ACKNOWLEDGEMENTS

When being on this side of the journey, I have come to realize that academia shares several similarities with the music industry. Not so much in terms of fame and income, but more in relation to the process and the people involved in making the next big hit. This PhD stands as my first album, in a hopefully long career of transferring the lyrics of social sciences into appealing publications for both scholars and practitioners. They say that the first hit is the hardest, and even though I cannot yet assess the popularity of this dissertation, I can assure you it has been a challenging experience. An experience I would not have missed for the world. Being a researcher can at times be a lonely profession. However, thanks to my colleagues and collaborators I have not yet experienced that. I most certainly owe you a thank you my friends.

Even the best musician is nothing without the whole band. They make the jamming sessions so much better, they inspire you when lacking the creativity, they celebrate success and most importantly, they steer you when you lose the rhythm. My band consists of my supervisors at Aarhus University, Hanne Kragh and Chris Ellegaard. First, thank you Chris for offering me the opportunity to become a researcher. Without his sales pitches and vision, I would now have missed the fantastic experiences given me the last three years. Secondly, I owe a special thank you to my main supervisor, Hanne Kragh, who with her structured nature combined with valuable assistance, guided me through by being alert to potential pitfalls while giving her full support to most of my ideas. However and even more important, you both taught me how to navigate in an environment of high competition, constant career choices and making research with impact. These are skills and qualities of both extraordinary supervision and academic work, which I hope to carry with me in my future career.

I have realized that a major part of being a researcher is to provide critique and assessment of others’ creations. I have seen reviewers in action, who explicit proclaimed their fascination of academics who were able to kill a paper with a single sentence. I find such perspective incompetent and petty. What I value in this academic exchange between the performer and the critics is the sincere interest and comments that can lift the piece to the next level. I have been surrounded by such people and they have all been invaluable for the four records within this PhD. Whether it has been on the small scenes at the department or in front of a larger audience at conferences, the critique has contributed significantly to this thesis. Thank you for that! A special high-five to the rest of the B2B group at the department. The numerous discussions are always rewarding. I am also grateful for the opportunity of visiting BI, Oslo, where Lena Bygballe and the rest of the Construction Center at the Department of Strategy and Entrepreneurship helped me to position my work, both in relation to top-academic
publishers, but also in terms of gaining listeners within the industry. In addition, a huge applause to my fellow PhD students at the department of management! Being part of this community has provided great support, where both the parties, courses and hallway-talks have contributed to my creativity. You are a bunch of fun and talented personas.

Some people claim that the best songs come from broken hearts. While this is rarely the case in business research, I still believe that without substance and depth in the material you write about, no one will find the output intriguing. My source of inspiration comes from Vandpartner. A successful collaboration between great companies who sincerely try to push the construction industry in a better direction every day. I owe a huge thanks to every person and organization who has contributed to my studies. Especially I would like to highlight Lars Daugaard and Jacob Hattesen Nielsen, who have been invaluable for gaining access into some of these sensitive topics and letting me follow their daily work for 18 months. I now have great material for the next several years to come, so thank you! If the business world only consisted of open-minded and reflective practitioners like you, there would be no problems for me to solve.

It has been my pleasure meeting all of you, and as in any other celebration speech, I owe my gratitude to the many more cool people I have met during this journey. Thank you, all of you! However, I intend to continue producing research, and I am looking very much forward to future collaborations and inspirational discussions.

I cannot continue without expressing my gratitude to my biggest fans in the world, my mom and dad and the rest of my family. Thank you for your undoubting support! You are always interested in what I am actually doing, and I hope with this thesis, you will get the picture of what I have spent the last three years on and hopefully Grandmother will be happy that I am done studying. Finally, to the greatest support one could imagine, Aleksandra. I am amazed with your patience and understanding, and no day has gone by without us discussing B2B marketing. You always want to celebrate my small daily accomplishments and you care! Thank you for that. This thesis marks the first few years of “us”, with many more decades to come, and I cannot wait!

A special thanks to the PhD committee for taking their time to assess and contribute to my research.

– Pernille Smith, Antonella La Rocca and Sheena Leek

With gratitude and love,

Jim Høeg Pedersen, January 2020
EXECUTIVE SUMMARY

The thesis on which you are about to embark investigates how interactions between individual managers build, transform, stabilize and advance buyer-supplier relationships. By adopting a practice-based view, the thesis zooms in on how buyer-supplier relationships emerge as a product of managerial interaction. Such perspective emphasizes the role of individual managers and their actual doings in the endeavor of developing collaborative and long-term buyer-supplier relationships. Companies are increasingly realizing the need for establishing synergies across companies founded upon a sincere aspiration to collaborate, in order to navigate within the complexity that surrounds them. Acting collaborative is easy when the objective is shared and there is an agreement on how to proceed. However, when surprises erupt or unanticipated risks disturb the stable daily practices, that is when collaborations are tested and managerial actions alter the relationship.

Both formal predefined structures and surprising events equally affect the process of developing buyer-supplier relationships. However, the influence is not direct. On the contrary, this thesis shows that the singular most determining element is what managers do, in order to mitigate or amplify these factors. Skills, habitus and practical consciousness play an essential role in this process, not by providing recipes and standard guidance for how to act, but by enabling the manager to navigate, improvise and adapt to the circumstances. The thesis does not claim that organizational structures are irrelevant for countering changing circumstances, but in accordance with years of marketing research, it is argued that no contract or other predefined governance mechanism can possibly anticipate all potential trajectories of long-term buyer-supplier relationships. It is simply too complex.

B2B marketing research should incorporate this issue by utilizing the benefits of practice theory, which enables researchers to account and investigate for this ongoing structuring of buyer-supplier relationships. This thesis contains four papers, which share the ontological understanding that organizations are nothing more than bundles of practices. The first paper is a literature review of 108 articles, examining how the concept of practice has been applied in B2B marketing research. It is concluded that B2B scholars are highly interested in making research relevant for practitioners, which lead to the adoption of the notion of practice. However, the use of the term does not always correspond with decades of practice-research, with a risk of devaluing the concept. It is argued that B2B researchers should acknowledge and utilize the strength of such a practice-based view, since it provides the necessary sensitivity towards managerial action, which is needed for understanding interorganizational phenomena.
The other three empirical papers are based on a longitudinal ethnographic case study of DK Partnering, which is a special type of buyer-supplier relationship consisting of 13 companies within the construction industry. Paper 2 focuses on sensemaking, in order to explain how different understandings and collective repertoires develop between two different triads. It is shown how actors continuously update their frames through retention, in order to improve collective cue identification and selection. Paper 3 uses a performative view on interorganizational routines for investigating how a collaboration dedicated to innovation fail to mobilize the necessary commitment, due to a derailing of the innovation setup. The incremental process of setting up a structure for innovation is derailed due to a changing objective from developing radical export adventures, to group justification through smaller must-win battles. Finally, paper 4 explores the role of translation when implementing collaborative structures, where general principles for the collaboration have to be translated into useful and shared practices within the local project groups. A shared understanding is stabilized over time through continuous processes of negotiation, in which managers intensify and relax their interpretations through formal and informal actions.

The specific contributions are explained in details within the separate papers, which occasionally goes beyond the field of B2B marketing. However, the surrounding chapters within this thesis will elaborate upon the theoretical basis, methodological considerations and derived insights across the papers, focusing on how the thesis as a whole contributes theoretically and practically to B2B marketing and our understanding of buyer-supplier relationships.
**DANSK RESUMÉ**

Denne afhandling som du er ved at dykke ned i, undersøger hvordan interaktion mellem individuelle managers opbygger, transformerer, stabiliserer samt udvikler køber- og leverandørrelationer. Igennem et ”practice” perspektiv zoomer denne afhandling ind på hvordan køber- og leverandørrelationer opstår som et produkt af interaktion mellem individer. Sådan et perspektiv understreger individuers faktiske handlinger som være styrende i stræben efter langsigtet køber- og leverandørrelationer baseret på samarbejde. Virksomheder bliver i stigende grad opmærksomme på behovet for at skabe synergi på tværs af deres partnere, som er fundet i et oprigtigt ønske om at samarbejde, med det formål at navigere i den kompleksitet som er omkring dem. At samarbejde er nemt når endemålet er delt og der er en klar aftale for hvordan tingene skal foregå fremadrettet. Det er midlertidigt anderledes udfordrende når overraskelser opstår eller når uventet risici forstyrer de ellers stabile praksisser. Det er sådanne situationer der virkelig tester interorganisatoriske samarbejder, og hvor individuelle aktører har en afgørende betydning for relationens udvikling.

Både formaliseret strukturer og uventede hændelser influerer ligeligt på udviklingen af køber- og leverandørrelationer, men effekten er ikke direkte. På modsat vis konkluderer denne afhandling at det element med klart største betydning, er hvad individuelle personer faktisk gør i forhold til at begrænse eller styrke disse faktorer. Evner, habitus og praktisk forståelse spiller en afgørende rolle i denne proces, ikke i form af anvisninger og standardiseret guidelines, men ved at sætte aktøren i stand til at navigere, improvisere og tilpasse sin adfærd til omstændighederne. Afhandlingen påstår ikke at organisatoriske strukturer er irrelevante i forhold til at modstå eksterne forandringer, men på linje med årevis af marketing forskning, påstås det af ingen former for kontrakt eller andre prædefineret styringsmekanismer kan forudsige og tage højde for alle potentielle hændelser i langvarige køber- og leverandørrelationer. De er simpelthen for komplekse.

og gøre brug af styrken i praksis perspektivet, da det skaber en sensitivitet over for individers adfærd, hvilket er vigtig for at forstå komplekse interorganisatoriske fænomener.

De øvrige tre empiriske artikler er baseret på et longitudintalt etnografisk case studie omhandlende DK Partnering, som er et specielt samarbejde bestående af 13 virksomheder inden for byggebranchen. Artikel nummer to fokuserer på sensemaking for at undersøge hvordan to lidt forskellige forståelser, af hvad et godt projekt består i, udvikler sig over tid imellem to forskellige triader. Det vises hvordan aktører kontinuerligt opdaterer deres forståelsesrammer igennem fastholdelse, med det formål at forbedre deres samlet evne til at identificere risiko og agerer på det. Den tredje artikel benytter et performativt syn på interorganisatoriske rutiner, til at undersøge hvordan et samarbejde, dedikeret til innovation, ikke formår at mobilisere det nødvendige engagement for succes, grundet en afsporet strukturerings arbejded. Den stepvise proces for at sætte sådan en struktur op bliver afsporet da ambitionerne ændres fra at ville udvikle store eksportventyr, til at innovationsgruppen fokuserer på at retfærdiggøre deres egen eksistens igennem mindre innovationssucceser. Endelig udforsker den fjerde artikel betydningen af oversættelse i forbindelse med implementeringen af nye samarbejdsstrukturer, hvor overordnet principper for samarbejdet skal oversættes ind i de lokale projektgrupper for at skabe brugbare og fælles praksisser. En fælles forståelse stabiliseres over tid i gennem kontinuerlige forhandlingsprocesser, hvor aktørerne intensiverer eller lemp deres fortolkninger ved brug af både formelle og uformelle metoder.

De specifikke bidrag er detaljeret forklaret igennem de separate artikler, hvilke indimellem rækker ud over forskningsfeltet B2B marketing. Kapitlerne som indrammer artiklerne inkluderet i denne afhandling, vil i det kommende uddybe den teoretiske base, de metodiske overvejelser og de afledte følgeslutninger som går på tværs af papirerne. Her vil der være et fokus på afhandlingen som helhed, samt hvordan denne bidrager teoretisk og praktisk til B2B marketing og vores nuværende forståelse af køber- og leverandørrelationer.
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“I trust that my coauthor will give his life in an effort to save mine. The sentiment is reciprocal. Nonetheless, the uncertainties (even the risks) of an ocean sail make it prudent for each of us to wear life jackets and not rely exclusively on our trust in each other”

(Ring & Van de Ven, 1994:93)\(^1\)

1.0 - INTRODUCTION TO THE DISSERTATION

Despite decades of research on the emergence of interorganizational relationships, core aspects of this complex phenomenon remain unaddressed (Lumineau & Oliveira, 2018). This is due to the misalignment between assumptions of research and the complexity inherent in these relationships. The number of elements and entities involved, combined with a large series of interwoven processes, make the examination of this topic a task requiring both a solid theoretical foundation and a sensitive research design. In order to derive theoretical insights uncovering some of these complex issues, this thesis is built upon a practice-based perspective, which emphasizes everyday managerial action as the foundation for the ongoing organizational structuring (Schatzki, 2006). The thesis untangles interorganizational relationships by zooming in on three elements underlying the development of buyer-supplier relationships; the actions at the individual level occurring in business interaction, the organizational routines adopted in interorganizational collaborations and the translation of collaborative principles on which these relationships function. Companies engage in such relationships in order to acquire resources that they cannot develop internally, to create new knowledge, or to gain a superior position among other companies (Hardy, Phillips, & Lawrence, 2003; Kale & Singh, 2009; Powell, Koput, & Smith-Doerr, 1996). The value extracted and these outcome effects have been extensively studied within existing research, where results seem to indicate that successful buyer-supplier relationships are formed through ongoing relational structuring of processes and routines, and through increased cooperative and relational interaction (Majchrzak, Jarvenpaa, & Bagherzadeh, 2015; Terpend, Tyler, Krause, & Handfield, 2008). Interorganizational collaboration has been defined as ‘a cooperative, interorganizational relationship that is negotiated in an ongoing communication process, and which relies on neither market nor hierarchical mechanisms of control’ (Hardy et al., 2003: 323). Where this definition covers all collaborative arrangements and associations, from alliances to joint ventures, to informal network collaborations and consortia, this thesis focuses on buyer-supplier relationships. However, the interesting part of the definition is the focus on ‘the negotiated order’, based on ‘an ongoing communication process’. Throughout the four papers within this thesis, it is argued that practice theory provides a necessary but underutilized view for B2B marketing scholars. By uncovering the emergence of structures surrounding interaction between individual managers, each separate paper elaborates on how the development of strong buyer-supplier relationships evolves as a result of ongoing interaction.

As paper 1 indicates, much research views the organizing of buyer-supplier relationships as an engineered output, where level of trust, satisfaction and performance are outputs based on
predetermined structures. The thesis argues that collaboration cannot be sufficiently understood,
without being attentive to how companies and managers actually collaborate in order to overcome
uncertainty and solve ongoing problems. Such evolutionary approach to the processes of buyer-
supplier exchange is slowly emerging within marketing (Vargo & Lusch, 2004), where it has been
further argued that long-term relationships are crucial for the success of complex product deliveries
(Tuli, Kohli, & Bharadwaj, 2007). The competitive advantage differentiating companies is no longer
built upon physical assets but is immersed in intangible relational processes, seen as bundles of skills
and technologies, which are tacit and idiosyncratic and developed through interaction processes.
More recently, the focus on individual actors has been emphasized as the source of how structures
are formed and reformed, fostering cooperative and coordinated behavior (Vargo & Lusch, 2016).

In order to understand how value is created as an output of interaction between managers, this thesis
adopts a practice-orientation (Schatzki, Knorr-Cetina, & Savigny, 2001). This implies a focus on what
managers actually do, not as discrete rational actions, but social accomplishments, where learning
and the process of carrying out activities attunes the shared dispositions deemed necessary for
achieving productive interorganizational relationships (Nicolini & Monteiro, 2017). Everyday actions
are here seen as the only window into exploring the emergence of the relational contours defining
buyer-supplier relationships (Feldman & Orlikowski, 2011).

In correspondence with this practice-based view, the three empirical papers within this thesis each
adopt a theoretical framework for uncovering different aspects of the interplay between managerial
action and the ongoing structuring of buyer-supplier relationships. More specifically, sensemaking,
routinization and translation theory each make certain contributions to the established understanding
of how buyer-supplier relationships emerge. One aim of this cover is to elaborate on why a practice-
based view is valuable for studying business interaction, and explain how the three theoretical
underpinnings for this thesis are aligned with this practice-orientation.

1.1 – Research framework, objective and questions
While certain areas of business-to-business research have actually been attentive to interaction
dynamics and their influence on the development of interorganizational relationships, the potential of
practice-based research is yet to be realized within the larger field of b2b marketing. Marketing is an
applied field of science, where managerial relevance is seen as an essential aim of research. Many
scholars are highly concerned with uncovering distinctive practices for ensuring competitive
advantage. While the intention is sincere and the research is often rigorous, more research is needed to uncover essential explanations for why some relationships face severe problems (Prior & Marcos-Cuevas, 2016), while others, under similar structures and conditions generate completely different and more positive outputs (Lombardo & Cabiddu, 2017). As the uncertainty and complexity of buyer-supplier relationships increase, understanding the emergence and evolvement of these relational development processes becomes even more important (Ring & Van de Ven, 1994). The static and cross-sectional view in research on buyer-supplier relationships does often not acknowledge this complexity (Terpend et al., 2008). Several scholars have argued that changes towards a more relational and cooperative interaction style, appears to be fostering successful interorganizational relationships (Majchrzak et al., 2015). However, it is also argued that we still have major blind spots within the field, regarding different behaviors, relationship formation, situatedness, and the temporal dynamics inherent in the relationship (Lumineau & Oliveira, 2018). By illuminating and capitalizing on the benefits from a practice-based approach, this dissertation contributes to current understanding of the development of buyer-supplier relationships. More specifically, the dissertation provides detailed accounts of the dynamics between managerial action and ongoing structuring of the relationship. This is done by answering the overall research question:

How does managerial action shape the structures of interaction, influencing the development of collaborative buyer-supplier relationships?

In order to provide an overview of the use and recognition of practice theory within B2B marketing, the thesis starts with a review of existing practice-based research set out with the objective to:

Critically investigate the state of research into B2B practices in order to recommend new directions.

The review was further used to position and inspire the empirical studies. In accordance with the objectives given by the overall research question, combined with the findings of the review, the thesis then sets out three empirical questions:

How do actors in fixed duration alliances update their collective repertoire through sensemaking, in order to identify and solve project issues?

How are innovative actions routinized over time in an innovation consortium?
How are managerial principles for interorganizational collaboration translated into local group practices?

The concepts and theories adopted to frame the specific questions are in alignment with the underlying ideas of practice theory. The research questions are a result of an abductive process following the grounded theory approach adopted in this thesis. Each question unfolds an element of the relationship between managerial action and the ongoing structuring of the relationship. To answer these questions, a longitudinal case study within the construction industry provides the empirical foundation for developing both theoretical and managerial contributions. The three research questions each zoom in on different types of structures, which are both affecting and affected by the daily interaction between managers within buyer-supplier relationships. Managers within the construction industry rely on different practices, in order to carry out construction projects, ranging from specific and visible building practices to broader and more tacit coordinating practices. Regardless of the labelling, the substantial interaction needed to design and build larger construction projects, is the result of managerial actions. These are organized through three elements characterizing the practice-orientation within management: Understandings of how to do things, rules and teleoaffective structures (Schatzki, 1996). Actions that typically make up collaborative buyer-supplier relationships in the construction industry are organized by; 1) Different understandings of how to plan, design, build, buy materials, organize payments, settle disputes, and check quality etc. 2) Rules such as regulations, instructions, buyer requirements and guidelines that govern deadlines, inspections, and responsibilities of the involved parties. 3) A teleoaffective structure embracing the norms and objectives of delivering on time, to stay within the budget, to deliver good quality work and having an efficient construction process, which are common, shared understandings within the construction industry. This is investigated in the context of the construction industry, where a larger partnering collaboration, consisting of 13 companies, is followed over 18 months.

The construction industry has been impeded by opportunistic behavior and adversarial relationships based on a non-cooperative culture. This was the result of unintended configurations of the industry structures unable to accommodate the high level of interdependency, uncertainty and temporal nature of construction projects (Bresnen & Marshall, 2000; Dubois & Gadde, 2002a). As an attempt to counter this development, ‘partnering’ was proposed as an alternative collaboration form with the potential to change the industry (Bygballe, Jahre, & Swärd, 2010). By specifically looking at how construction companies attempt to develop collaborative relationships and implement partnering, this
thesis generates insights on the relatedness between actions and structures involved in the emergence of buyer-supplier relationships.

1.2 – Thesis outline
The thesis is structured in five overall sections. Following the introducing remarks, the current section will outline how the individual studies are related (see Table 1 and Figure 1). This leads to an elaboration of the theoretical underpinnings within the thesis and the four studies. The section provides an extensive account of what practice theory is and illustrates how a practice perspective can benefit the current literature. Specifically, the section elaborates on three elements of practice, which arguably can provide valuable insights for B2B marketing scholars seeking to understand the development of buyer-supplier relationships. This is followed by an in-depth review of sensemaking, routinization and translation theory, corresponding to the three concepts used in paper 2-4, with a focus on their application in an interorganizational context. Section three provides the overall methodological considerations, where the interplay between observations, interviews and documents is explained among other things. This leads to the presentation of the four studies in their entirety, which is followed by a general account of contributions, future research directions and the practical implications of the thesis.

<table>
<thead>
<tr>
<th>Study number</th>
<th>Research setting</th>
<th>Research design</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper 2</td>
<td>Micro level project groups</td>
<td>Multiple case study of two triads</td>
<td>Shows how collaborative actors develop a collective repertoire for identifying and solving project issues</td>
</tr>
<tr>
<td>Paper 3</td>
<td>Interorganizational management level</td>
<td>Single case study of an innovation consortium</td>
<td>Investigates how 9 companies setup an innovation consortium, but do not manage to ensure the commitment needed from the member companies</td>
</tr>
<tr>
<td>Paper 4</td>
<td>The interplay between top management and local project groups</td>
<td>Embedded case study of multiple project groups</td>
<td>Explores the process of translating general collaborative principles into locally useful practices at the project group level</td>
</tr>
</tbody>
</table>

The data collection was initially driven by the overall RQ of the thesis. Through an iterative process cycling between data collection and analysis, the development of paper 2-4 was based on empirical observations. The case revealed very different preferences and choice of solutions when planning and executing construction projects, and during data collection, it became clear that these choices were
highly influenced by the perceived project uncertainty. This led to the adoption of sensemaking theory for investigating how the mutual understanding evolves as a result of retention. The development of projects was highly influenced by innovative solutions, which was considered a core objective of the relationship as a whole. This observation led to paper 3, where innovative routines are developed within the collaboration. In the end of the data collection period, the differences in behavior at the project level was accentuated, where different project groups interacted differently, despite being part of the same overall collaboration. In order to explain these local differences, paper 4 uses translation theory for understanding the interplay between the top management level and local project groups. During the following sections, the connection between a practice-based view and the theoretical underpinnings within each paper will be elaborated.

**FIGURE 1 – OVERVIEW OF THESIS**

**Overall research question:**
How does managerial action shape the structures of interaction, influencing the development of buyer-supplier relationships?

**Research objective:**
Explore the interplay between interpersonal business interaction and the ongoing structuring of buyer-supplier relationships.

**Paper 1:**
To critically investigate the state of research into B2B practices in order to recommend new directions.

- **Action-oriented:**
  Focuses on micro level actions carried out by managers.

- **Action/structure:**
  Investigates how the development of a structure facilitates and hinders collaboration.

- **Habitual element:**
  Explores how broad management principles are internalized into behavior of interaction.

**Paper 2:**
How do actors in fixed duration alliances update their collective repertoire through sensemaking, in order to identify and solve project issues?

**Paper 3:**
How are innovative actions routinized over time in an innovation consortium?

**Paper 4:**
How are managerial principles for interorganizational collaboration translated into local group practices?
“While repertoires are limited by individual and collective histories and may be more or less extensive and flexible, they do require a certain degree of maneuverability in order to assure the appropriateness of the response to the situation at hand... In unproblematic situations, this maneuvering is semiconscious or taken for granted, the result of an incorporation of schemas of action into one’s embodied practical activity. On the other hand, the application of such repertoires remains intentional insofar as it allows one to get things done through habitual interactions or negotiations... There may be much ingenuity and resourcefulness to the selection of responses from practical repertoires, even when this contributes to the reproduction of a given structure of social relationships”

(Emirbayer & Mische, 1998: 980)²

2.0 - THEORETICAL POSITIONING

The backbone of this thesis consists of a practice orientation, emphasizing managerial action for explaining relational dynamics of interorganizational interaction. Through an in-depth review, paper 1 provides a detailed overview of practice-oriented research in B2B marketing. Therefore, this section focuses on accounting for the relevant elements of practice theory adopted in this thesis. It has been a strong wish from the beginning to clarify and untangle overlaps and complementarities among concepts, such as action, practice, routine, norm and structure, which is often used interchangeably within research (Jarzabkowski, 2004: 545; Ness, 2009: 457). Conceptual clarity is essential for solid theory building, and practice theory is not a ‘theory of everything’ with a universal definition existing across disciplines (Feldman & Orlikowski, 2011). However, the use of practice theory spans from anthropology, to political science, to environmental studies, to management and organization studies. While the disciplinary scope, and thereby the diversity, of practice theory is wide, there are still several basic ideas and overlapping features that studies of practices have in common. Practice theory should be considered the background or scaffolding for different dimension of social life (Schatzki, 2018). This implies that practice theory cannot stand alone, but should always work together with other theories compatible with the fundamental ideas of practice. This section will untangle the complementarities and differences within practice theory, tuning in the reader and calibrating the understanding, with an emphasis on its utility for explaining relational dynamics between individuals within organizations. This will be followed by an elaboration of the core theories adopted in this paper; sensemaking, organizational routines and translation. While the separate papers account for the specific theories, the elaboration will concentrate on the compatibility between a practice-orientation and their underlying assumptions within sensemaking, routinization and translation theory. In addition, it is shown how the theories are currently adopted within B2B research.

2.1 - The theoretical foundation for practice based studies

The field of Marketing is considered applied science, where we apply and build upon the foundations of other social sciences such as economics, sociology and psychology. Since human actions can only be partly predicted through empirical generalized laws (Bartels, 1951), the social sciences should also be concerned with sociological explanations for human interaction. The dichotomy between the wish for empirical generalizations and providing socially dependent theoretical explanations has been a latent issue within both management and marketing. In 2014, Bromiley and Rau published an article in Strategic Management Journal, “Towards a practice-based view of strategy” (PVB), where they
requested research to focus more on so-called universally best practices. These practices are considered to be specific, transferrable, performance enhancing activities, providing guidelines for managers. They claim that “managers want to know what to do, and we have very little to tell them” (Bromiley & Rau, 2014: 1250). They want to focus on direct effects derived from specific “practices”, by discarding the view of factorizing multiple indicators into an overall construct. Instead, they focus on specific “practices” and their effects, which can then be moderated or go through immediate construct or outcomes, with the ambition to discover universal initiatives enhancing firm performance.

When looking at the field of Marketing, especially in terms of B2B marketing, focusing on interaction and exchange between companies, this is very much what we are good at; uncovering initiatives for increasing sales or making the supply chain more efficient. In fact, Carter et al., 2017, expands PBV by applying the same idea to an interorganizational context with the dyad or relationship as the unit of analysis. They define a supply chain management practice as “a specific activity or a set of activities that spans different formal organizations and that other supply chain dyads or networks can imitate” (Carter, Kosmol, & Kaufmann, 2017: 116). By claiming that “epistemological assumptions and definitions of the term practice differ”, Carter et al., touches upon the issues involved when they use the term practice in a way that does not correspond with the established field of practice based research. This is basically the issue I uncover in Paper 1, but I would still like to elaborate on the criticism made in Paper 1 and based on those issues I argue that practice theory has an underutilized value for enhancing our understanding of buyer-supplier relationships.

As a response to Bromiley and Rau, Jarzabkowski, Kaplan, Seidl and Whittington (2016b) raise three fundamental issues through which PBV loses the contextual sensitivity necessary to precisely determine the link between certain practices and performance differentials. More specifically, they are concerned with the lack of relatedness and specificity inherent in practices, which are foundational for the derived outcomes. They claim that PBV ignores 20 years of practice-based research, which documents that studying practices requires an attentiveness towards the ‘what’, the ‘who’ and the ‘how’ (Jarzabkowski et al., 2016b).

Practices are related and this interdependency is central if one wants to assess the effect of practices. Practice theory views practices as bundles and the interplay between complementary or detrimental practices needs to be considered (Nicolini, 2012). Bromiley and Rau (2016) reject this relatedness as important for their view, by comparing this discussion to the field of medicine research. Some medical
scholars are concerned with detailed analysis of specific cases, and some are focusing on large sample treatment effects of certain drugs. Like drugs, Bromiley and Rau acknowledge that practices interact, but it is not possible to obtain usable samples in order to fulfill the demand for statistical studies. They argue, “few of us would want medical treatment that has only proved effective for one or two patients” (Bromiley & Rau, 2016: 264)

A sufficient understanding of practices can only be obtained by including the human actors performing these practices. The distinctive characteristics of the practitioners, such as roles, organizational positions and personality traits, determines the variation of practices performed. Skills are also closely related to practices, where actors improve their ability to perform the practice more efficiently over time, by engaging in repeated enactment (Jarzabkowski, 2008). This is an implementation issue, which Bromiley and Rau do not consider in their reply. However, they emphasize the deliberateness of adopting a practice by actors, who makes a decision to adopt certain practices. They further claim that practice scholars are not concerned with this decision either. The reasoning for this is that practice scholars recognize that large parts of a practice are carried out in a habitual manner without any deliberate consideration (Bourdieu, 1977; Feldman & Orlikowski, 2011).

By searching for ‘best practices’ with the goal of finding imitable and transferrable best ways of organizing, there is a risk of misattribution. It is actually often the variation, improvisation and adaption that makes the practice succeed, where the alignment between practice and local context is determining the outcomes (Gherardi & Nicolini, 2000). Moving beyond the blueprint view of practices enhances our understanding and enables us to uncover how this performative adaption or even transformation drives certain performance outcomes (Jarzabkowski & Kaplan, 2015).

This debate is an example of two camps within the same field of management research, which are not compatible and are characterized by fundamentally different ontological ideas of how researchers approach the world. The practice orientation within social sciences is built on a long-standing tradition of researchers dedicating their career to study practices as a “largely unconscious yet shared recognizable ways of doing things” (Jarzabkowski, Kaplan, Seidl, & Whittington, 2016a: 271). This tradition rests on the work of Bourdieu (1977), de Certeau (1984), Giddens (1984), Schatzki (2001), Reckwitz (2002), Nicolini (2012) and several others. The overall argument shared by practice scholars is that practices are inseparable from the enacted context and without recognizing this; you are not talking about practices! I intend to elaborate on the three elements of 1) relation between
action and structure, 2) the scope when studying micro level interaction, and 3) the social aspect of carrying out a practice. The aim is to show how this thesis contributes to different aspects of practice theory.

2.1.1 - Untangling the knot of action and structure
Actions are not just randomly carried out, nor are they unconsciously triggered responses. However, a certain regularity is in place in order to produce meaningful interaction. In this thesis, such regularity is provided by the different dispositions available for the actor, which provides the structure necessary for actors to engage in productive collaborations. Human action occurs as a durée, a continuously flow on conduct. Such action is the resource through which social activity is both constituted and recreated, where agents are reproducing the structures under which these activities are made possible (Giddens, 1984). More specifically, organizational entities are here seen as sites of continuously changing human action, and organization is the making of the form, a patterned unfolding of human action (Tsoukas & Chia, 2002). Structures governing interorganizational relationships are constantly transformed and modified through processes of everyday organizational life (Feldman, 2000: 626). Structure is here conceived as unobservable rules and resources that directly influence social interaction (Giddens, 1984: 25). This has led to the conceptualization of organizations as bundles of practices, where a practice consists of two components; action and structure (Schatzki, 2006). Actions are the catalyst for both stability and change of structures, where a distinction is made between the rationales, motivations and intentions behind actions. Understanding the rationale behind actions can be related to the notion of practical consciousness, where actions are steered by what is considered appropriate in the situation. However, this motivation behind actions can often not be articulated by actors when asked and is not always visible, often being a part of the larger scheme. Such intentionality is a defining part of action. Without intention, the action is no more than a reactive response. However, action does not always lead to the intended outcome, because unforeseen consequences sometimes arise as the result of actions. Such misalignment between intention and outcome leads to (re)configuration of the underlying structures. The emergence of interorganizational relationships is the result of human action, where the attempt to order, momentarily institutionalizes certain behaviors. However, these changes in the relationship occur prior to the development of structures, through the continuous enactment and improvisation in practice. The organizational structures are happening in and through the performance of its constituent actions (Schatzki, 2006). Structural changes are not orchestrated from the top, but built up through the practices of organizational actors (Orlikowski, 1996). A core point within practice-based research is that actors
always have a choice. Even though the structures prescribe certain actions, the actor is always left with a choice. This deliberate part is based on reflective processes, where the actor adapts actions according to the local conditions, which then modifies the structures (Tsoukas & Chia, 2002). However, some changes such as certain local adaptations, may not break through and become institutionalized. The possibility for these alterations is a function of the inflexibility of the structures, where the less modifiable the structure is, the larger retaining effect it will induce on the actor’s practice (Gherardi & Nicolini, 2000). Even though changes in the structural elements of interorganizational relationships are often the point of interest, we need to be aware of these micro adaptations within actions, since they are important for explaining how individual actors accomplish their work and why these adaptations may or may not lead to a restructuring of the interorganizational relationship. When studying these structural changes, they should be viewed as a flow of situated actions and interactions, and not as occasional events. By only looking at events of changes, one misattributes the cause of the change to the event itself, where the precise understanding of changing structures will be gained by following the continuous actions and interaction, which change over time (Tsoukas & Chia, 2002). Micro level actions are often justified through the social approved conventions, and institutionalized patterns are primarily a result of bottom-up actions (Powell & Rerup, 2016). The influence of micro level actions is recursive and institutions are not understood by their visible features but through their relationality and mutual constitution (Emirbayer, 1997).

This duality between action and structure is profound in the work of the philosopher de Certeau (1984), who focuses on how people navigate through everyday practices such as walking, talking, moving, cooking, reading etc. He offers a distinction between ‘strategy’ conceived as the overarching logic of institutions and entities, such as organizations, and ‘tactics’, which covers the ways of seizing opportunities through individual actions. These actions (tactics) of people are exercises within the framework offered by the institutions (strategies). The main idea is that the environment is not just a made up system, but it develops based on interaction and appropriation of the users, the ordinary people, who can “manipulate mechanisms... and conform to them only in order to evade them” (De Certeau, 1984: xiv). These everyday actions are consequential. Through relationality and mutual constitution, they produce and generate the contours of the social life. Therefore, the social order of interorganizational relationships cannot be understood without considering the agency constituting them, while simultaneously being attentive to how the human action is defined by the same relational structures (Feldman & Orlikowski, 2011; Feldman & Worline, 2016).
2.1.2 – The scope when looking at micro level actions

Being attentive to micro level actions while aiming at explaining organizational phenomena, preferably over a longer period, requires first of all a suitable research design. However, in order to develop such a design, one should consider what it actually means to focus on micro level actions. The micro-foundations movement within organizational research is emerging, where organizational outcomes originate at the level of and are mediated by the actions and interactions of individuals (Felin, Foss, & Ployhart, 2015). Even though this micro-foundations movement within the field of management is mainly concerned with causality and generalizability, relying on a different ontology, they share the same intention as practice scholars; to understand how individual action and interaction lead to emergent collective and organizational outcomes.

In practice-based research, organizations consist of practices. A practice consists of actions and has been defined as “a temporally evolving, open-ended set of doings and sayings” (Schatzki, 2002: 87), or “a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood” (Reckwitz, 2002: 250). These definitions imply a focus on the individual when investigating practices. Companies, alliances, and organizational units do not act, humans act. Even though a practice consists of doings, it is not just doing in or for itself. It is the doing in a historical and social context that gives structure and meaning to what people do. This implies that a practice is always socially embedded (Wenger, 1998: 47). It is a coherent and complex form of socially established co-operative human activity (MacIntyre, 1981).

To study practices requires a detailed account of the underlying actions at the individual level. Uncovering the actual activities and actions illuminates the performance of practices, which is essential for uncovering the processes of interorganizational phenomena, such as knowledge sharing, value creation or strategizing (Gherardi & Nicolini, 2000; Lombardo & Cabiddu, 2017; Seidl & Werle, 2017). Dissecting the practices at the level of the individuals, can often reveal unexpectedly significant actions (Vaara & Whittington, 2012). These actions becomes fundamental for understanding how interorganizational relationships develop over time.

Investigating practices requires zooming in on the individual actions constituting the practice. Such actions become visible by observing what individuals actually do in relation to others. However, there is a limit to how much one can zoom in without losing the ability to derive conclusions about the relational dynamics of interorganizational relationships. Focusing on actual practical accomplishments provides non-complete, in-the-moment accounts of unpredictable and situational
responses (Alkemeyer & Buschmann, 2016: 11). In order to understand these accounts and draw meaningful interpretations about the interplay between micro actions and relationships at the interorganizational level, I argue that the knowledge and control possessed by the observed actor should steer the scope of the research. Knowledge enables the actor to predict potential consequences, which sets a lower limit to which actions should be included in the study. Control, on the other hand, determines how far the actions produce organizational outcomes. Individuals can be more or less aware of their responsibility and power when they act, but this control establishes an upper boundary to which organizational outcomes can be explained through the observed micro level actions. Actions are mostly purposive, meaning that they are effective for coping with everyday situations, but are not part of an overall plan (Chia & Holt, 2009). Such actions can also lead to unintended outcomes, but can only be understood by being attentive to what managers actually do. However, this behavior is still formed and guided by some form of “durable transposable set of dispositions”, but does not rely on intentions or goal-orientation (Bourdieu, 1977).

2.1.3 – The social aspect of practicing a practice
Social life, and thereby interorganizational relationships, is built upon individuals interacting with other individuals. Through these relations, actors constantly negotiate and renegotiate what actions are considered appropriate. Such social agreements are the practical schemes and structures guiding the behavior of the actor. Practicing these structural schemes will over time develop the actor into a ‘virtuoso’, who knows the practices better than any rules or objective structure can possibly describe (Bourdieu, 1977). Such internalized schemes are similar to the notion of having “a sense of the game” known from sports, where the inherent understanding of a practice enables the actor to improvise and handle unfamiliar situations. This implies that the learning process is not only about improving skills and stabilizing the action pattern, where actors automatically reproduce the practice. A fundamental skill of a competent carrier is the transformative ability to adjust, modify and improve the practice in accordance with the situation (Alkemeyer & Buschmann, 2016: 11). Internalizing a practice is more than regularizing it through reproduction. It is also about being able to justify actions that are not yet set by the group as being appropriate (King, 2000). Improvisation within a practice is the result of accommodating new and unfamiliar experiences, more than it is the output of deliberate creative efforts (Tsoukas & Chia, 2002). This becomes empirically visible when actors are involved in interaction with others. Actors orient their actions towards the meanings of actions of other participants and towards the opportunities occurring in the flow of practices. One should picture this as a surfer who is constantly attentive to the next optimal wave, providing advantageous opportunity
and requiring adequate actions (Alkemeyer & Buschmann, 2016). This implies that performing a practice does not only lead to stability through habituation and regularization, but also to diversity and change based on the unstable openness inherent in practices themselves (Gherardi, 2012: 228).

Performing practices appropriately, in accordance with the dispositions and structure of the social field in which the actor is immersed, will over time attune the different actors, not by cementing standards, but through continuous renegotiation (Alkemeyer & Buschmann, 2016). Even though such shared understanding provides some guidance for the shared way of doing things, there is never complete consensus. On the other hand, the shared understanding is the minimum threshold enabling actors to socially engage in practice (Gherardi, 2006). Based on experience and embodied skills developed through practicing, actors are able to interpret any situation at ease, like a musician tuning in and ‘playing by the ear’, using the repertoire they continuously add to and update (Lowe, Rod, Kainzbauer, & Hwang, 2016). This is what is considered ‘habitus’ (Bourdieu, 1990) or ‘practical consciousness’ (Giddens, 1984). The habitus influences action and assigns meaning to situations encountered by the actor. An actor is operating in one or more social fields, which is governed by different types of inherent structures.

When buyers and suppliers exchange or collaborate, it occurs at multiple social levels comprising different individuals with diverse practical schemes and habitus. Much research focuses on smoothening out these differences in order to calibrate actors and thereby enhancing efficiency and overcoming tensions. However, harmonizing actors into some form of symphony should not be the objective of buyer-supplier relations. The differences between actors might generate the synergies needed to derive value from the relationship, suggesting that diversities among actors involved in practices can and should coexist for the benefit of the relation (Gherardi & Nicolini, 2002). The virtuous boundary-spanning manager is then able to translate, mobilize and align relevant actors, through the practical consciousness, in order to handle the situation at hand. The predispositions of the actor are what links the social field in which the actor is embedded to the specific situated action (Bourdieu, 1977; King, 2000). Merging different social fields, without successfully integrating the diverse dispositions and repertoires, also called habitus, enables actors to talk successfully about the situation, but the understanding needed for efficient coordination will not occur (Gherardi & Nicolini, 2002).
2.2 – The evolving nature of buyer-supplier relations

While the previous sections focus on different but related aspects of practice theory and what it entails to adopt a practice-view for studying buyer-supplier relationships, the rest of this chapter will elaborate on how the theoretical underpinnings within the separate papers are related to the fundamental ideas of practice theory. More specifically, this section explains the contributions of using sensemaking, routinization and translation theory for investigating the interplay between action and structure in buyer-supplier relationships. It further illustrates to what degree these theories have been adopted within B2B marketing research.

The goal of collaborative buyer-supplier relationships is to fulfill the strategic ambition and thereby create mutual value for all parties involved (Terpend et al., 2008). Investing in these collaborative relationships is a necessity in order to generate the strategic outcomes intended (Jap, 1999). However, these relationships cannot be fully specified and controlled prior to their execution, due to the surrounding uncertainty and inherent dynamics (Ring & Van de Ven, 1994). Uncertainty is the product of external factors residing among competitors, market situation, physical condition, industry and its business conditions, in which the companies are operating. The task becomes to mitigate these external risks, which has been a main concern for marketing scholars focusing on different forms of governance mechanisms (Cao & Lumineau, 2015). The external market risks conceived as volatility, has been shown to be most effectively mitigated by relational contracting, which is better suited for quick responses to rapid changes in the environment. In formal contracting on the other hand, actors are forced to sit down and negotiate any ambiguities regarding the collaboration that might arise during the relationship (Carson, Madhok, & Wu, 2006).

Another source of change in buyer-supplier relationships is the partner differences in terms of interests, goals and culture (Das & Teng, 2002). These inherent differences require some level of managerial influence. Specific coordination mechanism has been suggested, such as programming, where clear guidelines and tasks are specified, creation of formal hierarchy or to continuously evaluate the relationship (Kale & Singh, 2009). However, successful relationships should not only strive for homogenous and aligned actors. If differences are managed appropriately, they might generate synergies that are beneficial for both the relationship as a whole and for the partners within. This indicates that the presence of tensions and even performance failures, can lead to positive changes if the managerial intervention evades conflict and promote coordination and collaboration (Majchrzak et al., 2015). This thesis provides three different accounts for how uncertainty and within
partner differences can be managed in order to promote the emergence of collaborative buyer-supplier relationships.

Sensemaking is the process through which individuals work to understand novel, unexpected, or confusing events (Maitlis & Christianson, 2014: 58). Sensemaking deals with moments of both uncertainty and ambiguity, where actors interpret cues from the environment in order to make sense of what has occurred and how to act accordingly forward (Weick, Sutcliffe, & Obstfeld, 2005). Paper 2 focuses on how actors update their cues in order to improve their ability to handle uncertainty connected to construction projects. This is followed by a detailed account of the performative account of routine theory used in paper 3, which is closely aligned with the ever-changing nature of practices. While this theoretical understanding is less used in marketing, it is well suited for explaining well-coordinated relationships and I argue that it provides a useful framework for understanding how efficient and productive buyer-supplier relationships develop. Finally, translation theory is a main part of paper 4, dealing with the implementation of the special form of governance namely partnering. Translation theory emphasizes the ongoing specification of the collaboration, where ambiguity is reduced through ongoing translation processes.

The following sections will elaborate on the value of these three theoretical anchors for understanding the interplay between action and structure as part of the development of buyer supplier relationships. As it is shown, sensemaking, routinization and translation theory are rarely adopted in B2B marketing studies. However, they provide alternative accounts for how buyer-supplier relationships evolve by accentuating differences between multiple actors and a focus on the ongoing structuring of these relations. Furthermore, it is emphasized how their underlying assumptions are aligned with the fundamental ideas of practice theory.

2.2.1 - Making sense through micro interaction
Sensemaking is a continuous process, which has been investigated at multiple levels, both within and between organizations, where a diverse set of actors reaches consensus about what is going on and how the situation should be approached. To make sense is to contextualize a particular cue or experience, within the context of a known frame, which then enables and produces the interpretation (Weick, 1995: 109-110). The frame used for interpreting the cue is here a structure of reference learned through a repeated process of revision and replacement of frames. The original literature on sensemaking values sense as being practically desirable, cognitively expressed and mainly retrospective. However, this view has been contested by several scholars, who emphasize that the
past is continuously inserted in the present, and the future already existing as current opportunities (Introna, 2019). I will refrain from further discussion of the temporal nature of sensemaking, but focus on the potential of sensemaking for explaining the development of buyer-supplier relationships. The sensemaking process often begins with the unnoticed becoming visible, such as the daily habits and everyday routines becoming disrupted by a breakdown (Weick, 1993; Weick & Sutcliffe, 2007). Through the breakdown, new forms of organizing might emerge, when the current frames are proven to be insufficient (Weick, 1988). Sensemaking occurs as both assessment and selection of stimuli when experiencing a disruptive episode, and as an analysis of the consequences subsequent to the episode. This implies that micro level actions and agency creates the foundation for understanding this process. The process involves both conversational and social practices, where action and sensemaking jointly construct and reconstruct the structures underlying the relationship (Einola, Kohtamäki, Parida, & Wincent, 2017; Giddens, 1984). The micro-level actions of sensemaking and sensegiving are based on reflexive monitoring of behavior, which is derived from the practical consciousness as reactions to circumstances (Rouleau, 2005).

According to theory, the idea of companies being able to control and govern buyer-supplier relationships in a way that eliminates breakdowns is an illusion. Organizations should instead plan for the surprise, expect and learn from breakdowns. Too rigid structures, and thereby frames, can both impede and foster the capability of handling such disruptions. Sensemaking is not yet clear on how learning should be incorporated into organizing, where an increased formalization and specification remove the needed flexibility of navigating in complex relationships. On the other hand, too little specificity will lead to much more unpredicted breakdowns. This has been described as organizing for resilience, rather than assuming predictability of circumstances (Holt & Cornelissen, 2014). This allows and requires the managers within the situation to rely more on their expertise as frame of reference, leading to more deviant behaviors and practices.

Sensemaking plays an important role in paper 2, dealing with how managers reach a mutual understanding and continuously update their collective repertoire of frames through retention, but the tradeoff between formal structure and improvisation is also touched upon in paper 4 through a lens of translation theory. In B2B marketing research, sensemaking is often investigated at the firm level, often in relation to a larger theoretical apparatus. It has for example been used in relation to the behavioral theory of the firm (Cyert & March, 1963) and CSR work (Woodside & Baxter, 2013); as the foundation for understanding business networks, where companies make sense of their own network position (Henneberg, Naudé, & Mouzas, 2010); and as a process through which brand
identities are established (Vallaster & Lindgreen, 2011). At the individual actor level, sensemaking is also used in order to study how buyers and suppliers create sense through discursive practices of marketing communication (Dean, Ellis, & Wells, 2017), or how collaboration in cross border relationships are maintained through sensemaking (Ivanova & Torkkeli, 2013). In between, there are also studies looking at the interplay between micro level managerial actions and organizational outcomes. This is exemplified by studies of how the firm’s absorptive capacity is influences by the sensemaking between front-line managers and supplying companies (Prior et al., 2018). These are just examples of papers from the field of marketing, but sensemaking is also used in other types of interorganizational studies.

There is an emergent realization that complex problems, require requisite variety in order to face the strategic meta-problems encountered by today’s organizations. Such variety in knowledge, perspectives and expertise is increasingly ensured through interorganizational relationships and collaborations, where both cue identification and selection have been shown to depend on the involved actors and their interests (Seidl & Werle, 2017). In general, the literature emphasizes a need for aligning actors in order to promote efficient collaborations, where failing to do so, can result in breakdowns. This theorization is similar to Weick’s view, who sees sensemaking as a process of diversity reduction, which generates recurrent behavior through shared mental representations. While this thesis supports the view of aligning actors, paper 2 emphasizes the danger of reducing diversity, possibly removing the needed vividness of cue identification. Vividness has been shown to be more important than stability, for handling critical, unexpected and non-routine situations (Rerup, 2009).

Where the marketing literature in general remains at the organizational level of analysis, the broader management field is much more aware of the value of investigating the role of individual managers in sensemaking. Sensemaking is a social process occurring between people, as meaning is negotiated, contested and mutually constructed (Maitlis & Christianson, 2014; Weick, 1995). Sensemaking is not a cognitive process within the mind of individuals, but a collective act involving social dynamics, which should be studied as such. Research on sensemaking in the interorganizational field has revolved around the cue identification and selection processes. What still remains as a future avenue of research is how the outcome of shared understanding and appropriate responses are retained for future use. When a shared sense and an appropriate response are established between the actors, the task becomes to store what is learned in order to solve similar future problems. These action responses manifest in changes of practices, routines and interorganizational structures (Einola et al., 2017; Mason & Leek, 2008; Zollo, Reuer, & Singh, 2002).
2.2.2 - Developing routines for increasing coordination and efficiency

Based on relational experience, buyers and suppliers engaging in relationships develop interorganizational routines, which stabilize their behavior and increase coordination. These routines increase performance by facilitating information gathering, communication, decision making and the governance of the collaborative processes (Zollo et al., 2002). In a capability view with roots in economics, routines were previously seen as solutions to solve recurrent problems, with a focus on stabilizing semi-automatic responses into regularities of behavior (Nelson & Winter, 1982). They were conceived as standard procedures conserving cognitive efforts (Cyert & March, 1963). However, the reconceptualization by Feldman and Pentland (2003) initiated the performative perspective on routines, which sees routines as performative accomplishments. This implies that routines are continuously re-constructed. Even though actors act in relation to rules and expectations, the actual actions always carry an element of novelty, which through self-reflection changes the routines (Bourdieu, 1990; Giddens, 1984). Such performative account is well-aligned with the underlying ideas of practice theory (Feldman, 2010). The established definition of routines is “repetitive, recognizable patterns of interdependent actions, carried out by multiple actors” (Feldman & Pentland, 2003: 95).

In the interorganizational field, routines have a coordinating effect, where the interaction between the actors is structured based on routines arising from previously accepted behavior (García-Canal, Valdés-Llaneza, & Sánchez-Lorda, 2014). Routines are considered a central source of relational changes, by not only preserving the past but also enabling organizational learning which shapes the future development of the relationship (Becker, Lazaric, Nelson, & Winter, 2005). This has been shown in long-term relationships, where problem-solving activities generate knowledge feeding back into both organizational structures, but even more importantly, into the routines in a cyclical way (Mason & Leek, 2008). Such routines becomes even more important in industries characterized by high complexity, where the dependency on external resources makes mobilization routines essential for successful relationships (Lutz & Ellegaard, 2015). It has also been shown how roles and responsibilities in B2B settings are stored in collaborative routines, which establishes a ‘truce’ between companies by eliminating coordination challenges within the exchange (Becker, 2004; Bygballe & Swärd, 2019). Routines have further been related to firm competencies, referring to learned and patterned behaviors, which marketers need to understand and articulate into relevant customer arguments (Ritter, 2006). In general, organizational routines have mainly been studied within organizations. Except a few, most interorganizational contributions are overall inspired by the
capability perspective of routines, concerned with how routines stabilize the relationship (Parmigiani & Howard-Grenville, 2011).

Over the last decade, the assumptions within routine theory have evolved to focus more on how the agency of individuals both changes and stabilizes the routine itself (Feldman & Pentland, 2003; Parmigiani & Howard-Grenville, 2011). In this perspective, routines consist of a performative aspect (specific actions by specific people) and an ostensive element (the generalized idea of the routine). This dual character merges the cognitive and behavioral orientations within routine research, by showing how they are mutually constitutive. The ostensive element guides actions, while the performed actions modify and reproduce the ostensive element (Becker, 2004).

Actors do not always carry out the routine as intended (Feldman, 2000). This is highly relevant in complex and volatile industries, where market changes and environmental uncertainty might lead to undesirable outcomes if routines are mindlessly carried out. In order to accommodate changes, problems and surprises, actors depend on coordination as an act to balance the expectation of consistency with the need for flexibility (Turner & Rindova, 2012). In marketing, this has also been studied, with an emphasis on how buyers and suppliers accommodate the natural changes of fishing seasons into their pricing and quality routines, while simultaneously ensuring stability through an ostensive element driven by both policy makers and buying actors (Harrison, 2012).

Research on routines in an interorganizational context emphasizes alignment of behavior and learning, as the road to high performing and efficient relationships (Zollo et al., 2002). This view is built on the idea that the purpose of routines is to eliminate conflicts (Nelson & Winter, 1982). However, the benefit of routines is not only to get work done in a predictable and efficient manner in order to accomplish a single goal (March & Simon, 1958). Managing buyer-supplier relationships involving multiple companies, business units and individuals, with different priorities and interests, requires mechanisms incorporating these often divergent goals. While research on routines has provided detailed accounts of routine dynamics involving performance of a single routine with a single goal, is has only started to capture how conflicting goals are embraced in routine performances (Rerup & Feldman, 2011; Salvato & Rerup, 2018). This acknowledgement increases the value of routine theory for understanding buyer-supplier interaction. Interorganizational routines might be used to accommodate conflicting goals by producing generative tensions that can promote innovation and development within the relationship. This is seen as an valuable direction for future research on routines (Howard-Grenville & Rerup, 2017).
2.2.3 – Implementing successful ways of organizing through translation

Managing, governing and organizing buyer-supplier relationships have primarily been conceptualized as adopting a mix of formal and informal governance mechanisms, ranging from specified contracts, to relational norms and interpersonal trust (Cao & Lumineau, 2015). However, this thesis argues for a much more nuanced and multifaceted view on managing relationships, in order to improve collaboration and increase relationship performance. Several types and varieties of relationship forms have been developed as special frameworks for structuring the interaction, with the purpose of promoting trust, collaboration and knowledge sharing (Parmigiani & Rivera-Santos, 2011). Partnering represents an example of a specific type of relationships, which was an idea developed and introduced during the early 90s, with the ambition to promote a collaborative culture within the construction industry (Gottlieb & Jensen, 2012).

Research on the adoption of such general management ideas can be divided into two distinct camps, the rational and the social. Where rational accounts rely on proofs of success as the mechanism for diffusion, the social camp emphasizes the pressure towards conformity and legitimacy as drivers for adoption (Ansari, Fiss, & Zajac, 2010). Institutional theorists have applied similar rationales to why organizations might implement certain ways of organizing, where normative-institutional pressure and network embeddedness have been shown to increase the adoption of management ideas (Burns & Wholey, 1993). The strive for similarity has led to the concept of isomorphism, where demands, imitation and appropriateness pressure organizations to imitate their surroundings. These institutional pressures can lead to misfits between the managerial idea and organizational practices, which has been suggested to be solved through decoupling. Decoupling implies that the adoption of the managerial idea remains superficial, only abiding to elements that are considered efficient in combination with self-developed practices and structures (Boxenbaum & Jonsson, 2017). These overall managerial ideas have been conceptualized as rational myths, embodied in structures, practices and meaning, spread through an organizational field, defined by recursive interactions between its constituencies (DiMaggio & Powell, 1991: 64-65). The resemblances between institutionalization theory and a practice-orientation has been discussed, where the focus on actual behavior as the source of stability and change, the role of shared meaning and the constitutive influence of language, has been suggested as shared accounts for why social structures emerge (Suddaby, Seidl, & Lê, 2013)

In recent years, the Scandinavian tradition of institutionalization has promoted the concept of translation, which posits that these overall management ideas are always transformed when entering
a new organizational context (Czarniawska & Joerges, 1996; Czarniawska & Sevon, 1996; Sahlin-Andersson, 1996). This type of institutional theorists zooms in on how the idea is decoupled from one context, in order to be implemented and re-embedded into another. Even though the need for producing managerially relevant and normative B2B ideas and research findings has been problematized (Baraldi, La Rocca, & Perna, 2014), the implementation of such management ideas into interorganizational relationships cannot be sufficiently described through simple, specific and concrete accounts. Management ideas are implemented through a contextualized and transformative process of translation, where both actors and what is translated are transformed (Czarniawska, 2009).

While translation theory is rarely adopted in B2B research, it is increasingly gaining momentum within studies of interorganizational relationships in the broader field of organization studies. For example, at the broader industry level, a detailed account has been provided for how broad rational ideas from the society affects the local understanding of a high tech industry (Zilber, 2006). At a more micro-level, Teulier and Rouleau (2013) show how middle managers engage in different translation practices in order to couple the top-level management ideas with lower-level operations. This is illustrated through the translation process of adopting a 3D design software platform in a relationship between five firms from the construction industry (Teulier & Rouleau, 2013). The role of boundary spanning managers becomes critical in an interorganizational translation process, where they may use persuasive discursive techniques during meetings and informal conversations to convince others, and use their position to connect different actors within the network in order to gain visibility (Radaelli & Sitton-Kent, 2016). This has also been acknowledged by Morris and Lancaster (2005), who study how Lean Production is translated into an organization, where several principles introduced at the policy level transform the working practices on projects. Lean involves multiple suppliers and buyers, which complicates the process. Only through interaction at the project level, combined with internal dispersion within the companies, can the managers successfully engineer, teach and socialize the principles into practice (Morris & Lancaster, 2005). In an even more detailed manner, Mueller and Whittle (2011) use discursive devices to investigate how key managers, by appealing to the audience, selling the idea, dealing with resistance and empathizing, successfully translate the idea of a new quality system into a private-public partnership.

As an alternative view to the top-down translation, where management ideas are translated into organizations, translation research has also focused on how institutionalization and business networks emerge as the result of local translation. From a bottom-up perspective, Nicolini (2010) investigates how telemedicine becomes an established treatment, based on alliance building between various
organizational partners. Initiated by a branch of a medical foundation, telecare is legitimized through partnerships with both manufacturers, research centers and other institutions. The study shows how divergent interests can be both driving and hindering the dispersion of new ideas. The road to success involves 1) aligning heterogeneous actors, 2) mobilizing and stabilizing a complex network of relevant actors, and 3) reducing contradictions between old and new ways of working (Nicolini, 2010).

Despite the low levels of translation theory used within B2B marketing research, this thesis posits that this theoretical apparatus offers great opportunities for overcoming some current blind spots within research on B2B relationships. By accounting for divergent interests, being attentive to multiple level of analysis and focusing on temporal processes, translation theory enables pluralistic theorization about interorganizational dynamics (Lumineau & Oliveira, 2018).
“practice research needs to be alive to how patterns of consistent action may emerge through everyday purposive acts not because actions are directed towards some overall purpose or end goal, but because agents, as relationally constituted entities, draw mindlessly from the past to deal with the novel present”

(Chia & Holt, 2006: 647)³

3.0 - RESEARCH APPROACH AND METHODOLOGY

The thesis includes a review paper carried out with a separate methodology, with the aim of laying a foundation on which the three empirical papers could depart from. Besides identifying potential avenues for theoretical contributions, the review paper also establish methodological considerations, which should be taken into account when studying B2B relationships from a practice perspective. While this section refrains from a further discussion of the review paper, it elaborates on the ethnographic case study approach adopted in different variations in the three empirical papers.

The ethnographic tradition is advancing within the field of B2B marketing research, where scholars are realizing the value of immersion when studying B2B business interaction and processes (Palmer, Medway, & Warnaby, 2017; Pressey, Gilchrist, & Lenney, 2014; Visconti, 2010). Studying such processes requires accounting for when and how entities are stabilized and de-stabilized. When studying relational processes, one needs to be attentive to how ordering and structure are produced (Hoholm & Araujo, 2011). By using an ethnographic case study approach, this study combines the methodological strengths from ethnographic research, with the determinism induced by case-based research. Such an approach has been defined as the “application of the ontological, epistemological and methodological features of ethnography to a theoretically selected set of business cases” (Visconti, 2010: 29). In accordance with the ethnographic tradition, the phenomenon is followed in real time through participant observation, triangulated with interviews and archival data, which provides detailed accounts of the contingencies and choices facing the actors during interaction, enhancing the potential for uncovering decisions paths and choices of action (Hoholm & Araujo, 2011). This is combined with the case study tradition, focusing on what the case is a case of, which should be continuously adjusted according to interesting complexities emerging during the process of study (Aaboen, Dubois, & Lind, 2012).

Defining the case in B2B marketing research is challenging due to the evolving nature of interorganizational relationships. Buyer-supplier relationships often involve more than two individuals and interaction between and within the involved companies. Defining the boundaries of the case prior to the study becomes difficult, creating unnecessary delimitations (Halinen & Törnroos, 2005). On the contrary, the ethnographic pursuit of interesting and relevant aspects of the case should determine the boundaries of the study. The partnering collaboration, DK Partnering, constitutes the empirical setting for this study. However, the scope and boundaries of the data collection were driven by the perceived relevance and importance of issues observed throughout the period of study.
Furthermore, all actors within the relationship differed in their practices and experiences, creating multiple perspectives, which required a multi-sited research design with triangulation and continuous member check. The habitual element of decision-making in B2B interaction confines the actors’ ability to articulate the processes leading to actions or decisions. Humans edit their thoughts, which makes observations and document analysis proper tools for studying buyer-supplier relationships (Woodside & Baxter, 2013). Ethnographic methods enables the seeing and analyzing of the relative messiness of practice (Law, 2004: 18).

3.1 – The ontology of practice
Before explaining the methodological choices in detail, I will first provide a more philosophical account for what it entails to take a practice-perspective for studying interorganizational relationships. Overall, three different modes of practice-based research has been suggested; 1) practice as a phenomenon, 2) practice as a perspective and 3) practice as a philosophy (Orlikowski, 2010). This thesis adopts practice as a perspective, where the focus is on how the situated and recurrent nature of everyday activity produces and reinforces structural contours (Orlikowski, 2010: 35). I acknowledge that certain phenomena, such as organizational boundaries, exist but are shaped by practice. Such view shares ideas with the more constructivist part of research in B2B marketing (Peters, Pressey, Vanharanta, & Johnston, 2013). The ontological assumptions underlying the interplay between action and structure differ between practice theorists. There are no such thing as a practice theory. ‘Theories of practice’ has been suggested as an alternative label for capturing the multiplicity and variance within the different understandings of practice (Schatzki, 2018). The first generation of practice scholars tends to view local praxis as situated within a higher level of structures, which enables and constrains what occurs locally. Here, macro and societal systems condition what is considered possible (Bourdieu, 1990; De Certeau, 1984; Giddens, 1984). Later theorists reverse this account by theorizing all social life to be constituted in practice (Schatzki, 2002), where the connections between practices produce networks, social constellations and relations (Seidl & Whittington, 2014). Both camps are visible throughout this thesis, where their differences enable me to both account for how practices are shaped by structures during interaction, but also to derive insights on how the specific and particular might change and shape the underlying structures. They all share the view that a practice cannot be carried out in isolation. Practices involve multiple people and can therefore only be understood as a social thing. Carrying out a practice rests on something that cannot be meaningfully formulated, such as habitus, practical consciousness, skills or know-how (Schatzki, 2018). While these features impose an attentiveness to what managers actually do, when
collecting data, the connectedness and interplay between action and structure prescribe a process orientation and a certain openness in terms of analyzing the data. The methodological considerations will be elaborated in the following sections.

### 3.2 - Empirical setting

The case study is a longitudinal investigation of a partnership including 13 buyers and suppliers within the construction industry, forming an interorganizational collaboration named DK Partnering. Empirical data were collected between November 2017 and May 2019 across the whole partnering arrangement at multiple organizational levels. However, the majority of the data focuses on two triads within the collaboration, consisting of B (the buyer, a publicly owned utility company), C (the seller, a construction company) and A (the third party contracted by the contractor, an advising engineering company).

The construction industry has been known for a lack of cooperation between buyers and suppliers, resulting in project delays, cost overruns, litigations and poor project performance in general (Bresnen & Marshall, 2000; Chan, Chan, Chiang, Tang, Chan, & Ho, 2004; Korczynski, 1996). During the early 90’s, a number of Danish industry actors sought ways to solve the interrelated problems of adversarial relationships and poor productivity (Gottlieb & Jensen, 2012). It was clear that the traditional governance configuration, where responsibilities and duties were defined through contractual arrangements between the partners, was the source of misunderstandings promoting sub-optimization and opportunistic behavior (EfS, 1993).

The industry is further characterized by make to order one-off projects, a high number of SMEs with few resources to invest in collaborative initiatives, and a fragmented market with specialized main contractors and subcontractors. This complexity combined with a dominant focus on price have led to a high degree of adversarial relationships, suffering from opportunistic behavior, high levels of conflict and ineffective communication (Fulford & Standing, 2014). “Partnering” evolved as a response, to eliminate the confrontational culture within the industry, by promoting integration and collaboration. Partnering was defined with particular reference to the construction industry and was associated with a particular blueprint for successful collaborative relationships. Much literature adopts the definition of partnering by the Construction Industry Institute (CII) as:

“A long-term commitment by two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant’s resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries.”
The relationship is based upon trust, dedication to common goals, and an understanding of each other’s individual expectations and values. Expected benefits include improved efficiency and cost-effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services’’ (CII, 1991: 4).

There has been a strong emphasis in the literature on the normative part of partnering, including the formal structure and specific techniques for implementation (Bresnen & Marshall, 2002). This engineering perspective has led to a view where charters and dispute resolution arrangements, teambuilding exercises, workshop facilitation, continuous improvement processes, total quality management, project process mapping and benchmarking, and integrated IT platforms, are seen as instruments towards high performing partnering collaborations (Bresnen & Marshall, 2000). The benefits and positive effects on project performance have been proven, concluding that partnering projects lead to a reduction in both project duration and costs associated with claims, compared to non-partnering projects (Gransberg, Reynolds, & Boyd, 1999). Moreover, the specific partnering elements have positive effects on cost, time and quality performance, while also enhancing client satisfaction (Ling, Ke, Kumaraswamy, & Wang, 2013). However, partnering collaborations also fail sometimes, even though all necessary elements are in place (Gadde & Dubois, 2010). There are also large deviations in how well the collaborative elements of partnering are internalized into the relationship (Bygballe et al., 2010).

While the overall case of partnering constitutes a special type of buyer-supplier network, within a project-oriented industry, the long-term nature and the complexity of such collaboration make it an appropriate case for studying the collaborative dynamics of buyer-supplier relationships (Dubois & Araujo, 2007; Piekkari, Plakoyiannaki, & Welch, 2010).

3.2.1 – The case setting: DK partnering
Partnering is an example of a management idea, emerging among industry actors, which becomes fashionable based on its success and representation hereof (Czarniawska & Joerges, 1996). Reports and industry examples have been the main driver for the growing popularity of adopting partnering for the last 30 years (Gottlieb & Jensen, 2012).

The case setting covering DK Partnering is an example of this adoption, where the main client (buyer 1, AV) introduced the collaboration form in 2006. The client realized that their current work process of decomposing construction projects into separate phases was outdated and inefficient for handling the increasing complexity and multifaceted knowledge needed throughout the construction projects.
This traditional setup was based on the idea that responsibility of each phase could be divided among single actors, and following a linear path, the project would then move through a planned line of production similar to an assembly line at a factory. During the early 00s, a top manager from the main client organization saw a bus advertisement from an international contractor, promoting partnering as the new way for engaging with business partners. This became the starting point for almost 20 years of experience with partnering, and by continuously updating and expanding the reach of the collaboration, it now consists of 13 primary partners, covering excavation, planning and lining companies. Furthermore, 5 other partners are affiliated with DK Partnering on an ad hoc basis. Their overall task is to renovate the sewage and drainage system in three geographical areas around Denmark, which entails separating waste and rainwater into two systems. In addition, climate changes are increasing the capacity demand of these systems, which force the partners to invent new solutions for handling the larger rainfalls and increased variance of rain, at a reasonable cost level.

The latest of a series of renewed partnering contracts lasts from 2016 to 2021 (Figure 2 provides an overview of the different connections and levels across the collaboration). The thesis does not cover DK Partnering in its whole, but concentrates on selected parts, which provided the best sites for studying the different aspects of the interplay between managerial action and structuring of the relationship.

According to the original partnering idea, this collaboration form is based on a recognition of uncertainty and project contingencies as conditions for managing the relationships. Partnering requires that actors develop capabilities for dealing with this fluid and emerging structure of project management (EBST, 2006). This thesis provides insights into how these capabilities emerge from interacting experiences, which turns into know-how of how to collaborate. The separate papers investigate different parts of this collaboration. Paper 2 remains at the lower project group level, comparing different understandings between two excavating project groups. The data used for this paper is mainly collected at the project and sub partnership level. Paper 3 zooms in on an established innovation group and its interaction with the steering committee and subpartnerships, in order to develop routines for innovation. The main source of data is here documents, combined with interviews and observation across all organizational levels. Finally, Paper 4 elaborates on how the partnering idea of top management (steering committee) is localized into different practices at the project group level, which is seen as an ongoing translation of partnering. The majority of data used in this paper is from the separate project groups, combined with interviews and documents from top management.
FIGURE 2 – OVERVIEW OF DK PARTNERING
3.3 - Triangulation of data
The scope of data inquiry was not determined beforehand but became a result of an abductive process of on-going casing, where iterative cycles between the theory and empirical data steered the level of theoretical saturation (Ragin, 1992). This process involved continuously constructing the ethnographic object, by reconceiving the boundaries of the study. Following the data in an ethnographic manner imposed two trade-offs during the study process. 1) Extending the period of study in order to capture longitudinal processes, while reducing the intensity due to resource constraints, and 2) reducing the number of sites for data collection in exchange for a more in-depth investigation of selected phenomena (sensemaking on projects, innovation routines and translation of partnering). From a positivistic paradigm of case-based research, these choices are seen as a vulnerability (Easton, 2010; Yin, 2014). In this case it is considered a necessity and even a requirement for doing meaningful process-based research, also due to the fuzzy boundaries of interorganizational relationships (Andersen, Dubois, & Lind, 2018; Dubois & Gadde, 2002b). A complete overview of data can be found in Appendix 1, where observations, interviews and documents have been listed in chronological order. The data was collected from multiple sources in order to triangulate the processes of events and to ensure correspondence between the observed and my interpretation hereof. Observations, interviews and documents were used in different ways within the papers, and the following sections explain how the data collection was carried out.

3.3.1 - Observing what managers actually do
Buyer-supplier relationships often consist of informal relations and routinized exchange, emphasizing a need for examining actual behavior and the context in which actors are embedded (Borch & Arthur, 1995). Direct observation is a key source of data within this thesis. There are multiple reasons for gathering observational data in this study: 1) Observations allow for flexibility, which is needed in order to make interesting and relevant discoveries, 2) during observations the researcher is guided towards what is considered relevant for the actors. Their own doings will steer the data collection, where the alternative of questioning people will produce an answer regardless of the relevance (Light, 1979). In total, 191 hours of observations across 60 interactions were collected, focusing on direct interaction during different types of meetings and multiple sites with different actors involved. The data collection was guided equally from drift as much as design, where the scope was continuously adjusted in order to follow relevant and interesting episodes of interaction. These observations were essential for becoming familiar and immersed within the case and context, in order for the participants to open up (Visconti, 2010). Furthermore, going “native” in this unfamiliar and reserved industry was
required as a way to get access to the tacit knowledge and socially established and maybe even controversial practices. Observational methods are considered a central tool for studying buyer-supplier relationships, as it shows both the back-stage and front-end actions of interactions, as well as connecting intra-organizational dynamics with inter-organizational relationships (La Rocca, Hoholm, & Mørk, 2017). Grasping the contextual meaning as a researcher in an unfamiliar industry can be challenging, and such sensitivity was gained through continuous analyses and triangulation of data, in order to establish reference points wherefrom I was able to guide what to look for in following interaction episodes (Van Maanen, 1979).

The postulate within the ethnographic tradition stating that actors lie about the things that matter most to them was also observed in this study (Van Maanen, 1979). As an example, the tense relationship between a manager from a contractor and a manager from the engineering company was visible to me for several months. I tried to uncover the tensions observed during an interview with the contractor by asking about the relationship with the advisor, where he stated “I don’t know. I have never tried anything else. We have designed projects ourselves also, and that went fine too”. Later, in an interview with the advisor, the true relationship was revealed, “… We had a nice tone until then, so I sent him a Friday joke, which I cleared with a colleague. [The contracting manager] needed some drawings, so I sent him a funny picture of himself ... He did not find that funny at all, and he wrote that I should drop such shit and do the work he needed instead, and then he put his boss in CC also... That I found completely uncalled for, so after that we had nothing in common at the individual level. From then, we are now only working together on practical matters”. This example shows the importance of triangulation and a deep immersion, in order to produce meaningful observations. Even though I was able to observe this tension during weekly meetings, triangulating the observed with interviews, combined with a strong relationship with the participants, were necessary in order to uncover the “real” reasoning behind what I observed.

Finally, actors are sometimes unaware of the rationale underlying their own practices, either due to unawareness or due to the perceived normality, hindering the actors’ ability to pinpoint relevant aspects (Van Maanen, 1979). During the observations, the normality of practices was noticed when someone deviated from what was considered appropriate behavior. This normality mirrors the habitus, practical consciousness or know-how from practice theory, which was only revealed during interaction between individuals. Observations played a key role for gaining insights in the actual practices involved in DK Partnering.
3.3.2 - Interviewing key informants
A wide range of CEOs, directors, middle managers, project managers and frontline employees were identified as relevant for interviewing according to their relevance for the situations occurring during the observations. The interviews were spread across the whole period of data collection. Emphasis was placed on repeated semi-structured interviews with the key individuals in the different companies. In total, 32 interviews were carried out. An interview guide was developed for every interview, based on the preliminary ongoing analysis of observational data, interpretations that needed to be followed up upon, and events that required either elaboration or corroboration. Interviewees were always asked about their role, responsibilities and ways or working in different situations. It became clear that interviewees sometimes have difficulties articulating what they do and why, most likely because their actions are based on habits and routines. They often focus a lot on their responsibilities and less on how they actually go about doing their job. The relevance of interviews as a source for getting insights into people’s practices is an important part of doing practice-based research (Hitchings, 2012). Therefore techniques such as ‘interviewing through the double’ and the use of real world examples, as ways for helping the actors express their behavior and practices, were occasionally adopted when needed (La Rocca et al., 2017; Nicolini, 2009a). Interview through the double was applied when interviewing project managers, who only worked in relation to DK Partnering and therefore has no other references when reflecting on their everyday practices. When interviewing top-level managers, it became important to rely on observed examples in order to avoid them speaking too generally about their practices. The interviews were audio recorded and transcribed, and they lasted between 60 and 105 minutes.

3.3.3 - Systematic investigation of archival data
Unlike talk or action, a document is here seen as a trace of social interaction among its producers. They are not just formal records reflecting organizations, but they are actually organizing social life (Prior, 2008). Documents should not only be seen as containers of secondary data. The production of documents involves multiple actors deciding what to write to a certain audience and for a specific purpose, which reflects a specific and historical context (Miller & Alvarado, 2005). Different from interviews and observations, documents often exist before the researcher interferes.

Documents constitute the main source of data used for paper 3. Even though documents can be collected through more predefined and representative sampling, I relied a step-wise process of purposeful selection. Through a systematic snowballing process, documents were collected in order to obtain a detailed overview of the development trajectory of organizing DK Partnering. I started
from the level of the Innovation Group, and from there data collection was expanded to other groups and organizations within the case. This process was continued until a comprehensive understanding of the more formalized structures of the relationship was obtained. In total, 515 documents were collected, consisting of minutes of meetings, contracts, charts, presentations, emails, surveys and project material. Besides the direct use in paper 3, the documents were also used both for corroboration of observed statements and as starting points for interviewing managers.

Documents and material artifacts in general are important parts of practice-based research, as they are the both the output of and foundation for action, which implies a deep entanglement between practice and documents (Schatzki, 2018). In business interaction, documents play an important role, where formalized agreements actively produces the social relationship (Hodder, 2003). As the documents are the product or the starting point of the interaction, they cannot stand alone as a meaningful source of data. However, in alignment with the goal of focusing on what managers actually do, documents have played a core role for understanding the more formalized structuring of the relationship.

3.4 - Analyzing data through a practice perspective

Weick (1979) emphasizes the need for researchers to consult theory, in order to avoid the tendency to describe everything, resulting in a description of nothing. This is an important point when doing ethnographic studies with a focus on practices. By systematically combining data and theory, interpretations were derived continuously, in order to develop valid findings and build up contributions. Theory played a vital role in this abductive approach, where it delineated important dynamics and directed the data analysis in various ways (Corbin & Strauss, 1990). The rich data within this paper, enables detailed process analysis, where events are traced and processes are delineated, with the aim of developing theory (Charmaz, 1996). Studying the emergence of buyer-supplier relationships requires a sensitivity to processes and change, where the abductive approach to data analysis involves relying on different theoretical accounts for the observed data, in order to arrive at the most plausible interpretation (Charmaz, 2008). Even though the data analysis was tailored to the separate papers, more overall considerations regarding change and temporality have been taken into account when analyzing the data. The following sections describe how the processual element of the longitudinal data was used to study the changing nature of the observed interaction, and how the grounded theory approach was applied throughout the analysis.
3.4.1 - Process analysis
The longitudinal nature of this study is aligned with the aim of investigating how buyer-supplier relationships emerge over time, implying an emphasis on change and processes. Such a processual focus infuses temporality and context as core ingredients for uncovering insights on how these changes come about (Langley, Smallman, Tsoukas, & Van de Ven, 2013). Being attentive to changes in the analysis, whether it is in practices, routines or shared understandings, it becomes central to turn the attention away from the practical reality and to take a more reflexive position (Tsoukas & Chia, 2002). Focusing on what managers actually do is central for data collection, but in order to account for how relationships evolve over time, one should also seek out the underlying mechanisms causing managers to act in certain ways. This is in line with the performative view of changes (Feldman & Pentland, 2003), where practices are seen as more than what people do individually, as a configurational part of developing buyer-supplier relationships (Nicolini & Monteiro, 2017).

Several techniques have been proposed for theorizing from process data (Langley, 1999). The task of practice-based research focusing on change is to untangle the complexity of the data, without eliminating its rich, dynamic and complex nature. The different techniques for untangling process data consist of narratives, quantification, alternate templates, grounded theory, visual mapping, temporal bracketing and synthetic strategy (Langley, 1999). By applying one or more of these techniques throughout the three empirical papers within this thesis, the analysis goes beyond merely displaying narratives comprised of events. This has been suggested as a valuable approach for studying development processes within business networks (Bizzi & Langley, 2012).

More specifically, paper 4 adopts visual mapping and temporal bracketing, where specific episodes in a bracketed timeframe are selected for a detailed study, involving visualization of the translation processes. Paper 3 focuses on routines, where the narrative strategy provides the accuracy needed for contextualizing the routine enactments, which is simplified and summarized through a more quantifying strategy focusing on specific events. Paper 2 adopts a more grounded theory approach, focusing on the development of meaning and mutual understanding through analysis of multiple incidents of sensemaking. Especially grounded theory has played an essential role through all papers, in order to identify patterns within the data.

3.4.2 - Grounded theory
Adopting a practice-orientation within B2B marketing provides underexplored and managerially relevant avenues for novel and complementary research. However, focusing on managerial action requires an “intention of talking about practice and especially of understanding it and seeking to make
it understood other than by producing and reproducing it practically” (Bourdieu, 1990). Such understanding is obtained by taking seriously the work and talk of the practitioners themselves (Blomquist, Häggren, Nilsson, & Söderholm, 2010). Investigating interaction and the ongoing structuring of business relationships is bound to offer new insights on how buyer-supplier relationships are kept together through the alignment of heterogeneous actors across organizations (La Rocca et al., 2017).

By adopting a grounded theory approach to the iterative process of data analysis, the goal was to offer new insights, enhance understanding and provide a meaningful guidance for action (Strauss & Corbin, 1998). Deriving the unarticulated understandings of the social structures between the actors and the underlying assumptions producing the differences in the observed practices, was both the most interesting and challenging part of applying this approach (Van Maanen, 1979). In order to generate such an understanding, constant comparative techniques were adopted in different variations throughout the three empirical papers. Study 2 relied on a more traditional case approach, comparing two cases with two different understandings. Study 3 focused on routine enactments, and by comparing each instance to the previous, the process of routinization emerged. Finally, study 4 zoomed in on episodes of translation, and by comparing each sub-process, differences and similarities emerged across the episodes. These techniques with different levels of analysis were in alignment with the flexible and creative nature of grounded theory (Strauss & Corbin, 1998).

Grounded theory does not imply theory free analysis, but acknowledges that researchers are guided by their theoretical interests and disciplinary fields (Charmaz, 2015). The task is then to remain open toward emergent findings and researchers should be aware of their own interference throughout the research process. In this case, the practice-based view imposes certain understandings, wherefrom the data is initially understood. However, the specific theoretical concepts adopted in each paper were a result of continuous interaction with the field. Sensemaking was introduced in order to understand the process leading to the collective action during construction projects, which was observed for months during project meetings. Routinization theory appeared relevant for the analysis, after experiencing a large dissatisfaction within DK Partnering regarding the work of the innovation group. Finally, translation theory was included in the analysis after an initial focus on social norms, which was not considered to be aligned with the observed implementation of partnering.

Constant comparison is further related to the technique of zooming in and zooming out (Nicolini, 2009b). The practice orientation within the thesis entails letting the voice of the actors steer the
findings. Without imposing a preordained understanding of the data, the first order coding revealed certain actions, focusing on the underlying meanings and intentions (Charmaz, 1996). The derived constructs were then labeled based on patterns and themes, but instead of aggregating them into second-order constructs, which produces a static picture, I zoomed out in order to capture the relatedness between the action and practices (Gioia, Corley, & Hamilton, 2013). Cycling between detailed analysis of specific practices at the micro level and a broader view of the connection and relationships between events and actors, generated patterns describing the routinized aspect of practice moving beyond mere description of action. It further helped to distinguish between operational data covering the observed spontaneous conversations and actions, and presentational data, concerning the appearances informants were trying to maintain for the researcher (Van Maanen, 1979). This process of data analysis promoted the need for ongoing casing, where the continuous production of small memos, spoken notes and coding revealed important areas to be covered in the further data collection. Six longer spoken reflections have been recorded and transcribed, marking situations were significant realizations occurred (see Appendix 1). This iterative process was for example the reasoning behind collecting the vast amount of documents regarding the work of the innovation group, and how the inclusion of subpartnership meetings became relevant (Corbin & Strauss, 1990). When one begins to analyze webs of relations rather than substances, it becomes notoriously difficult to justify the empirical boundaries that one draws (Emirbayer, 1997). This is why the abductive approach is gaining ground within research on buyer-supplier relationships (Andersen et al., 2018; Dubois & Araujo, 2007). In order to verify my findings, member checks were continuously used, where I returned to participants in order for them to check, comment and enrich the interpretations of the data (Shani, Coghlan, & Alexander, 2019).
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“What seems to be seriously left out in empirical research on alliance dynamics is an account of what managers actually do to govern alliances over time, and how governance mechanisms enable and restrain action, yet at the same time are being formed by these actions”

(Ness, 2009: 1)
4.0 – PRESENTATION OF THE STUDIES

Having outlined the theoretical and methodological reflections in chapter 2 and 3, this chapter presents the studies included in this thesis in their entirety. The papers are in different stages of development, which will be described prior to each paper. Seeing practice theory as a valuable and contributing perspective for explaining relational processes between organizations, this dissertation consists of four papers each zooming in on certain aspects of the emergent process of developing buyer-supplier relationships.

First, a conceptual paper is presented, containing an extensive literature review on the use of the concept of practice in B2B research. This paper elaborates on three elements of practice theory, which should be taken into account when doing practice-based research. The paper has inspired the following empirical papers in terms of methodological considerations, by emphasizing managerial action, the habitual aspect and the duality between action and structure as necessary components for practice-based research. Furthermore, conceptual clarity is promoted and alignment between the concept of practice and its origins is emphasized. It is concluded that being attentive to managerial action is a missing piece in the interorganizational field, where the development of interorganizational relationships is often aggregated to the company level.

The second paper takes a micro-level perspective on project collaboration. Through recursive sensemaking processes, it is shown how similar project groups develop different mutual understandings, which is a process influenced by partner differences. The paper focuses on how actors continuously update their frames necessary for solving problems and handling the uncertainty related to construction projects. The results contribute to sensemaking by showing how groups retain and update frames, where previous literature has focused on the selection of actors for ensuring frame diversity.

The third paper focuses the routinization of practices. This is done by investigating how routinization dampens innovation in a consortium, where the original task of innovation is replaced by a need for group justification. The lack of innovative performance is concluded to be a result of the path dependent nature of routine development. This leads to derailed routinization of implementation and up-scaling, where the innovation group struggles with lack of commitment from the consortium members.

Finally, the last paper investigates the implementation of partnering, where general collaborative principles are introduced from the top management, which are then translated into relevant and useful
practices within the local project groups carrying out the construction projects. The paper illustrates how separate translation processes are related, which managers leverage through continuous negotiation. The paper suggests two scales for categorizing these processes, where the local understanding of the principle is either relaxed or intensified, through formal and informal ways of stabilization.
"If you aren't talking about practices, don't call it a practice-based view"

(Jarzabkowski, Kaplan, Seidl & Whittington, 2016)
4.1 – Study 1


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Abstract
Practice has developed into a key concept in management research, including B2B marketing and purchasing studies. However, the adoption of the term in B2B marketing and purchasing is characterized by some difficulties. Research on B2B practices is growing, but seems marked by fragmentation, inconsistency, and lack of precision among others. Without conceptual consistency and integrity, B2B practice studies are at risk of becoming derailed, compromising the developments of future theory and practice within B2B. In this critical review paper, we therefore seek to create an overview of B2B practice research as perceived through a practice lens. Based on a review of 116 identified practice papers from key B2B journals, we map the topic areas where the practice concept has been applied for investigations, and we also investigate how well the applied practice conceptualization in these papers align with a recognized practice theory conceptualization. We find that the majority of B2B studies align poorly with the three elements of practice: managerial action, habitual behavior, and action-structure duality. Since many of the alignment issues in the review are caused by methodological problems, we propose a series of methodological tools that can provide a more accurate understanding of B2B practices in future research.

Keywords: Practice, managerial action, B2B marketing and purchasing, interorganizational, review paper.

See appendix 1 for co-author statement
Introduction
Action and interaction has always been central in research on B2B marketing and purchasing (B2B in the remainder of the paper) (Håkansson & Snehota, 1995). In the space between buyer and supplier, without a formal organizational foundation, much business comes down to the actions and interactions of B2B managers on each side of the exchange. The concept of practice has a lot to offer in this context because it deals with how managers develop habitual action patterns that allow them to effectively interact with managers representing customers or suppliers, and create social structures across this formal structural void (Ness, 2009). As a result, their organizations can carry out effective and efficient exchange with customers and suppliers, as well as generating access to key customer and supplier resources that contribute to competitive advantage (Feldman & Orlikowski, 2011; Ness, 2009). B2B practices are therefore also highly critical from a managerial perspective, and studies of such practices often lead to findings of high practical relevance (La Rocca, Hoholm & Mørk, 2017). Indeed, we argue that one key to strengthened B2B management lies in understanding habitual managerial actions and behaviors, which allows them to be shaped and developed by managers.

Practice studies are proliferating in the broader management field, for example in connection to strategy-as-practice (Whittington, 1996; Samra-Fredericks, 2003; 2005; Jarzabkowski, 2005), learning and communities of practice (Blackler, 1993; Brown & Duguid, 2001; Gherardi, 2006; Nicolini, 2012), and technologies in use (Orlikowski, 2000). These research streams have largely embraced the ontological and methodological challenges of adopting a practice lens on management phenomena. However, a similar conceptual integrity seems to not yet characterize the investigations of practice in the B2B literature, which may therefore be heading in a wrong direction. A recent discussion across separate management research areas portrays this problem (see (Bromiley & Rau, 2016), (Carter, Kosmol & Kaufmann, 2017) and (Jarzabkowski, Kaplan, Seidl & Whittington, 2016a). Given the increasing interest in, adoption of, and potential of the practice concept in B2B, this paper illuminates the difficulties and suggest ways to overcome them. Hence, the objective is to critically investigate the state of research into B2B practices in order to recommend new directions.

We contribute by first providing an overview and brief description of the identified B2B topics studied by the use of the term practice, including the applications of the term practice in the reviewed papers. Second, we investigate how researchers understand and apply the concept of practice in the reviewed B2B papers, and compare with practice theory as it has been adopted in the broader management literature. Practice scholars in the broader management field are not always entirely aligned in their conceptualization, but some fundamental elements are broadly recognized to be key
practice elements (Feldman & Orlikowski, 2011), and we use these as the point of reference. We find that the majority of B2B studies are out of alignment with the established practice conceptualization and we explain the details of this misalignment. Most problems are caused by a mismatch between the research problem and applied methods, leading to a second contribution: a detailed discussion and recommendations for altered methods in future B2B practice studies. In the final part, we make a third smaller contribution by highlighting some topics that could benefit from a practice perspective in future B2B studies, also indicating that the practice lens is perhaps not useful for studying all topics. As such, we position the paper both relative to practice research in the broader management field, literature on B2B methodology, and the various identified B2B topics, each with its own stream of research.

A critical review is needed because the applied understanding of a concept within a field of research has a determining effect on theoretical framing, choices of overall research design, data collection methods and study results among others. Without a minimum level of consistency in the use and understanding of key concepts, this important line of research may also come to suffer from methods problems such as proliferation, low nomological validity, construct validity and discriminant validity (Podsakoff, MacKenzie & Podsakoff, 2016). Without some level of shared understanding between B2B practice researchers, as well as attention to how other researchers are investigating this concept, both within and outside B2B, the cumulative research body may develop in an unfortunate way. Understanding the praxis (La Rocca et al., 2017), in other words how researcher go about studying practices in practice, is critical to scientific progress. Also, if the B2B community fails to adopt the fundamental ontology of practice, its high potential for creating valuable B2B insights is missed.

Hence, our purpose is to create overview of the content and praxis of practice research in B2B, in the process hoping to clean up some of the conceptual problems, thereby paving the way for an improved utilization of the practice concept in B2B research.

We have structured the paper as follows. First, we explain the conceptualization of practice adopted for this review and describe our methodology. Next, we provide an overview of the many different applications of the practice concept in studies of various B2B topics. We also discuss the adopted research praxis in the B2B studies and relate the adopted understanding of the concept to the extant theoretical understanding as portrayed in the broader management literature on practice. Next, we discuss methodological challenges and provide recommendations on how to address them, leading to a methods based future research agenda on B2B practices. Finally, we conclude on the paper and propose a few promising future research topics that could benefit from a practice lens.
The concept of practice
Practice theory originates in the work of several classical philosophers and sociologists such as Ludwig Wittgenstein (1969), Michel Foucault (1977), Martin Heidegger (1996), and Anthony Giddens (1984). Their distinct contributions have provided the building blocks that management theorist have used to establish practice studies within the field of management. Although there is no universally accepted definition of practice (Nicolini, 2012), the two following quotes in combination provide a good starting point for understanding the concept of practice. Reckwitz (2002) defines a practice as “a routinized type of behavior which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, and a background knowledge in the form of understanding”. Focusing more on the structuration element of a practice, Giddens (1984) states that practices are “social actions recursively producing and reproducing social structures”. The fundamental elements of practice characterizing practice theory in management can be traced in these combined definitions, and are also evident from several seminal works (see (Feldman & Orlikowski, 2011); (Schatzki, Knorr-Cetina & Savigny, 2001) and (Whittington, 2006)). These are: 1) actions (conscious or unconscious), carried out by individual managers, 2) routinized by repetition and experience, establishing a habitual behavior, and 3) situationally adapted to and embedded in the social structure in which it is unfolding, while also building or changing the social structure over time (action-structure duality). We adopt this three element conceptualization of practice for the review. Below, we explain the three elements and use them as an anchor in the subsequent review.

Actions
First, human actions, or more precisely bundles of actions, are central to the phenomenon of managerial practice. Practice scholars emphasize human agency, and see individual managers from all organizational layers of the company as practitioners (Jarzabkowski, 2005; Whittington, 2006). The micro-level activities of managers interacting across the boundaries between organizations are accentuated when the context is buyer-supplier relationships. Practices cannot be something an organization has, but they are constituted by organizational managers’ doings (Feldman & Orlikowski, 2011). They are always related to ways of thinking, feeling, and communicating by social actors (Golsorkhi, Rouleau, Seidl & Vaara, 2010; Nicolini, 2012). As such, they are embodied doings and sayings, and arrays of human activity organized around a practical understanding (Schatzki et al., 2001). Doings and sayings are terms used widely in practice theory. Doing refers to any type of action carried out relative to another party (customer or supplier manager in the B2B context) and saying refers to those actions that are specifically communicative.
Habitual behavior

Second, a practice consist of some degree of routinized behavior, either as the sum of an individual’s actions or the unified practices of the broader collective entity of people (Schatzki et al., 2001). Habitual behavior stems from the repetition of actions that previously proved successful, which thereafter are performed effortlessly without further thinking (Hitchings, 2012). Practices are basically routinized sets of bodily activities, which are connected mentally and carried out based on know-how, interpretation of the surroundings, as well certain aims and emotions (La Rocca et al., 2017; Reckwitz, 2002). The underlying knowhow and mental dispositions connecting and ordering these activities are subtle, making them difficult to formulate (Schatzki, 2018). This habitual element of a practice should not be understood as a deterministic mechanism deciding human behavior, but more or as a guidance for how to act. The practical consciousness thereby provides an understanding of which specific actions constitute a practice. It enables one to know how to do or say, how to identify doings or sayings and how to prompt and respond to doings or sayings (Schatzki et al., 2001; Wittgenstein, 1969). Know-how is not something individuals acquire in relation to their role and job title or by reading, hearing or seeing how it is done. The know-how is formatted through doing or experience, where the attempt, correction, and re-doing together forms the underlying understanding of how to go on (Gherardi, 2016). Habits have the benefit of projecting relatively stable behavior over time, while providing room for framed variations and improvisation (Niewöhner & Beck, 2017).

Action-structure duality

Third, understanding the mutual constitution of recurrent actions and structures are key objectives for practice researchers (Feldman & Worline, 2013). This duality between action and structure is captured through three separate dimensions: 1) the social structure, in which the practices unfold, 2) the formal structure, in which the practices are situated, and 3) the situatedness, in which the practices occur. The broader social structure, which guides the practices of individuals, consists of shared understandings, cultural norms and language shared by actors, among others (Feldman & Orlikowski, 2011; Giddens, 1984; Whittington, 2006). However, while practices are guided by structure, they also have a structure-producing quality, where structure is simultaneously established through recurrent actions (Schatzki et al., 2001). Practice theory thereby opposes organization as a steady state, shaped by structures and objects, and instead contemplates the social structure as actively produced and reproduced through recursive actions (Gherardi, 2006). However, organization is more than social structure. Formal rules, structure and strategy also play a central role in guiding the practices of managers. The concept of infrastructure is sometimes used to refer to this aspect of practice. Infrastructure is visible, but often remains relatively invisible in normal use (Shove, Watson and
Spurling, 2015). Finally, despite the repetitiveness and constituting nature of practices, change and adaptation also play roles in practice theory. Repeated habitual actions create stability, but they simultaneously trigger structural changes because practices are not repeated identically (Tsoukas & Chia, 2002). Managers improvise and adapt their practices to the situation (situated action) and interaction surroundings, which generates new experience and possibly new or altered structures (Feldman & Orlikowski, 2011; Giddens, 1984).

**Review methodology**

In order to provide a comprehensive overview of how practice theory has been used within B2B research, a review process was designed to identify, select and analyze relevant articles.

This process followed the sequence in Figure 3, where each step created an outcome, which acted as the departure point for the next step. A crucial first step of a systematic review is the design of the review, which includes identifying target journals, search engine, and search method.

![FIGURE 3 – REVIEW PROCESS](image)

The journal sample was selected to have both key specialized B2B journals, but also the highest ranking Operations Management and Marketing journals with a high percentage of B2B papers. We also wanted a mix of journals with papers applying both a customer and supplier oriented perspective. To ensure high quality, we excluded journals ranked below 2 by the Chartered Association of Business Schools (see Table 2).

In stage 1, we then made a broad search in the journals, initially retrieving all articles where either “practice” were found in the abstract, indicating that the term practice could be central. The search covered the time period from the beginning of each journal to the end of 2018. Stage 1 led to the identification the papers in the column “all potential articles” (see Table 2). Next, a careful screening
of all papers (stage 2) with the purpose of detecting the centrality of “practice”, resulted in the numbers in column 4. Here the authors discussed the papers and subsequently assessed qualitatively whether practice was a central concept. Central means that it plays a key role in the argumentation, that it appears recurrently throughout the text, and that it is used explicitly to refer to some underlying properties of an investigated phenomenon. Articles without practice as a central concept were eliminated from further investigation.

TABLE 2 – THE DISTRIBUTION OF REVIEW ARTICLES

<table>
<thead>
<tr>
<th>Journal:</th>
<th>Ranking (ABS, 2018)</th>
<th>All potential articles</th>
<th>Articles with practice as a central concept</th>
<th>Articles with external (buyer/supplier) focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Marketing</td>
<td>4*</td>
<td>139</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Marketing Research</td>
<td>4*</td>
<td>76</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Industrial Marketing Management</td>
<td>3</td>
<td>449</td>
<td>84</td>
<td>17</td>
</tr>
<tr>
<td>Journal of Business and Industrial Marketing</td>
<td>2</td>
<td>208</td>
<td>82</td>
<td>28</td>
</tr>
<tr>
<td>Journal of Business-to-Business Marketing</td>
<td>2</td>
<td>304</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>Journal of Supply Chain Management</td>
<td>3</td>
<td>67</td>
<td>34</td>
<td>15</td>
</tr>
<tr>
<td>Journal of Purchasing and Supply Management</td>
<td>2</td>
<td>99</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Journal of Operations Management</td>
<td>4*</td>
<td>273</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Supply Chain Management – An international Journal</td>
<td>3</td>
<td>229</td>
<td>73</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1844</strong></td>
<td><strong>361</strong></td>
<td><strong>116</strong></td>
<td></td>
</tr>
</tbody>
</table>

The relevant papers were then investigated in-depth in stage 3 for the external-oriented nature of the investigated practices; in other words whether or not the studied practices were oriented towards buyers and/or suppliers and not merely with an internal orientation. This investigation led to the numbers in the right most column in Table 2 and also led to the classification scheme where papers were grouped according to their content (see Table 3). Internal oriented practices were removed for further investigation. The result was 116 articles for the review, which were analyzed in the final step to identify if and how their conceptualization of B2B practice was in correspondence with practice theory.
The different topics of B2B practice research

Based on a thorough reading and analysis of the 116 articles, we divided them into categories according to the identified topics of the articles, which are investigated by the use of the practice term. Table 3 provides an overview of the 10 identified categories including subtopics for each category.

The categorization process was led by the first author, who read carefully through the papers and took notes on the content of each article. The application of the term practice was also noted for each paper (Table 3, left column shows the category in bold and application of the term below in non-bold). An Excel spreadsheet was used for this exercise. Several times in the process, the author team met and discussed the content of the papers. The lead author suggested groupings of the papers into content categories, and these groupings were then discussed and adapted in the meetings. After some rounds of discussion and adaptation the author team agreed on the final content categories. This way the content categories gradually emerged from the analytical process.

TABLE 3 – THE 10 IDENTIFIED PRACTICE THEMES

<table>
<thead>
<tr>
<th>Category of Practice (applications below):</th>
<th>Article references:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchasing Practices</strong></td>
<td>(Ellegaard, 2008; Emiliani, 2004; Humphreys, Williams &amp; Goebel, 2009; Kamann &amp; Bakker, 2004; Kosmo, Reimann &amp; Kaufmann, 2018; Narasimhan &amp; Das, 2001; Pemer &amp; Skjølsvik, 2016; Pressey, Winkloher &amp; Tzokas, 2009; Rodríguez-Escobar &amp; González-Benito, 2015; Zhuang, Herdon &amp; Tsang, 2014)</td>
</tr>
<tr>
<td><strong>Supply Chain Practices</strong></td>
<td>(Andersen &amp; Skjoett-Larsen, 2009; Basnet, Corner, Wisner &amp; Tan, 2003; Day &amp; Lichtenstein, 2006; Dupre &amp; Gruen, 2006;)</td>
</tr>
<tr>
<td>Supplier Performance Evaluation, Category Management Communication, joint activities, and incentive alignment Best SCM Practices Delivery Practices TQM Practices</td>
<td></td>
</tr>
<tr>
<td><strong>Supplier Development Practices</strong> Supplier development activities/practices Basic Moderate Advanced Quality management practices Supplier management practices</td>
<td>(Bygballe, 2017; Forker, Ruch &amp; Hershauer, 1999; Hartley &amp; Jones, 1997; Krause &amp; Scannell, 2002; Liao, Hong &amp; Rao, 2010; Nagati &amp; Rebolledo, 2013; Park &amp; Hartley, 2002; Pulles, Veldman, Schiele &amp; Sierksma, 2014; Sancha, Longoni &amp; Gimenez, 2015; Sánchez-Rodríguez, 2009; Sánchez-Rodríguez, Hemsworth &amp; Martínez-Lorente, 2005)</td>
</tr>
<tr>
<td><strong>Communication Practices</strong> Announcement practices Social media practices Customer service practices Communicative practices Value proposition as communication</td>
<td>(Ballantyne, Frow, Varey &amp; Payne; 2011; Bolat, Kooli &amp; Wright, 2016; Mason &amp; Leek, 2012; Salomonson, Åberg &amp; Allwood, 2012; Wang, Li &amp; Huang, 2012)</td>
</tr>
</tbody>
</table>
Below we provide a brief overview of each category.

**Sales and marketing practices**
This category includes applications such as key accounting, customer portfolio or strategic accounts, which cover similar phenomena: organizational management programs with specific practices for developing and maintaining relationships to central customers. A significant part of the articles in this category proposes generic steps for practitioners to adopt, in order to identify, analyze, and develop strategies and capabilities for specific accounts (Ahmad & Buttle, 2001; Ojasalo, 2001; Terho, 2009). The specific managerial practices have further been divided into intra-organizational and inter-organizational alignment, where the internal setup is established before the external engagement begins (Ming-Huei & Wen-Chiung, 2011; Töytäri et al., 2011; Storbacka, 2012; Davies & Ryals, 2014). Examples of more tangible practices are the “use of references” for establishing credibility, through personal interaction or published materials (Salminen, 2001; Salminen & Möller, 2006), or pricing practices where “taking advantage of customer needs”, “pricing below cost” or “securing excessive profits” are seen as non-ethical in one study (Indounas, 2008). The other large stream within this category is the research of contemporary marketing practices. Here “transactional marketing” is distinguished from “relational marketing”, which can be divided into “database”, “interaction” and “network marketing” (Coviello et al., 1997; Pels et al., 2009). Consumer oriented firms adopt transactional and database practices, while B2B firms are more focused on interaction and network practices (Covello & Brodie, 2001). Other studies find that the four contemporary marketing practices are applied more in developed countries, while emergent market firms are more network oriented or even applying “low marketing practice” (Pels et al., 2004; Dadzie et al., 2008). Finally, the more relational practices has been linked to leadership style, such as transactional and transformational leadership (Lindgreen et al., 2009).

**Purchasing practices**
This section covers practices adopted by buyers relative to suppliers. Purchasing practices have some similarities to supply chain management, integration, and relational practices. Overall, they can be divided into two types. First, a more formalized approach to purchasing, where the exchange is a repeated generic process across all suppliers, built upon standardized procedures and policies. Second
are the more specific practices with attention to each specific supplier, covering all the interpersonal and organizational behaviors surrounding the exchange. Some studies are operationally focused and address purchasing practices’ effects on performance. Examples are quality control, supplier involvement, and logistics coordination aspects (Rodriguez-Escobar & González-Benito, 2015; Narasimhan & Das, 2001). Other papers investigate relational outcomes of the practices, for example effects on satisfaction (Humphreys, et al., 2009). Here, actions carried out by individuals are in focus, as opposed to broader organizational procedures (Pemer & Skjølsvik, 2016). Some purchasing practices have been investigated empirically, for example “gray procurement” (Zhuang, et al., 2014) or “online reverse auctions” (Emiliani, 2004). Two articles study purchasing practices in SMEs, comprehending the underlying rationales of adopted purchasing practices (Pressey et al., 2009; Ellegaard, 2008).

**Sustainable sourcing practices**
Sustainable sourcing practices are what companies do in order to enhance sustainability with suppliers. Some focus on logistics and the use of materials, while others focus more on ensuring sustainable supplier operations (Pagell & Wu, 2009). Examples of such practices are certifications, supplier training, codes of conduct combined with rewards and sanctions, use of KPI’s, audits, risk assessments and monitoring (Grosvold et al., 2014). Overall, the practices can be divided into supplier assessment and supplier collaboration, which affect both environmental, social, and economic performance (Gimenez & Tachizawa, 2012). Sustainability practices are closely linked to purchasing practices, but with an environmental orientation (Lindgreen et al., 2009).

**Supply chain practices**
Supply chain management practices cover all upstream and downstream oriented practices for optimizing the flow of goods and services. There is a strong tendency to search for the best universal practices, in order to increase central performance measures such as quality, efficiency, responsiveness and competitiveness (Tan, 2002). Examples of this performance link could be how joint action and information sharing lead to increased supplier or buyer performance (Zaheer et al., 1998), or the mediating role of strategic supplier partnership and postponement on the positive effect of lean and agile supply chain strategy on responsiveness (Qrunfleh & Tarafdar, 2013). Sometimes supply chain dynamism, information sharing and organizational agility can even improve the supply chain practice itself, and thereby increase delivery performance (Khan et al., 2009; Zhou & Benton, 2007). Strategic supplier and customer relationships have sometimes been constructed as practices through 8-10 items, which together with information sharing and internal variables (e.g. quality, lean
practices, postponement, delivery dependability and time to market) constitute the term “supply chain management practice” (Gorane & Kant, 2016; Li et al., 2005; Wong et al., 2005; Wu et al., 2013). Supply chain management practices enhance supply chain integration and competitive capability, which increase overall firm performance (Day & Lichtenstein, 2006; Kim, 2006). Firm performance is also affected by supply chain competence, which is derived from the firm’s practice of “exploiting current capabilities”, while still “exploring new competences” (Rojo et al., 2016). A mixture of collaborative and process improving practices can be found in connection with category management, which reduces costs, enhances customer loyalty, and increases resource commitment, thereby creating a sustained competitive advantage (Dupre & Gruen, 2006).

**Supplier development practices**
This category contains practices implemented by buyers, with the purpose of improving the capabilities of their suppliers. First, this can be seen as a process with assessment of the supplier, commitment building, implementation and follow-up (Hartley & Jones, 1997). Effects of specific development practices have been measured on the sourcing performance of the supplier (Krause & Scannell, 2002; Nagati & Rebolledo, 2013; Sánchez-Rodríguez et al., 2005). Supplier development practices also positively mediate the effect of strategic purchasing on purchasing performance, which means that plant visits, rewards, training, information sharing and involvement, increase purchasing performance when strategic purchasing is applied (Sánchez-Rodríguez, 2009). Rewarding suppliers when they respond to requests improves the direct allocation of physical and innovative resources from the supplier (Pulles et al., 2014). Finally, mimetic pressure, where firms are imitating successful competitors in the industry, is clearly the most effective enabler of supplier development practices (Sancha et al., 2015).

**Relationship practices**
Guanxi practices, such as social favors or gift giving, are examples of one-way relationship practices that increase satisfaction and thereby enhance trust, which improves outcomes in negotiations (Chen et al., 2011; Leung et al., 2011). Another relational practice is the adoption of Customer Relationship Management systems, where the organization implements specific customer-centric and operational practices, which also increase customer satisfaction (Ata & Toker, 2012). Relation specific adaptions and investments are treated as practices, which can build both social bonds between parties or establish exit barriers and dependency, which both strengthen the relationship (Buttle et al., 2002; Jia et al., 2016). Another benefit of investments with specific suppliers is the derived knowledge sharing and learning, which further strengthen the relationship (Huikkola et al., 2013; Kohtamäki &
Knowledge sharing and relational learning are crucial elements in project-oriented companies, where the individual level of the relationship is regarded critical (Emberson & Storey, 2006; Filiatrault & Lapierre, 1997).

Integration practices
Practices within this category involves close collaboration and a high degree of knowledge transfer between buyer and supplier, often revolving around supply chain optimization and operational improvements. These practices can be highly process oriented, ranging from sharing of production plans and inventory levels through joint EDI, to packaging customization and logistical optimization (Vallet-Bellmunt & Rivera-Torres, 2013; van Donk & van der Vaart, 2004). The technological development has opened up for alternative tools for sharing information, where traditional ordering and VMI have been substituted with web-based platforms and RFID collaboration, providing high-quality, detailed information (Pramatari, 2007). The argument is that sharing of information, costs, risks and benefits, combined with a large degree of joint decision making, lead to improved operational performance for both parties (Wiengarten et al., 2010). The external integration with buyers and suppliers during design of new products or processes can also reduce the time to market and increase responsiveness, which increases market share and financial performance (Droge et al., 2004).

Co-creation practices
Co-creation practices involve a high level of cooperation on developing and/or improving value, which is beyond the capabilities of a single organization. These can be operationally oriented, where innovative solutions are implemented in order to improve supply chain processes (Ageron et al., 2013). However, new product development tend to be the central element in co-creation practices, where suppliers can assist the buyer in different stages (gray box integration), or the supplier can engineer whole components or products (black box integration) (Koufteros et al., 2007). This has been found to improve on-time delivery, quality and reduce costs of the supplier (Quesada et al., 2006). Co-creation in B2B settings is a highly researched phenomenon, with a distinction between coproduction practices for specific value propositions and the practices orchestrating the value-creating collaboration (Kohtamäki & Rajala, 2016). Online communities is an interesting example of how co-creation practices are adopted in order to open up product boundaries (Wang et al., 2016). However, traditional practices such as phone and teleconferencing are still widely used in this interaction (Breidbach & Maglio, 2016).
Communication practices
This diverse category contains communicative practices, where there is a sender and a receiver in the form of the buyer and supplier. Here, the practice aspect is located in the communicative part of the interaction, regarding the message sent and how it is being sent, between not only individuals but also between organizations. This can be the announcement of rewards or punishment to distributors (Wang et al., 2012), or reciprocal value propositions, where one party proposes a mutually binding promise in order to increase exchange activity and relational development (Ballantyne et al., 2011). It can also be practices at the organizational level, such as specific social marketing practices (market sensing, managing relationship, branding or content development) (Bolat et al., 2016), or the employee’s practices in customer service (support, inform and explain, mirror mood, joke, confirm agreement) (Salomonson et al., 2012). It has also been investigated how contextual factors (time, space, actors and tasks) affect communication practices in the interaction between buyer and suppliers (Mason & Leek, 2012).

Multiple practices
This last category includes articles adopting a mixture of the practices mentioned above, where the individual practices cannot be isolated. These articles investigate multiple practices and thereby have a wider scope for researching the phenomena, for example the overlap between environment orientation and purchasing (Shi et al., 2012) or the synergies of lean and sustainability (Campos & Vazquez-brust, 2016). Purchasing and supply chain management also possess a certain degree of overlap. In this area, the relational aspect of knowledge sharing and joint NPD, compared to the non-relational practices such as supplier selection and assessment, have a stronger impact on buying firm performance (Zimmermann & Foerstl, 2014). Taken even further, it is proven that a focus on short term strategic cost management practices excludes relationship building, which damages performance in the longer run (Ellram et al., 2002). In this category, the width of included practices is often extended, while sacrificing the depth in the investigation (e.g. Helena et al., 2009; Maglaras et al., 2015). An example could be customer-orientation practices, where the involvement of customers, social interaction and common resource utilization have positive impacts on the customers bringing future business and referencing (Auwuah, 2008). It can also be seen in supply risk management where relational aspects, such as the use of personal network and a focus on fairness and loyalty, combined with supply chain practices like local sourcing and supplier visits, reduce losses and secure stable supplies (Ellegaard, 2008). Or open book practices, where information sharing differs according to the stage of ordering (Kumra et al., 2012). Outsourcing also crosses
categories, as coordination practices are combined with control, monitoring and sanctioning practices in order to enhance outsourcing performance (Wiengarten et al., 2013; Kang et al., 2014).

The use of the concept practice in B2B research
Practices are studied by the use of surveys, qualitative/case studies and conceptual/review methods across the 10 categories in Table 3. There are minor differences among the methods applied between the groups with practice as a key construct versus those where practice is secondary, but overall the distribution is similar in both groups (see Table 4).

<table>
<thead>
<tr>
<th></th>
<th>Practice as a key concept (n = 69)</th>
<th>Practice as secondary concept (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td>Qualitative/Case study</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Conceptual/Review</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Practice theory</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Based on a detailed investigation of the 116 papers, we find that a relatively high percentage applies practice as a secondary concept. Hence, the concept is important enough to hold a central role in a paper, but it is not core to the theoretical and analytical development in the paper. For example, in a quantitative paper investigating a causal model, practice would be a key concept if it is a key variable in the model, thereby requiring a solid conceptualization and operationalization as well as accounts of its hypothesized connections to other variables. Otherwise it is not the concept of practice that drives the research and sets the structure for the paper (secondary concept). In the secondary category, the topic of the research (e.g. supplier development, value co-creation or supply chain management), typically forms the backbone for the argumentation and flow through the paper, and creates linkages and cross citations to research on similar topics. In secondary concept papers, practice is merely an additional element of the research, used in combination with other concepts for explaining the phenomenon. The grouping in key and secondary concept papers were carried out initially by the lead author, and then checked by the coauthors, leading to a joint discussion and understanding of this distinction and the resultant grouping of papers (we note that this grouping is obviously arbitrary to some extent).

The point with making this distinction is that with practice as a key concept, researchers are obliged, at least to some extent, to account for or relate to the conceptual nature and foundation of practice, whereas demands in the secondary concept category can be less stringent. Having practice as a key concept would arguably require some level of attention to practice theory as it has developed in the
field of management. However, among the 69 key concept articles, only seven papers refer to practice
theory. We note that some papers without practice theory references actually study practices. Overall
however, we can conclude that conceptual consistency is quite low with a high percentage of key
papers actually not studying practices (partly or fully) when compared to the conceptualization in
section 2. This trend can spur further risks of disagreements and increased fragmentation. Moreover,
missed opportunities for cross study synergies and drawing full use of the concept seem inevitable.

Among the papers using practice as a secondary concept, none refer to practice theory. Based on our
reading of these papers we see three main ways the practice concept is brought to use: 1) as reference
to praxis, 2) as a synonym, or 3) as a higher order variable. First, researchers in the secondary category
sometimes use practice as a broad concept when investigating what managers or companies actually
“do” relative to buyers or suppliers, corresponding to a “praxis” understanding (La Rocca et al.,
2017). Second, practice often seems to be used as a synonym for something else when the
conceptualization might not be entirely clear, for example for the terms approach, strategy, procedure,
policy or initiative. Third, some studies operate with overall higher order variables, composed of
many lower order variables. Such studies may suffer from problems with finding a suitable term that
covers the exact conceptual domain. Here, practice seems to have a certain appeal as an applied term.
Although demands for conceptual clarity are lower in the secondary category, such use of practice as
a garbage can concept may still contribute to conceptual confusion and fragmentation, when the
applied practice logic is not aligned with the established dominant understanding in the literature. In
the following section, we elaborate upon the more exact alignment between the established field of
### Alignment between practice theory and B2B research

Table 5 shows the number of papers in each content category (see Table 3 for details) that are misaligned with the three features of practice theory (described in subsections 2.1-2.3), with the numbers in parenthesis showing those papers where the concept is primary.

**TABLE 5 – THE DEGREE OF MISALIGNMENT WITH THE THREE FEATURES OF PRACTICE THEORY**

<table>
<thead>
<tr>
<th>Category of practice:</th>
<th>Total #, (# primary term)</th>
<th>Actions</th>
<th>Habitual</th>
<th>Action-structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales and Marketing Practices</td>
<td>Total=18 (11)</td>
<td>16 (11)</td>
<td>13 (9)</td>
<td>11 (8)</td>
</tr>
<tr>
<td>Purchasing Practices</td>
<td>Total=10 (5)</td>
<td>5 (3)</td>
<td>4 (2)</td>
<td>6 (2)</td>
</tr>
<tr>
<td>Sustainable Sourcing Practices</td>
<td>Total=10 (4)</td>
<td>10 (4)</td>
<td>10 (4)</td>
<td>7 (4)</td>
</tr>
<tr>
<td>Supply Chain Practices</td>
<td>Total=17 (9)</td>
<td>17 (9)</td>
<td>16 (9)</td>
<td>14 (9)</td>
</tr>
<tr>
<td>Supplier Development Practices</td>
<td>Total=11 (5)</td>
<td>11 (5)</td>
<td>10 (5)</td>
<td>9 (3)</td>
</tr>
<tr>
<td>Relationship Practices</td>
<td>Total=11 (7)</td>
<td>6 (4)</td>
<td>4 (1)</td>
<td>3 (1)</td>
</tr>
<tr>
<td>Integration Practices</td>
<td>Total=9 (6)</td>
<td>9 (6)</td>
<td>9 (6)</td>
<td>9 (6)</td>
</tr>
<tr>
<td>Co-development Practices</td>
<td>Total=9 (8)</td>
<td>5 (4)</td>
<td>5 (4)</td>
<td>4 (3)</td>
</tr>
<tr>
<td>Communication Practices</td>
<td>Total=5 (3)</td>
<td>3 (1)</td>
<td>4 (2)</td>
<td>2 (0)</td>
</tr>
<tr>
<td>Multiple Practices</td>
<td>Total=16 (11)</td>
<td>14 (9)</td>
<td>15 (10)</td>
<td>14 (9)</td>
</tr>
</tbody>
</table>

Below, we discuss the alignment of the reviewed B2B research with the three features of practice as well as the consequences. The evaluation and discussion of the reviewed B2B practice papers takes place with reference to the practice theoretical conceptualization in section 2.

**Actions by individual managers**

Only 20 of the 116 articles investigate practices as actions carried out by individual managers (see subsection 2.1 for details on this feature of practice). Some of these studies rely on practice theory, for example research on supplier-switching (Bygballe, 2017), coopetition at multiple organizational levels (Tidström & Rajala, 2016), or B2B value co-creation (Marcos-Cuevas, Nätti, Palo & Baumann, 2014). These papers are examples of how practice theory and a focus on action are highly useful for dissecting complex processes and social phenomena. The practice-based lens allows the authors to contribute to existing theory within the field, by analyzing the social practices unfolding among individual managers. Some studies provide interesting insights into practices, but without actually referring to practice theory. For example, Buttle, Ahmad & Aldaigan (2002) study how companies bond with their customers. They report on an in-depth investigation of actual actions by individual managers aimed at creating and maintaining customer relationships.
However, the majority of papers actually study something else than practice as individual managerial action. Most of these investigations instead deal with practice as an organizational level phenomenon. Scholars tend to either 1) mix-up the action dimension of a practice with standardized systemic characteristics at the organizational level, or 2) mistake practice with organizational structure. In the first group, the term practice is applied to describe a formal procedure or policy, a general management system or any other program implemented at the organizational level. This praxis is prevalent, for example in studies of LEAN, supplier certification in the supply chain, IT systems, or relationship specific investments, all dealing with organizational level phenomena. Some papers in this group seek to prescribe best “practices” that, when combined specifically, will lead to advantageous outcomes (e.g. competitive advantage or efficiency). Such higher order variables, most often a mixture of different types of the organizational level phenomena, fail to capture the action characteristic inevitably tied to using the concept practice. Many of these papers have a strong normative agenda, where the practice label constitutes a suitable concept for capturing something that desirably can be implemented by managers and organizations. However, many papers only look at intentions and perceptions of these “practices”, which covers what the actors want to do, but are silent regarding what they actually do. This forward looking tendency fails to capture the historical experience based ties associated with a practice. Similarly, some papers use the term practice when actually discussing strategies or tactics, but they do not capture the actual execution of these, which makes the notion of practice inappropriate. Finally, quite a few studies mistake practices for formal structure, for example organizational units such as steering groups. However, having a formal structure only denotes that employees are placed together with some purpose of action, not that B2B action of any type is going to result from this grouping.

Overall, it is clear from these studies that research in B2B has been overly focused on organizational level phenomena, while only a few researchers have studied managerial actions. When B2B scholars study strategies, policies, procedures, documents, programs, or even IT systems and treat them as practices, they miss the chance to understand the actual doings and sayings of B2B managers relative to suppliers and customers. The importance of managerial agency and how it directs action is then left in the dark. Organizations may provide the foundation for practice, but they cannot retain customers, build relationships, communicate or integrate processes among other key B2B actions; managers have to do that. Action is particularly important in this context because B2B procedures rarely span across the organizational divide between buyer and supplier, but managerial actions can.
**Routinized by repetition leading to habitual behavior**

There is a large variation in terms of how aligned the research is with this feature of practice theory (see subsection 2.2 for details on this feature of practice). In our optics, only 21 out of 116 papers in the paper sample devote adequate attention to the habitual element of a practice. The remaining papers fail to account for whether these actions can be repeated in a routinized fashion as the result of know-how obtained through experience (see subsection 2.2). If not, the actions are not habitual and therefore not practices. Based on our analysis, the papers that fail to cover habitus can be divided into two groups, where the habitual dimension is studied as either 1) frequently occurring similar actions or 2) generic tactics. First, there seems to be a tendency to assume in many papers, both qualitative and quantitative, that repetitive actions is equivalent to habitual behavior. Even though there is a repetitive element in a practice, simple counting of observed or surveyed actions is not sufficient to cover this dimension. Otherwise, how will researchers know when managers have accumulated experience based knowhow enough to habitually carry out a practice? Some survey studies seeking generalizability and a high degree of managerial prescription, mistake deliberate organizational tactics with practices. This happens for example when group comparisons are made regarding different ways of approaching marketing, or when researchers are looking at how different strategies and tactics of supplier development affect purchasing performance. Even though a practice is produced and re-produced by repetition, frequency does not capture the action-pattern constituting a practice.

In order to capture the habitual element, researchers instead need to look across the actions and follow managers in action over time, in order to identify the underlying “know-how” guiding the separate actions (this challenge is discussed in subsection 7.2). Among the studies successfully overcoming this challenge, is Mason & Leek (2012), who take a longitudinal approach, being attentive to the action patterns carried out by individual actors, thereby capturing how practices develop over time. Lombardo & Cabiddu (2017) delve into the complexity of the habitual element, but also discuss how researchers can actively use it for explaining the phenomenon of interest. While habitus exists at the individual level, it is also the product of and the steering mechanism for socialization and embeddedness within a field, in this case a professional field (e.g. engineering). Other investigations indicate a focus on learning and routinization, which also has the habitual element similar to practice theory, but tend to remain at the organizational level. For instance, Hartley & Jones (1997), emphasize that implementation of new practices requires behavioral change, which takes time and involves unlearning of old (organizational) practices before new practices can be adopted. An inherited
component of a practice is also visible in culture comparison research (Jia et al., 2016). Here, culture is guiding the organizational behavior, which explains why two companies adopting the same policy of procedure ends up with a completely different implementation.

Second, some studies are attempting to uncover procedures and ways of doing that can be generalized and transferred to other actors. These papers are found both in the individual and organizational level paper piles. This focus on generic tactics, opens up a risk of mistaking unconscious habitual behavior, with deliberate generic actions and ways of organizing. It is also a fundamental simplification of practice studies. Identified recipes can be the starting point, but they are not necessarily deterministic of behavior. Some of these studies can be found in the relationship practices category (see Table 3), for example seeking to identify specific relational practices adopted in certain stages of a management process. These generic practices will nurture the relationship, but the specificity within the practices is not elaborated upon, which leaves the reader with a recipe for relationship building, but a minimum of know-how on actually carrying out these practices. By not paying attention the operational level, where relationship phenomena often evolve, nuances are lost and the study cannot account for practices. Other papers present a much more comprehensive account, especially for how individual managers behave. However, the habitual element is frequently difficult to detect, which makes the research highly descriptive in some areas. Finally, some articles immerse themselves into one specific practice (e.g. Social Bonding, (Buttle et al., 2002)). The process of how this practice unfolds is very detailed and the elaboration of the mechanisms in play is also thorough, making this one of the few successful studies in this category.

Generally there is a tendency among the papers to uncover recipe type practices, for example by asking if an organization has this or that practice, which can lead to desired relational outcomes, such as improved satisfaction, enhanced trust or stronger capabilities. This outcome-based focus dominates in the supply chain papers in the sample. Here, the goal is to setup an organizational structure that will lead to a more efficient supply chain. Even though some of this research remains at the organizational level, an even larger issue is this deterministic approach to practice-based research. The value of practice theory is not attributed to the causality between certain practices and organizational outcomes. Instead, practice-based studies should enable the reader to understand the process of how the practices actually unfolds in the complex situations in which they are enacted. While this is visible in the discursive stream of research focusing on the constituting process of communication, other areas of B2B research, such as sustainability, SCM, supplier development and integration practices are overall less attentive to how the practices unfolds from a process perspective.
The consequences of the two issues raised above is that research has been concentrating on identifying recipe type practices or the frequency with which a practice occurs, but it is not known if these “practices” are habitual and therefore they may not be typical of B2B behavior or widespread actual behavior among managers. From a managerial perspective, one implication is that executives cannot be sure if their managers actually have the knowledge based experience to repeat these actions in the future.

**Situated action-structure duality**

Out of the 116 sampled papers, 37 papers account at least to some extent for the interplay between action and structure, although the degree to which this practice element is accommodated, varies greatly across the papers (see subsection 2.3 for details on this feature of practice). Among the papers that account for this element, Bygballe (2017) applies a process view, and investigates how the practice of supplier switching is unfolding. The study accounts for the specific managerial actions that constitute the overall practices, and even more importantly, the state of the buyer-supplier relationship, in which the practice takes place. There is also a clear focus on how these practices lead to either a stabilization of the new relationship, or a restoration phase of the existing relationship (Bygballe, 2017). In general, not just action but also social structure, is recognized and accounted for fully or partly in the 37 papers. Structure can be both formal rules and policies, but also the informal social structure among the actors, (e.g. (Kohtamäki & Rajala, 2016)). Among the latter type, we find research focused on Guanxi, where the managerial action and habitual element are included as central concepts, derived from the underlying culture, which functions as a social structure. In some studies, the social relationship is the foundation for Guanxi practices (Chen, Huang & Sternquist, 2011), or reversely in other studies, the relationship is the outcome of certain Guanxi practices (Leung et al., 2011).

Several papers, particularly survey based investigating causalities, only cover one move in the action-structure duality. The adoption of this scope, where structure is either seen as the antecedent or the outcome of certain actions, lead to relevant and interesting findings. These papers adopt one of the most important notions from the practice ontology, namely the recursive nature of the action-structure duality. Organizational structures may serve as the foundation for B2B action, but managerial agency is equally important in determining if and when certain actions will be carried out. Reversely, managerial actions also erect new structures that can guide future action. Some studies cover this relationship by introducing practice as a mediator between some structural variable and performance, thereby demonstrating a stronger effect when practices are involved (e.g. (Qrunfleh & Tarafdar,
While this element is covered to some extent, it is also clear that very few papers cover the full back and forth recursive movement between action and structure, which is typical of real practice research. Such a focus requires a longitudinal research design and only very few of the sampled B2B papers to date have applied such a design.

Expanding the discussion to include the situatedness of action reveals some interesting additional findings, often connected to methodological challenges. Covering the situatedness, while accounting for the action-structure duality, is a challenging task, and papers tend to position themselves on a continuum. In one end, some papers (typically quantitative) reduce the focus to causal explanations, with limited attention to the underlying dynamics and situatedness, missing details on how managers adapt to specific situations. In the other end, papers (typically qualitative) describe the context and situation in depth, but fail to account for the action-structure mechanisms. However, papers in both ends of the continuum fail to fully capture practices. Only a few researchers successfully achieve a balance, taking a holistic view of the phenomena, while still being attentive to the mechanism steering the process.

Quantitative research tend to zoom in on the recursive mechanism, but the situatedness is frequently unaccounted for. This point is even amplified when authors take an eclectic approach to which variables to include, and thereby fail to account for the specificity of the single instances. Control variables are not covering situatedness well and when the research design is deductive, the managerial action in its particular situation remains unaccounted for. Such research may be very interesting and contribute, but it is not really practice based. Qualitative papers sometimes manage to provide compelling insights into both action-structure mechanisms and practice situatedness (see for example (Emberson & Storey, 2006)). Other qualitative papers however, are overly descriptive in their account of practices. These papers provide extensive accounts of how actors go about acting in different B2B situations, often involving specific procedures, resources or IT means. However, these papers also frequently fail to account for recursiveness in terms of how structures enable action or emerge from action. They therefore suffer from the same misalignment with the fundamentals of practice as the quantitative papers mentioned above. Looking across the sample, the incomplete account of recursiveness, which characterizes many B2B papers, means that actions and structures are too often seen as separate entities. The dynamic interplay between action and structure as emerging rather than set or given entities is not illuminated leading to possibly faulty understandings of what actually goes on in the B2B boundaries between organizations and what social structures have actually been erected.
as a result over time. B2B research risks assuming particular actions given observed structures or vice versa.

**B2B practice research - methodological considerations and recommendations**

Although the term practice has been adopted in a relatively high number of B2B studies, there is still room for being more ambitious when we compare to other fields of management and organizational research, some of which have adopted the practice ontology to a larger extent than B2B. The practice concept is suitable any time managerial action is required to engage with suppliers or customers on B2B markets. However, the methodological implications from adopting a practice lens are less clear and many of the misalignment issues in our review are caused by methodological shortcomings. In order to advance research into B2B practices, researchers therefore need to expand and sharpen the methodological tool box. Below, we discuss and evaluate the methodological challenges and opportunities, connected to studying each of the three elements of practice in the B2B context (see details on the elements in subsections 2.1-2.3). We also provide various recommendations for expanding the methodological tool box to address these challenges. The discussion and recommendations are based partly on notable contributions mainly from outside B2B, and partly on our own extensive experience with the suggested methods.

**Methods applied for studying micro-level actions**

The sensitivity to micro level action is central to studies of practice. However, much B2B research remains at the organizational level, as illustrated in this paper. Shedding light on procedures, programs, strategies, or policies reveal little of what managers actually do when they confront suppliers or customers. B2B therefore needs to adopt a methodological toolbox that can capture managers’ actions. Looking across to adjacent fields where practice ontology has been thoroughly incorporated, it is apparent that B2B research must to a much larger extent adopt observation as a core data collection method (for a key example from outside B2B see (Jarzabkowski and Seidl, 2008)). Observational methods allow researchers to study the actual doings and sayings of managers. The observations can be of sales meetings, negotiation sessions, joint product development workshops, problem-solving episodes or any other type of B2B interaction. Observations also allow the direct study of interaction between representatives from both the buyer and supplier organization. It is not sufficient to use observations as supplementary data, observations should instead be the primary source of inquiry. Despite known obstacles associated with observational methods such as their time consumption, access to the field, data asphyxiation, and lack of control, they are imperative to practice studies. The observations can then be supported by interviews, during which the researcher
refers to observed action and seeks to understand the motives, the pattern and the history of why an individual carries out certain practices. La Rocca, Hoholm and Mørk (2017) also recommend more advanced forms of interviewing in the study of B2B practices.

We also recommend shadowing (Czarniawska, 2007; McDonald and Simpson, 2014), as an extended version of observation, where researchers follow particular B2B managers in their everyday activity over time. Shadowing creates insights into those practices that occur not just in planned encounters such as meetings, but also outside of these encounters (Czarniawska, 2007). Key B2B practices may occur outside of the formal encounters subject to planned observations, and shadowing allows the researcher to explore such practices. Shadowing also provides more depth, breadth and accuracy to observations of habitual behavior and it provides holistic insights into the meaning and intention of the observed action. By combining observation with ongoing questioning, which is carried out in the process of shadowing, the researcher gains rich data on in-situ practices. Shadowing combined with interviewing can also generate insights into what managers intentionally choose not to do, something that is difficult to capture through conventional methods.

For the study of practice types such as communications, relationships, purchasing and sales/marketing practices (see Table 3), we suggest the study of electronic communications (see for example (Orlikowski and Yates, 1994)). B2B managers’ sayings relative to other B2B managers often occur through e-mails and studies of such texts would allow precise insights into sayings. We also simply urge researchers to be more stringent in the adoption of concepts. If something under study is a strategy or procedure then that should be the adopted term. Finally, B2B researchers could also be more considerate in choices of research design. Some data collection methods fit better with particular research problems than others and our study has demonstrated that certain designs may have a poor fit with practice studies.

Methods for capturing the habitual dimension
The methodological challenges expand further because a practice is more than a single action set, it is a habitual saying or doing. It possesses some degree of habitual element, which emerges over time and involves a certain level of experience based know-how. This habitual element is difficult to capture for researchers. It may require sincere immersion into the field of study and little distance to the individuals involved (Jarzabkowski & Seidl, 2008). Since individuals can rarely fully account for the knowhow and mental dispositions connecting and ordering these actions, the single interview, regardless of how advanced the interviewing technique, is unlikely to uncover habitus. Time is highly
important here, although the measuring of action frequencies is equally ineffective since the actual internalization of a practice cannot be gauged by numbers of repetitions. Longitudinal research is one way of capturing the emergence and routinization of a practice (Pettigrew, 1990)). The required length of a study is phenomenon dependent. If the research is concerned with cultural issues, such as identity or Guanxi, longer periods of data collection are needed compared to research regarding more temporary constructs, such as sales or purchasing practices. However, studying multiple interaction episodes is a necessity for practice-based studies. Ideally, the habitual dimension should be investigated through a process research design, where observations are combined with in-depth interviewing of the involved managers. This way managers can be exposed to their repetitive behavior and inquiries regarding their grounds and intentionality can be assessed. Intentionality is a main factor in these considerations, where a practice possesses some degree of intentionality and deliberate action directed towards specific ends. While an action is situated in time and space, a practice is over time stabilized through repetition. Both the deviation and the consistency in individuals’ actions are a central part of practice-based research.

For the habitual element of practice, the increased adoption of ethnographic methods is recommended (see for example (Schatzki, 2006)), as a substitute or at least a supplement to the retrospective accounts based on interviews, prevalent in the case studies from this review. The underlying argument here is that practices are not free-floating and easily transferable. They are specific to the actors and their contextualized ways of carrying them out (Jarzabkowski et al., 2016b). This assumption implies that the tacitness of practices can only be illuminated through practice (research experience), which complicates the process of acquiring and transferring the results of practice-based studies (Langley, 1999). The researcher may have to emerge into the phenomenon of interest in order to create an instrumental knowledge and make this knowledge accessible for an audience (the practitioners). Although habitus studies are difficult to carry out, it is highly critical for the broader managerial implications that a chosen combined research design can determine whether or not an action is at once repetitive, intentional, routinized and know-how based, or simply based on situational stimuli or executive directives for example.

**Methods for shedding light on the interplay between action and structure**

Several of the reviewed papers investigate how practices are affecting either the social or formal structure of the relationship between the buyer and supplier. However, we perceive a limited scope of existing investigations in two ways. First, scholars are often only interested in one of the effects – action or structure. The papers rarely incorporate the interplay of how both structures and actions
change over time. Secondly, scholars often take a partial view of the organizations, in terms of limiting the scope of study. This could be the sales studies only being concerned with the sales functions, the supply chain management studies being limited to the operational level, or the relationship studies only focusing on either the interpersonal level or the organizational level. Future research should take a more holistic approach to investigate the interplay between action and structure. This could be broadening out the focus for example to how practices at the executive level create structural changes downwards at the operational level, or how employees’ practices over time formally manifest upwards in the buyer-supplier relationship. Broadening the scope will also prevent a sole focus on pre-identified formal structures and allow researchers to better discover social structures, which are often hidden beneath the surface of organizations. It is advised that researchers do not make theoretically informed a priori exclusions of certain types of activities, by predefining areas of interest as if the investigated relationship is given, when the aim is to research how it develops and emerges over time (Kjellberg & Helgesson, 2007). The broadened scope could include incorporating document data into practice-based research. Formal structure are best covered through the materialization of action in meeting minutes, organizational charts and strategy documents. Accessing management IS systems may also prove valuable in shedding light on structures that guide actions. Documentation studies, combined with observations and interviews, will enable researcher to provide a much more holistic account of the duality between action and structure. Document data are already prevalent in B2B, but often as secondary support data for primary data of other types and frequently with only partial coverage, often due to the difficulties associated with gaining organizational access.

In addition, we propose that future research of B2B practices must adopt process methods to a much larger extent (for an overview see (Langley, 1999)). Time and history are pivotal aspects if researchers seek to understand practices. Such methods, for example combining serial observations of individual B2B managers in interaction with other B2B managers, with interviews with the same key managers at certain intervals, can uncover the back and forth recursiveness between action and structure. Barley and Tolbert’s (1997) seminal paper on studying structuration can be used as inspiration. Such process studies can create a deeper understanding of how the practice emerges over time combined with the structuration element. We observe that the majority of the review articles adopts methods, which cannot adequately account for this dynamic action-structure duality. Looking across to neighboring fields such as strategy and IS, process studies occupy the most dominant position in empirical practice studies, and the same movement needs to take place in research of B2B practices. Alternatively,
researchers can study adjacent phenomena associated with fewer methodological challenges, for example “routines” (see e.g. (Feldman & Orlikowski, 2011) for similar considerations). Such conceptual clarification and consistency would also produce more consistent and higher quality research and help order the literature better for future research. Finally, future practice research methods must meet requirements for accounting for situatedness (Jarzabkowski et al., 2016a). Since they are specific to the particular context, they cannot be predefined from a list, which make many quantitative methods problematic. However, in-depth case studies based only on interviews with attention to the individual actors are not adequate either. Managers often find it difficult to account retrospectively for how practices were actually performed and situated. Again, observation appears as the ideal instrument for capturing situatedness.

**Conclusion**
The practice-orientation within the B2B literature is growing, and there is a strong tendency among researchers to focus on what companies or managers do relative to their counterparts in B2B markets. Given the maturity level of the area, combined with the conceptual and methodological challenges of practice research we found it suitable to review B2B practice research. Our first contribution was to provide an overview of the content of B2B practice research. Second, comparing to a theory based practice understanding, we found that few studies actually illuminate all three key elements of practice. Extending from this we contributed by discussing how and why alignment is not achieved and lay out some key consequences. Third, since method turned out to be the most frequent barrier for actually studying B2B practices, we made a final contribution by pinpointing the greater diversity of methods that future research into B2B practices need to adopt.

In addition to the methods based evaluation and discussion of existing B2B research (section 7), we also propose a few B2B topic areas containing valuable future practice research opportunities. Table 3 provides a good starting point for evaluating B2B topics suitable for adopting a practice based lens. However, our analysis and discussion showed that some topic categories from Table 3 are more prone to a practice lens than others. In fact, our analysis showed that some topics are difficult to pair up with a practice based lens. First, the most obvious candidate is to suggest increased future research into what B2B sales/marketers and purchaser actually do when they engage with customers and suppliers respectively. Armed with the suggested expanded tool box (see section 7), researchers should be able to provide new insights specifically into e.g. Key Account Management and Bonding practices (sales/marketing category) or Relational and Supplier Oriented purchasing practices. Second, we see key opportunities within those categories dealing with collaborative involvement with
suppliers (Supplier Development and Sustainable Sourcing). Collaborative involvement has often been documented as more effective than other approaches to developing suppliers, but further insights into the actual activities and routinized behaviors associated with involvement are still needed in the literature. Third, we suggest joint innovation as a suitable candidate for future research (see Table 3 (under co-creation practices) and subsection 4.8). Joint innovation (or co-innovation) is a central and highly valuable element of companies’ relationships to key customers or suppliers. B2B research could benefit from an improved understanding of the specific actions and activities of B2B managers that go together to innovate, and the practice lens would be ideal to adopt in this setting. Finally, as a topic not appearing in Table 3, we suggest that a practice lens could be suitable for future research into conflict resolution. Conflict is inevitable in B2B exchange and can have dire consequences. The practice lens could strengthen academic knowledge of the habitual resolution behaviors and activities and their structuration properties.

We conclude that extant B2B research has embraced the practice term for the study of many B2B phenomena, but still in a way that often fails to capture the key elements of the practice concept. This may eventually cause confusion, faulty research, and lacking coherence. Also, it may prevent the full exploitation of the practice concept in B2B research. From a managerial perspective, executives and key decision makers need to know what B2B managers do relative to customers and suppliers, whether or not this action is something learned so they can do it again (habitus), and how formal and informal structures shape and are being shaped by the managerial action. This paper has paved at least some of the way for an improved future use of the concept to strengthen theory and practice, by providing insights into the challenges associated with applying the practice concept to B2B phenomena.
References


“social practices can be understood exclusively through interpretation: "In no case does [meaning] refer to an objectively "correct" meaning or one which is "true" in some metaphysical sense." Even rationalized social practices, such as those of modern bureaucracies can only be interpreted subjectively”

(Dobbin, 1994: 118)\(^7\)

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4.2 – Study 2

The Role of Partner Differences in Project Collaborations: Updating the Collective Repertoire through Interorganizational Sensemaking

Conference contributions:

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Status:

The paper is prepared for submission
The role of partner differences in project collaborations: Updating the collective repertoire through interorganizational sensemaking

Jim H. Pedersen

Abstract
Sensemaking theory has been extensively adopted for investigating organizational breakdowns and for exploring how actors reach a mutual understanding. This paper takes a sensemaking perspective on interorganizational project collaborations, in order to investigate how such shared understanding is formed and retained through interaction. By relying on an embedded case study of two triads followed for 18 months, this paper illustrates how actors develop and update their collective repertoire, which improves their ability to effectively identify and solve project issues. The study suggests that partner diversity can generate beneficial tensions, where intense discussions not only lead to more refined decisions, but also result in more satisfying solutions. These solutions are retained and stored collectively, which both stabilize and change the relational structures for future interaction.

Key word: Sensemaking, Retention, Collective repertoire, Partnering
Introduction

Construction projects involve several actors carrying out specialized tasks, which generates a significant coordination challenge. This challenge is not only a matter of finding the fastest and cheapest path from project plan to finished project. It also involves 1) the ability to recognize and solve unanticipated problems quickly and efficiently, and 2) to utilize the differences between project members to create synergies that can lift the overall quality of the project. While the coordination issue has been a major driver for research on how to smoothen the project process, it is increasingly recognized that partner differences can create beneficial tensions, if they are managed appropriately (Majchrzak, Jarvenpaa, & Bagherzadeh, 2015). It has been shown that diversity among project members improves project performance, especially if the members possess different backgrounds and diverse technical expertise (Keller, 2001). By involving a diverse set of actors, their knowledge, skills and routines are pooled together, which creates a positive impact on the group’s ability to solve the complex issues at hand and thereby develop better solutions (Seidl & Werle, 2017). However, different actors bring in different, maybe even contradicting, interests to the group. This can potentially harm the collaboration, by enhancing emergent tensions or even creating new ones.

Alliance research has acknowledged that tensions exist in all interorganizational relationships and alliances (Das & Teng, 2000). This view sees any kind of interorganizational collaboration as composed of opposites, with competing forces that need to be balanced in order to ensure stability (de Rond & Bouchikhi, 2004). Even though stability is seen as important within hierarchical long-term alliances, managing tensions is even more important, especially in fixed-duration alliances, where the lack of expectations of the future promotes short-term thinking with poor conditions for learning and trying out new things (Swärd, 2016). Furthermore, the fixed timeframe enhances the importance of quickly reaching a mutual understanding and efficient collaboration from the beginning. The construction industry is well known for a high level of tensions, often resulting in conflicts and opportunistic behavior, where both the client and the contractor seek to maximize their own wealth. In order to improve the industry conditions, remove the blaming culture and reduce the level of adversarial business relations, ‘partnering’ was introduced as a new collaboration form across the industry (Bygballe, Jahre, & Swärd, 2010; Gottlieb & Jensen, 2012).

This paper explores the dynamic process of reaching an agreement of how to proceed in interorganizational project collaborations, with special attention to how alignment and mutual understanding emerge as the result of collaborative interaction. The individual managers and their doings during interaction are regarded as the core driver for explaining the development of a shared
understanding within the project organization. Reaching a mutual understanding is a necessity for any project collaboration and it involves balancing the partner differences between the involved actors (Kadefors, 2004; Nyström, 2005). A mutual understanding is actually one of the most critical components of high-performing construction collaborations (Bresnen & Marshall, 2000).

High-performing project constellations cannot just be implemented and engineered, rather they evolve as a consequence of collaborative interaction during projects (Lavikka, Smeds, & Jaatinen, 2015). Collaboration emerges through a socially complex interaction process (Cicmil & Marshall, 2005). Aligning organizational actors by reducing discrepancy of interests through joint sensemaking, leading to a collective shared understanding, becomes a central process for collective managerial action and decision making, which is the foundation for realizing the success of partnering (Suprapto, Bakker, & Mooi, 2015; Weick, Sutcliffe, & Obstfeld, 2005).

By adopting sensemaking theory, this paper explores how project actors over time establish and update a shared understanding of how to collaborate, a so-called collective repertoire (Maitlis, 2005; Weick, 2010). Engaging in complex problem solving requires diversity in order to come up with effective solutions, but too much diversity can hinder efficient responses and action taking (Maitlis & Sonenshein, 2010). This paper explores how diversity between actors influences the sensemaking process, with a special focus on how the collective repertoire is altered through retaining and storing shared agreements on how to proceed. In this paper, I specifically study the process of developing interorganizational projects involving diverse sets of actors, and how these actors over time reach a shared understanding of preferred solutions and risks to be handled. The study seeks to answer the following research question:

*How do actors in fixed duration alliances update their collective repertoire through sensemaking, in order to identify and solve project issues?*

In order to answer these questions, the study draws on observational data from a longitudinal case study of two triads from the construction industry, collaborating through partnering. These are seen as fixed duration alliances with a specified time frame, implying limited conditions for learning and relational development. They are both perceived as high-performing cases, working on similar construction projects under the same collaboration form. However, the process of developing the final project is very different in the two cases, which is argued to be a result of different retention actions during the process of joint sensemaking. The paper contributes by showing that, despite the increased tensions during the selection process of sensemaking, partner diversity is beneficial for developing
effective responses to identified problems and risks. Sensemaking processes characterized by
functional tensions seems to have a larger influence on the retaining process, by creating more
fundamental updates to the collective repertoire.

The paper continues by elaborating on the theoretical foundation for this paper, with a focus on
sensemaking theory. This is followed by an overview of the adopted method and data. Finally, a
detailed investigation of six episodes of sensemaking is provided, leading to a discussion and
conclusion of the main contributions derived from the findings within this paper.

**Sensemaking and the importance of frame variety**
Developing construction projects is about planning and designing projects for future implementation
or execution. It involves a diverse set of managers and companies collaborating and operating
together in complex environments, with the purpose of solving a given task (Dubois & Gadde,
2002b). This implies a complicated decision making process, where business interests, external
uncertainty and time need to be managed in order to develop successful projects. Development of
construction projects can therefore be perceived as a negotiated order for ambiguous work, which is
the result of an ongoing sensemaking process (Tsoukas & Chia, 2002; Weick et al., 2005).
Sensemaking is a social process where meaning is negotiated, contested and mutually constructed
(Maitlis & Christianson, 2014: 66). It involves interpretation of the environment through interaction,
by constructing accounts that allow the involved managers to comprehend the world and act
collectively (Maitlis, 2005). The process involves three phases: 1) enactment, 2) selection and 3)
retention (see Figure 4).

The sensemaking process can be divided into three sequences (Seidl and Werle, 2017). It begins with
noticing and bracketing relevant issues or events in the environment, so called cues. These are labeled
according to the actor’s frame of reference or experience, which converts the observed data into
equivocal information. In the second process, the information is then again subject to ambiguous
interpretation, when actors are selecting an explanation of what is going on. The goal of the
sensemaking process is to reduce the equivocality of the information inputs, in order to develop
collective decisions. If the sensemaking process and its result are considered successful, the
interpretation will be stored among the actors for future retrieval (Choo, 2002).
Often, the actual action or decision is performed prior to fully understanding its meaningfulness and consequences. This is referred to as retrospective sensemaking. However, in project management and in interorganizational collaborations actors are trying to anticipate the consequences of specific choices. This is referred to as prospective sensemaking. The differences are illustrated below in Figure 5. The distinction between retrospective and prospective sensemaking is receiving increasing attention in research, which is seen as two different theoretical accounts of sensemaking. One is Weick’s (1995) traditional idea of sensemaking as a retrospective process, opposing the prospective account of sensemaking, composed of conscious and intentional considerations of the probable future impact of certain actions (Gioia & Mehra, 1996).
However, this paper argues that retrospective and prospective sensemaking cannot be meaningfully divided; they are part of the same process. Future-oriented sensemaking is built upon past and present states, which provide context to the suggested actions. Within construction projects, this occurs when actors are planning the project and deciding which solutions to adopt (future), which is based on experiences, repertoires and interests (past). Meaning making of past events is also related to present and future aspirations, where the sensemaking process is triggered by a misalignment between future expectations and the experienced. This can involve sensemaking for correcting project performance (past), by changing construction practices for the rest of the project (future). It is argued that such distinction limits the understanding of joint sensemaking, since both processes are occurring simultaneously during interaction. Weick (1995) viewed sensemaking as retrospective, focusing on the cognitive frames adopted for interpreting actual events and a more physical reality. However, in the more recent years, the scope has shifted to increasingly cover prospective sensemaking, where discursiveness enables actors to develop a common understanding of a future reality (Weick et al., 2005). The point is that sensemaking is not only concerned with the past (Einola, Kohtamäki, Parida, & Wincent, 2017), but it is highly useful for understanding how different actors align their collective visions for the future states of their collaboration or project. Also, an important note is that actors do not make sense of the future; they imagine future scenarios in the present, which are then reflected upon as they have occurred (Gioia and Mehra, 1996).

Different actors view their environment differently. Due to their experience, interests and so-called frames, they basically interpret the world differently. This provides both opportunities and concerns in terms of interorganizational collaborations. On one hand, diversity increases the variety of creative
interpretations, but on the other hand, it complicates the process of reaching a common understanding on how to proceed.

**Expanding the repertoire from where to act**

Substantial research has been done in order to understand how actors make sense of their surroundings by the three inter-related processes of, noticing cues, making interpretations and engaging in action (Maitlis & Christianson, 2014). It is acknowledged that organizational structures emerge through this ingoing process, where equivocal inputs are made sense of, resulting in an ongoing process of structuring (Brown, Colville, & Pye, 2015; Tsoukas & Chia, 2002). Actors organize to make sense of equivocal inputs in order to enact the shared understanding and make the world more orderly (Weick, 1979: 40-42). This paper focuses on the sub-process of retention, which is the sensemaking mechanism of feeding, storing and retaining learning and shared understandings, back into systems, structures and processes organizing the interorganizational collaborations (Einola et al., 2017; Giddens, 1984; Selnes & Sallis, 2003). Sensemaking is thereby not only a process of reaching a mutual understanding, but the mutual understanding functions as a source of guidance for further action and interpretation (Weick et al., 2005).

Existing research focuses mainly on the first two processes of sensemaking, enactment and selection (see Figure 4). This has been done through studying organizational breakdowns, which is a result failed cue identification and improper enactment (Maitlis & Sonenshein, 2010; Rerup, 2009; Weick, 1988, 1993, 2010). The outcome of this research is the identification of two trade-offs which are highly relevant for understanding the process of developing construction projects, where risks should be identified and avoided and the most appropriate solution for the problem should be selected. These two trade-offs are both related to the problem of introducing too many actors into the sensemaking process, which inhibits action-taking due to conflicting interpretations (Maitlis & Sonenshein, 2010).

First, there is the trade-off between increasing requisite variety in order to increase the number of frames available for identifying risks, and the problem of inefficiency in the planning phase due to over-screening and lack of prioritization. The reasoning behind this trade-off is that efficient problem solving should target specific issues, without being distracted and thereby lose the accuracy and discipline needed to properly account for the risks identified (Ocasio, 2011; Rerup, 2009). The second trade-off is related to action taking, where the complexity of construction projects requires experienced actors with a high level of expertise, in order to select and develop appropriate solutions. However, a high number of specialized frames can paralyze the construction activities, by leading to
poor coordination due to a lack of understanding of other actors, and too much equivocality will inhibit action-taking due to conflicting interpretations of what is the best solution (Walker, Davis, & Stevenson, 2017). These trade-offs are aligned with the claim that acquiring more diverse information is not necessarily better, but what matters is the ability to establish a shared understanding of how to exploit it (Nelson & Winter, 1982). Finally, it has been suggested that this tension between the needs for diversity versus efficiency, can be united if actors manage to incorporate divergent interests by broadening the framing of the issue (Fiol, 1994).

As the processes enactment and selection have been studied extensively by researchers, this paper zooms in specifically on the last part of the sensemaking process, retention. The retention phase functions as the process of storing knowledge and experience into systems and structures within the relationship, encoded as formal or informal scripts of how to do things, which act as common frames of reference for future interaction (Selnes & Sallis, 2003: 83). Together, these different frames of reference create a so-called collective repertoire, wherefrom interorganizational actors can draw upon for future projects and interaction (see Figure 4) (Mariotti, 2012).

Actors engaging in interorganizational projects possess several different and sometimes even contradicting interests, which influences the sub-processes of enactment and selection. However, these differences and frame variety have not been related to the process of retention, due to the traditional goal in sensemaking of focusing on reaching a mutual understanding (Maitlis & Christianson, 2014; Weick, 1979). During this process of sensemaking, actors evaluate each account in order to reach an agreement on how to respond to the identified issue. This is a continuous process, where participants apply their individual interpretive framework to the bracketed cues, which eventually may result in a common understanding of how to proceed collectively (Maitlis, 2005; Seidl and Werle, 2017). Through retention, these collective understandings are stored, which guides and direct subsequent episodes of sensemaking.

In interorganizational sensemaking, the collective decisions balance and accommodate the diverse interests of the separate actors. This has been seen as a collective process of aligning divergent interests and developing mutual ones (Medlin & Törnroos, 2014). Within the construction industry, partnering is based on the idea of a shared mindset between all project partners striving to reach the best possible project (Walker et al., 2017). It has been argued that the best possible project is the project accommodating most conflicting forces (de Rond & Bouchikhi, 2004). In alignment with the
trade-offs within the enactment and selection process, this paper presents a third trade-off which is specifically related to retention and actors engaging in ongoing collaborations.

By retaining shared understandings that balance and accommodate different interests, actors will align their collective repertoire and interpretative framework over time. While this will have a positive impact on the efficiency of the collaboration, it will blur and erase the creative tensions needed for solving the complex issues involved in these interorganizational collaborations (Majchrzak et al., 2015; Seidl & Werle, 2017). This paper investigates how actors in long-term relationships continuously update their collective repertoire, concurrently with establishing a mutual understanding for ensuring an efficient collaboration. It is increasingly recognized that such learning and coordination between involved actors in project collaborations should be attributed to the evolutionary and social process of interaction (Bresnen & Marshall, 2002; Bygballe, Swärd, & Vaagaas, 2016). Coordinating and aligning a diverse project organization, while still utilizing valuable partner differences in order to solve complex tasks in an efficient manner, are essential to the success of any construction project. Even though project organizations are temporary alliances with fixed time frames, interorganizational collaboration in any form is embedded in a multi-leveled network of actors with different agendas. This requires a sensitivity to the tensions and dynamics between the shared temporary organization and the individual project members (Sydow & Braun, 2018).

**Methods**

This paper is built upon a multiple case study consisting of two embedded cases, which allows for investigating the complex social phenomena of sensemaking and to elaborate on the dynamics of retention over time (Eisenhardt, 1989). Each case constitutes a triadic collaboration consisting of a client (public owned utility company), a supplier (contractor) and a third party service provider (advising engineering company). Both cases are part of an overall partnering agreement called “DK Partnering”, which ranges from 2016-2021. DK Partnering is a network of 13 companies within the construction industry, who have formed a fixed duration alliance for renovating the sewage system in different regions of Denmark. It is a longitudinal study, where the cases were followed for 18 months, initiated by a collaboration satisfaction survey in November 2018, which was repeated again in November 2019. The cases were followed for additional 6 months, in order to finish ongoing construction projects.
In both cases the companies have adopted the special form of collaboration called partnering, which grew as a popular type of contracting and structuring of construction projects within the construction industry during the 90s (Gottlieb & Jensen, 2012). The need for turning the attention towards collaborative arrangements was based on the perception that poor coordination, lack of integration and frequent one-off projects promoted short-term optimization and detrimental conditions for learning (Bygballe & Swärd, 2019). The transition towards collaborative approaches, and partnering specifically, has yet to fully materialize, because existing understandings among industry actors and attitudinal barriers create ambiguities and obstacles for capturing the full value of the collaboration form (Bresnen, 2007; Bygballe et al., 2010; Gadde & Dubois, 2010; Nyström, 2005).

Two similar cases were chosen, which operate in the same industry, under the same collaboration form within the same contractual regulation. They were both established through competitive tendering, but unlike the traditional process, this tender was only based 30% on price. The remaining 70% was weighted equally across organizations, competences, experience and innovation. The cases are thereby characterized by an extensive focus on collaboration processes, which outweigh the singular focus on price prevalent within the industry in general. Despite their similarities, the two cases are completely different in terms of firm characteristics, which provides optimal conditions for theorizing about how they establish a mutual understanding of the collaboration. The table below summarizes the main differences in the two triads, renamed ‘COMPLEX’ and ‘SIMPLE’. Especially the differences in size, partnering experience and complexity, were assumed to create variance during the observed sensemaking processes. The COMPLEX case characterized by large companies with long experience, was assumed to be less maneuverable and rigid. Where the SIMPLE case was considered more prone to testing new solutions in a more flexible manner.

Through the sampling process, it became clear that both cases were considered high-performing cases, with a successful implementation of the partnering model. However, it is also visible that they engage in this collaboration differently. Even though they produce high performing projects, there are great differences in terms of the process of reaching those results and the chosen methods through which the projects are carried out. Furthermore, both cases had a high initial satisfaction level (involved companies). However, COMPLEX improved the satisfaction with a few points, while the satisfaction in SIMPEL decreased over the study period. Nevertheless, they have both managed to increase efficiency significantly, by reducing the costs over 5% in 1.5 years. Therefore, despite the differences in the relational characteristics, they are relatively similar in terms of performance and
relationship climate. This indicates that the variance between the cases should be found in how the individual managers interact together during the construction projects.

<table>
<thead>
<tr>
<th>Organizational level</th>
<th>Description</th>
<th>COMPLEX</th>
<th>SIMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Experience within partnering, size, revenue</td>
<td>15 years, 207 employees, 486.1m DKK</td>
<td>1 year, 39 employees, 74.7m DKK</td>
</tr>
<tr>
<td>Main Contractor</td>
<td>Structure, size, revenue, assets</td>
<td>14 Danish subsidiaries, 4,327 employees, 7,926m DKK, 4,063m DKK</td>
<td>Family-owned without leasing, 141 employees, 174.5m DKK, 94.8m DKK</td>
</tr>
<tr>
<td>Advising engineer</td>
<td>Size, revenue</td>
<td>192 employees, 84.8m DKK</td>
<td>586 employees, 336.2m DKK</td>
</tr>
<tr>
<td>Project complexity</td>
<td>Geographical area</td>
<td>City (730 person/km2)</td>
<td>Country side (89 persons/km2)</td>
</tr>
<tr>
<td>Collaboration satisfaction</td>
<td>Survey conducted in 2017 and 2018</td>
<td>86.9 % → 89.21%</td>
<td>97 % → 95.77%</td>
</tr>
</tbody>
</table>

**Data source**

<table>
<thead>
<tr>
<th>Data source</th>
<th>Type</th>
<th>Amount COMPLEX</th>
<th>Amount SIMPLE</th>
<th>Across cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations</td>
<td>Field notes from workshops and meetings</td>
<td>25 (127 pages)</td>
<td>24 (110 pages)</td>
<td>9 (49 pages)</td>
</tr>
<tr>
<td>Interviews</td>
<td>Semi-structured interviews with managers and key personnel</td>
<td>17 interviews (19h)</td>
<td>15 interviews (19h)</td>
<td></td>
</tr>
<tr>
<td>Documents</td>
<td>Presentations, surveys, tender material, meeting minutes, pictures, charts and other internal documents</td>
<td>-------------- +500 documents --------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data collection**

I collected data through a number of sources including observations, interviews and documents, which allowed me to triangulate, and even more importantly, it generated the variety and multiplicity needed for understanding how interpretations differed across actors. This paper is mainly based on observations of planning and site meetings on the construction site, combined with observations of meetings at the management level. The meetings involved between 3-11 persons and lasted between 1.5 and 6 hours. The observations are supported by repeated interviews with the individual managers in order to understand their interpretation of the observed, and to gain information about the actors’ peculiarities and interests. Finally, a substantial amount of documents was obtained, which enabled me to track when mutual understandings were stored and retained through minutes of meetings e.g.

The planning meetings are where new projects are prepared and risks are identified, with room for creativity and brainstorming, and they occurred every second week. When the project moved to execution phase, site meetings were held every second week, which were more about solving arising
problems by finding adequate solutions. In order to fully understand how they created and expanded their collective repertoire, it became important to include all levels of each project organization, so both hands-on workshops, inspirational sessions and executive meetings were included. The observational data obtained through notes were supported by recorded informal and semi-structured interviews with key actors 2-4 times during the research period. Even though a lot of interaction appears through informal channels such as small personal interaction episodes, phone calls and emails, the decisions influencing the relationship and the projects were always dealt with at the more formal meetings. In total, this provided me with a holistic view of how the collaboration evolved in each case, and how sensemaking influenced the collective understanding.

Data analysis
I began the data analysis during the fieldwork, where I developed initial accounts for which topics emerged as significant tensions during observations. Several smaller episodes of sensemaking occurred repeatedly, which were summarized into broader topics in each case. This process led to an intensification of data collection regarding these broad topics, which were tracked throughout the period of study. As the actors changed their collective understanding of the topics, my understanding was altered too. This iterative process was influenced by theory in an abductive fashion, where sensemaking theory guided the analysis of enactment and selection processes with a focus on how tensions and partner differences played a role for reaching an agreement (Dubois & Gadde, 2002a). The analysis of retention was based on a much more explorative mode, where the findings were directly driven by data.

During the analysis process, different overall topics emerged as interesting for detailed investigation. I selected three topics in each case, which were considered appropriately independent and located at different organizational levels. After finishing the fieldwork, I started analyzing these six episodes through constant comparative methods (Glaser, 1965). This approach was suitable when having two cases with three separate processes, in order to generate theory of how sensemaking outputs are retained in interorganizational collaborations. Through constant comparisons of interaction processes, problem solving incidents and individual perceptions, I was able to derive theoretical accounts that were very close to data. These accounts were followed up with member checks among the involved actors, in order to verify the stated processes and interpretations.

The role of retention in developing collective repertoires
The tables below illustrate six condensed examples of sensemaking processes unfolding between the three companies in the two cases. Table 7 shows three examples of sensemaking processes, which
were considered defining episodes of SIMPLE developing solutions for complex construction projects. Table 8 covers three episodes of COMPLEX engaging in extensive sensemaking when dealing with specific construction problems. The three episodes in each case occur at three different organizational levels, meaning that the majority of the interaction was located either at the top management level, the middle manager level or on the construction sites. Higher organizational level indicates wider relational implications of the sensemaking outcome. It is acknowledged that interaction at these different levels are highly entangled, where issues often travel across organizational levels. The first three columns in each table show selected quotes from observations and interviews, reflecting what was emphasized during the interaction process. The last three columns summarize the outcome of the sensemaking process, where different sense-giving practices were adopted, resulting in certain updates of the collective repertoire of the whole group. The following sections will each elaborate on the different processes involved across the episodes, and show how partner differences influence the sensemaking processes.

**Enactment: Identifying cues**

The sensemaking process was always initiated by a certain cue within the project environment, which was found important for one or more actors. It was brought in as a problem that needed to be acted upon. The problems ranged from risks to be handled on upcoming projects (e.g. test area in SIMPLE), to specific problems requiring immediate attention at the construction site (e.g. selecting drainage system in COMPLEX), to more proactive issues (e.g. standardized rain beds in COMPLEX). All these issues were based on perceived problems requiring attention from the group, where different actors added the issues to an agenda prior to each meeting.

Noticing these cues was highly influenced by the interests of client and contractor. The client was in both cases highly concerned with the end-users of the solutions, by bringing in issues from both their own maintenance department and the citizens in the area. The client also often had a political agenda from where issues such as deadlines, economy and strategy were derived. The contractor was more concerned with making efficient projects. Reducing costs, utilizing their staff, avoiding do-overs, are examples of their interests. They had a focus on acting professionally, both as a motivator for the individual project managers, but also in order to maintain a positive reputation when the contract was to be re-negotiated two years later. The adviser played a more peripheral role in the cue identification phase. In this part, they were mainly following their clients and rarely brought in their own issues.
Despite the collaborative nature of the relationship with the mutual goal of making a good project, it was clear that the actors had separate interests and agendas. These partner differences were beneficial in order to identify potential risks during the construction projects. The client’s focus on the most important stakeholders of these projects, the citizens, combined with the contractor’s continuous focus on efficiency improvements, contributed to a vivid identification of risks, resulting in very few surprises during the execution of the projects.

After noticing the cues, the actors used their own frame and repertoire in order to provide explanations of what was actually going on in the situation. Bracketing the cues was a very exploratory element of the sensemaking process, where the identified cue was attached meaning by the actors. They either provided their support or indicated some level of skepticism. In this phase, experience played an essential role. Previous experience from other projects was brought in in order to make sense of what was going on. All actors contributed in this process, where the foundation for making a decision or reaching a mutual understanding was laid out. Opposing the noticing process, bracketing was characterized by actors using their professional and technical expertise to come up with a plausible meaning of the cue. All the individuals had an engineering background and this phase included a high level of rationality. In most episodes, the actors remained within their contractual role: Clients dealt with stakeholders and economy, contractors built the projects and advisers followed regulations and provided guidance. However, there were few examples where these roles were mixed.
<table>
<thead>
<tr>
<th>Cases: Construction of the project phase</th>
<th>Simple Project</th>
<th>Simple Project</th>
<th>Simple Project</th>
<th>Simple Project</th>
<th>Simple Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enactment:</td>
<td>Selection:</td>
<td>Retention:</td>
<td>Repertoire:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cues</td>
<td>Cues</td>
<td>Shared</td>
<td>Frames used</td>
<td>Actions retained</td>
<td>Updating</td>
</tr>
<tr>
<td>Noticing</td>
<td>Bracketing</td>
<td>understanding</td>
<td>Sensegiving</td>
<td>Retaining</td>
<td></td>
</tr>
<tr>
<td>Client:</td>
<td>Contractor:</td>
<td>Cues</td>
<td>practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: &quot;We want to start early on this new project, and we want to involve the contractor now&quot;</td>
<td>4: &quot;I agree because it is fun and I also think 5 years ahead to the next partnering agreement!&quot;</td>
<td>6: Makes one big drawing and segments the city</td>
<td>- Makes a chart with process steps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client:</td>
<td>Contractor:</td>
<td>Cues</td>
<td>Cues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: &quot;Everybody in this city can have drainage systems if they want to&quot;</td>
<td>3: &quot;Let us make this a test area, but we need to make sure that they can percolate&quot;</td>
<td>6: &quot;We need something to convince the citizens&quot;</td>
<td>- Proposes to involve the contractor earlier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor:</td>
<td>Adviser:</td>
<td>Cues</td>
<td>Cues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: &quot;Can we scale down the system by taking off private systems?&quot;</td>
<td>4: &quot;We need to provide a safe solution, otherwise the citizens refuse&quot;</td>
<td>7: &quot;Too much ground water, makes the test area impossible&quot;</td>
<td>- This a learning investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adviser:</td>
<td>Contractor:</td>
<td>Cues</td>
<td>Cues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: &quot;I am inventing a delaying well, which creates extra capacity in the system&quot;</td>
<td>4: &quot;Calculates how much money can be saved by comparing his solution to traditional method&quot; (400.000 DKK can be saved)</td>
<td>6: &quot;Insists on trying it out on a project&quot;</td>
<td>- Calculate business cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor:</td>
<td>Adviser:</td>
<td>Cues</td>
<td>Cues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: &quot;Great idea! We can then avoid new piping&quot;</td>
<td>3: &quot;Great idea! We can then avoid new piping&quot;</td>
<td>5: &quot;I would like to see it use. What about the price? What about cleaning it?&quot;</td>
<td>- Repeat it as a suggestion (planting a seed)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 7 - SENSEMAKING EPISODES, SIMPLE**
### TABLE 8 – SENSEMAKING EPISODES, COMPLEX

<table>
<thead>
<tr>
<th>Cues: Construction issue</th>
<th>Actions:</th>
<th>Enactment:</th>
<th>Selection:</th>
<th>Retention:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPLEX (Project managers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacement excavation with drilling</td>
<td>Client:</td>
<td>2: &quot;Let us test it and decide later when we know the circumstances&quot;</td>
<td>4: &quot;But what about economy? Does it make sense to dig with all the external pipes?&quot;</td>
<td>- &quot;This cannot be different from the rest of the city&quot; - In 20 years you have earned money on these projects - If your colleagues can do it, then we can too&quot;</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>1: &quot;There is a possibility of 50% mistakes if we continue drilling&quot;</td>
<td>3: &quot;We cannot wait a few weeks. We also need to prepare materials&quot;</td>
<td>- &quot;It is suicide!&quot; - Calculation: twice as expensive currently - Send forward 3 thick books about drilling</td>
</tr>
<tr>
<td></td>
<td>Adviser:</td>
<td>5: &quot;It is not responsible to drill with only 7% in the risk pot. Test holes should be extra purchases to target&quot;</td>
<td>8: &quot;Drilling under 15% slope is not recommended&quot;</td>
<td>- Keep using external specialist (subsidiary) - Drilling is cheaper but more risky - Action plan for testing larger piping dimensions - Testing new liquid making it more precise</td>
</tr>
<tr>
<td><strong>Cases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPLEX (Top)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replacing excavation with drilling</td>
<td>Client:</td>
<td>1: &quot;We need to use more surface solutions. Dampens traffic, more sustainable and better for flooding&quot;</td>
<td>3: &quot;The main point is to delay the water! We need to do this&quot;</td>
<td>- Convincing by offering test projects - Demanding</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>2: &quot;Making surface solutions is nice, but difficult to adapt it every time&quot;</td>
<td>7: &quot;We should just develop a standardized design with existing products. Standard elements are not flexible enough&quot;</td>
<td>- Referring to efficiency</td>
</tr>
<tr>
<td></td>
<td>Adviser:</td>
<td>4: &quot;You should always account for the water as the most important issue&quot;</td>
<td>6: &quot;We need to reinvent the way water enters the rain bed&quot;</td>
<td>- Emphasizing practical concerns regarding maintenance and requirement - Draw illustrations for the others</td>
</tr>
<tr>
<td><strong>Cases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPLEX (Project managers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of standardized rain beds</td>
<td>Client:</td>
<td>1: &quot;We should use ditches due to the large stripes of grass&quot;</td>
<td>5: &quot;I was visiting a supplier who was interested in testing a new product, which is invented for these situations&quot;</td>
<td>- Repeating - Bringing in external supplier</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>4: &quot;What about the walking paths? Do you want bridges there?&quot;</td>
<td>6: &quot;Can these really handle heavy traffic?&quot;</td>
<td>- Asking the supplier to produce 50 by hand, also for future projects and implementing them as a test. - Supplier buys a mould for future production</td>
</tr>
<tr>
<td></td>
<td>Adviser:</td>
<td>2: &quot;We are using ditches, how are citizens going to get out of the houses?&quot;</td>
<td>3: &quot;Drawn two suggestions: Overflow or drain&quot;</td>
<td>- They are not cracking! They last. - Supplier cannot deliver (new product)</td>
</tr>
<tr>
<td><strong>Cases:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPLEX (Operational)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selecting specific drainage system</td>
<td>Client:</td>
<td>1: &quot;We should consider using ditches, but we also have to think about the bridges&quot;</td>
<td>5: &quot;I need to fix the situation for the 20 cm concrete around&quot;</td>
<td>- Repeating - Bringing in external supplier</td>
</tr>
<tr>
<td></td>
<td>Contractor:</td>
<td>4: &quot;We are using ditches, how are citizens going to get out of the houses?&quot;</td>
<td>6: &quot;Can these really handle heavy traffic?&quot;</td>
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<td>Adviser:</td>
<td>2: &quot;We are using ditches, how are citizens going to get out of the houses?&quot;</td>
<td>3: &quot;Drawn two suggestions: Overflow or drain&quot;</td>
<td>- They are not cracking! They last. - Supplier cannot deliver (new product)</td>
</tr>
</tbody>
</table>

### Notes:
- Subcontractors need to be involved in target to have an incentive
- Drilling is used on subsequent projects.
- Eliminate all risks before in order to avoid assisting the drilling contractor
- All risk are assessed and included through pricing
In SIMPLE regarding the delaying well, the contractor used lots of time and energy on calculating savings, if they chose to adopt the new solution. In COMPLEX, the client proposed to use a new drainage system to solve a problem, which the contractor and adviser had solved numerous times previously. What is interesting about these examples is that when actors intervened in other actors’ area of competence, they first of all did it because they had an interest that went beyond this specific project. In SIMPLE the contractor wanted to use his own invention, wherefrom he could build a new business model. In COMPLEX, the client wanted to help the external supplier with developing a new material, which they could benefit from on several projects in the future. Secondly, this intervening was done in a way of trying to convince the other actors by providing sense in accordance with the receiver’s frame of reference. In SIMPLE, the contractor used economic arguments to convince the client that this delaying well would be a great idea. In COMPLEX, the client elaborated on how this new product could benefit the contractor’s future projects and how it could replace current materials on these types of projects. These examples show that technical experience influences this process directly by providing meaning to the identified cues, but relational experience also indirectly steered the process, where actors tried to tap into the interests of the other actors through sensegiving practices, in order to influence their understanding of the cues.

**Selection: Building a shared understanding**

Following the phase of enactment, where the actors had reached a consensus regarding the extent of the identified cue, they moved to the phase of selection. Here, the goal was to figure out what to do in order to solve the issue at hand. In this phase, the episodes showed more variance between the two cases compared to the enactment phase. Overall, the COMPLEX case was characterized by larger discussions with opposing opinions, and the SIMPLE case was much more aligned, resulting in an easier and faster process of reaching a mutual understanding of what to do.

Part of these differences was due to the actors’ attitudes towards the collaboration. In SIMPLE the contractor simply acknowledged that:

“we do not sit and fight for the last cents, we have never done that. Maybe we missed some revenue and we have probably been cheated several times. But we make money” (Interview, CEO, contractor).

This quote implies a long-term perspective, where the positive collaboration is valued over discussions about economical issues. In COMPLEX, the attitude was different, involving a higher level of blaming and discussion in relation to any economic issue:
“Client: Your budgets showed control, but the budget was just exceeded several times without you stopping it”. Contractor: “Already months earlier, we informed you about overruns. I think that everyone in this team has a responsibility” (mail correspondence between project managers).

This email exchange shows how focus was often removed away from the projects towards discussions of contractual issues.

Within the sensemaking episodes, this was revealed in the Top episode in each case. In SIMPLE, when the contractor was asked if they could assist in the planning phase, they said yes immediately and saw it as an opportunity to contribute to the project. Entering the planning phase was in complete opposition to what was agreed in the contractual arrangement. Here, the contractor was supposed to receive a designed project, wherefrom he had the opportunity to optimize and make alternative solutions. This exercise could potentially generate great savings, which would be shared by all parties involved. The purpose was to provide an incentive for the contractor to do things as efficient as possible. However, by asking the contractor to implement all his ideas and suggestions to optimizations during the planning phase, his contractual incentive would disappear. However, the contractor still agreed to participate, both because he considered it a “fun” experience, but also because he wanted to signal commitment and position himself better in terms of winning the next partnering agreement.

In COMPLEX, the issue of using drilling as the preferred method resulted in an economic discussion, affecting the relationship as a whole. The client wanted to use much more drilling, because it was considered a faster and cheaper method. However, the client and the adviser saw this method as much more risky, which they perceived as unfair to bear by themselves. The client insisted on using this method, since she had seen it used extensively on other projects, but the contractor saw it as “suicide” to choose a method that most certainly would make them loose money. Reaching a mutual sense on this issue was very difficult. The client refused to set a fixed limit of risks, because she wanted to consider the specific situation every time. The contractor wanted to change the contractual framework, so that they could include this risk in their pricing and thereby be compensated for this risk. No changes were made during selection, but the project group started to use drilling more often on the subsequent projects. Despite the different levels of tension, both episodes resulted in actions that were mostly aligned with the interests of the client.

The remaining four examples were more related to the project execution or technical issues. At the project manager level, both case triads tried to make a test area for new solutions, and at the
operational level, both cases engaged in the adoption of new components into the projects. During these selection processes, there was a respect for each other’s capabilities and responsibilities. The contractor knew how to handle the execution and building process, the client was good at handling citizens and other stakeholders, while the adviser knew the regulation and potential pitfalls. The processes remained focused on solving the specific issue at hand. However, what differed was the ease by which the actors reached a mutual understanding of how to proceed. In the SIMPLE case, actors quickly made a decision of what to do. The test area was completely dropped, because reports showed that percolation of water was not an option. During one single meeting, everybody agreed to drop the idea of a test-area. Furthermore, the delaying well was not tried out on any projects, even though it was discussed for over 18 months. These two episodes lacked persistence among the actors to insist on their own understanding and they rarely challenged each other’s’ opinions and interpretations.

In COMPLEX, they succeeded in developing a test area, which ended up being an industry example of innovative surface solutions. They also succeeded in implementing a new component, which led to a new production line at their external supplier. These outcomes were very different for SIMPLE and even though the contextual factors reduce the possibility of deriving direct comparisons, there were still notable differences regarding how they reached a shared understanding.

Regarding the standardization of rain beds, the contractor and adviser were very skeptical about the feasibility of making standard components that could be adjusted and assembled for any project. They simply did not believe that such components would be flexible enough, and that such an invention would require optimization of the design in order to build and maintain these rain beds efficiently. However, the client insisted on doing this, and the two other actors shared the intention of solving the problem. The test project did not result in the perfect design as hoped for, but acting on the idea led to the development of their most successful project. A similar process characterized the new drainage system, where the client insisted on using it, and especially the contractor noted several issues regarding installation and durability. However, after having tested the first batch made by hand by the supplier, it became such a large success that the supplier was not able to keep up with the demand.

Overall, the sensemaking processes in SIMPLE was characterized by positive attitudes and relationship satisfaction, where COMPLEX showed moments of conflict and a higher level of long discussions before reaching a shared understanding. However, it seems that seeking consensus can increase the lack of inaction, where solutions just fade out due to experienced obstacles, where actors
quickly agree to do what they normally do. On the other hand, persistence by single actors can lead to positive actions, even though not all actors share the same view and tensions arise.

**Retention: Updating collective repertoire**

When a shared understanding was reached and decisions were made on how to proceed, the sensemaking process moved into the retention phase. In this phase, actors retained actions by storing elements that were considered successful and by discarding understandings that were not perceived beneficial. Outcomes of sensemaking processes thereby established and updated the collective repertoire among the actors.

The two cases showed large differences in how well they transferred actions and decisions onto subsequent projects. The intensive discussions consisting of opposing views within COMPLEX resulted in multiple actions, which ended up expanding the repertoire of the whole group. First, they engaged in different actions of trying to make drilling less risky, by using a new liquid during the process and improving the pre-testing of new projects. Secondly, they realized that rain beds were too complicated to standardize, but they gained valuable knowledge on how to design future projects in order to make the construction process more efficient and reduce the maintenance. Finally, they expanded their range of tools for creating sustainable solutions that were acceptable for the citizens, by adopting the new drainage system.

In SIMPLE, they also stored experiences and updated their repertoire. However, they rarely carried the outputs on to new projects. Through the top-episode, they realized that including the contractor earlier in the planning process reduced do-overs, since the project was more precise at an earlier stage, they still kept adopting the traditional way on the following projects. Second, dropping the test area was acknowledged as a valuable learning experience, but the option was not adopted on the two subsequent projects. Finally, the delaying well was not implemented on any project within SIMPLE, but it was transferred to the overall partnership in DK Partnering in order to provide the necessary innovative resources. All three episodes show that the project group gained valuable experience, but since the consensus was so high during the selection process, no one picked up these updated frames in future projects.

Actors within both cases shared the a view that solving complex problems and trying out new things for handling issues were more rewarding than just doing standard projects without any difficulties.

“I am satisfied with my work when we come up with a solution for an unsolvable issue, where we have really struggled” (Project manager at ‘Advising engineer’ in SIMPLE).
“When you stand after the project and see the results, you tend to forget how overwhelming the process and struggles were. Making unusual projects is much more rewarding than the traditional projects we always make” (Project manager at ‘Contractor’ in COMPLEX).

These quotes illustrate how the tensions and complex sensemaking processes between the actors were not only beneficial for the projects, but it also increased the relationship satisfaction. This similarity helps explain why retained actions was used more on subsequent project in COMPLEX than in SIMPLE. Due to the lack of tension and the high level of shared understandings, the bracketed cues were perceived as straightforward problems. The equivocality, where cues are inferred from different understandings, was simply too low. Whereas in COMPLEX, the intense discussions, involving divergent understandings and numerous interests, produced more satisfying project results, which increased the possibility that the retained understandings would be adopted on future projects.

Through retaining, actors updated their collective repertoire, where the outcome of the sensemaking process influenced future projects. This influence was both formed by decisions to act, but also when the actors reached an agreement not to act. Both types of decisions changed and stabilized the preferred choice of construction methods and the view on how to account for risks during the planning phase. The decision not to develop a standardized rain bed in COMPLEX, based on the realization that it was not feasible, did not make the actors move away from using these rain beds. On the opposite, the sensemaking process only confirmed that what they currently did was the most optimal way, resulting in only minor modifications. In SIMPLE, the choice of not using the delaying well and discarding the test area, confirmed the actors in their view that surface solutions were not feasible and smart within the types of projects. These episodes of inaction show that decisions not to act also influence the collective repertoire of the involved actors.

On the other hand, when actors reached an agreement on acting, it changed and updated the collective repertoire. In SIMPLE, the exercise of involving the contractor in the early stages of the project was considered a success to be repeated. They used specific initiatives in this process, such as workshops and charts for how to carry out this new process. These specific elements were stored in as preferred solutions for how to optimize the process of early risk identification. The actors even ended up sharing the view that “planners” did not bring any real value to the projects. In COMPLEX, the choice to use the new drainage system was proven a success, which added a new type of components to the repertoire. At another level, the sensemaking episode regarding the usage of drilling did more than just update their repertoire. This process led to a refinement of the contractual arrangement, where
risks where no longer calculated as a percentage of the total target budget, but the contractor was now allowed to price the risks involved when adopting the method of drilling. This episode shows how retention can alter the formalized structure of the collaboration. In general, all these examples illustrate different levels of retentions, where the relational consequences of the sensemaking process differ according to the intensity of the process, the diversity between interpretations during the process and the actual output of the process.

Discussion
Due to the complexity of construction projects, they often require multiple actors with diverse sets of knowledge to carry out different parts of the project. It is increasingly acknowledged that integration of actors and processes should substitute the established view of separating projects into tasks, with the goal of increasing coordination and thereby efficiency (Bygballe & Swärd, 2019). Developing construction projects is about identifying risks through detailed planning, and solving problems as they arise during the execution of the project. Such a process mirrors the idea behind sensemaking theory, where actors engage in interaction in order to reach a mutual understanding of how to act (Maitlis & Christianson, 2014). This paper focuses on the problem between acquiring the requisite variety needed for being able to identify and solve issues, combined with the problem of including too much diversity and thereby impede the efficiency of the collaboration. While these issues have been studied extensively in terms of the enactment and selection processes of sensemaking, the implications of diversity within the retention phase is less understood (Maitlis & Sonenshein, 2010).

First, this paper contributes to the existing research on sensemaking theory by showing how diversity influences cue identification and the process of reaching a mutual understanding. The findings from the episodes included in this paper correspond to the established view, where there is an optimal level between establishing the attentional vividness needed for identifying potential cues, while ensuring a disciplined focus and attentional stability, which are required to effectively solve arising issues (Rerup, 2009). If actors spread their attention across too many issues at ones, they risk being unable to act properly on the identified cue. The findings show that during the first phase of sensemaking, actors bring up issues according to their interest and focus within the collaboration. The clients are concerned with satisfying the citizens and saving money, where the contractors focus on maintaining an efficient construction process. There was very little overlap in understandings during this phase. This finding shows the importance of involving the clients into construction processes, where they can ensure that the utility and value for the end-users will be incorporated into the project.
In order to provide meaning to the identified cues, the actors brought in their individual interpretations. These interpretations were no longer based on interests, but now diversity in experience played an important role. This phase of bracketing the cues was an exploratory process, where a higher number of different frames and understandings applied, increasing the feasibility of the shared sense, because these different experiences challenged and contested the initial interpretations. These findings support the emphasis of selecting knowledgeable and experienced actors within the research on interorganizational sensemaking (Seidl & Werle, 2017). However, they further indicate that the ability of actors to bring in expertise and experience located outside the project group is an equally important element of this process of exploration.

The second contribution of this paper is related to the role of tensions in sensemaking, where it has been shown that tensions can be beneficial to interorganizational collaborations (Majchrzak et al., 2015). The findings contribute by showing how tensions hinder collaboration when dealing with economic and contractual issues, but when the issue is of a more technical nature, different understandings create creative and beneficial tensions. This finding can be related to previous research showing that internal tensions benefit technical new product development projects (Keller, 2001). This paper illustrates a similar phenomenon, but in an interorganizational contexts.

Finally, the paper elaborates on how sensemaking leads to changes and updates in the collective repertoire among the involved actors. This is an important finding for research on both interorganizational collaborations and project management, due to the importance of developing ways of storing successful processes and transferring learning across interaction episodes (Ariño & de la Torre, 1998; Swan, Scarbrough, & Newell, 2010).

The findings indicate that sensemaking processes characterized by divergent interpretations and intense discussions, not only lead to more refined decisions and actions, but they also result in more satisfactory outcomes. These outcomes were retained and used on subsequent projects to a much larger extent, compared to actions and decisions, where actors quickly reached consensus on how to proceed. The reasoning behind this finding is that actors feel a stronger reward when solving an important issue that was considered unsolvable, compared to finding standard solutions for common problems. This is in alignment with the idea that conflicts can be functional for the relationship as a whole (Vaaland & Håkansson, 2003).

In terms of retention, it is also shown how sensemaking processes lead to an ongoing structuring of the relationship, by continuously updating the collective repertoire through which actors interact.
(Einola et al., 2017). Even though actors end up agreeing to discard the idea, such inaction stabilizes the established repertoire by confirming the appropriateness of current practices and doings. On the other hand, when actors reach mutual sense of how to solve an issue, the resulting actions may alter the formal structures of the relationship. This finding points to the issue where continuous processes of sensemaking lead to an alignment of actors, by blurring the needed diversity for making successful projects (Medlin & Törnroos, 2014). While this paper does not fully capture repeated episodes of sensemaking, this finding opens up for future research to be carried out on interorganizational sensemaking.

**Conclusion**

This paper investigates how actors within interorganizational collaborations cope with the uncertainty and problems occurring in daily interaction, and how the developed solutions or decisions influence their relationship. This is done through a longitudinal case study of two triads within the construction industry, which were followed for 18 months. Based primarily on observations and interviews, six episodes of interaction processes were analyzed in order to figure out how interorganizational actors update their collective repertoire used for identifying risks and handling occurring problems.

By applying sensemaking theory it has been shown how diversity in interests and experience influences the process of reaching a mutual understanding of how to proceed. Diversity is shown to be beneficial throughout the whole sensemaking process. It creates a vividness needed when identifying cues, it nurtures creative tensions for solving the complex issues, and it result in challenging but rewarding solutions, which are stored and used on subsequent projects. Sensemaking processes are shown to be part of an ongoing structuration of the relationship, by altering both formal and informal interaction processes. However, future research should incorporate repeated processes of interaction episodes, in order to explore how this ongoing structuring emerges as processes of interorganizational sensemaking. Furthermore, this paper indicates that prospective and retrospective sensemaking can and should not be distinguished. While the findings indicate differences between the two types of sensemaking, the findings suggest that they cannot be separated since both the past and the future are entangled within the sensemaking process. Since future expectations are important when developing interorganizational relationship, future research on interorganizational sensemaking should focus more on this duality.
References


“Routines may adapt to experience incrementally in response to feedback about outcomes, but they do so based on their previous state”

(Becker, 2004:653)
4.3 – Study 3

Innovation Down the Drain: A Process Study of the Routinization of Consortium Innovation

Conference contributions:
None

Status:
The paper is prepared for submission to a high quality, peer-reviewed journal
Innovation down the drain: A process study of the routinization of consortium innovation

Jim Pedersen, Chris Ellegaard and Hanne Kragh

Abstract
Innovation consortia are designed with a high level of formal control of innovative actions. However, despite a solid formal structure, the complexities of managing a technological collaboration process between multiple heterogeneous companies, which may be competitors, has proven difficult to manage. Earlier research on archetypical consortia documented a structuring process, where key managers extended the formal structure with social structures, and achieved successful outcomes. In this study, we apply a performative routinization lens to investigate an innovation consortium comprising nine companies from the construction industry. We find that managers’ sequential attention to particular uncertainties and the subsequent routinization creates a path, which eventually leads to the failure to meet overall idea performance objectives. Routinized actions that generate organizational mechanisms at t1, prevent routinization of other needed actions at t2. We contribute by providing evidence for five movements that derail the innovation process.

Keywords: Innovation, network, consortia, routine, process study, construction industry


**Introduction**

Innovation and routine work can be perceived as two opposites. Whereas innovation aims to come up with new creative solutions, carrying with it changes in technology and organizational features, routinization provides regularity and stability to existing structures and actions that have turned out to be effective in the past. However, innovation needs routinization (Pisano, 2014). Initial innovative disruption needs to be accompanied by routinized action that can sustain the new solution over time. The managerial challenge of setting up a new composite organization (consortium) that can develop new product and process ideas, while simultaneously providing some level of lasting structure that can materialize and sustain these over time is the topic of this paper. We report on the results of a qualitative process study of innovative actions in an established innovation consortium, created by nine companies in the construction industry, which has traditionally been characterized by tight couplings in specific short-term construction projects, but loose couplings in longer-term networks, which provide an inadequate foundation for collaborative innovation (Dubois and Gadde 2002). The purpose of the innovation consortium is exactly to develop longer-term closer ties and use them to innovate.

Consortia comprise formal mechanisms such as dedicated organizational units, performance and incentive management systems, and executive boards (Doz, Olk & Ring, 2000; Grandori & Soda, 1995; Sydow et al., 2012); mechanisms designed to glue the companies together and provide the foundation for innovation. However, research on innovation or R&D consortia management has shown that despite a solid formal structural set-up, the complexities associated with new technological solutions, knowledge exchange, collaborative organization, multiple organizations with diverting strategies, as well as ongoing pressures from the environment, can sometimes challenge the successful exploitation of the collaboration (Browning, Beyer & Shetler, 1995; Grindley, Mowery & Silverman, 1994). Indeed, innovation consortia are reportedly difficult to establish and maintain (Carrayanis & Alexander, 2004; Grindley, Mowery and Silverman). An extensive in-depth study of the most prominent historical innovation consortium SEMATECH showed that after initial problems, the formal structure needed to be adapted and complemented by subsequent structuring by key executives in order to deal with considerable on-going changes and generate results (Browning et al., 1995). Building on this and other studies from the literature on innovation networks (Berends, van Burg & van Raij, 2011; Sydow, Windeler, Schubert & Möllering, 2012), we adopt a performative view of routinization (Dionyssos and Tsoukas, 2013; Rerup & Feldman, 2011). This recursive lens conceptualizes routine with both a performative and an ostensive part, where actors perform actions
based on existing shared patterns of understanding (ostensive – structure), but also adapt these in new specific action performances (performative) (Rerup and Feldman 2011; Turner and Rindova 2012). We adopt this lens because it has potential to generate insights into the dynamics of interorganizational innovation. Our study is one of very few on the microprocesses of consortia development, and it illuminates the internal mechanics of a consortium, unlike the majority of existing research, which deals with cross-sectional firm and industry level factors. Micro level managerial actions and routines are required not only to carry out creative idea work, but also to establish the key organizational mechanisms that keep innovation networks and consortia united, such as incentives (value creation and appropriation), motivation, commitment, strategic alignment, relationships and legitimization (Davis & Eisenhardt, 2011; Grandori and Soda, 1995; Paquin and Howard-Greenville, 2013; Perry-Smith and Mannucci 2017). Insights into the routinization of the actions that create and maintain these mechanisms in innovation networks are absent in the literature. We therefore seek answers to the following research question:

RQ: How are innovative actions routinized over time in an innovation consortium?

Relying on interviews, documentation, observations and meeting minutes from the managing group, we study the consortium, not during formation, but from the time it is actually established through its first three years of working. Much research effort has been put into studying consortia formation, seemingly because the process from separate companies to a jointly created unit between potential competitors has been regarded most critical. This may be because the formal structure is overrated in its governing properties, and likewise the recursive element of structuring is underrated. From a practice or routine perspective actors with agency will continuously attempt to adapt or even reform the consortium and we therefore need to understand these first years of development and the routinization process. The process leading up to the consortium sets up the formal organization and management structure, but the subsequent social interaction between key managers shape the ongoing routinization, which determine eventual success.

Our findings show that routinization by the actors occupying the innovation group (the unit responsible for coordinating the consortium innovation work) creates a path that eventually derails the innovation process, as measured in idea realization. We document five routinized movements that contribute to this derailing of the innovative process, essentially taking the innovation work farther and farther away from actual idea development and towards maintaining the organizational arrangement. By creating this path, they build a routinized structure around key actions that cement
the formal consortium, but at the expense of routinized idea realization. The consortium companies, who specialize in water related infrastructures, find that despite the large-scale formal collaborative consortium set-up, their innovation ideas end down the drain. We contribute to the literature on the management of innovation networks, especially the consortium form, by documenting this created path, where attention to one set of actions and routines limit the possibilities for carrying out and routinizing the next set of actions. Generalizing beyond this particular path, we contribute by showing the routinized dependencies of different action sets aimed at creating the specific organizational mechanisms of innovation networks.

**Theoretical background**

**The innovation consortium**

The innovation consortium is a particular form of network, where companies convene and form a temporary interorganizational structure, which has hierarchical properties and a high level of formalization compared to a more conventional interorganizational network (Grandori & Soda, 1995; Sydow et al., 2012). It is typically formed by companies from the same industry, frequently competitors, wishing to jointly mobilize resources to pursue innovative opportunities, setting the standards for future developments in the industry (Browning et al., 1995; Doz, Olk & Ring, 2000). Innovation consortia are focused on a limited domain of the involved companies’ activities, for example a jointly defined task of developing a new technology (Doz et al., 2000; Sydow et al., 2012). It has a bureaucratic set of coordination mechanisms, composed of some combination of executive boards, contractual agreements, dedicated organizational units, specification of labor and task divisions, performance management systems, and incentive systems (Grandori and Soda, 1995). Once established, the innovation consortium set-up supposedly solves some of the grand challenges of creating and maintaining more loosely coupled networks, for example knowledge access and protection, funding, and mobilization of knowledge workers.

The majority of papers in this part of the network management literature reports on macro or firm factors that affect the likelihood of innovation consortium formation and success (Chen, Li & Dai, 2019; Hagedorn, 1993; Sakakibara, 1997; 2002). At a macro level, the level of competition between potential consortium members is a key determinant of membership, formation, level of collaboration, and innovative outputs among others, with some conflicting evidence whether this effect is positive or negative (Chen et al., 2019; Sakakibara, 2002). Other important macro factors are sector characteristics, market characteristics, and technological focus and intensity (Hagedoorn, 1993; Miotti & Sachwald, 2003; Sakakibara, 2002). Key firm specific factors documented by the literature
are absorptive capabilities, existing technological level and previous consortium experience (Miotti & Sachwald, 2003; Sakakibara, 2002). Another documented key element of successful consortia is an appropriability scheme that allows members to not only create value, but also appropriate part of the rewards. Consortia firms that agree on cost and reward sharing schemes ensure incentives for partaking in joint R&D (Sakakibara, 1997; 2002). In fact, solid incentive structures have been among the most critical elements of well working consortia in the literature.

Consortium development processes
Few investigations report on the internal dynamics of innovation consortia. The actions, interactions and routines that affect the internal mechanisms that keep consortia together and generate innovation are largely unexplored. One exception is the studies by Ring, Doz and Olk (2005), who identify 1) convergent interests, 2) social relationships, and 3) strategic interdependency as the most important mechanisms that lead to the formation of innovation consortia. Based on an extensive set of qualitative and quantitative data on a large range of consortia, these authors further document three development paths to successful consortia formation: one where a member firm triggers and drives the development (termed engineered), another where the consortium emerges through interfirm exploration of shared interests, typically as a response to critical changes in the environment (emergent), and a third where strong prior relationships drive the process (triggered) (Doz, Olk & Ring, 2000; Ring, Doz and Olk, 2005). The paths differ in the degrees to which they rely on and/or develop the three identified key mechanisms of successful consortia. However, all three paths eventually lead to the establishment of adequate formal structures and cause escalation of commitments and member satisfaction, producing successful innovative outcomes. The findings are critical to the management of the initial consortia formation, but cannot apply once the consortium has been established and starts working.

A series of retrospective studies of the most prominent innovation consortium in management research, SEMATECH, offers valuable insights into consortium development (after initial establishment). Evidence from these studies suggests overall that extreme levels of competition between member firms prevented the sharing of technical knowledge in SEMATECH, which prompted network structural changes, and an eventual failure to reform the industry as expected (Carayannis & Alexander, 2004; Grindley, Mowery & Silverman, 1994). In the initial competitive set-up (members were competitors), SEMATECH members were reluctant to share technologies out of fear of the competitive effects (Carayannis & Alexander, 2004). Also, agreement on strategic objectives was a challenge in this early stage, and closely connected to the appropriability issue.
Widespread member concerns that they would strengthen their free-riding competitors by sharing knowledge occurred already early in the process (Grindley et al., 1994). Consequently, the initial structure never succeeded and the consortium shifted to a vertical supplier oriented focus, developing process technologies with suppliers for example.

This shift was just the first of a long series of structure changes. As original members left and new came in, strategic alignment between firms became a growing challenge and some firm’s commitment that had been strong during initiation started to erode. For instance, a shift in focus from fundamental innovative solutions to equipment development caused several key firms to exit SEMATECH (Grindley et al., 1994). However, while SEMATECH did not revolutionize the semiconductor industry as intended, the revised structure led many firms to improve performance and competitiveness significantly (Browning et al., 1995). When initial strategies, caused by and triggering structural changes, became outdated, the new group of companies managed to adapt their strategic relations and alignment, and committed to the revised strategy and structure (Grindley et al., 1994). Key executives facilitated this process, structuring and routinizing work to create results, after having overcome the chaotic birth of SEMATECH (Browning et al., 1995). The retrospective SEMATECH accounts provide important insights into the key mechanisms of innovation consortia at different times and their successes and failures. Particularly the Browning et al. (1995) study demonstrates that the solid initial formal structure can only eventually lead to successful outcomes because of an extensive structuring process that routinizes key interorganizational actions. However, the interconnectedness of key elements in the process as well as the micro-level actions and their patterned development deserve further research attention. To that end, we adopt theory on managerial routines.

**The routinization of networked innovation actions**

Although the innovation literature has been preoccupied with the disruptive elements of innovation, a sound organizational innovation process also needs some level of stability in order to succeed and create innovative outcomes that are sustained over time (Pisano, 2014). Moving beyond occasional innovations to a plentiful and regular flow of product inventions over time requires innovation routines (Benghozi, 1990). The regularity and stability following routinization is even more pertinent in the interorganizational context where participants are at least initially heterogeneous in terms of strategy, aims, internal structures and management orientation. Like any other category of (inter-)organizational action, the joint innovation process consisting of multiple innovative actions performed over time, needs routinization to ensure the repetitive and continued execution of value
creating innovation activities. As such, the innovation consortium must establish routines for the creation, development, and implementation of innovative ideas, but they must also routinize actions that form key organizational mechanisms such as legitimization, mobilization, and motivation in the network of consortium companies.

Routines are required in company networks, because they provide regularity, simultaneity and consistency, thereby controlling and aligning the involved companies (Becker 2004). Routines systematize and synchronize, leading to enhanced coordination. Moreover, they reduce tensions by setting standards for accepted behavior, they economize by standardizing processes, and they reduce uncertainty by increasing predictability. Routinization occurs through a pressure for consistency, while constantly coping with external interference and continuous optimization of the routines. This implies that routines are developing through performative patterns of targeted consistency, but with flexibility in coordination (Turner and Rindova 2012). These features are essential in the emergence of a well-functioning interorganizational collaboration, such as an innovation consortium. However, in the consortium setting, routinization within the focal interorganizational management group does not necessarily permeate into all parts of the involved organizations, horizontally and vertically. Specifically, less connected actors may have limited and divergent understandings of needed actions and routines, which reduces the alignment and coordination between actors. This multiplicity of the ostensive element of routine, spreading across multiple networked organizations, and at multiple organizational levels in each organization, requires more research attention, and may lead to valuable additions to the literature (Turner and Rindova 2012).

Organizational routines can be defined as: “repetitive, recognizable patterns of interdependent actions that involve multiple actors” (Feldman and Pentland 2003, p. 95). In line with Dionysos and Tsoukas (2013), Feldman and Pentland (2003) and Rerup and Feldman (2011), we apply a recursive and performative lens on routinization processes. According to this view, routine actions are not simply retrieved from a repertoire and applied to organizational problems, and then maintained without change if successful, or substituted with other readymade routines in case of failure (Rerup and Feldman, 2011). They emerge over time as the result of a recursive trial and error process and managerial agency is therefore important. Empirical studies have documented this incremental change in routines, where specific performances and enactments of a routine result in both alteration and retention of specific actions within the routine (Rerup and Feldman 2011; Turner and Rindova 2012; Volkoff et al. 2007). Inspired by structuration theory and the duality of structure and agency (Giddens, 1984), this particular perspective on routines elaborates on the mutual constituting elements
of stability and change (Pentland et al. 2012). In this view, routines contain a performative and an
ostensive element. The ostensive element is the shared, abstract and generalized idea of the routine
(the routine in principle) and represents the structure (Feldman and Pentland, 2003). The performative
element is comprised of the specific performance of the routine, by specific actors in specific times
and places. The ostensive aspect covers the recognizable patterns of routines, and is an interpretation
of the accumulated actions (Dionysiou and Tsoukas 2013). The sum of these actions is derived from
the performative aspect, which is directed at accomplishing a specific task, often unfolding in
sequences of effortful accomplishments. The ostensive element of a routine can consist of multiple
patterns, covering multiple actions (Feldman 2010).

Based on Mead (1938), Dionysiou and Tsoukas (2013) present a key addition to the organizational
routine literature. They introduce uncertainty as the driver of novel action within a routine,
understood as exceptional experiences or problems that make actors doubt their course of action and
its effects (Mead, 1938). Here, routinized and unreflected behavior is interrupted, which calls for
adjustment. The initiation of routines is not fully captured in the extant literature, where the bulk of
research has contributed to understanding changes in routines (Obstfeld, 2012). As such, Mead’s
ideas add to the organizational routine literature, and it becomes even more relevant in an
interorganizational context, consisting of actors representing multiple organizations, with some level
of divergent motivations, dispositions, and interests, making uncertainty a frequent occurrence. Also,
distributed innovation tends to be associated with messiness and ambiguity, accelerating the
development or revision of routines (Boland, Lyytinen and Yoo, 2007). Adopting this performative
view, we adopt a research design that allows us to study the microprocesses of routines as well as
their generative nature (Dionysos & Tsoukas, 2013).

Research setting and methodology

Studying the routine development process

Investigating the emergence of organizational routines demands attention towards the inherent
processes and dynamics unfolding in the establishment of the particular organizational setting. The
single longitudinal case setting here is an innovation consortium consisting of nine companies from
the construction industry, which provides a unique setting for exploring the decision processes
through which interorganizational routines at the network level are established (Eisenhardt and
Graebner 2007). Through a process perspective, this paper seeks to capture the evolutonal and
continuous development of such a network, by emphasizing temporality and emergent element as a
result of continuous interaction between actors (Bizzi and Langley 2012). By focusing on the change
processes involved in interorganizational routine development, and placing the interaction processes over formal structure, this paper departs from social network analysis, which has dominated much organizational network research. It also differs from the narrative tradition within process research, by interpreting the process trajectory and its effect, going beyond the display of narratives comprised of events. Such approach has been proposed as a valuable method for studying innovation and development within business networks (Bizzi and Langley, 2012).

Case setting
The construction industry has traditionally been impeded by adversarial relationships consisting of opportunistic behavior and a low level of trust (Korczynski, 1996). Companies navigating in the complexities of interdependence and uncertainty inherent in construction projects, traditionally adopted the short term orientation on single projects, which led to competitive interorganizational processes and market-based exchanges (Dubois & Gadde, 2002). More recently, many construction companies have moved towards a more relational approach, where project alliancing, integrated project delivery and partnering are examples of collaboration forms with the goal of improving predictable project results and performance (Bygballe & Swärd, 2019). However, even though collaboration and long-term relationships are gaining ground, the project nature and competitive tendering prevalent within the industry do not promote favorable conditions for learning and innovation. The temporary organizing for single projects, restrain utilization and transfer of previous experience and knowledge (Gadde & Dubois, 2010). This has left an untapped potential for collaborative innovation and productivity improvements, which in general has been an absent element within the industry (Fulford & Standing, 2014). Responding to this potential and challenge, nine companies set up an innovation consortium, attempting to innovation products and processes, specifically in water treatment infrastructure projects.

The purpose was to support collaborative innovation by overcoming 1) the barriers to knowledge sharing between companies and across projects, 2) the lack of commitment to radical innovation by single organizations, and 3) the poor innovative capabilities of actors within the consortium. All nine companies are part of an overall strategic alliance called “Vandpartner”, which is a public-private collaboration running from 2016 to 2021. The primary task of “Vandpartner” is to renovate the drainage and sewage systems. The collaboration rests upon a partnering contract of 20 pages and a vision is to develop sustainable solutions for the future, through “limitless collaborations”. All partners have agreed to four common goals; 1) 10% cost reduction over the period, 2) over 90% customer satisfaction, 3) over 92% collaboration satisfaction among network partners, and 4)
maximum 10% quality deviation at first delivery. In order to fulfill these goals, “Vandpartner” established a special organizational unit called Innovation Group (IG). IG is placed at the network level, under the steering group (management level) and above the sub-partnerships (operational level). IG is established with two main purposes; 1) to enhance the innovation ability of the network by dedicating time and resources to innovation work, parallel and detached from the construction projects, and 2) to facilitate and promote innovation in a stable but highly efficient network with rigid and optimized work processes, consisting of engineers and personnel, who favor structure and predictability. The successful introduction of new production and product solutions into the construction work requires a routinized idea process, where specialists apply their knowledge and resources to work on a particular idea. Hence, IG’s task is to make sure that idea actions can be carried out repetitively and with some level of stability from one idea to the next, and in an effective process that expands the idea from creation, through refinement and development and finally to implementation and upscaling.

The innovation consortium has been studied for over three years, from inception in 2016 through the setting up of the innovation process, to the first results appeared and the focus changed from development to maintenance in 2019, which led us to withdraw ourselves from the case. Partnering has previously been used among the partners, beginning in 2006 at a smaller scale, resulting in previous strong relationships between the consortium members prior to this innovation consortium. By initially introducing partnering in 2006, the cost prices fell over 16%. This was followed by continuous cost reductions between 2-4% every year. However, from 2016 to 2017, the first year of IG and the new partnering collaboration, the cost prices increased for the first time by 1%. In 2018, the customer satisfaction was on 88%, collaboration satisfaction was 92.7% and quality deviations were on 11%. Continuous improvements and a constant focus on optimization on the separate projects have been the recipe to these results. However, it has been more challenging to implement the larger innovation projects, especially to address the lack of efficiency improvements. Idea development performance can be seen in Table 9.
<table>
<thead>
<tr>
<th></th>
<th>Idea</th>
<th>Maturing</th>
<th>Developing</th>
<th>Implementing</th>
<th>Upscaling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Realized</td>
<td>271(^{10})</td>
<td>39</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KPI</td>
<td>200 (300)</td>
<td>20 (20)</td>
<td>5 (5)</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>Realized</td>
<td>117</td>
<td>56</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>KPI</td>
<td>150 (100)</td>
<td>50 (20)</td>
<td>7 (25)</td>
<td>0 (8)</td>
</tr>
<tr>
<td>2018</td>
<td>Realized</td>
<td>102</td>
<td>29</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>KPI</td>
<td>50 (100)</td>
<td>30 (10)</td>
<td>13 (14)</td>
<td>10 (3)</td>
</tr>
</tbody>
</table>

Overall goals in 2020:

- 20 innovations implemented and used by 2 or more partners (internally) and
- 5 innovations developed and sold to 5-10 customers (external)

The dominant view within the innovation literature prescribes companies to collect as many ideas as possible, where after an efficient and thorough selection process will ensure innovation success. By the end of 2018, IG had implemented 13 ideas (of 271 initial ideas), and no ideas had yet reached the upscaling phase.

**The innovation consortium organization**

Figure 6 illustrates the four levels through which the nine companies within the innovation consortium are organized (with initials for specific employees). The placement of the initials in the outer circle indicates which organizational level they are located within in their home organization. The more centered individuals are main decision makers, often directors at the executive level. These are primarily placed in the steering group (SG) of the overall partnership, responsible for strategic decisions and overall development of the consortium. Project managers from relevant departments in the different companies are located at the network level below, either within IG, or within a specific sub partnership responsible for coordination within a specific type of construction. IG is responsible for managing the joint innovation work and this is where the locus of routinization is. As **Error! Reference source not found.** indicates, the firms are connected at multiple levels with varying intensity. The size of the slice in the outer circle represents the relative size of the organization within the consortium.

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\(^{10}\) *165 ideas are created prior to the innovation group, through the tendering process where every company brought in their initial innovative ideas*
The consortium consists of buying companies (B), suppliers or contractors (C) and advisors (A). The largest buyer is B2 (AV), which is deeply involved at all levels of the partnership. They set the agenda regarding strategic issues and take a deciding role in defining goals and strategic focus of the overall collaboration. B1 (FS) is a company with fewer resources, but with a relatively deep involvement within innovation. They try to follow up with B2 and they clearly benefit from this participation. B3 (OS) is a small organization, which has slowly withdrawn from the collaboration and after three years, they are simply fulfilling their contractual arrangement with a minimum effort within innovation. The three contractors are similar in terms of contractual size within the network, but the firm size differs a lot from C2 (PA) consisting of over 7000 employees, to C1 (VA) being a smaller contractor with 170 employees. They are equally engaged in innovation processes, where they all have assigned innovation specialist to the partnership, while also providing specific construction projects for testing innovation ideas. All contractors are affiliated with B2, whereas B1 and B3 are only developing construction projects together with C1. Finally, advising engineers act as both subcontractors to the construction companies, while simultaneously delivering project plans and designs for the clients. A2
(ED) and A3 (NR) are directly involved in the network, especially with B2 and C2, and B3 and C3, whereas A1 (OB) only engages in the partnership through C1. In terms of innovation work, the advising engineers are compensated financially on an hourly basis. The contractors on the other hand, are covering their costs for innovation indirectly through their unit prices in projects. So they are contractually obliged to participate in the innovation work, where the advising engineers earns extra money for participating in innovation. However, everyone is rewarded for fulfilling the strategic goals, where innovation is the only path forward.

**Data collection**

First, we compiled 515 consortium documents, consisting of meeting minutes combined with various other documents such as contracts and other written agreements, PP slides, notes, idea documents etc., drafted from January 2016 to June 2019. In addition, the first author followed the consortium from November 2017 to June 2019, observing and participating in meetings across all organizational levels in the consortium. In total, 196 hours of observations were collected (see Table 10).

<table>
<thead>
<tr>
<th>TABLE 10 – DATA COLLECTED AT DIFFERENT LEVELS OF THE CONSORTIUM</th>
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<tbody>
<tr>
<td>Minutes of meetings (number, pages)</td>
</tr>
<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Steering group</td>
</tr>
<tr>
<td>Innovation group</td>
</tr>
<tr>
<td>Subpartnerships</td>
</tr>
<tr>
<td>Operational level</td>
</tr>
<tr>
<td>Total primary data</td>
</tr>
</tbody>
</table>

The observations uncovered the coordination and collaboration regarding innovation across organizational levels, between IG, SG, the sub partnerships and the consortium member organizations. Finally, 31 interviews were conducted within the consortium, which supplemented the document analysis by combining various actors’ perspectives on the uncertainties and actions taken by IG. Adding observations and interviews supported the iterative nature of the data collection and analysis process, by 1) contextualizing the findings from document data, 2) guiding the data processing by suggesting the importance of findings, and 3) triangulating findings across organizational settings by corroborating evidence from different sources (Bowen, 2009). Secondary data were collected within the consortium and used as contextual data, but has not been included for a more detailed analysis. The many types of complementary data allowed us to develop a credible interpretation of the actions and routine developments.
The retrospective nature of the document data provides two strengths to this study. First, it brings out the recurrent action patterns and cycles of the routine enactments, in which the consortium engages. Second, the analysis follows a similar path as the real-life events. Going through the material, tracking action and decisions as they occur within the data, reproduces the routine development trajectory. This enabled us to analyze the process with a similar level of knowledge and uncertainty as the actors, at a given point in time, and thereby to simulate the actual process experienced by the actors involved (Hussenot & Missonier, 2015). When questioned about everyday actions, actors focus on the ostensive account of the routines (Pentland, 2005). Relying on documents as the primary source of data removed the post-rationalization, over-reflected and often aggregated view of occurred events, impeding retrospective interviewing, while strengthening the holistic understanding of the situatedness of the actions and decisions taken by IG.

**Analysis**

We coded the data to track uncertainty, actions and routines involved in the development of the innovation consortium, starting right after its establishment. The analysis started by coding for key perceived uncertainties within IG, leading to the emergence and enactment of specific routines, encompassing the actions and decisions taken by IG to manage the innovation process. This was an indication of a perceived need in IG to act, potentially leading to establishing or changing routines. However, identifying routines cannot be done a priori and must rely on the accounts of actors involved in the accomplishment of the routines. These accounts became visible through the documents, where the experiences of people involved were noted and thereby acted as the produced shared understanding of what constituted the routine. As researchers, this analysis process is highly interpretive in relation to mapping out actions derived from uncertainties and connecting patterns of action into routines. This interpretative analysis approach reduces the risk of mistaking standardized operating procedures and espoused routines, with how the routines are actually enacted (Feldman 2010). More specifically, we coded meeting minutes, idea descriptions, process charts, presentations and memos etc., and identified 108 key uncertainties, triggering interactions and actions taken by IG, and frequently leading to routine development. All the details for each uncertainty were entered into an extensive Excel document, which served as the focal point for our analysis. Especially the minutes of meetings, which by the participant organizations were required to be highly detailed, allowed us to observe the redacted and often unbiased account of what actually happened at the meetings, leading to decisions of establishing or altering routines. The rule like nature of routines could be tracked in the MoMs, where group members agreed to deal with a particular uncertainty in a certain way in
future innovation work. We were furthermore able to track when IG avoided acting on uncertainties or postponed sensitive issues. Normally, these enactment episodes would be based on the perceptions and interpretations of the actors involved, implying an embeddedness between the events and the specific network context. However, through the documents, we were able to identify ‘mutual coherent action dispositions’ of IG members stored in meeting minutes, presentations, templates etc. (Dionysiou & Tsoukas, 2013). Furthermore, routine analysis entails an attention towards the collectively held task-knowledge shared among actors within the consortium and IG, which is manifested as knowledge repositories in documents, charts and artifacts (Becker, 2004).

The second and third authors, who were not immersed into the consortium, interpreted the evidence and validated findings, enhancing the intercoder reliability. First, we developed a detailed account of the trajectory of IG focusing on perceived uncertainties and corresponding actions. Multiple discussions and iterations among the authors address two specific interpretation issues: 1) the identification of specific actions and patterns, meaning the labeling of when an action occurs, and 2) the multiplicity of routines, referring to the different intentions and schemata underlying the same routine (Dionysiou & Tsoukas, 2013; Feldman, 2010). Through these discussions, different categories of routine developments slowly emerged within the data showing how IG developed over time. We also drew various types of maps of the processes of routine developments, which supported the interpretation of the process data. Based on our analysis, we were able to discern a series of movements, overlapping and entangled over time, that described a path creation process taking place in the innovation group.

**Findings – the routinization of consortium innovation**

The following narrative sketches the consortium development process, with key uncertainties, actions and routines.

**2016**

Armed with a consultancy report assessing the level of innovation in the consortium organizations, the innovation group (IG) initiated the consortium innovation work in January 2016. The early concerns in IG were broadly on the challenges of getting a high number of different people in diverse organizations to move in the same direction innovation wise.

*The members are many different companies, some with planning engineers and others with contractors, and they think very differently. How do we create a system that can accommodate all the*
different partners but still ensure that everyone moves in the same direction? (MoM #1, January 2016).

Apart from a kick-off workshop with an external innovation specialist to raise the enthusiasm of employees, as well as communicating and aligning expectations, IG initiated no further actions aimed at addressing these initial concerns. Instead, they focused first on setting up the idea gathering and development process, which came to dominate the first half of 2016. IG developed an idea development process with gates (see Table 9), where SG needed to evaluate and qualify the ideas to pass through a gate. They also developed IT-based tools, templates, and documents to standardize the process. Here the uncertainties were mostly connected to the number of ideas to manage, the efficiency of idea development, and the innovativeness of the ideas. Several issues regarding the relationship between IG and SG started to emerge in the spring 2016. For example, IG wanted to focus on radical innovations, but SG seemed more focused on smaller, less courageous innovations that resulted in more direct benefits to the member companies.

There is a lack of courage in SG to go with the right innovation ideas, such as the Georadar. Soil bank can create efficiency and cost savings, but it is not innovation, it is already invented” (MoM #5, May 2016).

SG also demanded to control the approval of ideas (gates) and shifted the scope from export oriented projects (initial goal of 20 innovations sold to at least 20 customers outside the consortium), to a more internal focus with direct and more immediate value for the member companies (a double goal with 20 innovations used internally by at least 2 member companies, and 5 innovations sold to 10 customers externally). Like several other SG decisions, this less ambitious dual goal bothered IG, although it was accepted. In April, the first two ideas (a soil bank and a separation solution) were accepted for further development (gate 2) by SG, but 5 other ideas were rejected. IG perceived a lack of risk taking in SG, only focusing on trivial ideas with limited potential. They felt a need to simplify the idea presentations for SG, because the existing format had failed to sell the good ideas. SG should be presented with fewer numbers, because numbers complicated things and scared off consortium members. Moreover, IG members considered various ways they could influence SG to become more favorable. They also decided to develop a few rejected ideas further and present them again for SG. In addition, spring and summer of 2016 continued with further development of the various parts of the idea development process.
Half way through 2016, IG started to become worried about meeting the idea goals for the year. They were successful at gathering the ideas (gate 1), but the further development in the following gates was troubled. At the June meeting they decided to count in ideas from the early workshops and creative platform (one of their established idea gathering/development routines) in the maturing stage, which boosted their performance.

“When we count, we sometimes become a little creative, but that is how it is with innovation people. You can quickly think - if we consider it like this, then this is also an invention” (IG member, Contractor C2).

They also justified their efforts and performance within the group as satisfactory, given that this was the establishment year for the group. In the summer, they arranged a workshop with an innovation specialist from a local university to strengthen the idea development process, specifically the creative platform. One consortium company tried the creative platform at its own premises, but met some employee resistance.

“Not everyone is equally good at thinking innovative. Between 30 and 40% of the participants perceived the session to be too ‘hippie-like’” (MoM #6, June 2016).

This raised IG doubts about employee attitudes and motivation in the work groups. However, they realized that you cannot expect everyone be “new thinking” and be fans of these creative processes.

“But if 80 % of the corns are popping, it is also a success” (MoM #6, June 2016).

Consequently, they decided to develop the creative platform further in one of the more motivated work groups (lining), assisted by the university specialist, which lead to 20 new ideas. Based on the experience from this workshop they improved the idea description template. So far SG denied the majority of new ideas, raising doubts in IG about their ability to get ideas qualified for further development. They needed sales oriented idea descriptions that could convince SG to take ideas through to gate two. They also continued to adapt denied ideas to give them another chance.

“After revising the two idea descriptions, B2Manager will send them via e-mail to members of SG for approval. Hereby, the agility in SG regarding idea handling is tested” (MoM #5, May 2016).

Finally, at the June meeting they discussed how the innovation work could become more transparent, and how they could promote the work more broadly in the network. Consequently, they decided to make a newsletter to inform about the idea work (August 2016). IG’s realization that some “new”
ideas actually existed on the market already demonstrated the need for strengthened communication and coordination between the various groups.

“13 out 20 ideas from Workshop 2 have been evaluated as low innovation potential, either as being smaller continuous improvements, already in progress in member companies, or existing at the market ready for purchase” (MoM #7, August 2016)

Consequently, IG decided to expand the creative platform and strengthen its on-line functionality. Later that summer they framed a two-pager and mailed it to consortium members with information on the idea work. However, in September 2016 one consortium member company (C3) emailed the first idea to IG through the newly set up inbox, but this idea turned out to be implemented already by another consortium company (B2).

“C3 sent the idea of ‘Geotagging in PDF-drawings’... it became clear that this idea has already been tried in the subpartnership excavation, by [Project Manager in B2]... IG member from C3 says that she does not think C3 has heard of that and more knowledge sharing is needed in the subpartnership!” (MoM #8, September, 2016).

Realizing the continuing poor information sharing on ideas, IG members decided to participate personally in subpartnership meetings to strengthen information sharing.

“KTO and GSN is participating in the planning subpartnership, AMH participates in the water subpartnership, PHJ participates in the lining subpartnership, and LBE, SHL and RHA participate in the excavation subpartnership” (MoM, #10, November, 2016).

In the summer 2016, IG also discussed the first of four new “action plans”, made to promote action in the consortium. Discussing the action plan “from idea to process”, the group aimed at expanding the process structure to handle idea maturing, but the meeting only led to the repetition of several key challenges identified at earlier meetings, and no progress was recorded in connection to idea maturing. Most ideas were not moving forward at this point and IG planned new meetings and work groups to spur the progression. One IG member suggested that difficult ideas were termed “challenges” instead, seemingly making IG less accountable. Later this summer they agreed to convert an increasing number of ideas into challenges.

“The innovation projects that were initiated, which had great innovation potential, they were also quite imprecise. And if they are not concrete, then they are difficult to attack. So we needed to be a little more specific about the problem before we could start” (Interview, IG member B2).
At this point, IG was clearly struggling to take the ideas to further development, and seemed to get stuck in developing the process instead or postponing critical decision making. Meanwhile, SG rejected a new line of ideas to the frustration of IG, who reacted by focusing even more on the sales pitch for the individual ideas, and also agreed to prep SG members before their meetings to look more favorably at the presented ideas. A new uncertainty appeared in 2016, where the secondary partners expressed a wish to participate in the innovation process. IG held a meeting with them, four notable construction companies, who wanted to contribute a specific number of workdays into the innovation process. The outcome was a draft of principles for the involvement, but faced with uncertainty regarding the exact roles of these secondary partners, IG did not address this issue further.

Autumn 2016 IG worked on their second action plan: “promoting innovation culture”. They spent much time segmenting the many participants in the consortium and framing initiatives and a process to promote innovation for each initiative. Most effort was granted to an intricate award initiative, where they developed a rating and nomination scheme to motivate idea work among members.

“The clients emphasize innovation, and with the purpose of promoting and support great ideas an annual prize is awarded to the best idea” (Concept for partnering, sec. 4.8, 2016).

Based on this, “IG interpreted it as their responsibility to 1) motivate members to take chances they otherwise would not, 2) to get members to involve wider than the nearest colleagues on their ideas, and 3) to ensure that members engage in other colleagues’ ideas” (MoM, incentive workshop, October 2016).

In the autumn 2016, IG also worked further on refining the idea gathering process to strengthen the initial evaluation, fit with consortium aims, stakeholder mapping, clarification of existing knowledge, and feedback to idea owners. Towards the end of the first consortium year, IG faced two new uncertainties: 1) SG wishes for improved strategic direction for the idea work, and 2) concerns that partnership idea work was not running as planned. The first concern remained unaddressed at this point, but to alleviate the second, IG members decided to participate personally in subpartnership meetings. Discussing their experiences in the meeting November 2016, IG members realized that the innovation work progressed only very slowly. Moreover, most subpartnerships were largely unaware of IG communication, were dissatisfied with the process, and wanted more responsibility.

“An ‘aha-experience’: No one in the excavation subpartnership have read or even seen the newsletter from IG, and they still do not know what to do if they would like to work on an idea from the ‘idea
“Experiencing an uncertainty in the linning subpartnership about who is in charge of the innovation projects” (MoM #10, November 2016).

**2017**

One year into the process (January 2017) IG surpassed idea number 270, but was increasingly concerned about the lowered quality of incoming ideas. However, they found it difficult to reject any ideas up-front, and instead assigned idea coordinators from the subpartnerships to handle incoming ideas in an attempt to avoid too much strain. They still struggled with getting ideas through gate 1, and for several ideas, they lacked elementary knowledge to push them forward. IG therefore decided to look externally for knowledge and they initiated partnership coordinator meetings to increase knowledge sharing within the consortium. IG also evaluated performance and found that consortium satisfaction with the innovation work was fairly high, whereas idea performance was critical, with zero ideas reaching the development stage at this point. IG also decided to broaden the pool of initial ideas, for example to include ideas from tendering, which made the idea gathering performance look better.

“271 ideas were generated in 2016. 165 ideas came from the tendering process. 39 ideas were in maturing, where all ideas are from either Workshop 1, Creative platform, World café or Workshop 2. 0 ideas have reached the development phase” (Data from appendix to MoM #12, January, 2017).

“It was agreed that all ideas derived from creative platforms e.g., will be included as ‘maturing’ in the KPIs for IG” (MoM #18, June 2017)

In March 2017, SG approved the IG budget and expressed support for the further innovation work. However, IG members perceived low support for many specific ideas and increasing uncertainty regarding SG’s strategic direction relative to consortium member organizations. At this time, the two largest sub partnership still worked poorly. ‘Excavation’ with most involved consortium members could not ensure commitment to innovation projects, and ‘planning’ put several projects in motion without following up. IG members decided to install themselves as permanent features in the partnerships. To address this uncertainty further, IG also held a workshop with a university researcher (who participated in the innovation process earlier) to motivate and streamline idea work.

Interestingly, while fighting to set directions and motivate the sub partnerships, IG experienced increasing pressure from consortium personnel not directly involved in the innovation work, who demanded that ideas go into testing and implementation.
In the April 2017 meeting, several SG members voiced a need for all ideas to support the strategic agenda of the consortium (specifically 4 identified focus areas – termed “pillars”). IG set out to streamline the idea documentations according to the strategic pillars, essentially attempting to solve the issue by changing their communication to SG, without actually changing the ideas that much. However, at the same time they were becoming gradually more concerned because the individual contractors were only focusing on and devoting efforts to ideas with clear benefit to themselves (and not to the overall consortium). At that time, IG had experienced several times that specific ideas were only supported by one consortium company, leaving the sub partnerships with too limited resources for actually carrying through with the ideas. In a few instances, some consortium companies pursued ideas outside the consortium, and IG could just observe passively.

“IG member A2 expressed frustration that several ideas were already under development in B2, without IG’s involvement. He was afraid of losing important elements of the idea, while it created ambiguity in the role of IG” (MoM #16, April 2017).

“It (innovation setup) has become too big and cumbersome. So when we have an idea, then we might as well just pursue it. Like the drone, where we just take it for a flight and then see what we can use it for... How difficult can it be, right?” (Interview, Project Manager A1, operational level).

IG sometimes found themselves pursuing ideas without having the proper knowledge and competencies available from the consortium companies. In other situations, SG approved and supported the wrong ideas (termed so because IG deemed them less valuable), which made IG focus on getting the right consortium members involved early, and once again change the idea documentation prepared for SG. In June 2017, idea development beyond the early stages started to become a major worry for IG. They initiated a range of actions to become further involved and push the innovation work in the sub partnerships. They also met with the engineering advisors within the consortium, who had not managed to push through much innovative action either, but were paid expensively by the hour.

“Conceptually, we have a challenge. The advisors have not included costs for innovation work in their unit prices. They are paid per hour, when they contribute, so they can see all kinds of opportunities and innovation projects, because they are paid for it. We need to create a burning platform for them, so we ensure an incentive to actively engage and steer innovation projects. The advisors want to investigate, search and write notes, and the question is if they would do that if they were not paid” (Interview, IG member B2)
Entering the autumn of 2017, IG was developing the idea management process further to ensure standard handling of ideas and improved coordination. At the same time, the implementation work for several ideas was postponed by IG in various ways. IG also began to hire and involve external specialist, such as IT consultancies or robot manufacturers, to handle the development of other ideas.

“IG contacted [Robot manufacturer] to develop an automatic excavation machine based on artificial intelligence” (MoM #21, December 2017). “IG calculated a business case with 3.6 billion DKK in savings per year (IG Presentation” MoM appendix, December 2017). “[The robot manufacturer] wanted 400,000 DKK up front, so it died there”... And they (consortium members) start asking how this will reduce costs by 2%, and we cannot answer that. So it ends up becoming an academic project with numbers and no value” (Interview, IG member C2)

Somehow, this happened to an increasing extent when ideas reached stage 3, instead of utilizing consortium resources. At a meeting, SG approved three ideas for phase three and three other ideas were passed through to stage 2. However, disapproval of SG decisions flourished, with IG again criticizing the low level of innovativeness of the approved ideas, and two consortium companies doubting the potential of several ideas. Entering the last part of 2017, IG discussed the aims for 2018 and decided: 1) to have specific emphasis on getting more ideas through gate three to implementation, 2) to create motivation in the sub partnerships for idea ownership to ensure execution, and 3) to aim ideas at achieving a two % savings target set by SG.

In December 2017, the sub partnership coordinators openly questioned IG work, which raised a new uncertainty regarding the visibility of the IG work.

“Question to IG: What do IG actually do on their meetings? IG decides to include than in an action plan for 2018” (MoM #21, December 2017). “… then 20-25 initiatives and ideas came in. All which have realized significant larger benefits than IG in total have made over the last three years!” (Interview, Project Manager C2)

IG members agreed to take action on this issue. Meanwhile, some of the external companies returned with project proposals on specific ideas, but these mostly required significant investments deemed unrealistic by IG. IG responded to the external partners that they would discuss it within the consortium, but in most cases they just abandoned the idea. Digitalization, a key strategic pillar, also took considerable time in the winter 2017. IG ordered an IT assessment of the consortium from an
external consultancy. Upon discussing the results, IG became overwhelmed by the complexity and scale of the IT potential, and also decided to maintain status quo in this area.

**2018**

In early 2018, the consortium managed to implement one idea, which actually originated outside the consortium, but was then dragged in by one company. While a couple of partners found this highly successful, other consortium companies claimed that the distribution of costs and rewards was unfair. IG discussed this uncertainty regarding incentives in individual projects.

“We have completely turned the process around, by having the planners and contractors involved together from the beginning of a project. That is also innovation!” (Interview, Project Managers, B1)

“Now we are paying for it, because we now have a possible deficit. Secondly, we are making the project right the first time, making it even harder to reduce the 2% through optimizations” (Interview, Project Manager C2)

The issue led to several project changes in terms of increased cost coverage of contractors on various projects, which essentially went against the collaborative model in the innovation consortium. By February 2018, IG adapted the idea gathering process again, and were finally satisfied with the idea development process. However, in terms of developing the ideas further to execution, IG increasingly experienced that consortium resources were not utilized.

“A3 repeatedly offered their expertise in terms of how to establish a soil inventory, which were never used by C2 who was responsible for the project” (Multiple MoMs).

“As the only company, C3 have a person educated in surface solutions. No one have used him for development of surface solutions” (MoM #25, April 2018).

“I have not got any inputs from anyone (about surface solutions)... We have a feeling that we are in front, so if we should share knowledge, we would use our time on giving presents” (Interview, Project Manager A2)

Consortium companies would often draw in outside specialists or develop with others outside the consortium, despite having knowledge and resources available within. IG also noted that the more they pushed the sub partnerships for development action, the less ownership they took. Also, sub partnerships favored ideas with short-term gains, which disqualified many more innovative ideas.
Two years into the process, the early idea process seemed fine-tuned and fairly effective, but mobilizing and motivating the network was highly challenging.

In April 2018, IG agreed to get closer involvement with the sub partnerships, find money for idea projects, and attempted to speed up the process. They also talked over solutions for strengthened reporting of their work, which only led to a small note in the MoM on discussing this further. The involved contractors would not commit resources for innovation projects without financing, so IG again looked at financing, and again postponed this by deciding that each IG member return to her/his home organization and get financial commitments for specific projects.

“The experience is that if the client is not frontrunner, then nothing is happening. So we always need to initiate things, otherwise they will not happen. The larger projects, we need to push!” (Interview, IG member C2).

“I got my concern out, that they are just initiating stuff without having a proper analysis of it and the 100,000 DKK they use on it. It is a little bit too much prototyping. We just do something without thinking. There, my pulse was quite high!” (Interview, Project Manager C2)

In the spring 2018, IG also established so-called work tracks headed by IG members for each of the four strategic pillars of the consortium, each with its own pool of ideas. Later that year, idea development was progressing and reported to SG as being successful.

“IG has set a focus for 2018: To create more quick results. They create 18 ‘must-win’ battles, which they need to succeed with before 2021. Only 8 out of 18 projects are product innovation, with development of new tools. The rest is process innovation.” (PP-presentation from IG to SG, September 2018).

However, this was at the expense of resource and knowledge utilization across the consortium, which was now suffering. Although idea development was progressing, very few ideas had been implemented at this time. During the summer 2018, IG members identified two ideas with high potential and put all their efforts into succeeding with these particular projects. Despite a serious effort from IG individuals and ideas with high potential, the projects revealed the now critical problems of consortium organizations not wanting to share knowledge or devote resources to projects without clear benefits to themselves.

“We sent out [surveying company] in order to get better data than we can ourselves. Then they call me at 2 PM to ask where the guys from C3 were, who were supposed to help! No one ever came. The
agreements just disappeared, and this is the part I am not and should not be involved in” (Interview, IG member C1).

In the autumn 2018, the low number of actually implemented ideas came up again due to a push from consortium company executives, who wanted results. IG decided to frame “light tower” projects within each strategic pillar and then report heavily on the effort for each of these projects. Essentially, they now produced success reports of the idea processes, instead of the outcomes, and in a refined and routinized way. They even hired in a consultancy to help them develop “foundation stories” of these projects for promotion purposes.

By February 2019, SG was slowly taking over more responsibility for the innovation work from IG. There was an expressed need to assign responsibility and hold consortium members accountable for developing innovations. They again refined their idea development actions and routines with new tools and processes, but when it came to implementation they often resorted to postponing decisions and returning to their organizations to discuss, which was essentially another form of postponing or pacifying, and it was often “forgotten” in the meantime. During various meetings in the Winter 2019, both IG and SG were becoming more passive, and seemed more concerned with continuation of the consortium than the implementation of individual ideas.

A derailed innovation process
Looking at the three-year innovation process in the consortium, IG failed to carry through with the ideas because particular core innovation actions were not routinized, leading to a stray innovation process, without the desired level of effectiveness and stability. Mapping and interpreting the pattern of events unfolding over time in the consortium, we arrive at the following process (see Figure 7). It shows the routinization process with the most critical uncertainties, actions, and routines.
By the end of 2018 the consortium had implemented only 2 ideas, and none of these had been up-scaled (see Table 9). Based on these performance numbers, innovation seemed to have failed to a large degree. Our analysis shows that this was because IG never managed to routinize the final stages of the idea process: implementation and upscaling. The development of a coherent set of action dispositions that could be effectively repeated for all recurrent idea processes never materialized. Instead, IG searched in an increasingly desperate way for ways to mobilize employees in the sub partnerships and wider in the consortium organizations; mostly without success. In the beginning of 2019, severe uncertainties remained and we found evidence for SG gradually taking over some IG responsibilities. Looking at the entire three-year development of the innovation work, we found that IG became stuck in a development path that gradually derailed the innovation process, even if this development was largely unintended. Five overall overlapping movements characterize this process.

In movement one, IG succeeded in routinizing an idea gathering and development process they became satisfied with and that performed fairly well. Gathering ideas from consortium members became a stable recurrent action pattern, refined along the way by IG, making it increasingly effective. IG members aired concerns about network mobilization and the quality and potential of ideas early on, but left these uncertainties unaddressed at this stage. Instead, they focused at creating a standardized process that could create and develop a large number of ideas – the more the better (performance wise). Interestingly, this focus on quantity and process standardization meant that a very high number of ideas received equal attention, but the numbers came at the expense of quality and potential, as the process failed to qualify and evaluate the ideas sufficiently. Already at this early point, IG chose a path that came to prevent later successful implementation and upscaling.

In movement two, uncertainty regarding idea quality and potential quickly became coupled with concerns regarding SG’s low early stage idea acceptance rate. Beneath these conflicting views was also a more fundamental underlying difference in understanding of the innovation task. Whereas SG wanted ideas that fit the strategy and the overall aims of the consortium, IG favored more risky and radical innovation ideas. In order to increase the acceptance rate of ideas, IG therefore developed routines for conveying the idea proposals and prepping the SG members, in order to prompt favorable responses from decision makers. However, the actual ideas were not developed, and they were only partly successful, as IG continued to struggle with the will of SG executives throughout the 3-year process. With a continued low acceptance rate, performance became a key source of IG uncertainty. IG responded by devising a set of performance boosting actions, some of which became routinized. Again, ideas were actually not developed, but by changing measures etc., IG improved their
performance numbers. Upward facing struggles regarding idea acceptance and performance characterized this second movement. IG preserved their existence and produced many ideas. But there were too many ideas in play, which started to occupy too many resources, coupled with meager improvements in idea quality, moving the process further away from a successful course.

The key words in movement three were information sharing, promotion and mobilization. Based on increasing worries about low knowledge sharing and lacking idea development actions of employees in the sub partnerships, IG members developed information sharing and promotion routines, in order to make the innovation work visible and legitimize it broadly in the consortium for the employees, who were eventually going to implement the ideas. However, these actions convinced IG that the innovation work was indeed lowly prioritized in many groups and that coordination was suffering. IG also began to sense signs of resistance and confrontation in the work groups indicating that they should have been involved earlier. This movement included attempts at involvement actions, but also further routinization of non-value creating actions (not idea oriented) as well as increased resource consumption. As an increasing number of ideas approached the implementation stage, IG was facing a long tail of residual uncertainties, as well as doubts regarding their ability to get ideas implemented by employees in the work groups and sub partnerships. They therefore framed action plans with SG. These action plans were launched to deal with the uncertainties, for example ensuring strategic alignment, and led to a high level of routinization, but to an increasing degree of non-value creating actions – essentially action planning became the action at this point. This movement also comprise many postponement or avoidance actions; some becoming routinized. Getting ideas implemented started to seem somewhat insurmountable by IG. They began to hire in external forces to operate on ideas, which often led to overly expensive proposal, but rarely implementation. These actions also removed the innovation further from the consortium sub partnerships, who became increasingly critical.

In movement 4, incentives entered the stage. As some ideas entered implementation and the involved companies had to accelerate their assignment of resources, consortium companies experienced imbalances, and started to object to cost and reward sharing schemes. Cost distribution became a frequent source of complaints that IG needed to handle. IG found that member companies were often inactive unless their organization benefitted immediately from an idea.

Finally, in movement 5, consortium companies were only rarely sharing knowledge and resources to work on ideas. Although no firm had exited at this point, low commitment became a serious inhibitor.
Commitment of funds and resources to ideas often failed, and IG developed a series of incentive routines to address this problem. Despite IG’s effort, mobilization continued to be very difficult, and many consortium members worked for themselves, sometimes by developing ideas outside the consortium. Key employees were highly demotivated at this point, and failed to commit to ideas that they were often not interested in. This final movement was characterized by a very high number of diverse actions aimed at mobilizing the consortium, but with very limited success, which resulted in a very low level of routinization.

Essentially, IG had at this point routinized some early stage innovation actions (stage 1-3), but also managed to routinize lots of non-value creating innovation work, aimed for example at promotion, performance reporting, and SG-directed influencing, among other things. They never managed to routinize implementation and upscaling actions to any notable extent. Instead, IG had essentially routinized a path, which worked early in the process, but came to be detrimental to innovation success in the final stages. We find that derailing happened specifically when:

1) A focus on idea quantity spread out resources and prevented idea qualification (from movement 1) – removing the foundation for later mobilization, incentives and commitment (movement 3, 4 and 5).

2) IG promoted and legitimized what many consortium employees believed was a wrong path, creating resistance, thereby removing the foundation for resource and knowledge sharing (movement 3).

3) IG failed to routinize actions that balanced incentives until costs were actually occurring. With low quality ideas, incentives grew to an even bigger issue at this point in time (movement 4).

4) IG (being busy with other actions), directed attention to member commitment too late (movement 5), allowing key member employees to experience non-involvement, which increased their resistance and lowered commitment of resources to idea implementation. With the difficulties in raising internal consortium resource to implement, IG looked outside for resources, which damaged member commitment further.

5) A gradually increasing focus on routinizing non-innovative actions (to demonstrate action) swallowed resources for innovative actions (all movements).

Somehow, required routine actions to create and maintain network mechanisms were not anticipated and/or acted upon up-front in the process, but more as the uncertainties arose and became stronger
over time. The felt need to raise knowledge and protect IG attracted most attention, at the expense of raising implementation actions. And later when this attention switched it was too late.

**Discussion**

The consortium literature has provided valuable insights into key elements of innovation consortia as well as knowledge on the stages of consortium development. What our findings bring to the literature on innovation consortia are insights into the path dependent (or creating) development of an innovation consortium – in other words, how actions and routinization at t1 hinder or provide support for certain actions at t2, generating a path over time that may or may not align with initial objectives. Each of our five documented movements create part of a path, which eventually turn out to be incapable of supporting the implementation and up-scaling of innovation. As the bulk of ideas reach implementation and upscaling, resistance has grown to a level where actions cannot attain ostensive characteristics, and IG managers continue to put new actions on trial in a search for effective regularity. As noted by Boland et al. (2007), the concept path dependency belongs to an evolutionary economics view. From a performative perspective on routinization, actors with agency *create* the path (Garud & Karnøe, 2001). Not technological like the paths in Boland et al. (2007) and Sydow et al. (2012), but the path of organizational actions, which lie behind the technical path (Sydow et al., 2012). Nevertheless, the effect is similar, as managers at a given point in time routinize what benefits them the most in the present, but eventually leads to failure.

Documenting this path creation in an established innovation consortium, we contribute to the literature on innovation consortia management, which has so far provided only cross-sectional evidence for specific organization mechanisms, or provided processual evidence on only consortia formation or more descriptive accounts of key events in archetypical consortia such as SEMATECH (see e.g. Browning et al., 1995; Doz et al., 2000). The Browning et al. (1995) investigation documented structuration as a key organizing force in innovation consortia, but more as individual instances of routinization spurred by key decision makers. We extend on this study by showing that the order of actions and routinization matters, and that actions aimed at creating the different key consortia organizational mechanisms are dependent. IG managers’ attention is driven by the most critical present uncertainties that must be resolved, which triggers particular trial and error actions: first idea performance uncertainties, then vertical uncertainties related to their links to executive management, then legitimization and mobilization concerns etc. As they attend to and routinize relative to early uncertainties, they magnify later uncertainties and remove the foundation for eventual innovation success. In addition, we note that a particular key innovation mechanism is not equally
critical at different times in the life of a consortium. From a managerial angle, although consortia are equipped with a high level of formal structure upon establishment, as well as pre-existing social ties in our case, their complexity, tightness, and numbers are so high and changing that structuring and routinization processes seem more critical here than in simpler network forms. Browning et al. (1995) provided valuable insights into the specific routines created by SEMATECH, and emphasized their essentiality for SEMATECH’s positive development. Our case shows the opposite development, where determined consortium companies with a solid formal structure in place ended without any notable innovative results.

Overall, our results document only one specific path, characterized by the interdependent development of the five movements. Given the almost unique nature of specific innovation consortia, can we generalize to other consortia or even broader to more loosely coupled innovation networks? Our data lends evidence to the key importance of general innovation network mechanisms: 1) knowledge gathering, 2) incentives and appropriability, 3) strategic alignment and executive goodwill, 4) commitment (of resources), and 5) legitimization and mobilization. As such, we confirm the known importance of these network mechanisms in innovation consortia (Carayannis & Alexander, 2004; Grindley et al., 1994; Ring et al., 2005), and other innovation network forms (Davis and Eisenhardt, 2011; Grandori and Soda, 1995; Perry-Smith and Mannucci 2017).

Indeed, from a process perspective, Perry-Smith and Manucci (2017) provide a comprehensive overview of mechanisms that are critical in each stage of idea development in networks. However, our key contribution lies more in the illuminated interdependencies between routinized actions that seek to create these network mechanisms across time periods, which may possibly create a number of different paths and have constraining as well as supporting effects. This interdependence, which is visible because of the applied performative routine view in this study, can be generalized broadly to other forms of innovation networks. Innovation network research has documented more discrete instances of such dependencies. For example, Kijkuit & van de Ende (2007, p. 864) applied social network theory in a study of early stage idea development, and found that specific “network conditions that enhance the novelty of the generated ideas may at the same time impede the further development of the ideas and their actual transfer into projects”. The authors propose that ties to decision makers and network consensus, among others in different idea stages have an effect on eventual idea acceptance. Strategic alignment between network firms has also been suggested to evolve in a path dependent manner and shape future structures (Barnett et al., 2000). Paquin and Howard-Greenville (2000) added several mechanisms to this list, including legitimization and value
creation for members (incentives) although primarily in the network orchestration (formation) stages. Choices regarding these network mechanisms represented managerial dilemmas, which came to affect future decisions. Our findings adds to these studies by providing a more holistic picture of the multiple interdependencies of innovation network mechanisms and their development over time.

**Conclusion**
Bringing nine companies together for innovative purposes is a challenging managerial task. As a temporary organization, the innovation consortium set-up provides a formal structure with a contract, dedicated employees and organizational units that provide the structural foundation for innovation. However, the complexity of managing a high range of innovative technical ideas in the network of autonomous and competing companies, means that, despite the formal structure, much is left to the individuals, who are responsible for managing the innovative process. In this investigation, we applied performative routine theory to the study of the managerial microprocesses involved in the three-year development of an innovation consortium. Based on our analysis of observational, interview and document data, we found that managers in the innovation group oriented their managerial effort towards the most critical perceived uncertainties in each time period. Routinizing actions that addressed these uncertainties, they created a path, which eventually came to prevents them from succeeding with the overall innovative task, namely implementing and up-scaling a specific number of ideas. We contribute to the literature on innovation network and consortium management, by documenting five different movements that combined lead the innovation process off-track. The managers gradually routinize actions that address some of the most critical organizational mechanisms needed to unify the consortium, such as incentives, legitimization, and member commitment, but eventually fail to build the social structure needed for actually realizing the specific ideas. We also contribute by providing evidence for specific dependencies that contribute to the overall path creation, for example an early focus on increasing idea numbers to demonstrate performance, which thins out the quality of and resources dedicated to each idea, which eventually prevents member commitment to implementing the ideas at a later stage. The managers in the innovation group have a formal structure, strong social relationships, funds and a shared strategic intent from member companies, but innovation still ends up down the drain.
References


“middle managers mediate between "what is" and "what ought to be." They even remake reality according to the company's vision”

(Nonaka, 1994: 32)\textsuperscript{11}

4.4 – Study 4

From Surface to Percolation: Translating Collaboration Principles in Interorganizational Collaborations

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From Surface to Percolation: Translating Collaboration Principles in Interorganizational Collaborations

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Abstract
Due to their complexity, interorganizational relationships are often managed through higher-order ideas and principles rather than detailed rules. These ideas are transformed into workable practices at the project level by middle managers through a process often understood as a translation process. Based on a longitudinal embedded case study of multiple project groups operating under the same principles for collaboration, we study how broad management ideas at the policy level are translated into shared local interpretations creating specific collaborative practices. First, we show how over time different factors, such as the interests of individual actors and performance problems, intervene in the translation process in various ways causing stable structures to de- and re-stabilize. Second, we show how individual translation processes interact and how managers leverage this relatedness to form the translation of specific principles.

Key words:
Translation, interorganizational collaboration, management ideas, principles

See appendix 4 for co-author statement
**Introduction**

Interorganizational collaboration can bring about a number of benefits such as increased learning, access to complementary resources, and improved performance (Hardy, Phillips, & Lawrence, 2003). Leveraging these benefits involves processes of articulating, codifying, sharing and internalizing alliance management knowhow (Kale and Singh, 2007). However, it also poses a number of managerial challenges because companies with different strategic priorities, organizational structures, processes and cultures must collaborate across a number of boundaries in order to achieve the desired outcomes. Due to the complexity and unpredictability of managing interorganizational relationships, those in charge of setting up such arrangements often rely on broadly defined managerial ideas or principles that the participating companies agree to. Instead of defining strict rules and controlling every aspect of the collaboration, those in charge will stipulate the overall principles of collaboration and managers at lower (project) levels will then implement those principles in individual projects. This implementation is far from straightforward because in order to work, higher-level management ideas must be transformed into workable practices at the project level – a process in which the recipients of the management idea (i.e. lower-level managers) play an important role (Morris & Lancaster, 2005). According to practice theory, relationships and other social compositions of actors only exist through practices. Furthermore, dispersed practices, such as collaborating practices, vary across social spaces and local contexts. Practices are constituted by a nexus of sayings and doings linked by the underlying understandings they express (Schatzki, 1996).

Transforming management ideas into local project-level norms and practices is often described as a translation process (Czarniawska & Joerges, 1996; Morris & Lancaster, 2005; Sahlin & Wedlin, 2008). How actors collaborate at the project level is determined by how they translate overall managerial principles into local understandings of appropriate doings. Adopting a translation lens stresses the circulation of ideas as highly interactive and focuses on how management ideas are transformed as they are turned into local norms and practices (Wæraas & Nielsen, 2016). As such, management ideas are not just diffused, but are actively transferred and translated in a context of other ideas and actors and attention should be turned towards investigating specific translation processes between individuals, in order to understand how they might be interconnected and how one process may lead to another (Sahlin & Wedlin, 2008).

In the context of interorganizational collaboration, the translation process becomes particularly complex because it is affected by the different interests and priorities of the various actors involved in the collaboration. Existing research has studied the diffusion of general management ideas, such
as Lean Management or Total Quality Management, that become fashionable and - often with management consultants as carriers – diffuse throughout many organizations more or less simultaneously (Morris & Lancaster, 2005; Mueller & Whittle, 2011). Others have used translation as a means to study the adoption of new technology within a specific sector (Teulier & Rouleau, 2013) or to study the diffusion of broader rational myths in a whole industry (Zilber, 2006). Despite the many insights provided by this research, the actual process through which the different collaborating actors translate general higher-level ideas into workable group norms and practices is still not very well understood. Most literature either focusses on the diffusion of a single management idea at the project level of a specific organization, or the wider institutionalization across companies. Where current studies emphasize the distance between the higher-order management idea and the local context in which it is embedded (Morris & Lancaster, 2005), the relatedness of different translation processes and dynamics between distinct principles are not well understood. We therefore seek to answer the following research question:

How are managerial principles for interorganizational collaboration translated into local group practices?

We study the overall management idea of Partnering in the construction industry. Partnering is a particular way of collaborating consisting of the overall Partnering idea that is put into practice through a number of ‘sub-ideas’, which we term principles. Our case is an interorganizational collaboration consisting of multiple project groups within the construction industry in Denmark. The construction industry has been known for a high level of opportunistic behavior and adversarial relationships, which are the result of improper institutionalization fostering short-term thinking, blaming-culture and a lack of cooperation (Bresnen & Marshall, 2000; Dubois & Gadde, 2002; Korczynski, 1996; Swärd, 2016). Furthermore, construction projects are temporary relationships, often consisting of several project groups operating under the same managerial principles. These characteristics provide optimal conditions for studying local adoption and transformation of practices and structures through translation (Zilber, 2006).

The paper makes two contributions. First, we illustrate the role of different intervening factors in the translation process, i.e. we show how over time different factors such as the interests of individual actors and performance issues intervene in the translation process in different ways causing stable structures to de- and re-stabilize. Second, we show how individual translation processes interact and how some management principles are translated in certain unintended ways so as to support the
‘proper’ translation of others. The paper is structured as follows. First, we provide a short review of translation theory, which serves as the theoretical foundation for the paper. Next, we present the methodological considerations, with a focus on the complementarity between observation and interviews for understanding translation processes. This is followed by an in-depth analysis of local translation processes and a discussion of the findings.

**Translating Managerial Principles through Interaction**
Relational norms in the form of broad managerial ideas and principles are an effective way of managing interorganizational relationships. They complement other contractual arrangements and create improved performance by maintaining the adaptive nature of collaboration (Cao & Lumineau, 2015; Poppo & Zenger, 2002). When framed as broad ideas, relational norms must be transformed into more concrete techniques in order to work in practice (Morris & Lancaster, 2005). The transformation of broad management ideas into workable local norms and practices compatible with specific project contexts is important for the outcome of collaboration (Morris & Lancaster, 2005). This process can be viewed as a translation process, where management ideas and principles are transformed into observable patterns of collective action, governed by a corresponding local norm (Czarniawska, 2009).

The concept of translation is rooted in the sociology of translation in actor-network-theory (ANT) and has been used most frequently within the fields of ANT, Scandinavian institutionalism and knowledge management (Wæraas & Nielsen, 2016). In a recent review, Wæraas and Nielsen (2016) discuss differences and similarities in the understanding and application of the translation concept across the three fields. Although we draw on research from different fields, our use of translation theory is most similar to that of Scandinavian institutionalism, where “the concept of translation is closely associated with change in management ideas and models. In contrast to the ANT and knowledge-based perspectives, the object of translation is general management ideas, models, and practices.” (Wæraas & Nielsen, 2016: 246).

Translation is a complex process of negotiation during which the meanings and interests of the actors involved change and gain ground (Wæraas & Nielsen, 2016). It has been defined as “the process in which ideas and models are adapted to local contexts as they travel across time and space” (Lamb & Currie, 2012: 219). Four aspects of translation are of interest from an institutional perspective. First, there is a general focus on how objects in the form of *management ideas* travel across different contexts. Second, as they travel across time and space, management ideas change, resulting in
different local interpretations of the same general idea. Third, the modification of management ideas is the result of interaction between managers at different levels. Fourth, actors in the local context into which management ideas are translated play an important role in this interaction.

Management ideas consist of multiple underlying principles and travel within and across organizational groups because they offer rational solutions to specific organizational problems (Mueller & Whittle, 2011). As they travel through and across organizations, ideas undergo a translation process, whereby they are transferred and reinterpreted in a new setting (Morris & Lancaster, 2005). During this process, ideas are transformed and adapted to fit the wishes and specific circumstances in which they will operate (Sahlin & Wedlin, 2008). Management ideas and principles become visible when they are disembedded from their context (Giddens, 1990). They then land in other local arenas where they are re-embedded, materialized through action, and become institutionalized if they are perceived to be successful (Czarniawska & Joerges, 1996).

An idea is transformed and edited during this process by the carrier or manager according to three aspects; 1) the context, where familiarity and previous experience ease the adoption, resulting in low levels of change of the original idea, 2) the logic through which the idea is evaluated, where the idea is adopted through a plan, often mimicking others’ successful steps, and where some aspects are emphasized and others are removed, 3) the formulation, where ideas can be dramatized, labeled and presented through certain narratives, in order to draw attention and convince others (Sahlin & Wedlin, 2008). Individual managers are important for understanding how ideas travel and become localized. Individuals energize ideas every time they translate them for their own or somebody else’s use (Czarniawska & Joerges, 1996). An idea gains popularity, not through its properties, but because of who carries and supports it, and how it is presented and timed (Sahlin & Wedlin, 2008). Receiving managers do not just accept and directly adopt an idea, they modify it, deflect it, betray it, add to it and appropriate it (Latour, 1986). Translation is a process of maneuvering consisting of persuasion, power plays and strategic actions, in order to accomplish the complex process of negotiation in which actors meanings, claims and interests change and are being established (Nicolini, 2010). The notion of carriers of ideas and practices is well aligned with practice theory (Reckwitz, 2002), where the ‘Träger’ enacts institutions by supporting and reproducing them through practice. Accordingly, we understand the translation of management principles as the result of interaction processes, where the translation by individual managers leads to local norms that may differ significantly from the original idea (Czarniawska & Joerges, 1996; Giddens, 1984; Sahlin & Wedlin, 2008).
Individual characteristics and preferences of carriers and receivers of ideas, based on their previous experience, interests and organizational role, have major importance in the early stage of translation (Teulier & Rouleau, 2013). The translation of principles into local practices is carried out by managers, guiding the process in a cooperative mode, where good relationships with the other actors are more important than arguments and reasoning (Huy, 2001). Divergent interests often initiate the process of translation, where the mismatch between actors’ understandings becomes visible in the interaction.

The interconnectedness between translation processes has been acknowledged, where the outcome of one episode of translation has been shown to improve or steer the process and discussion occurring in another (Teulier & Rouleau, 2013). Different editing practices have been suggested for how managers accentuate, promote and give meaning during the translation process (reframing, staging, adjusting, rationalizing, stabilizing, taking into account, speaking for, selling) (Teulier & Rouleau, 2013). These practices are the actual performances of the editing rules used to restrict and direct the translation (Sahlin-Andersson, 1996). Editing rules are based on a combination of contextualizing and relabeling an idea in order to provide both novelty and familiarity among actors. Editing provides a ‘plot’, for explaining why the idea may offer success (Morris & Lancaster, 2005).

In the following, we use the concept of translation to understand how management ideas related to interorganizational collaboration are transformed from the overall management level, where they are first conceived, to the project level where they are put to use. In an interorganizational context translation processes involve actors from different organizations with different perspectives and strategic interests which have to find common ground in their joint projects. This results in translation processes characterized by a high level of complexity and ongoing negotiation. The next section describes the interorganizational context that we have studied.

**Method**

We studied the translation of the management idea of Partnering in the construction industry through a process study. We conducted an embedded case study of a fixed duration alliance consisting of 13 companies collaborating in numerous local project groups. The findings presented in this paper are based on three different project groups involving different constellations of six of the companies within the case. A project group typically consists of a client (public owned utility company), a supplier (contractor) and a third-party service provider (advising engineering company). All three project groups operate under the overall idea of Partnering. Furthermore, they were selected because
they work on similar tasks with similar goals, which isolates the interaction trajectory as the main source of variation in the translation process. The first author of the paper followed the three project groups for 18 months.

**Research context**
All three project groups are involved in renovating the sewage and drainage system in different geographical areas of Denmark. The projects are complex, because the interdependency of the system sub-parts create a high need for collaborative problem solving, and uncertain, because the building conditions are never fully known and it is difficult for clients to assess the output. These conditions make contractual and formal arrangements insufficient or even damaging to project performance, and more collaborative and integrated models, such as Partnering, have been proposed as a more suitable governance mechanism (Bresnen & Marshall, 2000; Bygballe & Swärd, 2019; Eriksson & Pesämaa, 2013). Partnering was introduced as a management idea in the construction industry during the early 90s. It quickly became fashionable and an increasing number of companies picked up on the idea, trying to incorporate the principles into their organizations and projects (Gottlieb & Jensen, 2012; Sahlin & Wedlin, 2008). Partnering is seen as a high involvement relationship, where informal and social mechanisms lead to successful implementation.

Partnering was introduced as a response to the confrontational culture within the industry in order to increase integration and collaboration. Partnering is defined with particular reference to the construction industry and was associated with a particular blueprint for successful collaborative relationships. Much literature adopts the definition of partnering by the Construction Industry Institute (CII), where partnering is seen as “*A long-term commitment by two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant’s resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries. The relationship is based upon trust, dedication to common goals, and an understanding of each other’s individual expectations and values. Expected benefits include improved efficiency and cost-effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services*” (CII, 1991: 4).

There has been a strong emphasis in the literature on the normative part of partnering, including the formal structure and specific techniques for implementation, including charters and dispute resolution arrangements, teambuilding exercises, workshop facilitation, continuous improvement processes, total quality management, project process mapping and benchmarking, and integrated IT platforms.
These are specific techniques for implementing the fundamental ideas of partnering, which are 1) mutual trust (leading to transparency and knowledge sharing), 2) long-term commitment (leading to continuous improvements and innovation), 3) a shared vision (leading to common project objectives), 4) a win-win attitude (one’s success benefits everyone), 5) conflict resolution (problems are considered jointly held) and 6) sharing of risk (all uncertainties are jointly shared) (Chan, Chan, Chiang, Tang, Chan, & Ho, 2004; Cheng & Li, 2001; Li, Cheng, & Love, 2000).

Even though partnering is now a profound management idea within the construction industry, it is certainly not an industry standard and the adoption of partnering still occasionally results in disastrous projects, where companies fail to internalize the principles in the project organization (Gadde & Dubois, 2010). The process of going from a contracting regime with price competition as the driver for cost reduction, to a trusting regime based on full transparency and mutual responsibility as the road to successful projects requires substantial translation.

**Data collection**

Data were collected from late 2017 to mid-2019, where we followed numerous interaction episodes. Observations took place during meetings between managers within the project groups. These meetings involved between 2 and 8 individuals and lasted between 1 and 5 hours. The total observation time amounted to 190 hours. The purpose of the meetings where both coordination and problem solving, which resulted in multiple translation episodes. The strength of observing meetings with a low amount of actors, in terms of theorization, is that when the group size is smaller, the individual actions have larger impact on the institutionalization process (Young, 2015). This implies that enactments of principles become more visible to the researcher during interaction. In order to triangulate the findings from the observations, 32 interviews were conducted and more than 500 documents (e.g. emails, meeting minutes, contracts, charts and surveys) were collected. This provides a more complete picture of how the Partnering principles are implemented and nuances the observed processes of translation.

**Data analysis**

This study focuses on how overall partnering principles are translated into local practice over time. To study this we have strained out the episodes of interaction dealing with enactments of principles. These episodes act as the unit of analysis, which can be covered by a few sentences at a meeting, up to issues covering multiple interactions. The definition of norms as principles guiding, controlling and regulating proper and acceptable behavior, shared by a group (Heide & John 1992; Macneil, 1980), is well aligned with how practice theorists perceive the habitual part of behavior, as an
internalized guidance affecting human actions (Bourdieu, 1977). Some scholars have taken similar approach, by looking at specific interaction episodes in order to derive patterns of development for relational practices (Ness, 2009).

By zooming in on the specific micro interactions, the practical concerns governing the partnering behavior surfaces. Practices and actions occurring in these interaction episodes are often accomplished without verbally expressed instructions, but instead they are based on the actors understanding of what needs to be done. Interaction is reproduced through each novel occasion, but bounded by a teleoafffective structure, where the actors act in accordance with and to accomplish certain objectives (Schatzki, Knorr-Cetina, & Savigny, 2001). However, studying practices holds much more value than merely accounting for the detailed accomplishments of certain actions within the translation process. The exercise of zooming out then enables the researcher to view the translation process in the texture of related translation processes in which the principles are highly interwoven. Zooming out from multiple related instances, enables the us to provide an overall account of the inter-connectedness of the translation processes and how that produces stability within the collaboration. An important technique is to study multiple sites of real time observations of interaction, in order to trace the development of translation processes through the enactment of overall principles (Nicolini, 2009).

Findings
Operating in a partnering agreement imposes several principles stating what is expected from the partners. These principles are not universal recipes prescribing which actions or decisions are most appropriate in the specific situation, but statements guiding the behavior of the partners involved. In this case, the principles were introduced at the top management level in a contractual form and the partners committed to these normative ways of working together. However, the findings show that, depending on interests and project context, the different principles are translated differently into the individual project groups. This section zooms in on three specific examples of how principles at the managerial level are translated into local actions at the project level.

The case companies initiated the collaboration in 2016 by signing a 20 pages contract governing 5 years of collaboration. This contract is merely a coordination mechanism, where roles and goals are included, but it also stipulates six specific principles of Partnering in different forms. These principles are briefly described below.
“Do what is best for the project”: Establishing a shared vision

All actors contribute based on experience and obligations, and they all act in accordance with the principle of “do what is best for the project”, disregarding own business interests and solution preferences. There is no formula to what is “best” for the project, but over time, the actors calibrate what they in consensus consider “best” for the project.

“Complete transparency”: Building mutual trust

“Complete transparency” is crucial for ensuring perceived fairness and trust. This involves the contractor to open their books and show their actual costs, which are the basis for how project budgets are calculated. This can leave actors highly vulnerable, but is considered a necessity to reduce suspicion and increase trust. Furthermore, it is expected that actors proactively inform each other about project risks, construction errors and limits of abilities, in order to plan and execute the project without any surprises.

“Reduce costs, do not pressure margins”: Leading to innovation

This principle implies that actors should allow their partners to earn reasonable profits. Even though there is a focus on continuous improvements, the path to lower prices is not through questioning prices and pressuring partners, but through finding ways to lower the costs and make construction processes more efficient together.

“Shadow of the future”: Promoting long-term commitment

Actors should always have a long-term view. They must contribute, participate and share even though the benefits from doing so are not realized in the short run. This covers innovation, knowledge sharing and trying out new ways of working. Part of this is dedication to common goals and individual behavior should support the overall goals of the collaboration.

“Everybody is responsible for everything”: Jointly sharing of risks

Partnering entails the entire construction process to be carried out in collaboration. All actors share the responsibility of getting tasks done, which reduces blaming and responsibility denial. If a problem occurs during the project, everyone must assist in solving it. If a project fails, everyone is accountable. No single actor is blamed and the project organization is seen as a whole.
“Split 50/50”: Ensuring a win-win attitude

As an economic incentive, all actors share the economic result, regardless whether it is a deficit or a profit. The result is calculated based on a target budget established up front, which removes all talk about economic issues during the construction process. Everybody then has an interest in lowering the costs and become less risk averse when testing unknown but potentially rewarding solutions.

Due to the lack of specificity within these six principles, substantial translation is needed in order to develop a mutual understanding of what is considered appropriate behavior within local project groups. In what follows, we analyze three specific translation trajectories consisting of multiple translation processes and involving different principles. Figure 8, Figure 9 and Figure 10 provide condensed illustrations of the translation process between the abstract managerial level and the concrete project level. We see numerous iterations between the ‘translation mode’ and specific project level practices. Entering the ‘translation mode’ follows from the occurrence of intervening factors such as divergent interests of involved actors or performance problems. During the process, different principles at the managerial level are enacted and translated, and their influence is shown by + (intensifying) and ÷ (relaxing).

Relaxing one principle to sustain another

From the beginning of project 1, collaboration went smoothly and projects were carried out based on actors’ established views of what Partnering entails. Based on previous experience, these views were generally traditional in the sense that the contractor was seen as responsible for excavating and building the projects, the client handled the citizens, authorities and approvals, and the advisor produced the drawings and made sure that projects followed the regulations. This coordination practice worked well until projects became more complex, requiring specialized knowledge and creative solutions. As the project group started to experience cost overruns and delays, satisfaction with the collaboration decreased. Especially two managers at the contracting company were highly frustrated with the lack of structure and delays on the latest projects. This frustration fueled the translation process, which is illustrated in Figure 8.
The client organization had introduced a policy going from the traditional well-known double piping system, with separation of rain and wastewater underground, to focusing on using “Sustainable Urban Drainage Systems” (SUDS). SUDS are solutions for handling rainwater on the surface, which disrupts the established working routines and ways of thinking in the collaboration. Especially one large project, where all rainwater was handled at the surface, was considered groundbreaking. All actors had an interest in moving in this sustainable direction. The client got a more durable water system, the contractor learned how to build these new solutions and the advisor gained knowledge, which could be used in other client relations. However, this approach was unfamiliar to the most important stakeholders on the project, the citizens. SUDS put large demands on existing private housing and this fact became an unexpected surprise for all the actors within the collaboration. The extensive dialogue with the citizens created several do-overs and backflows in the construction process. The following conversation from a construction site illustrates how this new project challenges established understandings of the responsibility of each actor.

“It is impossible and a huge problem when we have to design the project simultaneously with building it on-site” - Project manager 2, Contractor

“On [project name] it was the advising engineer! In [city name] it was maybe me. No matter what, sometimes, new solutions are found, which requires changes and adaption” - Project manager 1, Client

“But it is not only that. We are still missing clarification on the private systems!” - Project manager 1, Contractor
“It was the same with the special pods from the supplier and the clearance with the authorities. We need to make a plan where we schedule backwards” - Project manager 2, Contractor

“And how do you imagine such plan to look? I would like to see an example” - Project manager 2, Client (Reconstructed from field notes, status meeting, December 2017)

This discussion here is directed towards the principle of “everyone has the responsibility for everything”, which prescribes that direct blaming and attributing fault are considered inappropriate in this collaboration. The contracting managers indirectly express that they believe the client to be responsible for the delays, by not fulfilling their responsibilities on time. The client attributes the delays to the newness of the project, and has difficulties imagining how a generic schedule could be formulated.

The contractor values predictability in order to distribute manpower most efficiently, where the client does not feel knowledgeable enough to develop a useful schedule regarding these new non-routine projects. However, as shown below, the contractor’s dissatisfaction was more profound than initially expressed.

“It is all because they do not have time. It is not to throw anyone under the bus, but I do not believe that neither [Project manager 1, Client] or [Project manager 2, Client] are using their time and energy correctly” - Project manager 1, Contractor (interview, April, 2018)

“We are starting on Monday, and then we cannot contact [Project manager 2, Client] yesterday because he is arranging the summer party! Economically, it does not matter, we are just billing on this project, but it reduces satisfaction and when we are in Partnering, where ‘we do what is best for the project’, then it just seems stupid! – Project manager 3, Contractor (Interview, June 2018)

During the following months problems escalated and a certain ‘laissez-faire behavior’ infected the collaboration and created a norm according to which postponing tasks was okay. This turns the projects into constant problem solving rather than proactive project planning. As the quote shows, the contractor does not have an economic interest, since they are paid by the hour on these projects. However, the contractor saw it as unprofessional and emphasized that the norm does not correspond with the other principle of “do what is best for the project”.
A workshop was arranged to discuss the problems and find common ground among the actors. The outcome of the workshop was a so-called ‘milestone chart’ stating specifically who has the responsibility for each activity and when it is expected to be completed. The following quote shows how the contractor feels this provides overview of the process.

“There are things we cannot control, and the solution is to take that into account in the planning. Therefore, we have now made this ‘milestone chart’... It is now a standard exercise when initiating a new project, where we settle expectations. It provides insights into where we are dependent on each other, so [project manager 2, Client] knows when to orient the citizens, prepare the private agreements and so on” – Project manager 1, Contractor (Interview, June 2018)

The milestone chart created common expectations and stated timely actions in each project phase. However, the chart ran counter to the principle of “everyone has responsibility for everything”, since it clearly stated who would be held accountable for a lack of progress. However, this formalizing process was necessary in order to calibrate the actors’ different understandings of mutual expectations and responsibilities. The process of developing the chart and the subsequent practice of using it at the construction site was part of an ongoing translation of who is responsible for what. Relaxing the principle of “everybody is responsible for everything” was necessary in order to uphold the idea about “doing what is best for the project”, because using the chart reduced the risk of some actors postponing actions that would result in delays.

This example also shows how the translation process is also a process of calibrating divergent understandings, when actors align their views by articulating and formalizing principles. Early on, while [Project manager 1, Client] acknowledged the problem of delays, she was still convinced about the principle of shared responsibility as a path to good projects, with the idea that more minds create better projects. She mainly attributed the delays to external events. However, during the translation process her understanding was transformed into emphasizing the need for one person being responsible, in order to maintain efficiency of the construction process.

“There has to be one who is responsible in the different processes, and then everyone has to follow of course. But there has to be one! The partnering collaborations which have failed are the ones where they suddenly realized, when everyone had the responsibility, it ended up that no one did anything” – Project Manager 1, Client (Interview, October 2018)
**Accepting a principle to convince**

In the second project group, the core principle of “split 50/50” was translated several times over a one year period. The condensed process is illustrated in Figure 9. This example mainly involves the main project manager from the contractor, who is highly experienced within Partnering, and a new project manager from the client, who previously had his own contracting company and never before tried collaborating under Partnering principles. The project was considered a routine project without any complications. However, upon project delivery, the two parties were going to divide a deficit derived from the extra costs of renewing more asphalt than originally stated in the project drawings.

![Figure 9 - Accepting a Principle to Convince](image)

Although the principle of ”split 50/50” states that the split of profits or deficits is based on the target budget, on previous projects the established norm was that the target was continuously adjusted in order to accommodate major project changes. However, on this small project the inexperienced project manager from the client organization insisted on strictly conforming to the principle of dividing the economic result 50/50, regardless of the large project changes and established practice. As shown in the quote below, the contracting manager did not find this fair, even though the client just adhered to the idea of Partnering.

"The way it goes normally is that I put something in the target, and then you can ask what is the fairness in that if I am not using it. Why should I then have money for it? That is correct, and I understand [Client company’s] attitude to that. However, it is against the fundamental principle of partnering, because you can turn it around and say, we are then sharing the savings
Similarly, the client also presented arguments regarding fairness, but with the understanding that it was not fair to change the target continuously with the risk of paying for something that was not used.

“If you prepare for these problems, and it ends up not being there, then we have to pay. And this can be a tremendous amount of money!”... I have tried it many times as a contractor, and earned lots of money on it!” – Project manager 1, Client (February, 2018)

Both managers use fairness as the argument to justify their own view on the principle of “split 50/50”. The contractor wishes to minimize the variance of the economic results, in order to ensure stable and predictable earnings. The client sees the issue from another perspective, where accommodating unforeseen project changes into the target can lead to unnecessary pay-outs to the contractor. Despite the clear misaligned understandings of this principle, the contractor ends up accepting a clean 50/50 split. This acceptance was not because he agree with the client’s interpretation nor was it because of hard negotiations. He accepted it in order to give the project manager of the client a successful first project, based on the long-term reasoning that they need to work together for five more years on several other projects. This is connected to the principle of “shadow of the future”, which states that it is more profitable to succeed together in the long run than earning money in the short term. As the contractor manager explains,

“This exercise with closing and opening target is just as much for their safety... You only pay for the actual costs. That is a fair practice... It provides him security that he will not pay for something that we are not using. That is the thought he does not like! He has not yet realized the other thought, that maybe he will get something he did not pay for. (Laughing)... This will come back to me tenfold. This is another way of doing business, it is another way I do stuff” – Project manager 1, Contractor (Interview, December 2017)

The contractor sees an opportunity to build up social capital by accepting the client’s demand, even though it countered the established practice and his own interpretation of the principle. The contractor also used the episode in the following interaction in the project group. For instance, at a meeting several months later he takes up the issue again, not to change the decision, but to teach the four managers from the client organization, who are present at the meeting, his view on the principle of
“split 50/50”. As shown below, he uses the example to state how he would like the budgeting and billing practice to be on future projects.

“The asphalt in [city name] was a huge problem! It ended up being much more expensive than expected, because we needed to make a whole road... We need to adjust the target budget continuously, when we encounter such significant project changes. It ended up being an enormous deficit out there” – Project manager 1, Contractor

This statement illustrates how [Project manager 1, contractor] continuously tried to shape the translation of the principle of “split 50/50”. By referring to fairness, he threatens to change his budgeting practice if the client does not become more flexible in terms of accommodating large unexpected costs. This warning is an attempt to teach the client.

Despite the deviant understandings, the translation process ends with [Project Manager 1, Client] hiring [Project Manager 1, Contractor] to take over a failed non-partnering project and incorporate it into the current collaboration model. The client is still not convinced about the benefits of this principle, but the willingness of the contractor to accept his translation in a difficult situation increased the trust between them. Discussing the new project, among the same constellation of managers, they seem to have reached a common ground.

(The mood is light and they are discussing the economic framework for an upcoming project)

“We are very cheap, so it will take lots of time for us to use the budget on DKK 7m” – Project manager 1, Contractor

“(Laughing) Yes, I know, and there is even asphalt included here also!” – Project manager 1, Client (Reconstructed from field notes, project meeting, March 2019)

This example shows that even though the overall principle is very specific on how profits and deficits should be divided, local translations deviate. However, although the actors do not share the exact same understanding of the principle through interaction, they gain insights into the other’s opinions, which improves collaboration on subsequent projects. This process shows that exact identical understandings are not necessary for successful collaboration. However, the ability to understand the other’s perspective, from his frame of reference, became an essential part of localizing the principle into the project group.
Intensifying a principle as compensation
This translation process occurs upon delivery of a project in the third project group. The project was supposed to cost USD 1.7 million, but the realized costs were over doubled before delivery. The construction company used one of their subsidiaries for the project. Until this project, the established practice in case of budget deviations was to split the difference equally among the actors. However, this translation process started with the client refusing to pay for the overrun and furthermore holding back the last payment on 900,000 DKK in November 2017. This decision comes as a surprise to the contractor and initiates a lengthy conflict simultaneously with collaborating on other projects. The process is shown in Figure 10 and illustrated in the email conversation below.

“Did we not agree that we are sharing the total deficit on this project, so the last bill could also be paid?” – Project manager 1, Contractor

“We have not approved that the target budget could be exceeded with over 100%!” – Project manager 1, Client (Selected quotes from mail correspondence, October, 2017)

FIGURE 10 – INTENSIFYING A PRINCIPLE AS COMPENSATION

This translation process was initiated by the contractor, who was surprised to notice that the client suddenly held back the payment. Initially, the two managers discuss the principle of “split 50/50”, but the translation process turns into an argument regarding responsibility and transparency.

“We still do not find it fair that we need to pay 900,000 DKK in May on a project that we agreed should be done in December, otherwise the project would never have been initiated” – Project manager 1, Client
“[Client] had a wish to finish the project in 2017, which [Project managers, contractor] did everything they could to fulfill. [Client] never asked about the consequences of this boost, even though it was obvious that it imposed extra costs” – Project manager 1, Contractor

“We still believe that [name of subsidiary] deceived both you and us, and this is definitely the type of cases that makes one discard partnering” – Project manager 1, Client

“I completely agree! But it is not only pointing at us and them. I am aware that we have a great responsibility in this case, but it should be crystal clear that when you force things and hire an external party in, with such a short notice, then there is a risk. We believe that we should not carry that risk alone... Right now we are looking for a scapegoat and a do not find that fair or beneficial for the collaboration” – Project manager 1, Contractor

“The budgets that were presented further showed that things were under control, but still the budgets were exceeded over 100% without you saying stop” – Project manager 1, Client

(Email correspondence, October 2017)

The translation process turned from focussing on the economic consequences and division of the deficit, towards defining who had the responsibility for the budget overrun. The client clearly believed that the contractor is responsible for their subsidiary’s behaviour, where the contracting manager kept emphasizing the principles of mutual responsibility by referring to the lack of actions taken when informed about the possibilities of exceeding the budgets. However, the client was convinced that there are limitations to what degree the client can intervene in the contractor’s business model.

After a few weeks of discussion, the client accepted to pay the last bill. This translation process clearly reduced the trust between the managers. Even through the principle of “everybody is responsible for everything” implies that no one should be blamed for project outcomes, the interaction process revealed the limits to how serious the project outcomes can be, before actors deviate from established practices.

“To be direct, I got pissed! I got pissed because I just don’t think it is okay, and it is obvious that such projects will influence the whole collaboration, because now we are holding back every time” – Project manager 1, Client (Interview, October 2018)

“The trust has taken a huge hit and it is obvious that we start to be more written. It means that all agreements shall be written down forwardly, and we are much clearer in our formulations.
We are completely clear now, so no misunderstandings can be used as an advantage for us or [the client].” – Project manager 1, Contactor (Interview, January 2019)

After these problems, the project manager from the client organization demanded to have continuous status meetings. The meetings were supposed to increase the control and monitoring, which enable the parties to interfere before the projects get out of hand. The client now supported the principle of “everybody has responsibility for everything”, but she also increasingly referred to the principle of “complete transparency”. However, with the reduced trust, the contractor was more hesitant to increase the transparency and thereby vulnerability, but he also saw it as a path to increase the client’s accountability. He explains it like this,

“It is very open. We are really putting ourselves out there now, showing our strengths and weaknesses. We are very vulnerable when we exhibit so much data, but we do it because we have faith that the client will treat it well. When we show our billings, we show our cost prices!” – Project manager 1, Contractor (Interview, January 2019)

At the end of the translation process, the parties still did not reach complete consensus. Even though trust was improving, there was still skepticism, not so much towards the other party, but more to the partnering principles. Through observations, it became clear that they did not share the same view on how fixed the principles should be. The contractor wanted fixed terms, where the client emphasized flexibility. This discrepancy was based on divergent interests, where the client has a political interest in reducing variation in 50/50 split, in order to avoid paying out large amounts to private contractors. The contractor has an interest in ensuring a continuous flow of income that enables him to distribute resources and not risking any surprising behavior from the client. These interests formed their diverse views on how flexible the “split 50/50” should be. Throughout the following status meeting, they negotiated this tension between their understandings, where the client emphasizes the need for continuous adjustment and the contractor uses the meetings to inform the client about project uncertainties and provide his view on how to accommodate them through stricter guidelines.

“As soon as a project starts to exceed the budget, we have to find a solution everyone can see themselves in. It needs to be negotiated early.” – Project manager 1, Client

“But we need certainty and fixed agreements, so we know how to respond. We need to figure out how to handle risks, and if uncertainties are anticipated, we need to raise flag as soon as possible.” – Project manager 1, Contractor (Reconstructed from observations, September 2018)
This process shows how translation occurs through mutual compromises. Initially, the divergence in interests leads to long and tiring negotiations damaging the overall collaboration. However, as a solution, they restore the relation by translating the principle of “complete transparency”. By intensifying this principle as a compensation, the client accepts the contractor’s interpretation of responsibility. While the client increases the continuous monitoring of the economy, the contractor simultaneously increases the accountability for future episodes of enacting the principle of “split 50/50”.

**Discussion and Conclusion**
The analysis of the implementation of broad management ideas and principles into interorganizational collaboration projects within the construction industry complements the established understanding of governance mechanisms, while further contributing to translation research from an interorganizational perspective. Building on previous theoretical conceptualizations of translation, we elaborate on how individual managers localize generic principles into appropriate and functional practices (Morris & Lancaster, 2005; Mueller & Whittle, 2011). During interaction, divergent interests of the actors become salient in the translation process through clashing understandings of the principles. These understandings are calibrated through varying degrees of enforcement of the principles, combined with different ways of translation. Elaborating on previous research, we further show how translation processes are interrelated, and how these linkages are used in order to successfully negotiate productive local practices at the lower project group level (Czarniawska & Joerges, 1996; Teulier & Rouleau, 2013).

**Accommodating divergent interests in interorganizational principles of collaboration**
Socially embedded relationships are often found within the construction industry. In such relationships, broad relational principles, established through recurrent transactions, substitute for endogenous safeguards (Ring & Van de Ven, 1992: 495). Based on our findings, we agree with existing research that the development of interorganizational relationships is neither completely determined by the initial conditions (Doz, 1996) nor by the continuous assessment of the relation (Ariño & de la Torre, 1998; Ring & Van de Ven, 1994). Instead, interorganizational relationships are initiated with a set of broad principles, which are translated into appropriate collective practices, justified by a corresponding norm (Czarniawska, 2009).

While this dual view on relational and contractual governance is profound within the literature, the current understanding is built on a static conceptualization, where governance principles are seen as drivers of organizational outcomes and performance (Cao & Lumineau, 2015). We contribute to the
understanding of this duality, by showing how performance outcomes initiate a translation process through which the collective meaning of the broad principles is adapted in accordance with the local situation at the project level.

Governing interorganizational collaborations is not a unifying task where the management ensures that everyone at the lower levels behave identically. The aim should be to internalize broader principles within the collaboration. In case of arising problems or poor performance, there is a tendency to call for management intervention, requiring specification and clarification. However, this study shows how actors at the local level are able to solve collaborative issues through an ongoing translation of the broader principles. We conceptualize this as relaxing and intensifying, which we see as two different ways of localizing management ideas.

Relaxing occurs when a principle does not suit the situation at hand, and actors therefore propose a loose interpretation of the principle in order to solve a collaborative issue. This occurs when flexibility is needed or if prioritization of principles is considered necessary. Intensifying is when actors strictly conform to the principle by emphasizing its underlying intention, which is found in situations of ambiguity, in order to enhance predictability of future interaction.

In contrast to existing research, which investigates translation of single management ideas (Morris & Lancaster, 2005; Teulier & Rouleau, 2013), we show how a management idea, such as partnering, consists of multiple related principles. This relatedness creates an interdependence between the principles, which actors leverage when localizing the principles into practice. The findings show how actors simultaneously intensify and relax different principles through negotiation, in order to balance and incorporate diverse interests. This paper provide specific accounts for how actors leverage the relatedness during the translation process, in order to direct the translated understanding towards their own interests and interpretation.

However, when the interests involved are very diverse or even contradicting, actors can no longer be convinced or attracted to certain translations (Czarniawska, 2009; Teulier & Rouleau, 2013). The process turns into a compromising act of negotiation where actors accept interpretations with an expectation of reciprocity in future interactions.

**Embedding principles into the local practice**
Previous translation literature focuses on the travel of ideas between organizations (Boxenbaum, 2006; Czarniawska & Joerges, 1996; Nielsen, Mathiassen, & Newell, 2014; Zilber, 2006), or the translation of a single idea into an organizational entity (Morris & Lancaster, 2005; Mueller &
Whittle, 2011; Teulier & Rouleau, 2013). Emphasizing dispersion as the issue, these studies focus on how ideas are disembedded from one organization and re-embedded into another. By showing how overall management ideas percolate into interorganizational collaborations, we contribute to the translation research by providing insights on how broad management ideas, consisting of multiple principles, are embedded into interorganizational interaction at the local level.

Our findings show how principles become embedded within the local context, acting as guidance for appropriate behavior by setting future expectations for the collaboration. The three episodes illustrate how translation of the principles occurs as a result of informal social actions (e.g. teaching in project group 2) or through formalization (e.g. writing charts in project group 1). These are conceptualized as two distinct types of introducing an interpretation into the collaboration. The former is used in a negotiating manner, in order to build social capital. The capital is then exploited by the actor as a mean of forming the translation in subsequent interaction episodes. The latter is adopted when clarity and accountability are needed.

In both types of embedding, it is not the output of the process, but the translation process itself, where actors modify, deflect, betray, add to and appropriate the principle, which forms the collaborative nature of the relationship (Latour, 1986). This continuous stabilization of behavior is similar to processes within the literature on relational governance (Cannon, Achrol, & Gundlach, 2000; Ivens & Blois, 2004). Promoting norms of behavior at the group level is mainly viewed as a process of social sanctioning of deviating behavior (Horne, 2004; Lapinski & Rimal, 2005). However, our findings illustrate how behavior that is considered inappropriate, or deviates from the established practices, does not become subject of sanctioning in interorganizational collaborations. On the contrary, the episodes show a high level of acceptance, which is the outcome of a translation process where the understanding of the overall principle is formed by different practices such as compensation, justification, blaming and teaching (Sahlin & Wedlin, 2008). Within the literature, such translation practices are conceived as editing practices, where interpretations are told, retold and told differently in each situation (Sahlin-Andersson, 1996). Using a discursive lens, previous results from translation studies in interorganizational relationships show how multiple discursive practices appear within single episodes of translation (Mueller & Whittle, 2011). Another study elaborates on how certain editing practices occur in specific situations and how they form the translation process (Teulier & Rouleau, 2013). Instead of illuminating specific practices, we show how different formal and informal actions are entangled across multiple interaction episodes.
Future research directions
This study elaborates on how overall management principles are localized within interorganizational collaboration through interrelated processes of translation. Translation in an interorganizational context becomes a negotiation process of developing local practices in accordance with the interests of the actors. These local project practices may differ from the original intention of the principle. Management should acknowledge this variation and heterogeneity, not as a problem, but as a source of ongoing structuring, producing new collaborative practices with the ability to correct inefficient ones.

This study opens up two interesting avenues for future research. First, interorganizational collaborations consist of multiple organizations with internal agendas, which maybe counter the mutual understandings developed within the specific project group. Boundary spanning managers are then situated in a constant juggle of a dual translation process between their home organization and the interorganizational collaboration. This duality provides an unexplored topic for future research focusing on translation processes. Secondly, as pointed out in this paper, translation theory offers an alternative account for how relational governance emerges as an efficient mechanism. By elaborating on how the continuous embedding of relational principles affects the development of trust, coordination and predictability of behavior within the collaboration, future research should investigate translation in multiple types of interorganizational relationships.
References


CHAPTER V
CONCLUDING REMARKS

“In regard to the practicality of practice theory for managers, what matters is not the capacity to engage the jargon of practice theory but rather the ability to assess and engage with the practices relevant to their organization”

(Feldman & Worline, 2016: 320)\textsuperscript{13}

5.0 – CONCLUSION AND CONTRIBUTIONS

The included papers of this thesis, each takes a step further in the clarification of the role of managerial action in relation to developing collaborative buyer-supplier relationships. Specifically, the thesis answers the overall research question:

*How does managerial action shape the structures of interaction, influencing the development of collaborative buyer-supplier relationships?*

This is done by adopting a practice-based perspective, where sensemaking, routinization and translation theory, each contribute to the understanding of the ongoing structuring of buyer-supplier interaction. Much is known about how and why B2B relationships develop, but it seems that scholars often oversimplify instead of embracing the complexity of these processes. The thesis suggests that a practice-orientation provides the level of sensitivity needed for further opening up some of the established findings within B2B marketing.

While the more detailed contributions have been described within the separate papers, this section elaborates upon the theoretical and practical contributions cutting across the four papers. Besides accounting for the relatedness across the four papers, it further discusses the limitations and interesting avenues remaining open for future research.

5.1 – Contribution to theory

The field of Marketing and especially B2B Marketing are applied fields of science, with a high focus on practical relevance and provision of valuable findings for marketers wishing to improve sales. While B2C studies have been and still are the majority of output in dedicated marketing journals, such as Journal of Marketing, Journal of Marketing Research and Marketing Science, B2B transactions constitute a much larger weight in the economic landscape around the globe (Lilien, 2016). With this academic inequality, the question is then how B2B marketing scholars should proceed in order to improve the impact of B2B research in accordance with the economic weight of the field.

In order to justify our existence as marketing scholars, it has been essential for academics to establish sub-fields, which mirrors the interests of practitioners (Mora Cortez & Johnston, 2017). While relevance in research is a quality in itself, the question of what is considered relevant can be raised. Instead of increasing the number of specialized research areas, such as market orientation, service marketing and business networks just to name a few (Backhaus, Lügger, & Koch, 2011), it could be
valuable to converge the field in terms of topics and open up for inspirations located in other fields of management. Marketing research should move from being driven by trends within the industry, seeking to generate new and popular concepts, to be more concerned with advancing the theoretical account underlying these concepts and this is what a practice lens offers.

The evolution of buyer-supplier relationships has been extensively studied within marketing (Dwyer, Schurr, & Oh, 1987; Håkansson & Snehota, 1995; Morgan & Hunt, 1994). While multiple accounts of constructs and phases have been promoted, the deep structures of the social behavior involved in developing interorganizational relationships have yet to receive similar attention (Light, 1979). This thesis has adopted practice theory as a lens for enhancing the established understanding of how buyer-supplier relationships evolve and the role of managers herein. Embracing practice theory does not replace current theoretical orientations within marketing. However, it provides a supplement for illuminating the tacit, complex and situated dynamics inherent in relational development, which is necessary for improving theoretical insights (Dyer Jr & Wilkins, 1991).

In accordance with Schatzki’s understanding of a practice, the thesis touches upon the know-how, rules and teleoffective structures, through which managers direct their actions in order to build buyer-supplier relationships (Schatzki, 1996). Across the four studies, and in addition to the individual contributions from each, I have identified two more overall theoretical contributions, which push the established understanding of why managers interact in certain ways.

5.1.1 - The emergence of governance mechanisms
An efficient structure of governance in buyer-supplier relationships has been shown to rely on both formal and informal mechanisms (Heide & John 1992). While the interplay between the two has been extensively investigated, no optimal recipe has yet been provided (Cao & Lumineau, 2015). This thesis argues that no such blueprint for governing relationships exists, not only due to the number of contextual variable involved in these relations, but also due to the managerial improvisation, which no safeguard or norm can fully account for. This is not a result of some inherent opportunistic inclination, but a result of managers continuously updating their behavior through learning combined with a reflective element of assessing the appropriateness in the specific situation.

Even though managerial actions are steered by the rules of the game, formed as the contracts, principles and norms of the relationships, they still deviate from what is prescribed by these governance mechanisms. This thesis shows how such deviation is continuously updating the governance structures of the relationship, ranging from the mutual understanding, to
interorganizational routines to the more formalized principles of the relationship. Opposing the configurational account of interorganizational relationships, relying on initial conditions for explaining relational performance, this thesis shows how both external and internal dynamics can alter the misspecification of the governance structure. This evolutionary view is in alignment with previous research on interorganizational collaborations (Ariño & de la Torre, 1998; Ring & Van de Ven, 1992). Through study 3 and 4, the thesis shows how this process is a simultaneous process of top-down formulation and bottom-up emergence.

In situations of high uncertainty, buyer-supplier relationships often rely on loosely specified contracts, which are then adapted over time through experience (Carson, Madhok, & Wu, 2006). Study 4 elaborates on this issue by showing how translation episodes involving such broad principles lead to an increased localization within the specific relationship, which can be done through both formal and informal practices. It is further argued that these translation processes lead to expectations of appropriate behavior. This is similar to Macneil’s (1983) notion of relational norms, which are seen as principles serving to guide, control and regulate proper and acceptable behavior. In general, much norm research focuses on how norms are established through stabilization where social sanctions generate and enforce the common understanding of what is considered appropriate (Lapinski & Rimal, 2005). Study 4 elaborates on how this development of norms as a continuous process of negotiation is characterized by compensation. Translation processes lead to either relaxation or intensification of expectations, which produce and re-produce the rules governing the relational practices. These results both confirm and elaborate previous research on interorganizational relationships, showing that buyer-supplier relationships evolve through both recursive and adaptive processes (Ness, 2009). However, it also contributes to practice theory by elaborating on how the teleoaffective element of relational practice is updated within the relationship, by providing a detailed account for how the normativity within goals, actions, expectations and needs are calibrated through interaction (Schatzki, 2006; Vlaar, Van den Bosch, & Volberda, 2006).

5.1.2 - The role of interests
Most relational buyer-supplier exchanges emerge on the basis of a long-term interest, for developing strong business relationships involving future transactions (Macneil, 1983). These interests are not identical between partners and can be specific or mutual, and are located both at the individual, group and company level, which shape the relationship over time (Medlin & Törnroos, 2014). The role of these differences in interests between collaborative partners are yet to be investigated in research on interorganizational relationships (Lumineau & Oliveira, 2018). However, the separate papers within
this thesis develop different contributions, which begin to unfold how interests influence the ongoing structuring of buyer-supplier relationships. Paper 2 shows how interests influence actors ability to identify cue and reach a mutual sense of how to act collectively. It further contributes by showing how strong interests and the balancing of those within developed project solutions, improve the degree of retention. The paper suggest that experienced tensions during the sensemaking process can increase the group’s propensity to adopt the solution again on subsequent projects. Paper 3 shows how interests can differ across organizations within the collaboration, where there might be a misfit between the vision at the interorganizational level and the goals and strategic focus of the separate companies involved. Such tensions are shown to dampen commitment to interorganizational projects, which need to be incorporated when setting up interorganizational innovation projects. Finally, paper 4 touches upon how general principles for collaboration are specified and translated according to the interests of the project partners at the local level, which might differ from what was intended by the top management.

Interests play a core role when actors engage in sensemaking processes, where they constantly adapt their interaction space based on updated frameworks and understandings (Medlin & Törnroos, 2014). Cue identification has been shown as a core part of sensemaking, enabling organizations to solve problems and handle risks (Rerup, 2009). This process relies on divergent frames, emphasizing selection of managers as an important path to efficient problem solving (Seidl & Werle, 2017). Paper 1 elaborates on this issue by investigating the trade-off between aiming for an aligned and collaborative relationship based on mutual interests, while ensuring the needed requisite variety is present for accounting for the risks and issues within construction projects. It is argued that divergent interests improve the cue identification, and if actions are successfully retained, future projects will benefit from these productive tensions.

Even though relationships are labelled collaborative, conflicts still arise that require managerial attention. However, paper 4 shows how such conflicts are managed through ongoing processes of translation, which calibrate actors’ understanding over time. These translation processes are based on negotiations in which actors not only formalize and intensify understandings in order to specify the overall principles of the relationship. They also engage in informal translation and sometimes agree to deviate and relax certain principles, in order to generate locally useful practices. During this process, actors have to compromise their interests in order to ensure efficient collaboration. However, it is proposed that such concessions build social capital, which can be leveraged in subsequent interactions. This relatedness between principles and separate translation processes contributes to the
literature on translation in an interorganizational context (Morris & Lancaster, 2005; Teulier & Rouleau, 2013).

Finally, interests are also involved when companies engage in collaborative innovation projects. Through the investigation of an innovation consortium, paper 3 shows how incorporation of multiple and divergent interests, can impede the novelty and radicalness of an idea. When innovative ideas need to incorporate the export-orientation of the client, combined with the goal of cost minimization from the contractor, the idea ends up as a mediocre solution losing the perceived value needed for commitment and implementation. These findings contribute to our understanding of how tensions between interests can hinder innovation in relationships consisting of partners dedicated to innovation (Doz, Olk, & Ring, 2000; Sydow, Windeler, Schubert, & Möllering, 2012).

5.2 – What can business learn?

Despite the endeavors of practice-based research to get close to practitioners and their practical activities (Orlikowski, 2010), B2B marketing managers still consider such theoretical developments insufficiently pragmatic and abstract (Cornelissen, 2002). B2B marketing articles are in general too abstract, non-normative and generic to be useful in everyday managerial struggles of navigating in buyer-supplier relationships (Baraldi, La Rocca, & Perna, 2014). Marketers are mainly concerned with applicable tools and procedures, presuming consciousness, rationality and logic as mechanisms driving decision making (Lowe, Rod, Kainzbauer, & Hwang, 2016). However, this thesis shows that managing buyer-supplier relationships is only minimally constructed as an organized consistency of purposive actions (Chia & Holt, 2006). Despite the lack of perceived utility, I believe that the four papers within this thesis provide both relevant and intriguing implications for how managers can improve their buyer-supplier relationships.

First of all, managers should embrace heterogeneity. Diverse perceptions and interests between actors improve the organizational attention needed for avoiding risks and enhancing expertise. On the other hand, this diversity also increases tensions and the potential for conflictual situations. As tensions have been proven to be beneficial, managers should prepare for encountering these conflicts. As study 4 shows, intense discussions can be productive for the relationship by replacing inappropriate practices with more efficient ones. This requires managers to be willing to make concessions. Compromises enable managers to leverage their concessions in subsequent interactions, which is a key to maintain a fruitful relationship.
Secondly, managers should not expect efficient and beneficial structures to emerge automatically over time. Even though many interorganizational relationships are set up as self-organizing entities, they require some level of planning, orchestration and structuring. Study 3 shows how the task of innovation was derailed due to the lack of routinization of implementation and up-scaling, where the ongoing structuring became a product of improvisation guided by group justification, instead of being concerned with innovation as originally planned. Few organizational structures and a lack of managerial experience nurtured an inadequate innovation process, leading to poor innovation results. This indicates that managers should ensure that the formal structures, such as goals and tasks, are aligned with the complexity and dependency within the specific buyer-supplier relationship.

Finally, a certain level of soft managerial guidance is useful for aligning actors in fixed-duration relationships. Initiating new relationships with a set of ground-rules provides some degree of immediate alignment and common understanding. However, translating these broad principles into local and suitable practices, seems to be an underestimated exercise in many buyer-supplier relationships. Managers tend to have the assumption that they can predict and thereby configure an appropriate level of governance structure. However, the uncertainty and situatedness of B2B interaction require an ongoing specification and updating of the formal structures, which is the result of an ongoing translation process. Managers should not expect and seek a universal understanding across all actors. However, they should acknowledge divergent interpretations as a sign of an efficient relationship. In accordance with previous research on relational dynamics in interorganizational relationships, this thesis shows that instability, if managed appropriately, can produce successful relationships. Instability should not be seen as improper design and poor management (Majchrzak, Jarvenpaa, & Bagherzadeh, 2015).

5.3 – Future research avenues
As this thesis shows, three years of studies have uncovered several aspects of the interplay between managerial action and the ongoing structuring of buyer-supplier relationships. The separate papers vary in terms of suggesting future research directions, where paper 1 provides clear paths for B2B scholars wishing to adopt a practice-based view. With that said, the empirical papers do leave interesting topics to pursue, where a practice-orientation will provide valuable insights.

This thesis explores some of the inherent tensions that are present, even within collaborative buyer-supplier relationships. While these tensions are accentuated during interaction and covered throughout the papers, the data also indicates a presence of counterproductive or deviant actions. Such
actions cover information withholding, over-selling and avoiding taking action e.g. Even though they share similarities with opportunistic behavior, the reasoning behind is not always self-interest seeking with guile. Information withholding can occur if there is no structure promoting information sharing. Over-selling can be part of a negotiation process in order to convince the other party. Avoiding taking action is common if other activities requires immediate attention, resulting in prioritization. Studies on the dark side of strong buyer-supplier relationships indicates that strong relationships can become impeded by opportunism, loss of objectivity and ineffective decision making (Villena, Revilla, & Choi, 2011). I argue that practice theory provides a suitable lens for uncovering the development of such practices within buyer-supplier relationships.

Another relevant topic of buyer-supplier relationships is knowledge sharing. Knowledge sharing is needed in order to jointly solve problems and create value. However, if actors share too much or sensitive knowledge, their home organization may suffer. Such tension was visible in paper 3, where innovation requires intensive knowledge sharing between the contractors involved in the consortium. While partnering entails complete transparency and continuous search for cost reduction, improving the capabilities of competitors can in the long-run devalue one’s competitive advantage. This sharing-protection tension inherent in the daily work of boundary spanning managers, requires the ability to segment the knowledge in order to ensure an optimal level of knowledge sharing (Jarvenpaa & Majchrzak, 2016). This tension is another topic of collaborative buyer-supplier relationships, where future practice-based research can generate new insights regarding the role of individuals.
References


APPENDENCES

Appendix 1 – Overview of data

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2019.06.27 - Referat - Innovationsgruppemøde nr. 35 | MoM | 1 | + 5 documents
2019.07.04 – Interview, PM3, AV | Interview | 18 | 65 min
28.09.2018 - SV~ Testdag - Proces for jordscanning | Email | 2 |
handlingsplan 1 -Eksekvering (2) (1) | Document | 1 |
handlingsplan 2 -Innovationskultur (1) | Document | 1 |
Handlingsplan 4 Målstyring | Document | 1 |
Handlingsplan fra idé til proces | Document | 1 |
Handlingsplan innovationskultur (1) | Document | 1 |
HP - Håndtering af workshop og tilbuds ideer (2) | Document | 1 |
HP 2 - Innovationskultur | Document | 1 |
HP 2.01 Innovationsgartner | Document | 1 |
HP 2.02 Kompetenceløft af innovationsgruppen | Document | 1 |
HP 2.03 Ideer til delpartnerskabet | Document | 1 |
HP 2.04 Den røde tråd | Document | 1 |
HP 2.05 Ledelse med fokus på innovation | Document | 1 |
HP 2.06 Inspiration udefra | Document | 1 |
HP 2.07 Sandkassen | Document | 1 |
HP 2.08 Dagbogstafet | Document | 1 |
HP 2.09 Innovation som fast del på timeouts | Document | 1 |
HP 2.10 Involvering i marken | Document | 1 |
HP 2.11 DetUrimeligtAmbitiøseProjekt | Document | 1 |
HP 2.12 Projektkontoret | Document | 1 |
HP 2.13 DetAutonomeProjekt | Document | 1 |
HP 5 - Indstyring | Document | 1 |
Rapport - Samarbejdstilfredshed - Spildevand Vand | Document | 15 |
Rapport - Samarbejdstilfredshed | Document | 15 |
Samlet tilfredshedsrapport November | Document | 21 |
Tallene - Samarbejdstilfredshed November - | Document | 3 |
Udviklingsplan 2016-2021_2016 03 11 | Document | 1 |
94 other documents used across the period | Document | (Secondary) |
87 documents from 16 meetings in Steering Committee | Document | (Secondary) |
15 documents from project meetings (MoM, drawings etc.) | Document | (Secondary) |

**Total**

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Appendix 2 – Co-author statement – Paper 1

AARHUS UNIVERSITY
SCHOOL OF BUSINESS AND SOCIAL SCIENCES

Declaration of co-authorship

Full name of the PhD student: Jim Hoeg Pedersen

This declaration concerns the following article/manuscript:

Authors: Jim Pedersen, Chris Ellegaard and Hanne Kråg

The article/manuscript is: Published □ Accepted □ Submitted □ In preparation □
If published, state full reference:
If accepted or submitted, state journal: Industrial Marketing Management
Has the article/manuscript previously been used in other PhD or doctoral dissertations? 
No ☑ Yes □ If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:
A. Has essentially done all the work
B. Major contribution
C. Equal contribution
D. Minor contribution
E. Not relevant

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Signatures of the co-authors

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<tr>
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<td>Hanne Kråg</td>
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Date: 31-01-2020

In case of further co-authors please attach appendix

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.
Appendix 3 – Co-author statement – Paper 3

Declaration of co-authorship

Full name of the PhD student: Jim Haeg Pedersen.

This declaration concerns the following article/manuscript:

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<td>Jim Pederson, Chris Ellegaard and Hanne Kragh</td>
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The article/manuscript is: Published □ Accepted □ Submitted □ In preparation ☑

If published, state full reference:

If accepted or submitted, state journal:

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No ☒ Yes □ If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

A. Has essentially done all the work
B. Major contribution
C. Equal contribution
D. Minor contribution
E. Not relevant

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In case of further co-authors please attach appendix

Date: 31-01-2020

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.
Appendix 4 – Co-author statement – Paper 4

Declaration of co-authorship*

Full name of the PhD student: Jiaa Hoeg Pedersen

This declaration concerns the following article/manuscript:

| Title: | From Surface to Percolation: Translating Collaboration Principles in Interorganizational Collaborations |
| Authors: | Jiaa Pedersen, Hanne Kragh and Chris Ellegaard |

The article/manuscript is: Published □ Accepted □ Submitted □ In preparation ☑

If published, state full references:

If accepted or submitted, state journal:

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No ☑ Yes □ If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

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Date: 31-01-2020

In case of further co-authors please attach appendix

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.