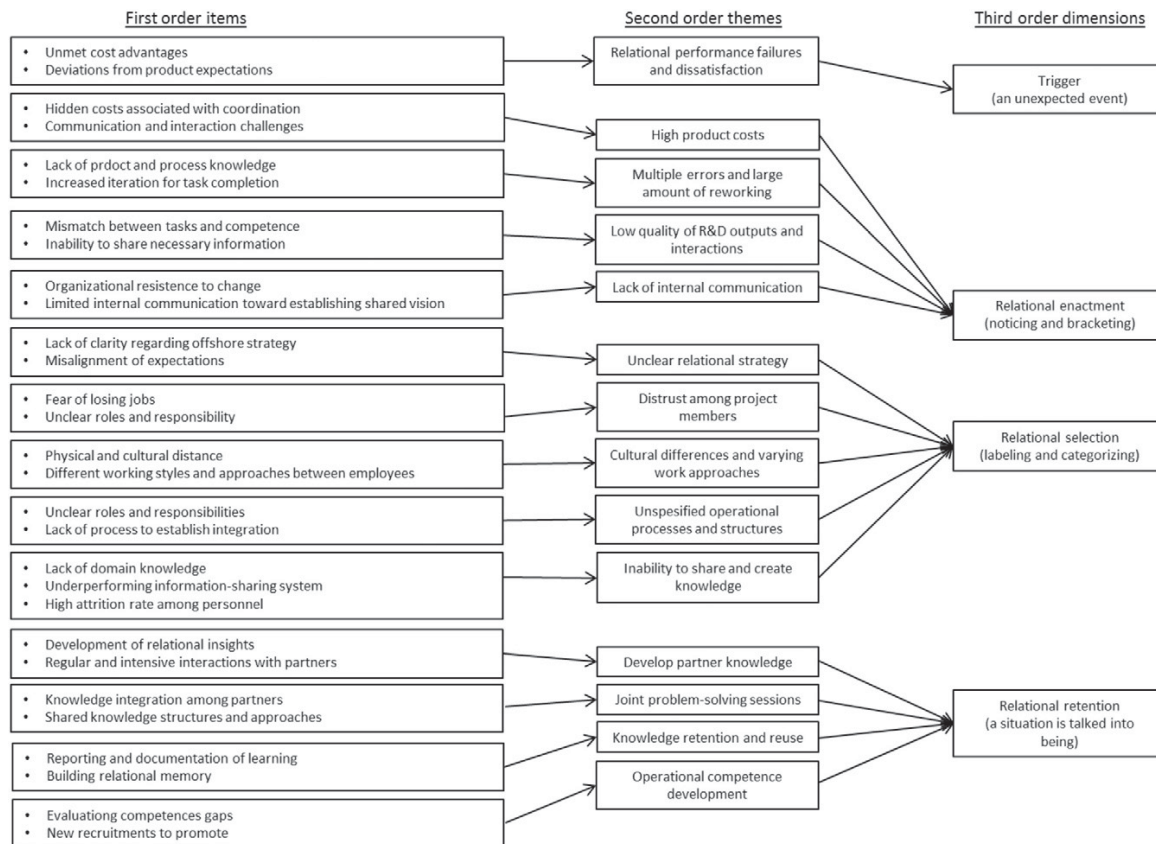

Fig. 3. Findings related to the relational sensemaking process.

data were analyzed across respondents to identify the prominent sensemaking patterns. To ensure that patterns were relevant to the relational sensemaking process, we emphasized the patterns that were commonly highlighted by respondents on both sides (i.e., customer and supplier) of the relationship. This procedure was executed with a constant comparison technique based on data from different sources to recognize the major themes related to the phases of the retrospective relational sensemaking process. Third, we converted empirically identified patterns into theoretical concepts, which are presented as second-order themes.

The final step involved creating more abstract third-order dimensions through an abductive process in which the second-order themes were compared with the dimensions of sensemaking theory. Fig. 3 shows our coding approach, which highlights different phases of the relational sensemaking process during the early stages of two R&D offshore relationships. These steps enabled us to create an empirically driven theoretical framework that links various phenomena that emerged during the data analysis.

4. Research findings

Relational retrospective sensemaking facilitates shared understanding in R&D offshoring relationships. In short, retrospective sensemaking accounts for what has been frequently called the discursive construction of the reality-enabled formation of the social structure (Weick, 1993). Although similarities to phenomena mentioned in the sensemaking literature were observed, a closer examination of this literature reveals that the relational sensemaking process in the R&D offshoring context is a more loosely coupled sequence of interactions and interpretations than the processes that are typically described in the sensemaking literature, such as cases of fires, industrial disasters and other stressful situations (Weick, 1988; Weick, 1993). In this unique context of R&D offshoring relationships, which include vast knowledge asymmetries and geographical distance and in which the work is emergent in character (ex ante difficult to plan), Weick's (1988, 1993) sensemaking approach was utilized to develop a concept of retrospective relational sensemaking to better understand the critical events in R&D offshoring relationships.

4.1. The relational sensemaking process

This study proposes an empirically grounded model of the retrospective relational sensemaking process in the context of R&D offshoring relationships. By analyzing a variety of R&D offshoring relationships, the present study identified critical incidents that trigger sensemaking processes to extend the literature about how sensemaking occurs in the context of R&D offshoring relationships. The findings from the case companies demonstrate that low performance and satisfaction in the early stages of such relationships trigger relational sensemaking.

The relationships studied did not initially perform as expected, so unexpected events acted as triggers for relational sensemaking processes. In the enactment phase, R&D offshoring partners noticed that project costs were much higher than expected; multiple errors occurred; reworking was needed; the quality of operations was low; and communication between partners was insufficient. The selection phase labeled and categorized the reasons for certain incidents, such as unclear relational strategy, distrust among project members, cultural differences and varying work approaches, unspecified operational processes and structures, and an inability to share and create knowledge. Finally, learning from previous phases is retained through efforts related to the development of partner knowledge, joint problem-solving sessions, knowledge retention and reuse, and operational competence development. Fig. 3 illustrates the main findings for the dimensions of sensemaking.

4.2. Triggering relational sensemaking

Weick et al. (2005, 409) highlight that "*explicit efforts at sensemaking tend to occur when the current state of the world is perceived to be different from the expected state of the world.*" In accordance with previous studies, the primary motive related to the decision to offshore R&D activities from Sweden to India was cost savings (Grimpe & Kaiser, 2010; Maskell et al., 2007). Whereas the Alphacorp and Betacorp managers considered R&D offshoring as a means of maximizing limited financial resources, the inability to achieve those savings and other operational efficiencies alerted the responsible managers.

"*Cost savings have been the key reason to engage in R&D offshoring. Top management agreed that this manner of organizing R&D tasks was necessary because of increasing competition.*"

[(Senior Manager, Alphacorp)]

"*We have been very enthusiastic about R&D offshoring. That would enable us to expand our R&D efforts into more strategic and future-oriented activities.*"

[(Director of Technology Planning, Betacorp)]

However, the early stages of relationships failed to deliver the expected results at project performance levels, which decreased satisfaction among operational-level employees. This dissatisfaction was shared on both sides of the relationships (i.e., the supplier and the customer). Alphacorp's or Betacorp's employees questioned the engagement efforts and developed a negative impression of the relationship. Employees felt that they had failed to achieve the expected results. Overall, major deviation from the expected advantages and the inability to meet operational efficiency triggered the relational sensemaking process.

"*The early years of collaboration have been challenging for all of us and for our suppliers. Most of our projects failed to reach the goals we set for them. This created chaos within the organization, which took us by surprise.*"

[(Process Specialist, Betacorp)]

"*Finding team leaders who would lead projects with offshore resources has been problematic. The internal image of such projects was not good, as it was often associated with missing deadlines, low quality, and high administrative responsibility.*"

[(Line Manager, Alphacorp)]

"*Those employees who were part of early joint development projects with the customer were highly unsatisfied with the interaction due to limited support from the other side, and, in many cases, they were not treated as part of the same team. This meant that the quality of outputs was not good and that there was miscommunication.*"

[(Key Account Manager, Grippen)]

4.3. Relational enactment

The relational sensemaking process was separated into three different sub-processes of enactment, selection and retention. In the relational *enactment* phase, partners notice and bracket the signs of problems (Weick et al., 2005), observing a deviation from the expected. In the case of Alphacorp, a senior manager noticed that project costs were not reduced, contrary to their expectations. Whereas the goal for cost reduction was up to 50%, the real cost reductions were between 10 and 20%. An internal analysis concluded that these failures were caused by the *high project costs* associated with hidden coordination costs and a greater need for regular communication.

"*Most R&D projects that involved offshore resources ended up with high costs. For example, project leaders spent much more time on communicating tasks among team members. These unplanned administrative and communication cycles resulted in much lower savings than what was initially predicted by the project management office.*"

[(Line Manager, Alphacorp)]

"*We find limited support from customer organization. They can be quite unresponsive to our questions. R&D tasks require a clear channel of communication, but we are struggling to capture and interpret complex tasks.*"

[(Key Account Manager, Alpinetech)]

The R&D exchanges within the relationship embedded *multiple errors* and *large amounts of reworking.* The *low quality of R&D outputs and interactions* led to low levels of satisfaction with the R&D relationships. The project durations were also extended in most cases for several reasons. Customer representatives experienced difficulties in dealing with quality and cost problems due to the internal resistance to change and the *lack of internal commitment* across different levels of the organization. These problems and the inability to positively facilitate development fostered dissatisfaction and frustration on both sides of the relationship.

"*Although offshore resources were skilled, they lacked knowledge of our products and processes. They took their time learning and made several mistakes along the way, which led to an increased number of iterations and the need to rework.*"

[(Director Product Planning and Business Development, Betacorp)]

"*We knew little about our offshore resources, and there was often a mismatch between the correct person and the correct job. This added time to explain tasks and caused deliveries to be delayed.*"

[(Manager Offshore Operations, Alphacorp)]

"*To complete innovative tasks requires understanding multiple criteria. This means we need to interact with multiple people on site to gather information, but we are not given this access. We can only interact with one person, and they can be quite busy most of the time.*"

[(Project Leader, Delphitech)]

During the enactment process, top executives and managers on both sides of the relationship noticed multiple problems, identified the reasons behind those problems, and packaged those reasons to better understand and solve the issues. That is, managers noticed and bracketed both the problems and reasons "*to change the flux of circumstances into the orderliness of situations*" (Weick et al. 2005, p. 414). It became clear that the R&D offshoring relationships suffered from a multitude of problems on the customer and supplier sides. Moreover, the geographical distance, coupled with limited R&D offshoring experience, made building a joint understanding and a strategy to mitigate these challenges difficult.

4.4. Relational selection

In relational selection, relational actors, such as managers, label and categorize the issues that cause low performance by ignoring differences and labeling reasons for credible and acceptable stories (Tsoukas & Chia, 2002; Weick et al., 2005). Through analyses and interpretation, the reasons are categorized to reduce the number of possible explanations to improve clarity. Thus, in the first step of the selection phase, managers labeled a great number of possible explanations for low R&D performance and satisfaction, which were subsequently reduced to five distinctive labels and categories: 1) unclear relational strategy, 2) distrust among project members, 3) cultural differences and varying work approaches, 4) unspecified operational processes

and structures, and 5) the inability to share and create knowledge. The following section provides brief insights into each of the five highlighted labels and categories.

When trying to reduce the possible explanations behind low R&D performance, the studied companies categorized explanations of low performance into five different clusters, which "*have plasticity because they are socially defined, because they have to be adapted to local circumstances, and because they have a radial structure*" (Weick et al., 2005 p. 411).

Unclear relational strategy was identified as an important explanation for low R&D performance. The interviewees felt that certain behaviors were expected without any clarification of the reasons for such expectations. Responsible managers failed to explicate a relational strategy to meet the expectations of R&D workers on both sides of the relationship. Customers may have emphasized the needed cost advantages but failed to provide necessary guidance to the supplier to produce the expected quality. Misalignment between partners' expectations was usually coupled with a lack of a clearly defined offshore engagement strategy.

"*Quite often, customers start offshore collaboration without an appropriate level of internal agreement. Top management may see the benefits in terms of cost and competence, but the long-term strategy is not internally shared. This creates a lot of problems when engineers start to work together with a lot of uncertainty and pre-assumptions.*"

[(Director of Cold Structure Formation, Alpinetech)]

"*Offshoring activities have been pushed to the line organization without clearly explained reasons. This has created a negative feeling toward the relationship, and people are not always trying to solve the relationship problems but rather are waiting for mistakes to happen. For example, we don't share all the necessary information about development activities and put efforts toward supporting offshore resources.*"

[(Director of External Recourse, Betacorp)]

Distrust among team members was considered another reason behind low R&D performance. Low trust negatively affects relational loyalty and commitment, which may then manifest in lower quality or longer lead times. The effects of trust have been well established in the relational literature (Kwon & Suh, 2005; Rayruen & Miller, 2007). In the context of R&D offshoring, where knowledge asymmetries are often vast, a lack of trust further increases the negative effect on information sharing and relational development. For example, in the studied case, we observed a situation in which operational staff had limited insights into what information was meant to be shared and what was not. This caution about information sharing emerged because the customer representatives knew that the offshore supplier companies had been previously working with their competitors and could work with them again in the future, which could potentially mean that the customer would lose a competitive advantage. Other reasons included project team members fearing potential job losses. These fears were found to potentially facilitate organizational inertia and thus prevent the development of higher relational performance.

"*They are working with us now, but soon, in the near future, they may work for our competitors. This makes people nervous, as the level of trust becomes low.*"

[(Line Manager, Alphacorp)]

"*We have several benchmark design practices, which should be shared with the offshore resources to make the knowledge-building process faster, but we don't really know if we can share such internal documents or not. If it would have been any other consultant that was located in Sweden, we would freely share this information, but with external resources in India, it becomes more risky.*"

[(Director Business Strategy, Betacorp)]

"*We can sense that the onsite team members have a negative view toward offshore collaboration. Maybe they fear that, in the future, they will lose their jobs to us. This makes the interaction between team members complex, as we don't share all the necessary information for task completion.*"

[(Head of Operations, Nippon)]

Physical and cultural distances, alongside different working styles between cultures, were categorized as *cultural differences and varying work approaches* between partners. Physical and cultural distance interact with trust and knowledge asymmetries, increasing the difficulties in collaboration. These challenges are demonstrated through a variety of practices in which working styles may differ between partners. We found evidence that the offshore setting inherits pre-existing challenges related to cultural diversity. This finding is by no means new; it is supported by many prior studies, as Möller (2010, p. 361) highlights: "*The differences in the cultural orientation of the collaborating firms increase the cognitively based risk of misunderstandings and conflicts, and often lead to failure*" (Li et al., 2002; Möller & Svahn, 2004). Several interviewees revealed that when transferring R&D work, Indian engineers were more team-oriented than Swedish engineers, who were instead more individualistic; therefore, Swedish engineers required lower levels of interaction and control, whereas Indian engineers favored regular interaction. Our interviewees talked about cultural challenges, highlighting the challenges in interactions.

"*Cultural problems are hard to fix, as they are inbuilt. The Swedish way of working and the Indian way of working are different, and we have a lot to learn from each other.*"

[(Director Advance Engineering, Alphacorp)]

In addition, several interviewees suggested that offshore employees experience fear or hesitation in taking initiative or asking questions. This outcome relates to the notion that Indian engineers may have a "fear of losing face," i.e., they may, more than Swedish engineers, fear making mistakes or asking for clarification (Bullis, 1998). This fear is counter-intuitive to most Swedish engineers, who have a working approach that is more independent and direct. Indian engineers were considered better at following processes and addressing matters according to hierarchical levels. An aerospace industry manager confirmed the following:

"*They don't dare to make mistakes; as engineers, we expect them to draw their own conclusions and come up with ideas.*"

[(Line Manager, Betacorp)]

"*We are not used to working in very formal structures in Swedish R&D teams. It is rather that we encourage people to take initiative and do things, but our offshore resources are more careful and conservative. It seems they prefer it when we are giving them clear tasks, which is not always possible with development work.*"

[(Director Offshore Operations, Alphacorp)]

Unspecified operational processes and structures were identified based on the labeled notions of the unclear roles of managers and a lack of structural integration. R&D offshoring requires companies to develop and formalize new processes that facilitate structure through task definition, transfer, competition, and review. Both customer companies worked extensively to identify ways of reaching similar levels of operational efficiency as those that could have been achieved by working with resources in the same location. Supplier companies played an active role in supporting the customers in reaching the required level of operational performance, but customized processes and unexpected changes affected results heavily. According to Parida et al. (2013), operational processes of R&D offshoring are not always developed through intended efforts; sometimes, they are organic and unintentionally developed.

"*The current processes followed are highly individual, such that they lead to unclear descriptions for the offshore engineers instead of a very concrete and defined work path.*"

[(Deputy General Manager, Delphitech)]

"*Interaction with customers' resources can be very confusing, as we have to talk with different individuals. Also, they can move between projects without early warning; this negatively affects the workflow.*"

[(Manager Business Development and Planning, Alpinetech)]

The *inability to share and create knowledge* was considered another reason for low relational R&D performance. The task of sharing and creating this type of advanced knowledge with an offshore unit thousands of miles away was identified as a challenging one. Offshore employees typically possess tool knowledge because most multinational engineering companies use standard tools for development work. However, the building process and product knowledge require more effort and time. Even when most offshore unit engineers have a few years of experience in other companies in a similar industry, internal processes and routines tend to be company specific. Similarly, product knowledge is particularly important and complex because developing this knowledge depends on a learning-by-doing approach. According to an offshore manager,

"*When someone starts to work here [on site], the person can go to the machine floor, look at the machine, and see the implication of his or her designs for the final product. That person can also talk with operators and get their feedback. These types of information and knowledge cannot be sent to the offshore unit employees.*"

[(Senior Manager, Betacorp)]

Insufficient information-sharing systems or secretive procedures did not provide the required support for knowledge creation in R&D relationships. For example, supplier engineers were usually not given access to customers' internal systems due to restriction problems. Similar access was often provided to local R&D suppliers, but, because giving this access requires trustworthy relationships with the R&D suppliers, it was not granted. Not granting this access to customers was another indication of the lack of trust between the customer and the R&D suppliers.

"*Our customers have not stored their design examples in a systematic way. Everything has traditionally been stored in the same server, which means that if they give us access to look at a design example, we can also check other sensitive information. So, ultimately, we don't get direct access to necessary files, and we always need to go through an onsite team leader.*"

[(Offshore Manager, Nippon)]

This problem was observed to be connected with a high attrition rate, which was common across the four supplier companies. Managers from the customer side acknowledged that Bangalore is an "offshore hotspot" where talented and experienced employees have several job opportunities. Employee turnover created relational challenges for offshore collaboration, which was highly dependent on strong relationships between onsite and offshore employees. Employee retention increased the challenges associated with information asymmetries, leading to frustration.

"*Several team leaders had suffered in project performance because key offshore contacts have left the supplier company. We make a lot of investment in building relationships with key offshore contacts by inviting them for visits and through knowledge-sharing sessions. So, when they leave, the project suffers, and we go back to the start.*"

[(Director of External Resources, Betacorp)]

"*In our industry, it is a challenge to retain skilled and experienced employees. People are used to changing jobs on a regular basis. We know that such changes affects the relationships negatively, therefore, we*

have put in place new processes which make such changes less visible to our customers, such as multiple point of contacts."

[(Director Operations, Delphitech)]

4.5. Relational retention

In the sensemaking process, selected explanations remain tentative and provisional until *retention*, the final phase of sensemaking, in which the narrative gains further solidity (Weick et al., 2005). In our case, in the retention phase, companies retain their achieved understanding about the challenges of collaboration and begin to transform this understanding into the practice of relationships. Thus, in the retention phase, the companies begin to plan actions through onsite visits, meetings, and joint problem-solving sessions. In these sessions, plans are documented, and development programs are created. Retention enables a plausible story to further solidify and to be used as a source of guidance for further action and interpretation (Weick, 1969).

Based on our data analysis, the interaction is enhanced to develop and build partner knowledge into current relational operations. *Developing partner knowledge* is central for building shared understanding. These findings resemble what Henneberg et al. (2006) coined "network insight," which suggests that network members develop shared insights through discussions with each other. Partners explicate and share information to assimilate knowledge into their existing knowledge structures. As relational interaction plays a key role in knowledge retention, interaction platforms are needed (Huikkola et al., 2013) to facilitate trustworthy dialogues. In the case relationships, site visits were utilized to enable interactions. Onsite visits were considered means of improving knowledge integration by gaining an understanding of the partner's processes. Understanding relational processes facilitated the development of more effective processes that further improved relational R&D performance. The role of enabling relational structures was even more important in the context of R&D offshore collaboration, where physical distance is evident, in contrast with local R&D collaborations. The roles of visits, structured meetings, informal gatherings, and documentation were highlighted by the R&D workers.

"This was a trial-and-error approach, and we retained those processes that worked and abandoned those that did not. For example, hour calculations were based on joint discussions rather than on one-way instructions from on- to offshore sites."

[(Team Leader, Betacorp)]

"Onsite visits have been the most effective way to build a better understanding of our offshore resources and their approach to work. When our engineers meet them and have personal interactions, we learn much more about their way of working. Such visits have also been helpful in building trust and commitment between team members."

[(Director of External Resources, Betacorp)]

Both intra- and interorganizational meetings were observed to facilitate knowledge integration. These types of enabling relational structures are designed to support continuous interactions (Kohtamäki et al., 2012) and to facilitate trust development and in-depth dialogue, as the interplay between trust and interaction is central to relational learning and performance improvement (Knight & Pye, 2005; Lewicki et al., 2006).

"There is a much greater need for regular meetings when developing something novel. Therefore, our team spends 15 minutes every day quickly ensuring that all tasks are progressing as planned and that clarifications to offshore resources are promptly provided on a regular basis."(Project Manager, Alpinetech)

Similarly, *joint problem-solving sessions* facilitate the discovery of solutions to relational challenges. Whereas meetings serve as a platform for interaction, joint problem-solving processes activate creativity and knowledge integration (Selnes & Sallis, 2003). Through these processes of joint problem solving, relational team members develop shared knowledge structures. The current literature highlights the importance of these types of procedures (Dyer & Hatch, 2004).

"To build better working relationships among team members, we experimented with learning sessions. This involves team members working virtually on a similar, challenging problem and jointly exploring ways to find a solution. This approach helps inexperienced offshore resources learn more about the project problem and provides onsite resources with insights into how offshore resources approach complex problems."

[(Line Manager, Alphacorp)]

"Learning seminars among the team members has been much appreciated. Our staff not only learn new tools and products but also build a deeper relationship with customer staff."

[(Senior Manager, Nippon)]

Knowledge retention and reuse were identified as important practices that enable the integration of knowledge into relational memory. Knowledge integration was highlighted not only as particularly central to the context of R&D offshoring but also as a great challenge in creative learning interactions. Considering the tacit character of R&D knowledge development, documentation is far from easy. However, such practices are relevant for building relational memory (Selnes & Sallis, 2003). Thus, particular attention should be paid to these practices to learn from failures.

"All the team leaders who have visited offshore sites were asked to prepare a diary of their experiences. This information was internally shared to enhance the understanding of offshore resources and their working environments."

[(Director of Advanced Technology, Alphacorp)]

"Offshore team leaders are also encouraged to meet on a regular basis to discuss their experiences. This is very helpful for new team leaders because they receive firsthand input—dos and don'ts—on how to improve R&D offshore relationships."

[(Senior Manager, Betacorp)]

Operational competence development was another way to achieve increased R&D offshore performance. The need for competence development was found on both sides of the relationship. For example, customers needed more skillful administrative team leaders, whereas suppliers needed more experienced domain exporters with international exposure. The gap between competences and expectations obviously increased difficulties in collaboration.

"We have been actively recruiting several engineers who have another mindset towards engineering work. But, in most cases, we have been training our internal staff to become better at managing offshore relationships."

[(Line Manager, Alphacorp)]

"Things started to improve when we recruited senior managers with much R&D experience. They had worked in other larger companies and had deep knowledge. They were also more familiar with Western culture."

[(Senior Manager, Betacorp)]

4.6. Developing a model for retrospective relational sensemaking

Summarizing the findings related to the triggers of the relational sensemaking process of relational enactment, selection, and retention,

the model below (Fig. 4) demonstrates how the framework can be utilized to understand the incidents that took place in the four offshoring relationships. Beginning with a triggering event, the relational sensemaking process brings order into flux in a context where knowledge asymmetries shape the factors that mitigate successful operations in international offshoring relationships. Through the process of relational sensemaking modeled below, the noticing and bracketing phases intend to give meaning to the trigger, whereas, in the selection phase, labels for reasons are given and then reduced by grouping the reasons or events into categories, enhancing our understanding of what actually happened and why. In the retention phase, the events gain their ultimate meaning, which facilitates organizational learning about the events that triggered the sensemaking process. Thus, the described model provides an important tool for relational sensemaking, creating a unique theoretical and managerial contribution to the interorganizational network literature.

5. Discussion

5.1. Theoretical contribution

Extending the literature on interorganizational networks, which consists of vast information asymmetries that result from spatial, cultural, and psychological distances, this study develops a theory on retrospective relational sensemaking in R&D offshoring relationships. As R&D exchanges involve exchanges of tacit knowledge, which is difficult to share and transfer, the R&D exchanges across distant cultural boundaries becomes challenging. Acknowledging theory and recent research on relational sensemaking (Medlin & Törnroos, 2014; Möller, 2010), our study provides a better understanding of learning in R&D relationships. This study responds to calls for further research on interorganizational sensemaking (Henneberg et al., 2010; Medlin & Törnroos, 2014), thereby extending the research on interorganizational sensemaking (Medlin & Törnroos, 2014; Möller, 2010) and network cognition (Abrahamsen et al., 2012; Colville & Pye, 2010; Mouzas et al., 2008) by 1) developing the concept of retrospective relational sensemaking, 2) providing knowledge about the mechanisms of retrospective relational sensemaking, and 3) synthesizing an explicit framework to facilitate retrospective relational sensemaking in R&D offshoring relationships. For managers of R&D offshoring, the present study provides insights

into how to make sense of and develop activities to increase value and reduce relational costs.

First, building on the Weickian (Weick, 1995; Weick et al., 2005) retrospective sensemaking concept, the present study introduces the concept of "retrospective relational sensemaking." The concept responds to calls for studies on interorganizational sensemaking (Henneberg et al., 2010; Medlin & Törnroos, 2014) and provides an important tool for the interorganizational network literature that builds on Weick's original works. This concept is important because it encourages future research on retrospective sensemaking in interorganizational contexts. As such, retrospective sensemaking provides grounds for learning from past failures and successes.

Second, the present study contributes by providing insight on the mechanisms of retrospective relational sensemaking. Building on Weick's et al. (2005: 415) approach, we agree that "*sensemaking is not about truth and getting it right. Instead, it is about continued redrafting of an emerging story so that it becomes more comprehensive, incorporates more of the observed data, and is more resilient in the face of criticism… People may get better stories, but they will never get **the** story.*" Triggered by an unexpected event, retrospective mechanisms are identified based on the dimensions of enactment, selection, and retention. From this perspective, the solutions that were retained here illustrate the retrospective sensemaking process in early stages of R&D offshoring relationships. Our model and findings suggest that, considering the ex ante uncertain—and, in turn, emergent—character of R&D exchanges, retrospective sensemaking becomes centrally important, such that companies can actually learn from the emergent activities that take place in these R&D relationships. That is, although R&D relationships are often forward looking, they are also emergent in the sense that the activities and timetables change from what was originally planned. R&D activities are emergent, and the results can only become clear after the project, not beforehand. During the collaboration, unexpected and unplanned activities take place, and our study suggests that companies should consciously and systematically take a retrospective look at these activities and consider what can be learned from them. In the R&D offshoring context of vast knowledge asymmetries, our findings suggest that a retrospective look at sensemaking in collaborative efforts provides insights that can go beyond what has been highlighted in the prospective sensemaking perspective (Henneberg et al., 2006; Ramos, 2008). Thus, we also contribute to the emerging R&D offshoring
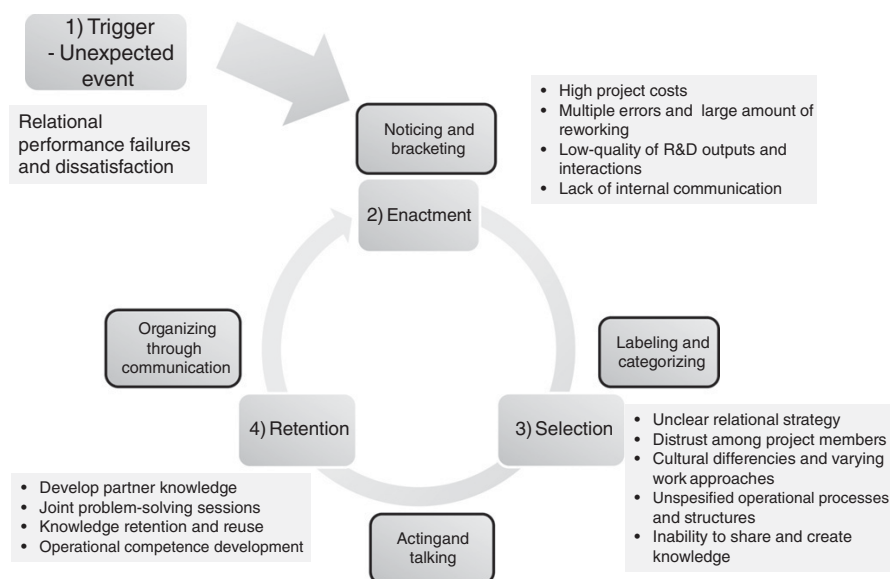

Fig. 4. Findings (second-order themes) related to the relational sensemaking process in offshoring relationships.

literature (Manning et al., 2008; Parida et al., 2013) by providing insights into how companies can mitigate high coordination costs between partners.

Third, building on Weick's (1988, 1993) approach, this study created an explicit framework for retrospective relational sensemaking and demonstrated how to utilize this approach to make sense of R&D offshoring relationships. The mechanisms in our model suggest that relational enactment refers to the phase in which central problems were noticed and bracketed. Project costs remained higher than expected; the quality of operations was low; the quality of deliveries remained low; and internal communication was insufficient. In the selection phase, the central explanations for the low relational performance were labeled and categorized: unclear relational strategy, distrust among the project members, cultural differences and varying work approaches, unspecified operational processes and structures, and the inability to share and create knowledge. Finally, in the retention phase, in which new knowledge is "talked" and "acted" into existence, several means of solving challenges were identified in the studied case relationships: the development of partner knowledge, joint problem-solving sessions, knowledge retention and reuse, and operational competence development. Overall, the model of retrospective sensemaking enables an improved understanding of the R&D offshoring relationship, providing fruitful grounds for further research on retrospective sensemaking in interorganizational networks.

Overall, after a thorough search and review, we have concluded that the interorganizational network literature would benefit from acknowledging the Weickian (retrospective) sensemaking perspective (Giddens, 1984; Tsoukas & Chia, 2002; Weick, 1995; Weick et al., 2005), particularly in an R&D offshoring context. We argue that, although sensemaking has gained important attention in the interorganizational network literature, the existing literature has lacked a retrospective sensemaking perspective. Retrospective sensemaking seems relevant for R&D offshoring relationships, including vast knowledge asymmetries, which, even if they are forward looking, can be considered emergent activities in which outcomes are often unexpected. For these reasons, a retrospective look at the relationship enables learning from past activities.

5.2. Managerial implications

The present study has several managerial implications for the senior management in European manufacturers and Asian engineering service supplier companies. First, it is important for management teams from customer and supplier sides recognize that incidents related to performance failures and dissatisfaction will occur in the early stages of their relationships. Thus, conservative cost calculations and additional support for relationship management are needed. Second, exploring how to identify and tackle R&D offshore relationships can be facilitated by applying the retrospective relational sensemaking framework. The proposed framework provides a systematic way of understanding triggers related to the unexpected—noticing and bracketing the meaning of these events, labeling and categorizing problems, and identifying ways of resolving the problems.

Third, relational sensemaking plays a particularly important role in contexts of vast knowledge asymmetries, where the relational actors are often unfamiliar with the other partner's expectations and behaviors. This is typical in the R&D offshoring context of physical and psychological distance. Thus, the development of formalized routines and capabilities to engage not only in prospective sensemaking but also in retrospective sensemaking is vital in promoting learning and reducing the likelihood of similar mistakes. Finally, the sensemaking process benefits from receiving insights from both sides of R&D offshore relationships to avoid a biased view, thereby focusing on relational sensemaking from emergent events, and enabling learning from critical events to improve operations in R&D offshoring relationships.

5.3. Limitations and suggestions for further research

As with any study, this study is not without limitations. First, as the present study is based on relational case data, as such, the results are not generalizable, although the model may help companies to develop understanding about sensemaking in the R&D offshoring relationship. Overall, the collection of generalizable data from a rich phenomenon such as retrospective sensemaking can be particularly difficult to achieve. In addition, at least partially, this type of data collection process may go against the ideas in Weick's (1995) approach and process theoretical thoughts. However, future research may seek ways of developing a maturity model that can be used for process research on R&D relationships. Future studies could also analyze the role and components of relational sensemaking in local R&D relationships. Furthermore, we encourage future studies to combine database and survey data to produce interesting quantitative models on R&D alliances. Although it might not be aligned with retrospective approach and process theory, this combined approach would reflect ideas related to variance theory. We know that sensemaking has been operationalized as a dimension of relationship learning (Kohtamäki & Partanen, 2016; Selnes & Sallis, 2003). Second, as this study is one of the first to initiate and develop the concept of retrospective relational sensemaking, further comparative case studies are required to enrich our empirical understanding of this phenomenon. A call exists for further studies to map the practices of retrospective and prospective relational sensemaking to extend the results presented thus far in the literature. As a theoretical lens, sensemaking fits particularly well into the analysis of R&D relationships, where work is emergent in nature and involves vast knowledge asymmetries. Third, as this study has focused on sensemaking processes during the early stages of collaboration, further research could analyze the retrospective sensemaking that occurs in later stages of such relationships. Thus, future sensemaking research should consider the role of time and events. Fourth, the present study primarily focuses on identifying and discussing similarities among four R&D offshore relationships that relate to the sensemaking process. Finally, we have made some preliminary efforts to utilize practice theory in this study. Building on the "practice turn" in the social sciences, we would encourage interorganizational network research utilize practice theory (Schatzki, Knorr-Cetina, & von Savigny, 2001; Vaara & Whittington, 2012).

Acknowledgements

References

Abrahamsen, M. H., Henneberg, S. C., & Naudé, P. (2012). Using actors' perceptions of network roles and positions to understand network dynamics. *Industrial Marketing Management, 41*(2), 259–269.

Bäck, I., & Kohtamäki, M. (2015). Boundaries of R&D collaboration. *Technovation, 45-46,* 15–28.

Bakken, T., & Hernes, T. (2006). Organizing is both a verb and a noun: Weick meets Whitehead. *Organization Studies, 27*(11), 1599–1616.

Batt, P. J., & Purchase, S. (2004). Managing collaboration within networks and relationships. *Industrial Marketing Management, 33*(3), 169–174.

Booz & Co. (2007). *Offshoring 2.0: Contracting knowledge and innovation to expand global capabilities.* Durham, NC: Service Provider Survey.

Bullis, D. (1998). *Doing business in today's India.* Westport CT: Quorum Books.

Chia, R. (2000). Discourse analysis organizational analysis. *Organization, 7*(3), 513–518.

Colville, I., & Pye, A. (2010). A sensemaking perspective on network pictures. *Industrial Marketing Management, 39*(3), 372–380.

Dyer, J., & Hatch, N. (2004). Using supplier networks to learn faster. *MIT Sloan Management Review, 45*(3), 57–63.

Dyer, J., & Hatch, N. (2006). Relation-specific capabilities and barriers to knowledge transfers: Creating advantage through network relationships. *Strategic Management Journal, 27*(8), 701–719.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review, 14*(4), 532–550.

Ford, D., & Redwood, M. (2005). Making sense of network dynamics through network pictures: A longitudinal case study. *Industrial Marketing Management, 34*(7), 648–657.

Gephart, R. P. J. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of Management Journal, 36*(6), 1465–1514.

Giddens, A. (1984). *The constitution of society.* Berkeley: University of Califonia Press.

Gioia, D. A. (2006). On Weick: An appreciation. *Organization Studies, 27*(11), 1709–1721.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Jounal, 12*(6), 433–448.

Grimpe, C., & Kaiser, U. (2010). Balancing internal and external knowledge acquisition: The gains and pains from R&D outsourcing. *Journal of Management Studies, 47*(8), 1483–1509.

Håkansson, H., & Ford, D. (2002). How should companies interact business networks? *Journal of Business Research, 55*(2), 133–139.

Halinen, A., Törnroos, J.-Å., & Elo, M. (2013). Network process analysis: An event-based approach to study business network dynamics. *Industrial Marketing Management, 42*, 1213–1222.

Henneberg, S. C., Mouzas, S., & Naudé, P. (2006). Network pictures: Concepts and representations. *European Journal of Marketing, 40*(3/4), 408–429.

Henneberg, S. C., Naudé, P., & Mouzas, S. (2010). Sense-making and management in business networks — Some observations, considerations, and a research agenda. *Industrial Marketing Management, 39*(3), 355–360. 1.

Huikkola, T., Ylimäki, J., & Kohtamäki, M. (2013). Joint learning in R&D collaborations and the facilitating relational practices. *Industrial Marketing Management, 42*(7), 1167–1180.

Jarzabkowski, P., & Spee, A. P. (2009). Strategy-as-practice: A review and future directions for the field. *International Journal of Management Reviews, 11*(1), 69–95.

Jarzabkowski, P., & Whittington, R. (2008). Hard to disagree, mostly. *Strategic Organization, 6*(1), 101–106.

Kale, P., & Singh, H. (2007). Building firm capabilities through learning: The role of the alliance learning process in alliance capability and firm-level alliance success. *Strategic Management Jounal, 28*(10), 981–1000.

Knight, L., & Pye, A. (2005). Network learning: An empirically derived model of learning by groups of organizations. *Human Relations, 58*(3), 369–392.

Kohtamäki, M., & Partanen, J. (2016). Co-creating value from knowledge-intensive business services in manufacturing firms: The moderating role of relationship learning in supplier-customer interactions. *Journal of Business Research, 69*(7), 2498–2506.

Kohtamäki, M., Kraus, S., Mäkelä, M., & Rönkkö, M. (2012). The role of personnel commitment to strategy implementation and organisational learning within the relationship between strategic planning and company performance. *International Journal of Entrepreneurial Behaviour & Research, 18*(2), 159–178.

Kohtamäki, M., Partanen, J., & Möller, K. (2013). Making a profit with R&D services — The critical role of relational capital. *Industrial Marketing Management, 42*(1), 71–81.

Krush, M. T., Agnihotri, R., Trainor, K. J., & Nowlin, E. L. (2013). Enhancing organizational sensemaking: An examination of the interactive effects of sales capabilities and marketing dashboards. *Industrial Marketing Management, 42*(5), 824–835.

Kwon, I. G., & Suh, T. (2005). Trust, commitment and relationships in supply chain management: A path analysis. *Supply Chain Management: An International Journal, 10*(1), 26–33.

Lewicki, R. J., Tomlinson, E. C., & Gillespie, N. (2006). Models of interpersonal trust development: Theoretical approaches, empirical evidence, and future directions. *Journal of Management, 32*(6), 991–1022.

Li, J., Karakowsky, L., & Lam, K. (2002). East meets east and east meets west: The case of Sino-Japanese and Sino-West joint ventures in China. *Journal of Management Studies, 39*(6), 841–863.

Lin, C., Wu, Y. J., Chang, C., Wang, W., & Lee, C. Y. (2012). The alliance innovation performance of R&D alliances: The absorptive capacity perspective. *Technovation, 32*(5), 317–338.

Lindberg, N., & Nordin, F. (2008). From products to services and back again: Towards a new service procurement logic. *Industrial Marketing Management, 37*(3), 292–300.

Liu, A. H., Gould, A. N., Rollins, M., & Gao, H. (2014). Role conflict and ambiguity confronting transnational business networkers: Contrasting social stigma and relational risks for Chinese and Western boundary spanners. *Industrial Marketing Management, 43*(6), 911–919.

Magala, S. J. (1997). The making and unmaking of sense. *Organization Studies, 18*(2), 317–338.

Mangham, I. L., & Pye, A. J. (1991). *The doing of managing.* Oxford: Blackwell.

Manning, C. D., Raghavan, P., & Schutze, H. (2008). *Introduction to information retrieval.* Cambridge University Press.

Maskell, P., Pedersen, T., Petersen, B., & Dick-Nielsen, J. (2007). Learning paths to offshore outsourcing: From cost reduction to knowledge seeking. *Industry and Innovation, 14*(3) (239–25).

Massini, S., Perm-Ajchariyawong, N., & Lewin, A. Y. (2010). Role of corporate-wide offshoring strategy on offshoring drivers, risks and performance. *Industry and Innovation, 17*(4), 337–371.

McGrath, H., & O'Toole, T. (2014). A cross-cultural comparison of the network capability development of entrepreneurial firms. *Industrial Marketing Management, 43*(6), 897–910.

Medlin, C. J., & Törnroos, J.-Å. (2014). Interest, sensemaking and adaptive processes in emerging business networks — An Australian biofuel case. *Industrial Marketing Management, 43*(6), 1096–1107.

Möller, K. (2006). Role of competences in creating customer value: A value-creation logic approach. *Industrial Marketing Management, 35*(8), 913–924.

Möller, K. (2010). Sense-making and agenda construction in emerging business networks — How to direct radical innovation. *Industrial Marketing Management, 39*(3), 361–371.

Möller, K., & Halinen, A. (1999). Business relationships and networks: Managerial challenge of network era. *Industrial Marketing Management, 28*(5), 413–427.

Möller, K. E., & Svahn, S. (2004). Crossing East-West boundaries: Knowledge sharing in intercultural business networks. *Industrial Marketing Management, 33*(3), 219–228.

Mouzas, S., Henneberg, S., & Naudé, P. (2008). Developing network insight. *Industrial Marketing Management, 37*(2), 361–371.

Nag, R., Corley, K. G., & Gioia, D. (2007). The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge crafting. *Academy of Management Journal, 50*(4), 821–847.

Nieto, M., & Rodríguez, A. (2011). Offshoring of R&D: Looking abroad to improve innovation performance. *Journal of International Business Studies, 42*(3), 345–361.

Öberg, C., Henneberg, S. C., & Mouzas, S. (2012). Organizational inscriptions of network pictures: A meso-level analysis. *Industrial Marketing Management, 41*(8), 1270–1283.

Parida, V., Wincent, J., & Kohtamäki, M. (2013). Offshoring and improvisational learning: Empirical insights into developing global R&D capabilities. *Industry & Innovation, 20*(6), 544–562.

Parida, V., Wincent, J., & Oghazi, P. (2016). Transaction costs theory and coordinated safeguards investment in R&D offshoring. *Journal of Business Research, 69*, 1823–1828.

Pye, A. (2005). Leadership and organizing: Sensemaking in action. *Leadership, 31*(1), 31–50.

Ramos, C. (2008). *Developing network pictures as a research tool: Capturing the output of individuals' sense-making in organisational networks.* Bath: School of Management, University of Bath.

Ramos, C., Henneberg, S. C., & Naudé, P. (2012). Understanding network picture complexity: An empirical analysis of contextual factors. *Industrial Marketing Management, 41*(6), 951–972.

Rayruen, P., & Miller, K. E. (2007). Relationship quality as a predictor of B2B customer loyalty. *Journal of Business Research, 60*(1), 21–31.

Rilla, N., & Squicciarini, M. (2011). R&D (re) location and offshore outsourcing: A management perspective. *International Journal of Management Reviews, 13*(4), 393–413.

Ritter, T., Wilkinson, I. F., & Johnston, W. J. (2004). Managing in complex business networks. *Industrial Marketing Management, 33*(3), 175–183.

Schatzki, T. R., Knorr-Cetina, K., & von Savigny, E. (2001). *The practice turn in contemporary theory.* London: Routledge.

Selnes, F., & Sallis, J. (2003). Promoting relationship learning. *Journal of Marketing, 67*(3), 80–95.

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20–24.

Strauss, A. J., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and research.* Newbury Park, CA: Sage.

Stump, R. L., Athaide, G. A., & Joshi, A. W. (2002). Managing seller-buyer new product development relationships for customized products: A contingency model based on transaction cost analysis and empirical test. *Journal of Product Innovation Management, 19*(6), 439–454.

Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science, 13*(5), 567–582.

Vaara, E., & Whittington, R. (2012). Strategy-as-Practice: Taking social practices seriously. *The Academy of Management Annals, 6*(1), 285–336.

Van de Ven, A. H., & Poole, M. S. (2005). Alternative approaches for studying organizational change. *Organization Studies, 26*(9), 1377–1404.

Van Maanen, J. (1988). *Tales of the filed: On writing ethnography.* Chicago: University of Chicago Press.

Weick, K. E. (1969). *The social psychology of organizing.* Reading, MA: Addison- Wesley.

Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies, 25*(4), 305–317.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*, 628–652.

Weick, K. E. (1995). *Sensemaking in organizations.* Thousand Oaks, CA: Sage.

Weick, K. E. (2001). *Making sense of organization.* Oxford: Blackwell.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science, 16*(4), 409–421.

Welch, C., & Wilkinson, I. (2002). Idea logics and network theory in business marketing. *Journal of Business-to-Business Marketing, 9*(3), 27–48.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd edn). Thousand Oaks, CA: Sage.

Making sense of strategic decision making

Suvi Einola

ABSTRACT

This article sheds light on the role of cognitive factors, strategic cognition, cognitive models, and sensemaking processes both at the top management and at the individual CEO level. This chapter, therefore places the perspectives added by the cognitive approach into the decision-making discourse at the core of strategic decision making. The chapter also highlights the ambiguity that continues to surround the understanding of strategic decision making. Existing strategy research largely concentrates on the processes and content of strategy work, the factors that enable or disable strategy work and the decision-making process. This chapter in contrast directs attention to the cognitive factors apparent at both the top management and the individual CEO level, owing to the salient role they play in rapidly changing business environments, where real-time strategic decision making is crucial.

INTRODUCTION

Strategic decision making is widely studied, but is not, however, deeply understood. Existing strategy research mostly concentrates on processes and the content of strategy work, and in addition, factors that enable or hinder strategy work. There is also a growing interest in the behavioral and social influences on the decision-making process of top management teams, but far less attention has been directed to the cognitive factors at work at both the CEO and the top management team level (Bromiley & Rau, 2016). In rapidly changing business environments, where real-time strategic decision making is crucial, the role of cognitive processes and strategic cognition is both significant and interesting. Taking into account that strategic decision making is far from easy, and that strategic decisions significantly affect firms' success

or failure, the cognitive approach can make a key contribution to the decision making discourse. The current book chapter aims to shed light on cognitive factors, strategic cognition, cognitive models and sensemaking processes both at the level of top management and of the individual CEO.

THEORETICAL GROUNDS
Strategic decision making

Strategic decision making is widely seen as a crucial factor in explaining firms' success. Classic strategic decision making encompasses top management teams' decisions on actions taken, resources committed, and/ or precedents set. Whereas earlier studies highlight the role of rationality in strategic decision making, recent studies have emphasized the role of cognitive biases. The roles of most known cognitive biases are well illustrated in previous literature (Johnson, Scholes, & Whittington, 2008; Lovallo & Sibony, 2006). Over optimism and loss aversion are seen as universal human biases affecting all types of situations, including those of everyday life. For example, when we think of our future lives, we tend to underestimate the potential for negative events in our lives (over optimism). In addition, we prefer avoiding losses to making gains (loss aversion). The following biases; the *principal–agent problem, champions' bias, and the sunflower syndrome* are more specific and tend to happen in decision-making situations. Principal–agent bias is a particular concern among decision makers especially in strategic decision-making situations, "*when the incentives of certain employees are misaligned with the interests of their companies, they tend to look out for themselves in a deceptive way"* (Lovallo & Sibony, 2006, p. 20). In addition, champions' bias indicates the likelihood of managers having too much faith in the opinions of *trusted persons* (usually an experienced manager) in decision-making situations. Finally, the sunflower syndrome shows the tendency to lead and follow senior managers' opinions in decision-making processes.

As the potential for bias in decision-making situations is well-documented (Kahneman, 2011, Johnson et al., 2008, Lovallo & Sibony, 2006), the ways used to address bias in those situations become more interesting. If decision makers were to become more aware of how biases affect strategic decision making, there would be more opportunity to prevent those effects. We believe that the role of real-time data is essential: Usage of real-time information and making data-driven decisions should be encouraged in order to overcome decision-making biases. Of course, as pointed out earlier in this book, to be able to use real-time information, companies should pay attention to data gathering, data analysis, and also to the format of the information offered to the top management team. Continuous company level monitoring of the decision-making processes usually provides fruitful perspectives on how to enhance decision making. In addition, the potential of open discussions and shared decision making seems to be undervalued when conceiving of decision-making improvements in top management teams. Decision makers might find it helpful to construct several simultaneous alternative scenarios in decision-making situations to reduce the likelihood of biased decisions. The views of trusted, experienced managers are worth seeking, although those should not necessarily be adopted directly. In addition, seeking consensus is considered to be important to facilitate bias-free decision making. However, consensus should not be pushed through artificially, because it would cause frustration rather than create shared understanding. As we know from earlier studies (Jarzabkowski, 2008; Mantere, 2005), true participation in decision-making processes will increase commitment, irrespective of how a participant reacted to the actual decision in the first place. In addition to the coping mechanisms mentioned above, the determination to actually make a decision, regardless of everyone's level of satisfaction, is decisive. The time lost through lengthy discussions undertaken to ensure satisfaction among all the participants, can be crucial in fast changing business environments.

If time is crucial, so too is money. Kahneman et al. (2016) claims that inconsistent decision making is as injurious as biased decision making, because both constitute a huge hidden cost for companies. Kahneman and colleagues present useless variability in decision making as noise. Put simply, if the decision of the decision makers differs between them, it is noise. If the decision is somewhat similar between the decision makers, but not accurate, the decision is biased. While companies expect consistency from their decision makers, the ability to evaluate a situation is often affected by many irrelevant factors, such as previous events. The radical suggestion to correct the situation caused by noise is to replace human judgment with algorithms, but as Kahneman and colleagues (2016) note, the use of algorithms is not without its challenges; algorithms are not practical, and they are not applicable if decisions involve multiple dimensions. As strategic decisions are hardly ever either one-dimensional or simple, replacing decision makers with an algorithm seems not to be an option for improving decision-making quality. Kahneman and colleagues do however suggest regular roundtable discussions to explore and resolve the differences in decision making, and the frequent monitoring of individuals' decision making would help make decision making more accurate.

Strategic cognition facilitating decision making

To be able to make sense of strategic decision making, one must consider strategic cognition. The role of strategic cognition studies in the field of decision making is to extend the phenomenon of strategic decision making by bringing the knowledge of cognitive theory into the management context. The concept of strategic cognition links cognitive aspects and strategic management via two constituents: structure and process (Narayanan, Zane, & Kemmerer, 2011). In this chapter, strategic cognition structures and processes are divided in the following manner: strategic cognition structures consist of cognitive maps, strategic flexibility, organizational identity, and organizational routines, whereas the strategic cognition

processes mentioned are organizational learning, strategy work, and organizational identity (cf. e.g., Narayanan et al., 2011). In recent organizational literature, identity has also been associated with the process perspective (Gioia & Patvardhan, 2012). Gioia and Patvardhan suggests that identity can, and should be, seen both as a structure and a process, and it will accordingly be discussed as such below.

Strategic cognition structures

This chapter discusses the constituents of strategic cognition structures: 1) cognitive maps, 2) strategic flexibility, 3) organizational identity, and 4) organizational routines. Cognitive structures are often proposed to be stable characteristics of an organization, including top management's beliefs about strategy, the business portfolio, and the environment (Porac & Thomas, 2002). In strategic cognition structures, (1) *cognitive maps* illustrate organizations' knowledge structures like a shared cognitive picture, which managers use in strategic decision-making situations. In previous literature, cognitive maps have also been called strategy frames, dominant logic, strategic schemas, or belief structures employed by top management in strategic decision making (Daft & Weick, 1984; Fisk & Taylor, 1991). At the organizational level, cognitive maps can be seen as a cognitive building of strategy, where the content and structure of strategy are connected in a process where cognitive maps act as lenses and filters through which managers interpret all available information. The key characteristics of cognitive maps can be clustered or classified into two groups: complexity and focus. The former is about companies having a "*diverse set of alternative strategy solutions in strategic decision making*" (Nadkarni & Narayanan, 2007: 246)*, whereas the latter *"reflects the degree to which a strategic schema is centralized around a few 'core' concepts"* (Nadkarni & Narayanan, 2007; 246)*. Since cognitive maps are mental representations that actors use in decision-making situations at least partly subliminally, challenges arise when the cognitive

maps of decision makers differ significantly. Building shared understanding and shared cognitive maps is a key issue for companies aiming to develop decision-making processes.

When developing strategic decision making, (2) strategic flexibility and its two main constituents, resource deployment and competitive actions (Eisenhardt & Martin, 2000), are inevitably present. Strategic flexibility resonates strongly with cognitive maps, as the key characteristics of cognitive maps (complexity and focus) are extremely relevant to strategic flexibility. The degree of focus and complexity of cognitive maps directly affects a company's strategic flexibility. Focused cognitive maps drive more hierarchical strategic decision making, during which managers concentrate mainly on a relatively narrow set of strategic actions, whereas employing complex cognitive maps increases a company's adaptability, and thus encourages more versatile strategic decisions (Nadkarni & Narayanan, 2007). The more cognitive maps are shared at the company level through participation in strategy work and through discussions, the more flexibly companies react vis-à-vis fast changing situations both through resource deployment and competitive actions.

Organizational routines (3) are one of the items in strategic cognition structures. As Feldman (2000) illustrates, "[organizational] *routines are temporal structures that are often used as a way of accomplishing organizational work"*. Organizational routines are often believed to play an important role in decreasing complexity, and accordingly, *"lubricate the working of the organization"* (Johnson et al., 2008, 198). On the other hand, routines are often seen as slowing the pace of strategic change in organizations, because routines seem to persist over time, and even top management teams are often committed to maintaining the status quo (Hambrick, Geletkanycz, & Fredrickson, 1993). Routines are criticized for being a source of inertia, although some studies view them as a source of change as well as of stability (Feldman &

Pentland, 2003). In any case, routines are meaningful in organizations, because a large part of the work an organization undertakes is realized through routines (March & Simon, 1958). Organizational routines are like patterns of behavior involving many organizational members. Although organizational routines are often defined as stable, there are studies that claim routines are often more dynamic than they are perceived to be (Feldman, 2000). In this chapter, organizational routines are mainly seen as part of strategic cognition structures, but also perceived as dynamic, and in an optimistic scenario, to support strategic decision-making processes. In sum, organizational routines can be seen as the backbone of strategic decision making.

As discussed earlier, previous studies have seen (4) *organizational identity* as both structure and process (Gioia and Patvardhan, 2012; Narayanan et al., 2011). As a structure, organizational identity illustrates the answer to the question of "who we are as an organization*"* (Gioia et al., 2000: 67). The classic way of seeing identity as a structure claims identity is something that persists over time, and something more akin to a description of an organization's *being*: or as Albert and Whetten (1985) put it, identity is *central*, *enduring,* and *distinctive*. To challenge the structure view, in the next paragraph we discuss organizational identity as a process.

Strategic cognition processes

Strategic cognition processes encompass 1) organizational identity, 2) organizational learning and 3) strategy work. *Organizational identity* as a process illustrates the state of becoming rather than that of being (Gioia & Patvardhan, 2012). Organizational identity as a process shows how identity is constructed and reconstructed in and around organizations (Schultz, Maquire, Langley, & Tsoukas, 2012). Organizational identity as a process illustrates the *doing*,

acting, and interacting, to serve the continuous re-formulation of organizational identity (Pratt, 2012). Looking at organizational identity as a process entails viewing organizations as continuously changing units, where identity is not something organizations have, but something constructed in everyday interactions between organizational members. In this view, strategy work constructs organizational identity. This dynamic approach challenges the traditional way of seeing organizational identity as some sort of entity (Gioia & Patvardhan, 2012). In the process view, the phases of the identity process do not have clear boundaries, but instead move back and forth between construction, performance, reconstruction, and legitimation (Figure 8.1) as a continuous cycle of organizational identity work. To conclude, it seems that identity is neither a structure nor a process, but should be seen *"both as some sort of entity, and as some sort of process"* (Gioia & Patvardhan, 2012, 53). In any case, organizational identity is at the core of strategy and strategic decision making, when organizational actions are firmly built on organizational identity (Gioia & Chittipeddi, 1991).
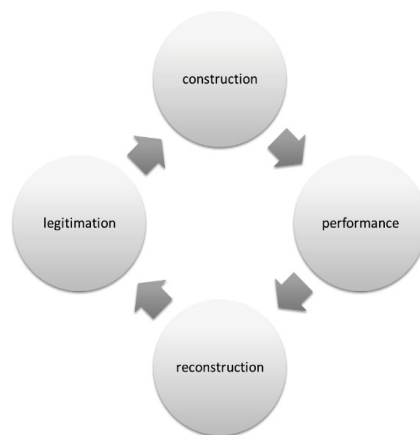

Figure 8.1. Organizational identity as a process.

One of the main processes in strategic cognition is *organizational learning*. Organizational learning consists of *the four I's*: intuiting, interpreting, integrating, and institutionalizing. The

first phase of organizational learning is intuiting: "*a largely subconscious process*" (Crossan et al., 1999: 526), where past patterns are recognized in order to learn from them. The intuition phase connects the content of cognitive maps (i.e., an organizational knowledge structure and strategy frames) into a learning process. During the interpreting phase, an organization is acting and explaining the results of the intuition phase to construct a workable form to be able to integrate and institutionalize this new knowledge into organizational life (Crossan et al., 1999). While intuiting and interpreting take place at the individual level, interpreting also occurs at the group level. Integrating knowledge occurs at the group level, while integrating and institutionalizing occur at the organizational level (Crossan et al., 1999). The four organizational learning *I's* occurring within three learning levels suggests that "*the emergence of organizational learning is a bottom up and interactive process*" (Crossan et al., 2011).

Strategy work

One cannot talk about strategic decision making without talking about strategy work. In strategy-as-practice (SAP) research, strategy is viewed through its three interrelated concepts; practitioners (people who do the strategy work) practice (the tools and methods through which strategy work is done), and praxis (the way strategy work takes place) (Vaara & Whittington, 2012, Jarzabkowski & Spee, 2009). To be effective, strategy work should consist not only of phases, such as formulation and implementation, but its phases should be integrated to generate a unified process of strategy work (Figure 8.2), where the boundaries between phases blur. The strategy as practice view might help managers understand the different aspects of strategy work, and bear them in mind so as to improve strategy work.

The reason for strategy's ambiguous reputation and one of the reasons why only 10 % of planned strategies have been implemented successfully (Mintzberg, 1994), might lay in

companies and researchers alike considering strategy formulation and strategy implementation to be separate processes. If strategy formulation is just for the upper echelons, and does not involve a broad spectrum of members of the organization (practitioners), implementation can become challenging. Then again, if strategy is what organizations do, in the sense of emergent, dynamic, and adaptive strategic learning (Mintzberg & Lampel, 1999), it should involve a broader range of actors. Participation (practice) is central to developing a shared understanding of strategy, trust between organizational members, and the sharing of the main strategic ideas (Ashmos, Duchon, McDaniel, & Huonker, 2002; Liedtka, 2000; Stensaker, Falkenberg, & Gronhaug, 2008). In addition, the participation of organizational members in strategy work provides insights into the needs and opportunities inside the organization (praxis). If companies ensured wide participation among various actors, there would be no need for a separate implementation process. When middle managers and employees commit to strategy work, the implementation of strategic decisions becomes less demanding. Given that most strategic decisions are implemented at the operational level, the commitment of organizational members to strategy work from the start of the process appears vital.
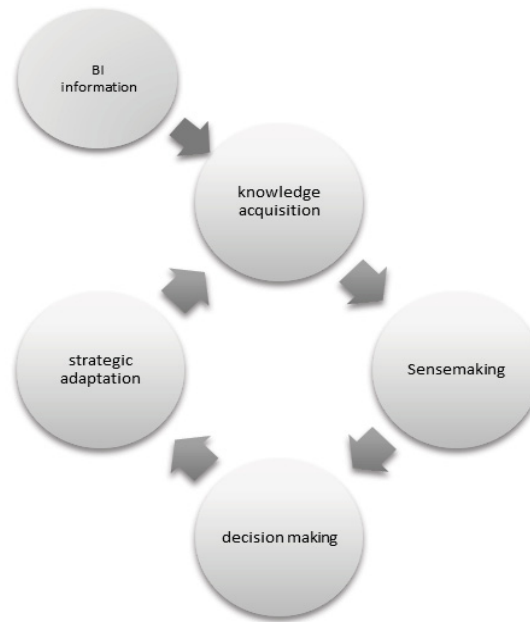
Figure 8.2. Building the concept of strategy work.

Strategy work, as it is viewed in this chapter, consists of knowledge acquisition, sensemaking, decision making, and strategic adaptation. The focus of *knowledge acquisition* is often discussed in previous literature by splitting it into internal and external forms. The current work attempts to present a more holistic view on scanning the environment and building a framework to help companies collect meaningful data to enhance real-time strategic decision making. In all companies, the role of financial data is obviously salient. In addition, customer, competitor, human resources, and customer relationship management data are often collected in order to enhance strategic decisions. To be able to collect meaningful data, companies need to decide on the necessary measures, design the data collection method, and use frameworks to collect the data. In a world where almost any piece of information is available, deciding the most relevant information to be utilized in decision making is no simple process. Ultimately, discussions with several top management team members reveal the key issue not to be the

collection of insightful data, but the utilization of data in strategic decision-making situations. Still in the era of the big data revolution, quite a number of the strategic decisions in top management teams are the product of a combination of financial data and the intuition of a few key players. It seems therefore that the role of the sensemaking process is even more crucial than most scholars are ready to admit.

Because *sensemaking* is a crucial item for strategic cognition processes and strategy work, this chapter illustrates the sensemaking process as set out in the retrospective sensemaking view (Weick, 1979, 1995). The word sensemaking is often used quite loosely. The retrospective sensemaking view defines sensemaking as a process of interactions and interpretations undertaken in ongoing dialogical discourses in an attempt to make sense of the surrounding world (Gephart, 1993). This means that sensemaking is seen here as a continuous and retrospective process in which action is not driven by sense; instead, sense is guided by action and a retrospective understanding of that action (Gioia, 2006; Weick, 1995).

Organizational sensemaking is realized through collective communication, interpretation and, what Giddens (1984) called 'meaning-shaping'. The earlier content of this chapter serves as a reminder of the structures of strategic cognition: the cognitive maps, organizational identity, and routines required in organizational sensemaking processes (Berger & Luckman, 1966). The sensemaking process (Figure 8.3) is seen as a cyclical and iterative process, a retrospective explanation of what people think they should have been doing (Gioia, 2006; Weick, 1995). If the sense is made retrospectively, one might wonder how to make knowledge-based strategic decisions faster, and still believe the decisions to be correct. To answer this question, let us delve a little deeper into the sensemaking process.
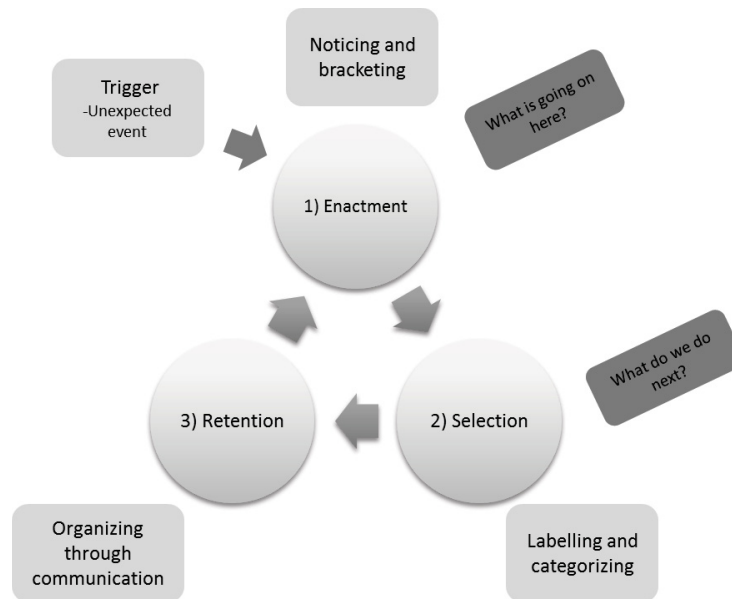
Figure 8.3. The sensemaking process.

Most of the time, participants in organizational life act on autopilot. Organizational routines lead the acting and doing in organizations. The sensemaking process is triggered when discrepancies interrupt normal action and act to trigger sensemaking and its first phase, *enactment* (Weick, Sutcliffe, & Obstfeld, 2005). Enactment includes noticing and bracketing equivocal events or issues and inventing possible new interpretations (Magala, 1997: 324).

The second phase of the sensemaking process, *selection*, involves the variety of possible interpretations being reduced through the use of cognitive maps and connected discussions to generate an internally plausible story (Tsoukas & Chia, 2002; Weick et al., 2005). To reduce the possible interpretations, actors categorize the resulting notions. The resulting categories remain tentative because they are defined by actors and adapted to local circumstances (Weick

et al., 2005). In short, selection decreases the number of interpretations available for the final retention phase, where learning is enabled.

The situation attains greater solidity in the third phase of the sensemaking process, *retention*, where interpretation is connected to past experience and can thus be used to guide forthcoming action and understanding (Weick, 1979). At the retention phase, newly gained knowledge is retained into systems, structures, and processes (Krush, Agnihotri, Trainor, & Nowlin, 2013).

Knowledge integration into organizational memory has often been considered an important dimension of knowledge implementation that results from sensemaking, and more specifically, from retention (Huikkola, Ylimäki, & Kohtamäki, 2013; Selnes & Sallis, 2003). In strategy work, the role of the sensemaking process is critical, because the shared view of the organizational situation and strategy is built on the sensemaking process, which includes both conversational and social practices that are manifested both verbally and nonverbally (Gephart, 1993; Gioia & Chittipeddi, 1991). Organizational actors continuously construct and reconstruct organizational actions and strategy through sensemaking processes (Giddens, 1984).

Because decision making in strategy work is complex and inherently includes a good deal of uncertainty, it is important for decision makers to acknowledge and appreciate the complexity of those decisions. While earlier studies highlight the role of contingency theory, that is, the either / or selection in order to find the best-fitting solution, recent literature discusses the both / and form of decision (Smith & Lewis, 2011). It might be that in strategic decisions, the era of single-loop decision making is coming to an end, and what we need now is an acknowledgment of continuous change and complexity. It might be that strategic decisions should in the future be made more often through a both / and lens, as many of the challenges companies face cannot

be resolved with either / or decisions. Balancing seemingly paradoxical decisions might help companies progress with their strategy work (Smith, Binns, & Tushman, 2010; Smith & Lewis, 2011).

Finally, the fourth and last phase of strategy work is strategic adaptation, which can be seen as a shared movement that occurs through interactions between different organizational levels that took place in earlier phases of the strategy work (Jarzabkowski, 2004). In the phase of strategic adaptation, an organization absorbs the knowledge gained into its organizational memory. Shared cognitive maps and a reconstructed organizational identity foster strategic adaptation, and again, organizational learning.

CONCLUSION

In strategic decision making, and perhaps in life in general, it is not just about getting the right story, but instead about getting a story one can believe in. As strategic decision making is a complex amalgam, one where decision makers operate at the focal point of events, the use of analytics can significantly help decision makers to find the story to believe in. As discussed earlier, the structures and processes of strategic cognition significantly affect decisions. When aiming for successful strategic decision making, a few things should be thoroughly considered: 1) companies should pay attention to knowledge acquisition to find objective assessments of facts and therefore should pay less attention to the intuition of a few key people if they are to avoid the biases and noise discussed earlier. 2) Companies should encourage middle managers and employees to participate in the organization's strategy work, in order to make sense of the current situation, to build shared cognitive maps among actors, and to help decision making. 3) Organizational identity should be seen not only as a static structure, but also as a process where strategy work can act as a facilitator of the company's identity construction and

reconstruction. 4) Organizational routines can serve as the backbone of strategy work, but it is important to bear in mind that as bones renew themselves, so should management review and replace organizational routines as necessary. 5) As strategic decisions are often entangled and complicated, balancing between tensional or even paradoxical decisions, is often the only way to succeed in decision making and in life generally.

REFERENCES

Albert, S., & Whetten, D. (1985). Organizational identity. *Research in Organizational Behavior*, *7*, 263–295.

Ashmos, D., Duchon, D., McDaniel, R., & Huonker, J. (2002). What a mess! participation as a simple managerial rule to "complexify" organizations. *Journal of Management Studies*, *39*(2), 189–206.

Berger, P. L., & Luckman, T. (1966). *The social construction of reality: A tratise in the sociology of knowledge*. Garden City, NY: Doubleday.

Bromiley, P., & Rau, D. (2016). Social, behavioral, and cognitive influences on upper echelons during strategy process: A literature review. *Journal of Management*, *42*(1),174-202.

Crossan, M., Lane, H. W., & White, R. E. (1999). An organizational learning framework : From intuition to institution. *Academy of Management Review*, *24*(3), 522–537.

Crossan, M., Maurer, C.& White R. (2011). Reflections on the 2009 AMR decade award: Do we have a theory of organizational learning? *Academy of Management Review*, *36*(3), 446-460.

Daft, R. L., & Weick, K. E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, *9*, 284–295.

Eisenhardt, K. M., & Martin, J. a. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, *21*(10-11), 1105–1121.

Feldman, M. S. (2000). Organizational routines as a source of continuous change. *Organization Science*, *11*(6), 611–629.

Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, *48*(1), 94–118.

Fisk, C. M., & Taylor, S. E. (1991). *Social cognition* (2nd edn). New York: McGraw-Hill.

Gephart, R. P. J. (1993). The textual approach: Risk and blame in disaster sensemaking. *Academy of Management Journal*, *36*(6), 1465–1514.

Giddens, A. (1984). *The constitution of society*. Berkeley: University of Califonia Press.

Gioia, D. A. (2006). On Weick: An appreciation. *Organization Studies*, *27*(11), 1709–1721.

Gioia, D. A., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Joumal*, *12*(6), 433–448.

Gioia, D. a., Schultz, M., & Corley, K. G. (2000). Organizational identity, image, and adaptive instability. *The Academy of Management Review*, *25*(1), 63.

Gioia, D., & Patvardhan, S. (2012). Identity as process and flow. In M. Schultz, S. Maguire, A. Langley, & H. Tsoukas (Eds.), *Constructing identity in and around organizations*. Oxford: Oxford University Press pp.50-62.

Hambrick, D., Geletkanycz, M., & Fredrickson, J. (1993). Top executive commitment to the status quo: Some tests of its determinants. *Strategic Management Joumal*, *14*(6).

Huikkola, T., Ylimäki, J., & Kohtamäki, M. (2013). Joint learning in R&D collaborations and the facilitating relational practices. *Industrial Marketing Management*, *42*(7), 1167–1180.

Jarzabkowski, P. (2004). Strategy as practice: Recursiveness, adaptation, and practices-in-use. *Organization Studies*, *25*(4), 529–560.

Jarzabkowski, P. (2008). Shaping strategy as a structuration process. *Academy of Management Journal*, *51*(4), 621–650.

Jarzabkowski, P., & Spee, P. Strategy as practice: A review and future directions for the field. *International Journal of Management Reviews, 11*(1), 69-95.

Johnson, G., Scholes, K., & Whittington, R. (2008). *Exploring corporate strategy* (8th edition). Prentice Hall, Financial Times.

Kahneman, D., Lovallo, D., Sibony, O. (2011). Before you make that big decision, *Harvard Business Review*, *89*(6), 50-60.

Kahneman, D., Rosenfield, M., Gandhi, L., Blaser, T. (2016). Noise: How to overcome the high, hidden cost of inconsistent decision making. *Harvard Business Review*, (10), 38-46.

Krush, M. T., Agnihotri, R., Trainor, K. J., & Nowlin, E. L. (2013). Enhancing organizational sensemaking: An examination of the interactive effects of sales capabilities and marketing dashboards. *Industrial Marketing Management*, *42*(5), 824–835.

Liedtka, J. (2000). Strategic planning as a contributor to strategic change: a generative model. *European Management Journal*, *18*(2), 195–206.

Lovallo, D. P., & Sibony, O. (2006). Distortions and deceptions in strategic decisions. *McKinsey Quarterly*, (1), 18–29.

Magala, S. J. (1997). The making and unmaking of sense. *Organization Studies*, *18*(2), 317–338.

Mantere, S. (2005). Strategic practices as enablers and disablers of championing activity. *Strategic Organization*, *3*(2), 157–184.

March, J. G., & Simon, H. A. (1958). *Organizations*. Oxford: Wiley Organizations.

Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*.

Mintzberg, H., & Lampel, J. (1999). Reflecting on the strategy process. *Sloan Management Review*, *40*(3), 21–30.

Nadkarni, S., & Narayanan, V. K. (2007). The evolution of collective strategy frames in high- and low-velocity industries. *Organization Science*, *18*(4), 688–710.

Narayanan, V., Zane, L., & Kemmerer, B. (2011). The cognitive perspective in strategy: An integrative review. *Journal of Management*, *37*(1), 305–351.

Porac, J. F., & Thomas, H. (2002). Managing cognition and strategy: Issues, trends and future directions. In A. Pettigrew, H. Thomas, & R. Whittington (Eds.), *Handbook of strategy and management* (pp. 165–181). London: Sage.

Pratt, M. (2012). Rethinking identity construction processes in organizations: Three questions to consider. In M. Schultz, S. Maguire, A. Langley, & H. Tsoukas (Eds.), *Constructing identity in and around organizations* (pp. 21–49). Oxford: Oxford University Press.

Schultz, M., Maquire, S., Langley, A., & Tsoukas, H. (2012). *Constructing identity in and around organizations*. Oxford: Oxford University Press.

Selnes, F., & Sallis, J. (2003). Promoting relationship learning. *Journal of Marketing*, *67*(3), 80–95.

Smith, W. K., Binns, A., & Tushman, M. L. (2010). Complex business models: Managing strategic paradoxes simultaneously. *Long Range Planning*, *43*(2-3), 448–461.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, *36*(2), 381–403.

Stensaker, I., Falkenberg, J., & Gronhaug, K. (2008). Implementation activities and organizational sensemaking. *The Journal of Applied Behavioral Science*, *44*(2), 162–185.

Tsoukas, H., & Chia, R. (2002). On Organizational Becoming: Rethinking Organizational Change. *Organization Science*, *13*(5), 567–582.

Vaara, E., & Whittington, R. (2012). Strategy as practice: Taking social practices seriously. *The Academy of Management Annals*, *6*(1), 285-336.

Weick, K. E. (1979). *The social psychology of organizing* (2nd edition). Reading, MA: Addison- Wesley.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.

Weick, K. E. (2001). *Making sense of organization*. Oxford: Blackwell.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, *16*(4), 409–421.

Participative strategy process in the city of Vaasa

Marko Kohtamäki & Suvi Einola

'Why should businesses, workers, and students choose to come to <u>our</u> city?' Like universities or companies, many cities wrestle with the problem -- or opportunity -- of developing and sustaining the attractiveness of their organisation. This was exactly the problem faced by the elected representatives and the managers of the apparently-successful municipality of Vaasa in western Finland as the effects of global recession began to impact.

Searching for sustainable economic success, municipalities aim to attract companies and skilled workforce. Municipal authorities aim to develop their strategic decision-making to become more effective, agile and responsive than competitors in meeting the expectations of businesses that could establish operations in the region, and of a workforce, which could be attracted to move into their city. However, fast and agile decision making, in parallel with the generic expectations of democracy and equality, poses a unique challenge for public sector organisations. The city of Vaasa took up that challenge in 2012.

<u>The city of Vaasa</u>

Vaasa is a small but international university city of 67,000 inhabitants, of more than 100 different nationalities. The city organization employs over 6,000 employees in four different sectors (social and healthcare, education and leisure, technical, and administration). Vaasa´s top management team was renewed almost entirely in the 2010–2012 period, when a new mayor, divisional directors, development director, and human resource director were appointed. This organizational renewal, together with the pressures of an economic recession in Finland, led to the city reforming its strategy and strategic decision-making in pursuit of strategic agility.

The city is known for its technology manufacturing companies such as ABB and Wärtsilä. A strong cluster of technology companies had resulted in a low unemployment rate: by any economic measures, the city was considered highly successful. As a downside, long-term success had led to a situation wherein the city's politicians and officials, were relatively satisfied with its current state of affairs – with the attendant risks of *strategic drift* in a context that strategy literature describes as a *learning*

trap.[1,2]   However, the recessionary economic conditions created an opportunity for the new management team to engage in a broad strategic renewal programme. The city launched a process of strategy making, through which strategy would not only be planned and implemented, but also continuously re-invented.

Strategy workshops and tools

In the beginning of the process, the city's management team set the targets for the strategy work: to develop a city which would be more agile and effective to face the competition for companies and workforce. To generate agility in the long run, the city management believed that the strategy work should be participative and involve personnel throughout the city organization. An underlying assumption was that participation would facilitate development of a shared understanding about strategy among all stakeholders. However, shared strategy discussions required tools to facilitate interaction, as described by the City Mayor: *"Earlier, we used a system where everything came from top management and we made precise five-year-plans, and everything was defined; that will be the outcome, when you do this. But these days, when there are so many external factors which rapidly influence development in the city, you need to be able to create a basic framework inside which new opportunities can emerge"* (City Mayor, January, 2013).

To address the challenge of strategic agility and engaging personnel in the strategy work, a team of researchers together with the top management team, built a concept that could be used at different levels and divisions of the Vaasa municipality. The concept included use of three particular strategic management tools; a *strategic capabilities framework*[3], a *value curve*[4] and a *strategy map*[5]. With the help of these tools, the city's internal developers and the researchers facilitated almost 100 strategy workshops during 2013–2015.

---

[1]Heimeriks, K. H. (2010). Confident or competent? How to avoid superstitious learning in alliance portfolios. *Long Range Planning*, *43*(1), 57–84.

[2] Sirén, C., Kohtamäki, M., & Kuckertz, A. (2012). Exploration and exploitation strategies, profit performance and the mediating role of strategic learning: Escaping the exploitation trap. *Strategic Entrepreneurship Journal*, *6*(1), 18–41.

[3] Long, C., & Vickers-Koch, M. (1995). Using core capabilities to create competitive advantage. *Organizational Dynamics*, *24*(1), 7–22.

[4] Kim, C., & Mauborgne, R. (2009). How strategy shapes structure. *Harvard Business Review, 87*(September), 73–80.

[5] Kaplan, R. S., & Norton, D. P. (2000). Having Trouble with Your Strategy? Then Map It. *Harvard Business Review*, *78*(5), 167–176.

The process of strategy making was far from straight-forward. In the beginning, it was overshadowed by tensions between political parties, and by concerns about the economic recession. Some discussants even questioned whether the city really needed a strategy – and, if there was to be new strategy, whether it should be established for a longer period of time. Eventually, Vaasa's management concluded that the city certainly did need rapid renewal, and that a strategy should be established through a participative process and be updated on a yearly basis. Moreover, they wanted strategy-making to become an integral part of city planning and budgeting, something that would also steer investment decisions, instead of being just a separate annual exercise.

During the strategy process multiple tensions emerged, such as the dilemma between policy making and effective strategic decision making, the dilemma between participation and determined implementation, and the dilemma between value creation and service cost-cutting. Extensive participation (100 strategy workshops across a range of different organizational levels) played an important role in coping with and in alleviating those tensions. The strategy workshops offered a platform to develop shared understanding about strategy across intra-organizational boundaries enabling directors and middle managers to develop a common language building on the selected strategy tools. Thus, throughout the process, middle managers, as well as the city's directors and politicians, were considered as strategists.[6] In strategy workshops, the researchers and development planners acted as facilitators and made notes and interpretations about the discussions. Facilitation helped workshop participants to concentrate on the key topics and issues, while the discussions were documented (on Power Point slides) to 'materialize' the strategy[7,8]

<u>Building on strategic capabilities</u>

Building on the resource-based view of a firm, the city of Vaasa decided to use a strategic capabilities approach to analyse its core resources and processes over time, to understand upon what capabilities

---

[6] Whittington, R. (2007). Strategy practice and strategy process: Family differences and the sociological Eye. *Organization Studies*, *28*(10), 1575–1586.

[7] Kaplan, S. (2011). Strategy and PowerPoint: An inquiry into the epistemic culture and machinery of strategy making. *Organization Science*, *22*(2), 320–346.

[8] Paroutis, S., Franco, A., & Papadopoulos, T. (2015). Visual interactions with strategy tools: Producing strategic knowledge in workshops. *British Journal of Management*, *26*(S1), S48–S66

the city was building, and what would be needed in the near future. The strategic capabilities approach was utilized to understand the Valuable, Rare, Inimitable, and Non-substitutable (VRIN)[9] resources and processes within the city of Vaasa. The top management team, councillors and city officials mapped the municipality's strategic capabilities in workshops held early in 2013. The workshop groups utilized a mind map technique to create a picture of the municipality's strategic resources and processes with the help of internal developers. The ideas generated were then grouped into five themes and finally synthesized into five descriptions (see Figure 1). This created the first sketch of the core capabilities at the municipality level. Similar processes were later conducted at the level of divisions, business areas, and business units. As the process was extended to lower levels of the municipality organization, participants were encouraged to consider how their organizational units could support the city's strategy while developing their strategic capabilities. The role of middle managers was crucial, not only for enriching the discussions with up-to-date knowledge and experience, but also for making sense of the strategic intentions and translating them into unit level actions.

---

[9] Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Figure 1. Strategic capabilities in the city of Vaasa.
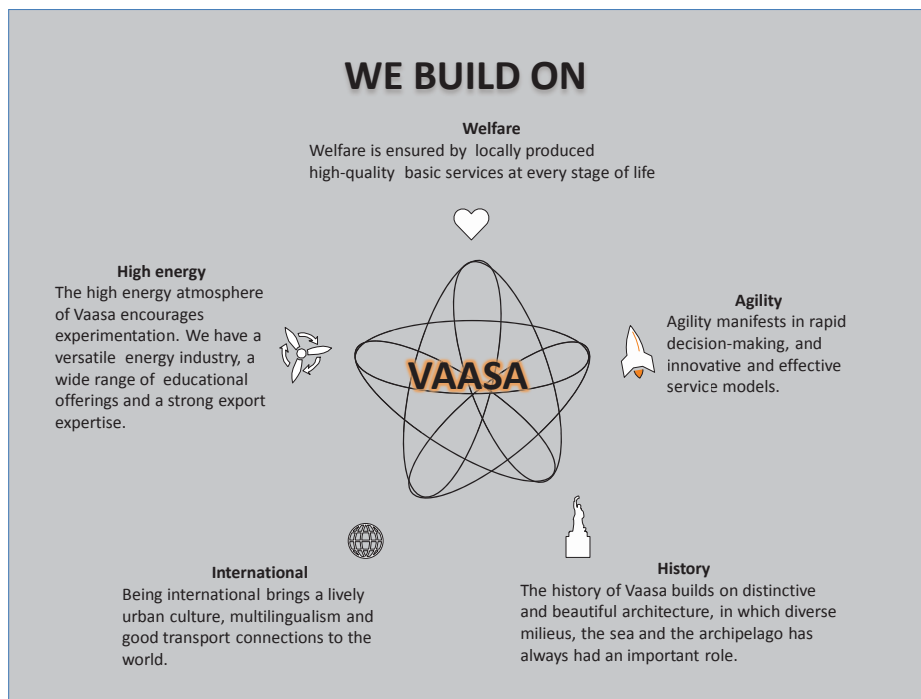
Customer value thinking as part of the strategy

The second strategy tool builds on Blue Ocean Strategy, with a focus on the components of the customer value proposition. In the city of Vaasa, the value curve was used to identify, develop, and explain a shared understanding of the components of the value promise, initially at the municipality level. The city's top management team, along with councillors and city officials, utilized the tool to compare Vaasa's future value promise against the current state of affairs, instead of just comparing its value proposition against competitors. Further, the city focused on its current customers and operations instead of trying to search for "Blue Oceans" (new non-customers).[10] After finding and deciding on generic key customer segments (companies, citizens, communities), the top management team, councillors and officials built a value curve to include the components of the value promise for each customer segment (figure 2). Interactions in strategy workshops helped to build shared understanding

---

[10] Kim, C. W., & Mauborgne, R. (2005). Blue ocean strategy: From theory to practice. *California Management Review, 47*(3), 105–121.

about the key customers, value promises and current state of affairs, as well as the strategic intent in all organizational levels.

Figure 2. Value Curve in city of Vaasa.
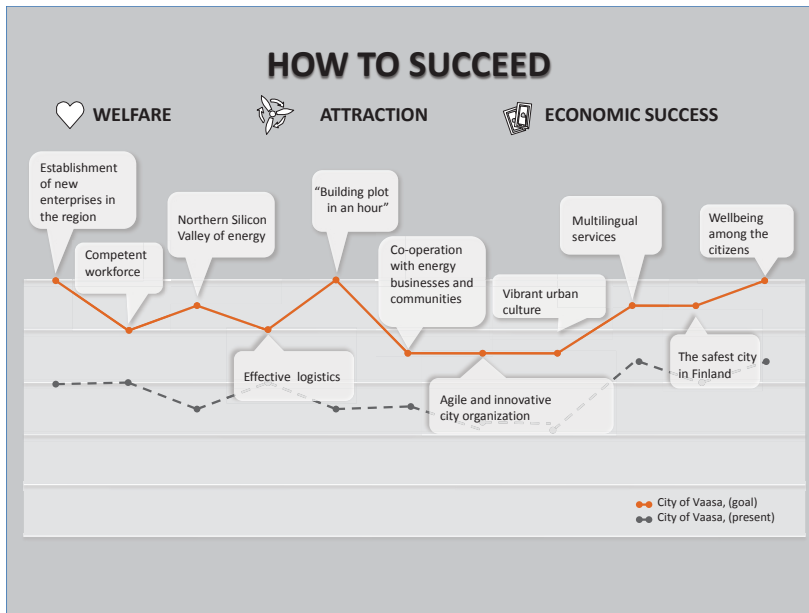
Configuring the strategy map

The strategy map outlines the strategic logic of the city organization, based on four dimensions from the Balanced Scorecard: 1) the financial perspective, 2) the customer perspective (the components of the value promise / value curve), 3) the process perspective and 4) resources and competencies.[11] The last dimension, originally stated as *learning and growth* was redefined in the Vaasa strategy map as *resources and competences*, to integrate the components of the first tool into the strategy map. Therefore, the strategy map combined the outputs of the two strategy tools used earlier in this process – the strategic capabilities framework and the value curve. The strategy map became the central tool of the process, enabling management to describe and explain the whole strategic logic of its organization using only the one visual image. Furthermore, if employed properly, the strategy map

---

[11] Kaplan, R. S., & Norton, D. P. (2000). Having Trouble with Your Strategy? Then Map It. *Harvard Business Review*, *78*(5), 167–176.

would simplify the strategy so that it could be understood throughout the organization. The map also enabled management to ground the strategy in the organization, ensuring that it reflected the reality in, and the capabilities of, the organization, so that strategy was no longer something that was just planned and instructed by top management. The Vaasa strategy map provided an effective tool for discussing and defining the strategic logic of the organization, bringing strategy into practice.

Figure 3. Strategy map
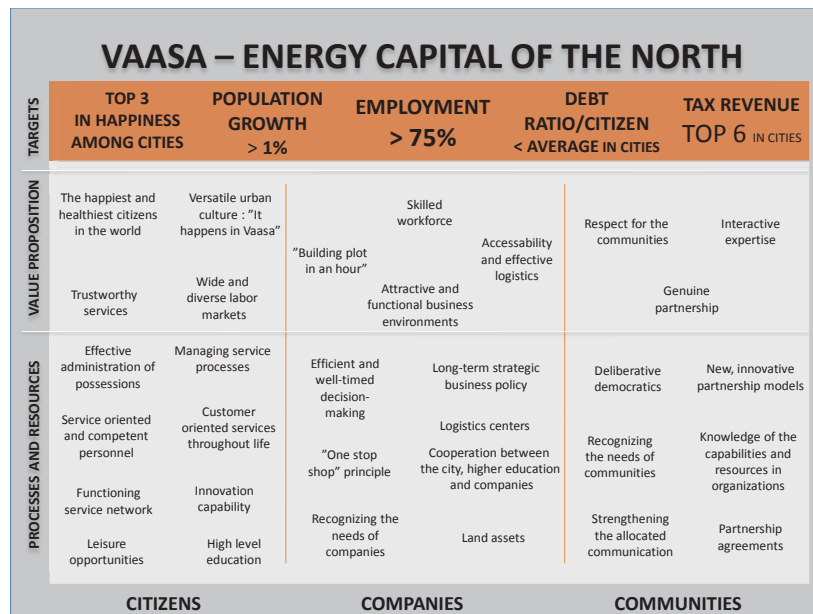
Execution of the city strategy

Finally, building on their strategy map, the city of Vaasa developed a spreadsheet table to synthesize targets, measures, and strategic initiatives which could be summarised on just one slide (Table 1). The city wanted to define clearly the link between strategic targets and investment plans, so that the strategy would begin to steer investment decisions and budgeting. The administration believed that the management system should be developed to facilitate strategy implementation and follow-up. The use of the Excel table summary for communicating across the organisation, had the additional benefit of forcing management to decrease the vast number of key performance indicator [KPI] targets and measures, so that only the important ones were included on the one summary slide. From approximately 70 initial measures, the city decided to focus on just 25 KPIs, with the five measures

defined at the top of the strategy map being considered the most important. Thus, those selected prime metrics became the centrepiece for steering the city's strategy, similar to the simple rules or guidelines as suggested by Eisenhardt and Sull.[12]

Table 1. Goals, measures and strategic initiatives.

| TARGETS	MEASURES	STRATEGIC INITIATIVES
ATTRACTION		
Attractiveness of the region	• Population growth / year / previous year • New vacancies produced by companies/ all new vacancies • Tax revenues • Number of national events	• Making energy competence visible in activities and investments • Developing international innovation cluster and R&D platforms in the city of Vaasa area • Strengthening international accessibility through targeted investments in air, ship, rail and road traffic • Two multi-lingual campuses and learning environments: Safeguarding an adequate local shareholder base • The development of the city center, and revitalization of the islands and beaches • Promoting a diverse urban culture: Promoting positive atmosphere e.g. in the form of international congresses and events
Competitive urban structure	• Amount of plot and plan reserves • Reducing carbon dioxide emissions	• The available plots correspond to the demand: Sticking with the housing program • Review of service networks that observe a life cycle approach
The employment rate >75%	• Proportion of employed in population (18-64-year olds)	• Training a competent workforce
WELFARE		
Welfare among the population	• Experienced happiness • Morbidity index • Time limits in basic services and norms within eldercare are kept • Amount of visitors in sports- and cultural establishments • Costs of elderly care	• Directing the service network to the main functions: Intensifying the library network, early childhood education, and the school network • Addressing current special health care as a separate issue • Securing the integration of speciality health care, basic health care and social care: prioritizing preventive work • New health centre in the city: centralization of medical services and other possible services within health care • Raising the clients' level of involvement and responsibilities: deliberative democracy, electronic services; utilization of experience specialists in planning and developing services
Strengthening the democracy	• Trust in decision-making	• Renewal of representative organization • Local regional government: Clarifying the roles of area board and regional councils • Consolidating deliberative democracy practices into the development of services
ECONOMIC SUCCESS		
Effective administration of assets	• Development of premises • Costs of premises/ free markets	• Processing the plot possessions • Mapping the use of premises to increase the use ; Selling unnecessary premises systematically on a tight schedule • Refraining from use of external rented premises
The balance between investments and loans, adjustment of activities	• Gross capital on same level as depreciation • The level of internal financing of investments • Increasing annual margin	• Developing management systems • Strengthening of state shareholdings in federations of municipalities decision making • Centralization of service production & setting the quality standards of services, cost-effective production methods • Outsourcing and purchasing of services: cost accounting and pricing services • Developing IT services
Increasing income	• Income / year / previous year, selling of possessions, payments	• Leasing and selling plots and shares of stock within housing • Developing chargeable services, raising the charges and tariffs
Optimizing the personnel structure	• Number of personnel/ services produced/ other municipalities • the number of person-years	• Anticipatory personnel planning • Reforming organizations, and making the cross administrative processes more efficient

Towards real-time city management

The city organization began strategy work to increase strategic agility, aiming to create simple practices and guidelines that would steer the development work of different divisions in the same direction – a direction defined by the new vision to become 'The Energy Capital of the North'. The vision emerged during the management team sessions, reflecting discussions at different levels of the organization, and was finally settled upon as representing an interpretation of the optimum future for Vaasa. Thus, there was no separate tool or facilitated session for discussion of the vision statement: the vision emerged during the strategy process work, was elaborated on as it emerged, and finally ratified by the municipal parliament. The sequence illustrates the idea behind the way of working during the process – that the strategy can be developed through the discussions, based on a shared

---

[12] Eisenhardt, K. M., & Sull, D. N. (2001). Strategy as simple rules. *Harvard Business Review*, *79*(1), 106–116.

understanding of the organization, its capabilities and its customers: that the strategic logic emerges step-by-step during the rounds of the strategy development process.

Finally, the city also developed a yearly 'management clock' to embed strategy updates into the annual management activities' plan. In addition, Vaasa city management initiated a process to integrate the KPI measures and targets into the annual planning and evaluation tasks. Further action was taken to develop a management system that would support real-time management of the city's organization. It was recognised that management would require further refinement of the KPIs, to focus on the few most relevant KPIs at the different organizational levels and that could be effectively followed up. The involvement of those different organizational levels, and the adoption of the strategy map as the main tool, facilitated development of a shared understanding about the strategic vision and strategy process across the municipality.

Figure 4. Yearly management clock.
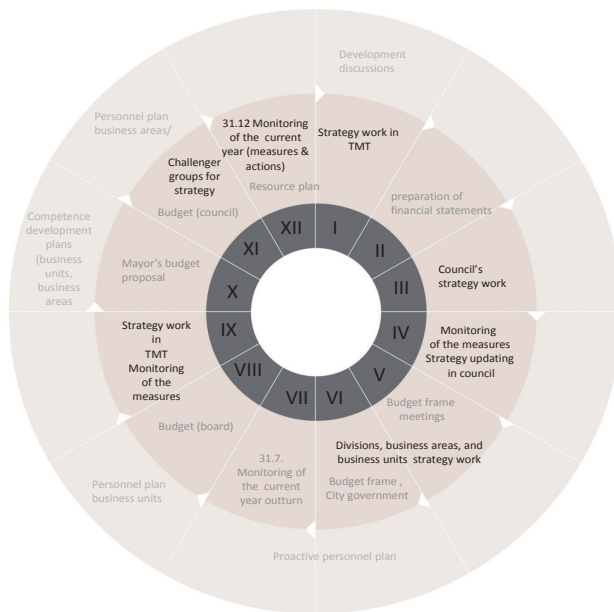
Questions:

Q1. Using the pyramid of strategy practice (Figure 16.1), describe strategy making in the City of Vaasa

Q2. Comment on the strategy process being followed at Vaasa. In what ways does this depart from the previous way of doing strategy?

Q3. What are the advantages and disadvantages of the tools used in this strategy process?

Q4. Reflect upon the public sector context of this case – in what ways might there be similarities and differences with how strategy is practiced in 'for-profit' contexts?