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Work Floor Experiences of Supply Chain Partnering in the Dutch Housing Sector

Marieke Venselaar

Work Floor Experiences of Supply Chain Partnering in the Dutch Housing Sector

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Work Floor Experiences of Supply Chain Partnering in the Dutch Housing Sector

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Door

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TOC

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Prologue

'Your research question is your life question.' My teacher shared this idea when I was writing my MSc-thesis. Often, I ask my graduate students at the University of Applied Sciences in Utrecht about their personal motivations. Not only the theoretical and practical relevance of research matter. It seems that if a researcher shares his or her motivation, the reader can also understand the purpose of the research better, because it can be placed in a context.

This research is about work floor experiences of professionals at work floors of housing organizations in The Netherlands in their attempts to apply supply chain partnering. I did not only choose this topic because of its academic and practical relevance. The choices I made, and the personal motivation behind those choices say a lot about what has driven me to do this research. Therefore, this prologue focusses on the experiences that have led me to conducting this PhD-research. In answering this question, I will describe a few milestones that I consider important events that led me towards this research.

Model for Creating a Real Estate Portfolio with People

The first experience that inspired me to conduct this PhD-research must have been the writing of my Master-thesis at the department Real Estate and Housing of the faculty of Architecture in Delft. I was interested in processes involving the development of an accommodation strategy for companies operating in the experience economy. This thesis resulted in a 'Model for Creating a Real Estate Portfolio with People'. The model consisted of three focus points: 'seek shared values', 'reflect', and 'culture is created by people'. Aspects of this model resonate in this thesis as well. An author that inspired me in writing this MSc-thesis, was *Cornelis (1990)*, *Cornelis (1999a)*, and *Cornelis, 1999b*. I feel that his work fundamentally changed my world view. A key aspect in Cornelis' work is 'communicative self-guidance'. According to Cornelis, the definition of communication is 'showing opportunities' (*Cornelis, 1999a*). He claims that if 'speaking does not result in more opportunities than before, then there was no communication at all'. Thus, opportunities arise in the act of communication. This idea appealed to me and I wanted to explore this in greater depth.

The structure of scientific revolutions

My first job after graduating was at ING Real Estate Development Netherlands. Although I had pleasant colleagues and a good time, I quickly realized that this job was not for me. I missed studying and I started following courses of Philosophy at the University of Amsterdam. One of these courses was Philosophy of Science. Previously, I had never thought about ontology and epistemology. But this course, and especially *Kuhn's* work 'The structure of Scientific Revolutions' inspired me and influenced my view on what knowledge is and how we can access knowledge. I realized that I believe that science is never a linear accumulation of knowledge, but is always socially constructed by people in their context.

Teacher Real Estate Management at the University of Applied Science

Meanwhile, I changed jobs and started working as a teacher of Real Estate Management at the University of Applied Sciences of Utrecht. Although I liked that job a lot, I was critical about this organization. I had a colleague who was critical as well. Among other things, we experienced problems such as a lack of shared identity and mission, the content of the courses was not aligned and there was high work pressure among colleagues and often we experienced tense communication between students and teachers. My colleague has a background in management studies and introduced me to the world of change management. The work of *Schön (1991)*, and *Weick (1995)* in particular inspired us in our mission to improve the quality of our work.

With unbridled energy, my colleague and I created a 'team plan', that was set up in four (in our opinion consistent) levels: at the strategic -, tactical, operational -, and team level. Key-issues in the plan were pro-activity, self-guidance, co-creation and involvement of essential parties: student, teachers, professionals in the field, and research center. We practiced what we were preaching. We realized our plans, by involving the right people and using windows of opportunity, such as compulsory accreditation, and some structural changes that were imposed by our management. We saw ourselves as front runners in a big bottom-up change process. This was acknowledged, and supported, by our team leader.

Part of the change process, was a more intensive collaboration with the research center of the University of Applied Sciences in Utrecht. Head of the department of innovative real estate management was Vincent Gruis, whom I also have known as one of my professors when I was a student at the TU Delft. We co-created significant parts of the new curriculum. These courses focused on the work of housing associations, especially renovation and maintenance projects.

The bottom-up change process of redeveloping the curriculum of Real Estate Management Studies was a direct inspiration for starting this research about work floor experiences. The main principles in this change process were pro-activity, self-guidance, and co-creation. At that moment, I thought we were successful in applying these principles, and I thought that we were able to change an organization from the bottom-up. Through conversations with Vincent Gruis, who later became supervisor in this PhD-project, we got inspired and we thought it would be interesting to see if such bottom-up change processes would also be successful in the context of a Dutch housing association that are implementing the principles of SCP. As I saw it at that moment, principles of SCP were similar to the principles that we tried to apply. With the experiences that I gained in this bottom-up change process and the ideas that we developed in experiencing this process, I wrote a proposal that was granted by the committee of University of Applied Sciences of Utrecht and I officially became a PhD-student.

Author's notes

Because I think it is important to place the research in a bigger context, each section in this thesis starts with "author's notes", in which the author reflects on experiences that may have influenced (directly or indirectly) the research.

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Summary

Introduction and research approach

The construction industry is known for its waste of money and materials, low innovative capacities, and low productivity (*Cox and Thompson, 1997*; *Vrijhoef, 2011*). One reason is that the relationships between client and contractors is often perceived as a problematic one (*Tazelaar en Snijder, 2010*; *Vrijhoef, 2011*). Since decades, attention has been paid to supply chain partnering (SCP) in the construction industry, as a promising strategy to decrease waste of time and money and increase quality and address the problematic relationships (*Boukendour and Hughus, 2014*; *Bygballe et al., 2010*; *Eriksson, 2015*; *Hong et al., 2012*; *Vrijhoef, 2011*).

Despite the attention, it is hard to exactly pinpoint the concept of SCP. Many definitions, synonyms and related concepts circulate and it seems that SCP has increasingly become a buzz-word that represents 'good practices' in the construction sector. Nevertheless, applying SCP may involve 'hard' factors, such as early involvement of the contractor in the project, open book accounting, re-allocation of risks, and working with preferred partners. SCP may also involve 'soft' factors, such as increasing mutual trust between partners, increasing competences of conflict resolution or trying to establish more effective communication between partners. Some scholars argue that SCP should be considered as an emergent practice which can take on many different shapes (e.g. *Bresnen, 2009*; *Hartmann and Bresnen, 2011*; *Marshall and Bresnen, 2013a*; *Marshall and Bresnen, 2013b*). This study focuses on SCP as an emergent strategy. An emergent strategy, contrary to a deliberated strategy, is a strategy that arises in ongoing daily complex responsive processes between individuals. While a deliberated strategy looks forward and prescribes what people should do, an emergent strategy looks back and describes what people already do.

Studies that dig deeper in those work floor practices and truly consider SCP in construction industry as an emergent practice is relatively scarce. It is said that current literature on this topic is stylized and too abstracted from daily work practice. Individual experiences are averaged away in an attempt to develop a general theory. There is too little insight in what people actually do in daily work practice and how they form a strategy such as SCP. Work floor experiences of SCP should be studied, because without the insight, it is difficult (if not impossible) to intervene in an efficient and effective way and to improve performances.

To study work floor experience of SCP, a specific part of the construction sector was chosen. After all, experiences in different fields may differ. This study focuses on Dutch housing associations. Dutch housing associations own a third of the total Dutch housing stock. Being one of the biggest clients, they dominate the sector. Due to several reasons, Dutch housing associations have to cut back expenditures. Supply chain partnering is one way to try to do this. Within the context of Dutch housing associations, we chose to study the work floor experiences of the project leaders, because project leaders are important in translating principles of SCP into daily work floor routines.

Thus, the problem is that not enough attention has been paid to what goes on at work floor level when project leaders try to apply principles of supply chain partnering. This insight is necessary, because supply chain partnering is formed by ongoing processes of interactions between professionals in daily work practice. Therefore, to improve performances and intervene effectively, insight in work floor practices should increase. This research aims to describe work floor experiences of professionals who work for Dutch housing association and who attempt to apply SCP. To reach this target the following question will be answered:

What are work floor experiences of project leaders that work for Dutch housing associations who try to apply principles of SCP?

Just one broad open research question was formulated, so that work floor experiences could be studied holistically. By not formulating specified sub-questions beforehand, the right circumstances were created for themes to emerge inductively. These themes are:

- The importance of the intra-organizational supply chain in effective collaboration
- Leadership.
- Inconsistent use of values that are associated with the concept of SCP.
- Power dynamics and ethics.

This study relies on the assumption that current literature about construction partnering is too abstracted from daily work life. In order to justify this assumption, a literature review was conducted.

Another assumption on which this research relies, is that all knowledge is socially constructed and that this knowledge can only be known from an individual subjective

frame of reference. Therefore, every notion of reality that people have is non-objective and limited by the boundaries of language. That means that this research presents a researcher's interpretation of a social construct, which is in this case work floor experiences of supply chain partnering.

This research consists of a literature review, three case studies, and an overarching study in which the insights that are gained in the three case studies are synthesized. Although the research approach in each case differs slightly, in each case study narrative techniques are used.

The main method to gather data was conducting open, semi-structured interviews in which the participants were asked for their experiences with SCP and the context that enabled or restrained them for applying SCP. The main method to analyze data in each case study was constructing a narrative about and with the participants in the case study. For each case study narratives were created and validated by presenting the narrative to the participants. The cases were brought together in two ways. On the one hand, predetermined dimensions were used to compare the data and on the other hand themes have emerged inductively. Not surprisingly, the results of both ways overlap and interrelate.

Results

The first case study presents the results of a study in which a work floor professional together with a researcher tried to contribute to the implementation of SCP within renovation processes of a Dutch housing association. The managing director purchased and introduced BIM-software, and some project leaders began to organize 'BIM-sessions'. That means that the project leader invited internal as well as external supply chain partners, to a develop plan for a housing complex. It appeared to be difficult for the project leader to lead this conversation. There is a lot of discussion about many topics, structure lacks and discussions end without conclusions. Questions about the organization's policy about for example sustainability remain unanswered, even when the project leader asks his colleagues within his own organization. Finally, the project leader and the co-makers managed to develop a plan for the housing complex. However, while a lot of time was spend on developing the plan, a misunderstanding with the internal client caused serious uncertainty whether this project could continue at all.

The second case study followed multiple project leaders in a Dutch housing association who try to apply SCP. The department had just been reorganized. Among other structural differences, a new department of Purchasing was founded. Some project

leaders considered this new department as an extra chain in the supply chain. One of their tasks was to select contractors, which was something that the project leaders used to do themselves. The narrative tells that a duo started to develop their own selection procedure and selectively 'forgot' to involve the department of Purchasing. Also other intra-organizational dynamics are described, for example the relationship between project leaders and their team leaders was not always easy. It was found that key values of SCP as understood by the project leaders - such as sharing responsibilities and addressing feedback towards each other openly - are applied inconsistently.

The third case study evaluated a team of professionals from a Dutch housing association and a contractor who perceive themselves as a successful supply chain. The collaboration grew in an organic way, because the contractor was selected multiple times in multiple selection procedures. The perceived successes seem to be based on the repetition in their collaboration. Remarkable in this case was that the individual interviews show that some people of the client organization within the successful supply chain, were considered as not so successful after all. About these people it was said, for example, that they try to control the contractor too much. Those people were aware of their image, but a conversation about it never took place. Instead, as one of the contractors said, they try to work around those people. The narrative also describes that during this case study, within the client organization it was decided not to work with preferred partners. That means that in the future the contractor still has to go through selection procedures and that makes continuation of the success in the future insecure.

Conclusions

Before conclusions of the case studies are detailed, first the results of a literature study about the nature of qualitative construction partnering research are discussed. Current literature about construction partnering research is said to be too abstracted from daily work life. Reviewing the nature of qualitative construction partnering research identified the following gaps. 1) Literature underexposes processes of data analysis. 2) Reflection on the role of the researcher(s) in the research process is underexposed. 3) The individual level of analysis is underexposed. 4) The way in which the results are generalized remain somewhat opaque, especially reflections on internal generalization are underexposed. All identified gaps have in common specific time and place dependent details that may have influenced understanding of studied individuals are underexposed and that may explain a feeling that current literature is abstracted from individual work experiences.

What are work floor experiences of project leaders who work for Dutch housing associations and who try to apply the principles of SCP?

The narratives describe that with or without a managerial intervention, some of the project leaders start experimenting with applying SCP. Individual initiatives have risen, albeit in a somewhat patchy and uncoordinated manner. The number and nature of supply chain partners is large, diverse, complex and dynamic. It appeared to be difficult to unify all the participants with different agendas and frames of reference. The cases address many issues in intra-organizational relations that hamper the collaboration with external partners. The work experiences also show that key values associated with SCP are applied only to some groups and individuals within the supply chain.

Similarities between the cases in terms of strength, scope, duration and depth

The cases were compared using four dimensions that were provided by *Eriksson (2015)*. The dimensions are strength, scope, duration and depth of SCP. This resulted in multiple observations. None of the project leaders worked with preferred partners (by-passing expensive and time-consuming procurement and selection procedures) in any case, and there is no indication that this will change in the future. In all three cases, it was expected that applying SCP would reduce costs, but there was no agreement as to what those costs were specifically. In general, pricing and cost remained a complex topic, and all project leaders referred to different aspects of this topic. Formally, the duration of relationship with the contractors was one project only. Informally, the respondents acknowledged that they expected to cooperate again with most of the contractors in the future. One reason for this could be the limited size of the regional market. The maintenance phase was not involved in the collaboration in any of the cases. The contractor's timing of involvement varied between projects. However, in all cases, the outlines of the project, such as approximate budget and main technical interventions, were predetermined, and difficult and time consuming to change. Implementation of SCP (especially when applied for the first time in a project setting) was not perceived as something that necessarily leads to shorter duration of (parts of) the project. In all three cases, the managing directors of the departments of renovation supported SCP. However, the managers' actual involvement in daily work practice was limited. Moreover, the support did not lead to changes in the formal strategy for the other departments in the organization outside the department of renovation and maintenance.

As described in the introduction of this thesis, this research deliberately started with one broad open research question for themes to emerge inductively. These four themes are: 1) the importance of the intra-organizational supply chain in effective collaboration. 2) Leadership. 3) Inconsistent use of key values that are associated with the concept of SCP. 4) Power dynamics and ethics. The four themes are elaborated below.

The importance of the intra-organizational supply chain in effective collaboration

All three cases show the importance of the intra-organizational supply chain on relationships with external partners. All three cases show examples of project leaders who try to collaborate with contractors, but were hindered by intra-organizational issues. For example, the first case study shows that a serious misunderstanding with the internal client caused uncertainty of the progress of a project in which a time was invested by the contractor. In the second case study, the newly founded department of purchasing was perceived by some project leaders as an extra chain in the supply chain, which makes processes of selecting partners more complex instead of lean. The third case study shows that continuation of the success was insecure, because within the client organization it was decided not to start working with preferred partners. Based on these examples, it was concluded that different types of non-functional intra-organizational dynamics slowed down the collaboration processes with the external partners, or made continuation of perceived good practices insecure.

Leadership

From the perspective of the project leaders, it seems that their managers' focus is not on facilitating daily work practice of SCP, neither on designing and communicating a deliberate SCP-strategy. It seems that some project leaders feel victims of contextual vagaries, not always able to get a grip on managing the supply chain effectively. Interventions that were undertaken by project leaders and their managers, are patchy, contradictory, and/or unfinished. Many individual initiatives have arisen, but continuation of good practices appeared uncertain. In all three cases, the project leaders' managers (in different hierarchical levels) initiated and/or supported the implementation of SCP. For example, BIM-software was purchased, a presentation was organized, or the project leaders are supported with words. And in each case a procurement policy still prevailed and management's expectations of what project leaders should do or aim for were not clear. The social relation between the project leaders and their managers appeared to be problematic in many individual cases. Especially the project leaders in the first and second case experience that the managers have too little insight and ear for what the project leaders do and the problems they encounter in daily work life. When those project leaders try to discuss their experiences, they often feel unheard and misunderstood.

Inconsistent use of key values that are associated with the concept of SCP

The cases show that certain values were associated with applying SCP. In the first case trust and trustworthiness are discussed. In the second case values such as 'sharing responsibilities', 'pro-activity', and 'you must give each other open and honest

feedback' were discussed. In the third case, among other things, informal evaluations and expressing appreciation from the client's project leader towards the building site workers were mentioned as important values. The exact formulation of these key values always differs slightly, but there is no reason to assume that the mentioned key values differ significantly from what has often been mentioned in literature about construction SCP. It could be argued that these key values are similar to general ideas of professional behavior and should therefore be applied in non-SCP-situations as well. But that debate falls outside the scope of this study.

New insight that this study provides is that the key values that are associated with SCP were applied to limited parts of the supply chain only and applied inconsistently. For example, the internal client was not involved in the application of SCP at all, and therefore the values of SCP were not applied to this party. Another example, in the third case study, people who were perceived as 'not that far in their thinking', were not provided with a short informal evaluation, although that was mentioned as a factor of success. Especially the intra-organizational supply chain seems to be treated differently than the inter-organizational supply chain.

This dynamic of shifting application of values and the actions that provokes, seems not to be a matter of bad intentions. There is no reason to question individual intentions. Rather, possible reasons could be that project leaders are not always (fully) aware of the extent of the supply chain they are working with, or they feel unable to apply the key values, or they do not believe in a positive result of doing so, or they fear the consequences.

Power dynamics and ethics

Whatever the reason for the shifting application of key values of SCP is, the participants together have created situations that provoke ethical questions. Related to this discussion, is the discussion about power dynamics. In this study power is not seen as something that one possesses, rather it is something one gains through interactions. A constant power shift is ubiquitous in all normal daily social interactions. The cases show that in normal daily work life, people constantly negotiate, construct, conduct process of trial-and-error, and in those processes, they may gain or lose power. Power arises in normal social interactions at work floor and power dynamics can be visible or hidden. An example of a form of visible power is when the client's project manager claims that contractors are not allowed to make money on smart purchasing of materials. He proposes a system involving a risk buffer, something which the contractor's head of the regional branch agreed to, although he does not think this is fair. An example of hidden form of power is when a purchaser might have formal power over project leaders in terms of selection of contractors, but the project leader might

gain back his power by selectively 'forgetting' to involve the purchaser in a selection procedure, and so on. It is well possible that an internal client, who appeared to be not engaged and informed about the change of the department of renovations and maintenance towards SCP, does not even realize the power he may have on the process. That means that certain people unexpectedly and unconsciously may appear to have a great power in the process of collaboration.

It seems that, although perhaps unintendedly and unconsciously, supply chain partnering is used strategically to gain power. The word 'SCP' (or one of its synonyms) can be used as an argument to easily convince somebody else to do something that one would otherwise not do. After all, SCP is a buzz-word that seems to represent 'good practices' in the sector, rather than it is a deliberated strategy. Key values that are associated with SCP are hard to not agree with. By strategically referring to key values of SCP power can be gained. Perhaps the clearest example of such an issue is shown in especially the first and third case studies. A possible interpretation of the case studies is that applying SCP leaded to a situation in which the contractors still go through time consuming and expensive selection procedures, are involved in earlier phases of the process (thus provide extra work), still have limited influence in the technical interventions, have more responsibilities, and are supposed to (gradually) save 20% of the costs (although it is undefined how this cost-reduction is calculated). It is highly questionable whether this is fair and whether all the effort that was put in applying SCP will solve the problems that people expect. This also feeds the impression that despite the attention, engagement, and effort put into applying the principles of SCP, intra- and inter-organizational collaborations have not improved fundamentally.

Reflection on research, academic and practical implications

Before implications and recommendations of this study are discussed, the study should be reflected and limitations should be acknowledged. The first point of reflection concerns finding the right position of the researcher in the field. Whatever position the researcher has in the field, the most important aspects are awareness of that role in the field, and awareness that the researcher is just as well part of the ongoing complex responsive processes. Another methodological quest was what it means to analyze at an individual level of analysis. Throughout this study, it was experienced that abstracting from direct experiences happens gradually. Based on this research an ideal level of abstraction cannot be determined, but also at this point the researcher has to be aware and make conscious decisions (and be transparent) at all times. Another point of attention is about objectivity and neutrality of the researcher. Instead of pretending to be objective and neutral, I think it is better to acknowledge that no person is capable of being objective and neutral. Therefore, although this may

be difficult, the researcher has to be as transparent as possible about it. Then the reader has more opportunities to value the research in an honest way.

Academic recommendations concern development of theory as well as methodology. A first academic recommendation is to keep considering work floor experiences of implementing SCP – or the introduction of any other phenomenon, such as Total Cost of Ownership, or circular building. Research that is abstracted from ongoing daily work practice, may easily overlook relatively small, unexpected, but influential factors. A second academic recommendation, is to study ethics in relationships at work floors. This research provides reasons to think that some groups are treated with different values than others, and the question is whether this is justified. Also, it was observed that participants together create situations that provoke ethical questions, while there is no reason to question individual intentions. A third academic recommendation concerns the low diversity among the project leaders. Most project leaders in this study are white male with a technical or business Bachelor-degree. Only one of the studied project leaders was female. We think this represents the diversity within the total population. The relation to low diversity and performance in this sector should be studied.

Methodological recommendations concern qualitative construction partnering research and are directly based on the four methodological gaps that are identified in the literature review, and is four-folded: 1) more attention should be paid and/or transparency should be increased about the process of data analysis. 2) the researcher should reflect more on his/her role in the research process is underexposed. 3) more analysis at individual level is necessary. 4) There should be more attention and transparency about the way in which the results are generalized.

Practitioners in housing associations – and other parties in other supply chains – can use the findings in multiple ways. The description of work floor experiences may provoke many ideas for practical interventions, but the results of this study can never be an argument to intervene in other situations. Professionals who are inspired by this research are recommended to, before coming to action, evaluate their own situation thoroughly. The conclusions can be a point of attention within that evaluation, but professionals may also be inspired by the methodologies that were used in this study to evaluate work floor practices. Important tools in evaluating one's own situation is conducting interviews and observations from different perspectives in different hierarchical levels within parties in the supply chain. This may be done in a formal and informal way and it might be more a matter of attitude than action. After all, a professional is part of ongoing conversation with all kinds of people daily. Therefore, there are plenty of opportunities to conduct interviews and observe the situation situations with an evaluative eye. A second recommendation is that, if practitioners

decide to intervene, they should focus on the effects of the intervention, at least as much as the intervention itself. The action does not stop when the intervention is done, rather the action begins after intervening. Again, this is a matter of attitude, rather than a matter of action. A third recommendation is to explore the role as managers and leaders. The study shows project leaders feel that their managers not always take the lead, and project leaders themselves seem not always able to take the lead either. There is a lot of management literature about the seemingly paradox of managing unmanageable processes, that can help in exploring this role. Whatever the outcome of the self-exploration process will be, the cases show that many project leaders feel unheard and misunderstood by their managers. This dynamic is relatively easy to overcome, and that takes effort from both the manager and the project leader. Simple conversation rules, such as non-violent communication principles, may help in increasing mutual understanding and increasing competences of listening. Fourthly, we observe that some parts of the supply chain are thought of (and treated) with different values than other parts. To change this, self-awareness of use of such key values and answering the question whether this is justified should be answered individually. All practical recommendations have in common that they require a high level of self-reflective competences, and therefore it is recommended to keep increasing self-reflective competences. Again, this is a matter of attitude, rather than undertaking extra actions. There are different ways to achieve this. People can start by considering their daily communication as if it were interviews or observations and start acting like reflective practitioners. This action will likely also increase skills of listening. Further, one can ask help of a coach. Or one can consider meditating. Becoming and being reflective is an ongoing process.

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Samenvatting

Inleiding en onderzoeksaanpak

De bouwsector staat bekend om grote verspillingen van geld en materiaal, een laag innovatief karakter en lange bouwprocessen (*Cox en Thompson, 1997*; *Vrijhoef, 2011*). Eén van de oorzaken van de inefficiëntie is de relatie tussen opdrachtgever en opdrachtnemer die vaak als problematisch wordt gezien (*Tazelaar en Snijders, 2010*; *Vrijhoef, 2011*). Al enkele decennia wordt ketensamenwerking gezien als een veelbelovend alternatief om samenwerking binnen de bouwsector te verbeteren en daarmee allerlei verspillingen van geld en tijd te reduceren, en de kwaliteit te verhogen (*Bygballe et al., 2010*; *Eriksson, 2015*; *Hong et al., 2012*; *Vrijhoef, 2011*).

Ondanks alle aandacht, is het lastig om het begrip ketensamenwerking te definiëren. Er circuleren allerlei definities, synoniemen en gerelateerde concepten, die in de praktijk ook door elkaar gebruikt worden. Ketensamenwerking is in toenemende mate een containerbegrip aan het worden, en het lijkt te staan voor allerlei voorbeelden van goede samenwerking. Desalniettemin, de toepassing van ketensamenwerking kan betrekking hebben op 'harde' factoren, zoals de aannemer vroeg betrekken in het project, een open boekhouding voeren, risico's herverdelen, en het werken met vaste partners. Ook kan de aandacht liggen op zachte factoren, zoals het vergoten van onderling vertrouwen tussen de partners, betere conflicthantering, of het streven naar effectievere communicatie.

Sommige onderzoekers zien ketensamenwerking als iets dat emergeert in de dagelijkse werkpraktijk en daarom veel verschillende vormen kan aannemen (bijvoorbeeld *Bresnen, 2009*; *Hartmann and Bresnen, 2011*; *Marshall and Bresnen, 2013a*; *Marshall and Bresnen, 2013b*). Dit onderzoekt richt zich op ketensamenwerking als iets dat emergeert in de dagelijkse werkpraktijk.

Een emergerende strategie kan gezien worden als het tegenovergestelde van een geplande strategie. Een geplande strategie kijkt vooral in de toekomst en schrijft voor wat gedaan zou moeten worden, terwijl een emergerende strategie vooral terugkijkt en beschrijft wat er al wordt gedaan. Er is nog niet veel onderzoek dat ingaat op die dagelijkse werkpraktijk en waarin ketensamenwerking gezien wordt als iets dat emergeert in die dagelijkse werkpraktijk. Er wordt gezegd dat veel onderzoek ten aanzien van dit onderwerp gestileerd is en te veel geabstraheerd van de dagelijkse werkpraktijk. Individuele ervaringen worden uitgemiddeld in een poging om een

algemeen geldende theorie te ontwikkelen. Er is nog te weinig inzicht in wat mensen die ketensamenwerking proberen toe te passen meemaken in het dagelijkse praktijk en hoe ze dus vorm geven aan het begrip ketensamenwerking.

Dit onderzoek naar werkvloerervaringen van ketensamenwerking vindt plaats in de context van Nederlandse woningcorporaties. Er is gekozen voor een dergelijke specifieke subsector, omdat de werkvloerervaringen binnen verschillende subsectoren kunnen verschillen. Nederlandse woningcorporaties bezitten ongeveer een derde van de totale Nederlandse woningvoorraad. Omdat ze zo'n grote opdrachtgever zijn, domineren ze de sector. Vanwege verschillende redenen moeten woningcorporaties steeds meer bezuinigen op hun uitgaven en zoeken ze dus wegen om goedkoper, sneller en met meer kwaliteit hun woningvoorraad op peil te houden.

Het probleem is dus dat er niet genoeg aandacht is besteed aan wat er op de werkvloer gebeurt wanneer projectleiders proberen om de principes van ketensamenwerking toe te passen. Dit inzicht is wel nodig, want ketensamenwerking wordt gevormd in continue processen van interactie op de werkvloer. Dus, om de prestaties te verbeteren en effectiever te interveniëren moet er meer inzicht komen in de dagelijkse werkpraktijk van projectleiders die de principes van ketensamenwerking proberen toe te passen. Het doel van dit onderzoek is dan ook om die werkvloerervaringen van ketensamenwerking te beschrijven. De volgende hoofdvraag zal beantwoord worden:

Wat zijn werkvloerervaringen van projectleiders van Nederlandse woningcorporaties die ketensamenwerking proberen toe te passen?

Er is heel bewust slechts één brede en open onderzoeksvraag opgesteld, zodat de werkvloerervaringen op een holistische manier bestudeerd kunnen worden. Door geen specifieke sub-vragen te formuleren, zijn de juiste omstandigheden gecreëerd om thema's op inductieve wijze te laten ontstaan. Die thema's zijn:

- Het belang van de interne keten voor een effectieve ketensamenwerking;
- Leiderschap;
- Inconsistente toepassing van sleutelwaarden die met ketensamenwerking geassocieerd worden;
- Machtsdynamieken en ethiek.

Dit onderzoek is gebaseerd op de aanname dat bestaande literatuur over ketensamenwerking in de bouw te ver geabstraheerd is van de dagelijkse werkpraktijk. Er is een literatuuronderzoek naar de aard van kwalitatief onderzoek over samenwerking in de bouwsector uitgevoerd, om deze aanname te rechtvaardigen.

Een andere aanname waarop dit onderzoek is gebaseerd, is dat alles wat als kennis beschouwd wordt een sociaal construct is en dat de sociale constructen alleen gekend kunnen worden met individuele, subjectieve referentiekaders. Daarom is alles wat als kennis wordt beschouwd niet objectief en gelimiteerd door de grenzen van taal. Dat betekent dat dit onderzoek de interpretatie van een sociaal construct van de onderzoeker representeert, in dit geval werkvloerervaringen van ketensamenwerking.

Dit onderzoek bestaat uit een literatuuronderzoek, drie casestudies, en een overkoepelende studie waar de inzichten van de drie casestudies met elkaar verbonden worden. Hoewel de precieze aanpak van de drie casussen per studie een beetje verschilt, zijn er in elke casestudie narratieve technieken gebruikt. De belangrijkste methode om data te verzamelen was het afnemen van open, semi-gestructureerde interviews waar de respondenten werden gevraagd naar hun ervaringen en de factoren in de context die hun toepassing van ketensamenwerking mogelijk gestimuleerd of geblokkeerd hebben. De belangrijkste manier van data analyseren was het construeren van narratieven over en met de participanten van deze studie. Voor elke casestudie zijn narratieven gecreëerd en gevalideerd door de narratieven aan de participanten te presenteren en te bediscussiëren. De casussen zijn samen gebracht op twee manieren. Enerzijds werden vooraf bepaalde dimensies gebruikt om de casussen te vergelijken. Anderzijds ontstonden thema's op inductieve wijze.

Resultaten

De eerste casestudie beschrijft hoe een projectleider van de afdeling Onderhoud en Renovatie van een Nederlandse woningcorporatie samen met de onderzoeker heeft geprobeerd om ketensamenwerking toe te passen. De directeur heeft BIM-software aangeschaft en de projectleiders begonnen naar aanleiding daarvan BIM-sessies te organiseren. Samen met de aannemer en eventuele andere partijen probeerden ze plannen voor wooncomplexen te maken. Het was heel lastig voor de projectleider om dit gesprek te leiden, en het gesprek vloog alle kanten op, en discussies eindigden zonder dat er conclusies werden getrokken. Er werden vragen gesteld, over bijvoorbeeld het duurzaamheidsbeleid. Die kon de projectleider niet beantwoorden, ook niet bij navraag binnen de organisatie. Uiteindelijk bleek dat een misvatting tussen de projectleider en de interne opdrachtgever leidde tot grote onzekerheid of het project door kon gaan, terwijl de ketenpartners er al veel tijd in had gestoken.

In de tweede casus zijn meerdere projectleiders binnen de afdeling Onderhoud en Renovatie van een Nederlandse woningcorporatie betrokken geweest. De organisatie was recentelijk gereorganiseerd, waardoor er, onder andere, een nieuwe afdeling Inkoop was opgericht. Deze nieuwe afdeling werd door sommigen gezien als een extra schakel in het proces, want nu moest het selectieproces deels worden uitbesteed, terwijl de projectleiders dat voor de reorganisatie zelf deden. Het narratief gaat ook in op een duo dat zelf een selectieprocedure aan het opzetten was, waarbij ze selectief vergaten om de afdeling inkoop erbij te betrekken. Ook met andere interne afdelingen zijn dergelijke dynamieken geschetst, de relatie met de teamleiders verliep bijvoorbeeld ook lang niet altijd soepel. Uit deze casus bleek dat de waarden die projectleiders associeerden met ketensamenwerking, zoals 'gezamenlijk dragen van verantwoordelijkheden' en 'het openlijk geven en ontvangen van feedback', maar deels werden toegepast op de interne keten.

In de derde casestudie werd een team geëvalueerd dat zichzelf als een succesvolle keten beschouwde. De samenwerking is min of meer toevallig ontstaan, doordat de aannemer meerdere aanbestedingen heeft gewonnen. Het succes leek vooral gebaseerd te zijn op de herhaling in samenwerking die plaats heeft gevonden. Opvallend aan deze casus was dat uit de individuele interviews met de betrokkenen bleek dat er mensen binnen het succesvolle team helemaal niet als succesvol werden beschouwd door de anderen. Over deze mensen werd bijvoorbeeld gezegd dat ze de aannemer te veel stuurden. Deze mensen waren zich wel bewust van hun imago, maar het gesprek werd niet met deze mensen aangegaan. In plaats daarvan, zoals een werknemer van de aannemer zei, proberen ze om die mensen heen te werken. Ook gaat het narratief in op het feit dat tijdens het uitvoeren van de casus, bij de woningcorporatie intern werd besloten niet te gaan willen werken met vaste ketenpartners en dat de aannemer dus voor ieder afzonderlijk project door een selectieprocedure zal moeten gaan.

Conclusies

Voordat de hoofdvraag van deze thesis wordt beantwoord, werd eerst een onderliggende aanname van dit onderzoek verder onderzocht. Die aanname was dat de huidige literatuur over samenwerking in de bouw te geabstraheerd is van de dagelijkse werkpraktijk. De resultaten van het literatuuronderzoek tonen aan dat: 1) het proces van data-analyse is onderbelicht, 2) Reflectie op de rol van de onderzoek(s) in het onderzoeksproces is onderbelicht, 3) Er wordt weinig op individueel niveau geanalyseerd, 4) de manier waarop de resultaten worden gegeneraliseerd blijven wat vaag, vooral reflectie op interne generalisatie is onderbelicht. Alle geïdentificeerde hiaten hebben gemeen dat specifieke tijd- en plaats gerelateerde details die mogelijk het inzicht over de bestudeerde individuen hebben beïnvloed, onderbelicht worden.

Wat zijn werkvloerervaringen van projectleiders van Nederlandse woningcorporaties die ketensamenwerking proberen toe te passen?

Uit het onderzoek blijkt dat het lastig is om meerdere professionals met hun eigen zakelijke en persoonlijke belangen, taken, verantwoordelijkheden, en referentiekaders bij elkaar te brengen. De casestudies laten zien dat, met of zonder managementinterventie, sommige projectleiders beginnen te experimenteren met ketensamenwerking. De casussen laten ook zien dat, op onregelmatige basis, individuele initiatieven zijn ontstaan. Wanneer projectleiders ketensamenwerking proberen toe te passen, ervaren ze vaak moeilijkheden met de interne organisatie. Bijvoorbeeld, de relatie met hun managers was in veel gevallen wat problematisch. Wanneer de projectleiders hun ervaringen proberen te delen, voelen ze zich regelmatig ongehoord en onbegrepen. Ook andere interne relaties bleken problematisch, of er was te weinig bewustzijn dat de interne keten ook onderdeel is van de totale keten. De ervaringen laten zien dat de sleutelwaarden die geassocieerd worden met ketensamenwerking (zoals elkaar open en eerlijke feedback geven) alleen worden toegepast op bepaalde groepen en individuen binnen de keten, terwijl andere ketenpartners bijvoorbeeld helemaal geen feedback krijgen. Dit roept ethische vragen op over waarom bepaalde individuen en groepen anders worden behandeld dan andere individuen en groepen.

Wat zijn overeenkomsten tussen de casussen in termen van sterkte, scope, duur en diepte?

De casussen zijn vergeleken op basis van vier dimensies die door *Eriksson (2015)* werden aangedragen. Die dimensies zijn sterkte, scope, duur en diepte van de ketensamenwerking. Dit resulteerde in meerdere observaties. Geen van de projectleiders werkte met vaste partners (en dure en langdurige aanbesteding- en selectieprocedures werden dus niet omzeild), en er is geen reden om aan te nemen dat dit zal gaan veranderen in de toekomst. In alle casussen werd verwacht dat door de ketensamenwerking kosten gereduceerd zouden worden, maar er was geen overeenstemming over welke kosten dat specifiek ging. In het algemeen, de prijs en kosten bleven complexe onderwerpen, en alle projectleiders refereerden naar verschillende aspecten van die prijs en kosten. Formeel gezien duurde de samenwerking met de aannemers één project. Informeel, gaven de respondenten toe dat ze verwachtten in de toekomst wel vaker te zullen gaan samenwerken met dezelfde aannemers. Mogelijk komt dit omdat de regionale markt van aannemers beperkt is. De onderhoudsfase was in geen van de gevallen betrokken in de samenwerking. De aannemers werden op verschillende momenten in het project betrokken, maar in alle gevallen waren de contouren van het project zoals een budget en een overzicht van de technische interventies, al wel bepaald, en deze contouren waren moeilijk

en tijdrovend om te veranderen. De implementatie van ketensamenwerking (met name wanneer het voor de eerste keer werd toegepast) werd niet ervaren als iets dat specifiek leidt tot een kortere projectduur van (delen van) het project. In alle drie casussen, werd ketensamenwerking wel gesteund door de directeur van de afdeling, maar de daadwerkelijke betrokkenheid van die directeur in de dagelijkse werkpraktijk was gering. Verder, hoewel de directeuren in de cases de toepassing van ketensamenwerking dus wel steunden, leidde dit niet tot formele veranderingen van de strategie in de rest van de organisatie buiten de afdeling waar de projectleiders werkzaam waren.

De vergelijking op basis van de vier dimensies levert heel praktisch inzicht op over de manier waarop ketensamenwerking in de cases is ingericht. Daarnaast zijn tijdens het uitvoeren van dit onderzoek op inductieve wijze overkoepelende thema's ontstaan. Die thema's zijn: 1) het belang van de interne keten voor een effectieve ketensamenwerking. 2) Leiderschap. 3) Inconsistente toepassing van sleutelwaarden die met ketensamenwerking geassocieerd worden. 4) Machtsdynamieken en ethiek. De vier thema's zijn hieronder uitgewerkt.

Het belang van de interne keten in effectieve samenwerking

Uit de cases bleek het belang van het functioneren van de interne keten op de relatie met externe partners. De casestudies lieten zien dat projectleiders die proberen in ketens met de aannemer samen te werken, gehinderd worden door problemen in de interne organisatie. De eerste casestudie liet zien dat serieuze misvatting tussen de interne klant en de projectleider zorgde voor een vertraging in het proces met de externe partner. In de tweede casestudie werd de nieuwe afdeling 'inkoop' door sommige projectleiders gezien als een extra schakel in de keten, die het proces van aannemersselectie eerder complexer maakte in plaats van eenvoudiger. De derde casus liet zien dat, hoewel de teamleden zichzelf beschouwden als een succesvol team, de continuïteit van de samenwerking allerminst zeker was vanwege een intern beleid waarin was besloten niet met vaste partners te gaan samenwerken. Op basis van die voorbeelden, wordt geconcludeerd dat verschillende type niet-functionele interne relaties het proces van samenwerking met externe partners vertraagden, of de continuïteit van de goede ervaringen in gevaar brachten.

Leiderschap

Vanuit het perspectief van de projectleiders lijkt het of hun managers zich niet focussen op het faciliteren van de dagelijkse praktijk van ketensamenwerking, maar de focus lijkt ook niet te liggen op het ontwerpen en communiceren van een specifiek doordacht strategie. Het lijkt erop dat sommige projectleiders zich slachtoffer voelen

van onduidelijkheden in de context, en niet altijd in staat zijn om grip te krijgen op de situatie. Interventies die worden gedaan door de projectleiders en door hun managers, zijn onregelmatig, tegenstrijdig en niet afgemaakt. Veel individuele initiatieven zijn ontstaan, maar het is onzeker of die initiatieven gecontinueerd worden. In alle drie casussen, werd de implementatie van ketensamenwerking geïnitieerd en/of ondersteund door de formele leiders. Er werd bijvoorbeeld BIM-software aangeschaft, een presentatie georganiseerd, of de projectleiders werden aangemoedigd met woorden. Tegelijkertijd was er in alle drie casussen sprake van een vigerend aanbestedingsbeleid. Verder was het onduidelijk wat er van de projectleiders werd verwacht. De relatie tussen de projectleiders en hun managers bleek in veel gevallen problematisch. Met name in de eerste en tweede casus, ervoeren de projectleiders dat hun managers te weinig inzicht hadden in wat de projectleiders precies doen en de problemen die ze ervoeren in hun dagelijkse werkleven. Wanneer die projectleiders hun ervaringen en problemen probeerden te bespreken, voelden ze zich ongehoord en onbegrepen.

Inconsistente toepassing van sleutelwaarden die geassocieerd worden met ketensamenwerking

Uit de cases bleek dat bepaalde waarden met ketensamenwerking worden geassocieerd. In de eerste casus is het begrip vertrouwen besproken. In de tweede casus zijn waarden zoals 'delen van verantwoordelijkheid', 'pro-activiteit', en 'je moet elkaar open en eerlijke feedback geven' besproken. In de derde casus werden bijvoorbeeld informele evaluaties en het uiten van waardering van de projectleider richting de bouwvakkers genoemd als belangrijke waarden. Er is geen reden om aan te nemen dat de genoemde waarden verschillen van wat er doorgaans in de literatuur over ketensamenwerking aan waarden wordt genoemd. Men kan zich afvragen of de waarden die in verband worden gebracht met ketensamenwerking, niet zouden moeten worden toegepast op alle soorten samenwerking in het algemeen. Echter, die discussie valt buiten de scope van dit onderzoek.

Nieuw inzicht dat dit onderzoek heeft opgeleverd is dat de sleutelwaarden slechts op een beperkt deel van de gehele keten worden toegepast en op een inconsistente manier. Bijvoorbeeld, de interne klant werd niet betrokken in de ketensamenwerking en daarom werden de sleutelwaarden van ketensamenwerking ook niet op die partij toegepast. Een ander voorbeeld is dat er in de derde cases mensen waren die werden beschouwd als 'niet zo ver in hun denken', en zij werden niet voorzien van korte informele evaluaties, hoewel dat wel een genoemde succesfactor was. Vooral de interne keten lijkt anders behandeld te worden dan de externe keten.

Deze dynamiek van het toepassen van verschillende waarden en de bijbehorende acties, lijkt niet een gevolg te zijn van slechte intenties van de participanten van de cases. Er is geen reden om te twijfelen aan individuele intenties. Een mogelijke reden van het niet of inconsistent toepassen van ketensamenwerking is dat de projectleiders zich niet altijd bewust zijn van de volledige omvang van de keten waarmee ze werken, zoals het geval is in de interne keten. Ook kan het zijn dat de projectleiders niet in staat zijn om die waarden op iedereen toe te passen dat ze niet geloven in een positief resultaat van het toepassen van de sleutelwaarden van ketensamenwerking, of dat ze bang zijn voor de consequenties.

Machtsdynamiek en ethiek

Wat de reden ook is voor het wisselend toepassen van sleutelwaarden van ketensamenwerking, de participanten van de cases hebben situaties gecreëerd die ethische vragen oproepen. Hieraan gerelateerd is de discussie over machtsdynamieken. In dit onderzoek wordt macht niet gezien als iets dat men heeft, maar als iets dat ontstaat in sociale interacties. Een continue machtsverschuiving is normaal, en overal aanwezig in het normale dagelijkse interacties. De casestudies lieten zien dat mensen in het dagelijkse leven continu bezig zijn met onderhandelen, construeren en uitvoeren van processen op een trial-and-error-manier. In die processen kunnen ze macht winnen of verliezen. Die machtswisselingen kunnen zichtbaar of verborgen zijn. Een voorbeeld van een zichtbare machtsdynamiek is wanneer de projectmanager vindt dat de aannemer geen geld mag verdienen op het slim inkopen van materiaal en dat dat verdiende geld in een gezamenlijke risico-buffer gestopt moet worden. De vestigingsleider van de aannemer gaat hiermee akkoord, ondanks dat hij het geen eerlijke deal vond. Een voorbeeld van een verborgen machtsdynamiek is wanneer een projectleider macht wint door de inkoper te 'vergeten' te betrekken in de selectie. Het is ook goed mogelijk dat de interne klant, die niet betrokken en geïnformeerd is over de veranderingen die plaats vinden bij de afdeling renovatie en onderhoud richting ketensamenwerking, zich niet eens bewust is van de macht die hij heeft op het proces en de projectleiders. Dat betekent dat bepaalde mensen onverwacht en onbewust veel macht blijken te hebben in het proces van samenwerking.

Het lijkt of ketensamenwerking lijkt te worden ingezet om macht te winnen, hoewel dat waarschijnlijk onbedoeld en onbewust gebeurt. Het woord 'ketensamenwerking' (of een synoniem daarvan) kan als argument gebruikt worden om iemand makkelijk te overtuigen om iets te doen dat diegene anders niet zou doen. Immers, ketensamenwerking is een containerbegrip dat lijkt te staan voor alle goede voorbeelden ten aanzien van samenwerking in het algemeen, niet een specifieke doordachte strategie. Het is bijna onmogelijk om het oneens te zijn met de sleutelwaarden die met ketensamenwerking worden geassocieerd. Door op

strategische momenten te refereren aan de sleutelwaarden van ketensamenwerking kan macht worden gewonnen. Misschien komt het meest duidelijke voorbeeld hiervan naar voren in de derde casestudie. In dat geval wordt ketensamenwerking ingezet om de aannemer in vroege fases van het bouwproces te betrekken. De aannemer moet wel telkens weer door dure en langdurige selectieprocedures. Tegelijkertijd heeft de aannemer betrekkelijk weinig invloed op technische interventies, en wel meer verantwoordelijkheden. Bovendien worden ze geacht om 20% kosten te reduceren (ondanks dat het onduidelijk is om welke kosten dit precies gaat). Het is zeer af te vragen of dit eerlijk is en of deze dynamiek de problemen oplost waarvan men verwacht dat ketensamenwerking ze op zal lossen. Dit voedt ook het gevoel dat ondanks alle aandacht, betrokkenheid en moeite de wordt gedaan om de principes van ketensamenwerking toe te passen, zowel interne als externe relaties niet fundamenteel verbeterd zijn.

Reflectie op het onderzoek, academische en praktische aanbevelingen

Voordat implicaties en aanbevelingen naar aanleiding van dit onderzoek worden besproken, moet eerst gereflecteerd worden op het onderzoek en de beperkingen ervan. Het eerste reflectiepunt betreft het zoeken naar de juiste positie van de onderzoeker in het werkveld. Het belangrijkste is dat de onderzoeker zich bewust is van wat die positie is en dat de onderzoeker vanuit die positie ook gewoon onderdeel is van de complexe responsieve processen die gaande zijn in dat veld. Een andere methodologische aandachtspunt was de zoektocht naar wat analyseren op individueel niveau precies inhoudt. Gedurende dit onderzoek, werd ervaren dat het onvermijdelijk is om te abstraheren van de directe ervaring. Dit proces van abstraheren gebeurt geleidelijk. Op basis van dit onderzoek kan niet gezegd worden wat een ideaal niveau van abstractie is, maar ook hier geldt dat de onderzoeker zich daar constant van bewust moet zijn. Een ander aandachtspunt is de objectiviteit en neutraliteit van de onderzoeker zelf. In plaats van te pretenderen dat de onderzoeker objectief en neutraal zou zijn, is het beter om te erkennen dat een mens niet in staat is om objectief en neutraal te zijn. Daarom, ook al is dat erg lastig, moet een onderzoeker daarover zo transparant mogelijk zijn. Op die manier heeft de lezer meer kans om het onderzoek op waarde te schatten.

Onderzoeksmatige aanbevelingen betreffen zowel de ontwikkeling van theorie en methodologie. Een eerste aanbeveling is om werkvloerervaringen te blijven onderzoeken. Niet alleen als het de implementatie van ketensamenwerking betreft, maar ook bij de introductie van andere fenomenen, zoals Total Cost of Ownership of Circulair Bouwen. In onderzoek waarin die werkvloerervaringen niet worden meegenomen, worden relatief makkelijk bepaalde kleine, onverwachte, maar invloedrijke factoren over het hoofd gezien. En dat moet vermeden worden. Een tweede aanbeveling is om ethiek in werkvloerrelaties verder te bestuderen. Dit onderzoek geeft

aanleiding om aan te nemen dat bepaalde mensen en groepen anders (en met andere waarden) worden behandeld dan anderen en het is de vraag of dat gerechtvaardigd is. Daarnaast laten de cases zien dat de participanten van de cases situaties creëren die ethische vragen oproepen, terwijl er geen reden is om aan individuele intenties te twijfelen.

Een derde aanbeveling betreft de lage diversiteit onder de projectleiders. De meeste projectleiders zijn blanke mannen met een technische of business HBO-opleiding. De relatie tussen de lage diversiteit en prestaties in de sector zouden verder onderzocht moeten worden.

Methodologische aanbevelingen zijn gericht op onderzoekers die kwalitatief onderzoek doen naar samenwerking in de bouwsector. Deze vier aanbevelingen komen direct voort uit het literatuuronderzoek naar kwalitatief onderzoek naar samenwerking in de bouwsector. Ten eerste wordt aanbevolen om transparant te zijn over hoe data zijn geanalyseerd. Ten tweede wordt aanbevolen dat de onderzoeker transparant is over zijn/haar rol in het veld. Ten derde wordt aanbevolen om de data op individueel niveau te analyseren. Ten vierde wordt aanbevolen om meer aandacht te besteden en transparantie te verhogen ten aanzien van het generaliseren van de resultaten.

Professionals die werken voor woningbouwcorporaties – en andere partijen in de bouwketen – kunnen dit onderzoek op meerdere manieren gebruiken. De beschrijving van de werkvloerervaringen roepen mogelijk allerlei ideeën voor praktische interventies op, maar de resultaten uit dit onderzoek mogen nooit gebruikt worden om te interveniëren in andere situaties. Professionals die geïnspireerd zijn door dit onderzoek, wordt aangeraden om eerst hun eigen situatie grondig te evalueren. In die evaluatie kunnen de conclusies van dit onderzoek een extra aandachtspunt vormen. Maar ook methodologisch gezien kan de professional zich laten inspireren door dit onderzoek. Belangrijke tool om de eigen situatie te evalueren zijn het voeren van interviews en observaties vanuit verschillende perspectieven en in verschillende hiërarchische niveaus binnen partijen in de keten. Dit kan formeel of informeel gedaan worden, en het vraagt eerder een bepaalde onderzoekende attitude dan dat het bepaalde acties vraagt. Immers, een professional staat dag in dag uit in contact met anderen en er zijn dus kansen genoeg om vragen te stellen en te observeren. Een tweede aanbeveling aan professionals is dat professionals minimaal evenveel aandacht hebben voor de effecten van een interventie als voor de interventie zelf. De actie stopt niet als de interventie gedaan is, maar de actie begint wanneer de interventie gedaan is. Focussen op de effecten van een interventie, gebeurt met dezelfde onderzoekende attitude als wanneer de eigen situatie grondig geëvalueerd wordt. Een derde aanbeveling is om te exploreren wat het precies betekent om manager of leider te zijn. Dit onderzoek laat zien dat projectleiders ervaren dat managers niet altijd de leiding

nemen, en soms voelen projectleiders zelf ook niet de ruimte om dit te doen. Er is veel managementliteratuur beschikbaar over de paradox van het managen van processen die eigenlijk niet te managen zijn, en die kunnen helpen in het exploreren van deze rol. Wat het resultaat van deze zoektocht ook moge zijn, de cases laten zien dat vele projectleiders zich niet gehoord en onbegrepen voelen. Deze dynamiek is redelijk makkelijk te doorbreken, en vraagt inzet van de manager en de projectleider. Simpele conversatieregels, zoals geweldloos communiceren, kunnen helpen in het vergroten van wederzijds begrip en het vergroten van luistervaardigheden. Een vierde aanbeveling betreft de observatie dat sommige groepen anders worden behandeld dan anderen en de vraag is of dit gerechtvaardigd is. Ook hier geldt dat een individuele evaluatie van gedrag en de onderliggende waarden daarvan essentieel is. Alle praktische aanbevelingen vragen een hoge mate van zelf-reflectieve vermogens, en daarom wordt aangeraden om die competentie te verhogen. Nogmaals, dit is een kwestie van het aannemen van een onderzoekende houding, het vraagt niet om allerlei extra acties. Er zijn meerdere manieren waarop die onderzoekende houding aangenomen kan worden. Mensen kunnen hun eigen dagelijkse communicatie als interviews of observaties gaan beschouwen, en op die manier een houding van reflectieve professional aannemen. Door dit te doen zullen waarschijnlijk ook luistervaardigheden verbeteren. Verder kan ook de hulp van een coach hierbij ingeschakeld worden. Meditatie kan ook helpen. Zelf-reflectief worden is een doorgaand proces.

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1 Introduction

§ 1.1 Background

The construction industry is known for its waste of money and materials, low innovative capacities, and low productivity (*Cox and Thompson, 1997*; *Vrijhoef, 2011*). One reason for that inefficiency is the antagonistic relationship between clients and contractors (*Tazelaar and Snijder, 2010*; *Vrijhoef, 2011*). Clients often use competitive procurement and selection procedures to select contractors (*Boukendour and Hughes, 2014*). These procedures are expensive and time-consuming both for the contractor and the client. The contractor does not necessarily earn back this investment, since there is a chance that he will not be given the assignment. Therefore, sometimes contractors feel a need to bid unrealistically low, sometimes even below the cost price. Often throughout the realization of the project, failures accumulate and may accordingly result in a heavier workload, higher costs, longer project duration and lower quality.

For decades, attention has been given to supply chain partnering (SCP) in the construction industry, as a promising strategy to decrease this waste of time and money and increase quality (*Boukendour and Hughus, 2014*; *Bygballe, 2010*; *Eriksson, 2015*; *Hong et al., 2012*; *Vrijhoef, 2011*). Lessons learned about SCP from other industries cannot be transferred to the construction industry, since the construction industry is, unlike most other industries, characterized as informal, fragmented and project based (*Vrijhoef, 2011*). There is no unified agreement on what SCP exactly incorporates (*Bresnen and Marshall, 2000a*; *Bygballe, 2010*). In practice, the word SCP is used interchangeably with its synonyms, such as supply chain collaboration, partnering, construction partnering, and supply chain integration. However, an often-used definition is "*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 organization boundaries. The relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values. Expected benefits include diminishing deficiency and promoting cost-effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services*'' (*CII,1991, p.iv*).

The attention that practitioners as well as scholars have paid to this topic, indicate a general belief in the added value of SCP. Despite this level of attention and the strength of this general belief, *Smyth (2010)* and *Fernie and Tennant (2013)* both argue that the adoption of SCP in the British construction industry is low. According to *Gottlieb and Haugbølle (2013)* the effort that has been put to apply SCP in the Danish construction industry only lived up to the expectations to some extent. It is questionable whether and to what amount SCP has been adopted in other countries.

Many studies about SCP in the construction industry are published (*Bygballe, 2010*; *Hong et al., 2012*). A literature review that was conducted as part of this PhD-process (**section 2**) shows that between 2010 and 2015 176 peer reviewed articles about this topic were published. Various aspects of SCP have been studied, such as different forms of contracts, risk allocation, and planning issues. Moreover, the social aspects of SCP have been addressed, such as increasing mutual trust, leadership and communication issues.

Assumptions about the nature of construction partnering research circulate. Examples of such assumptions are that construction partnering research is abstracted from daily work practice, prescriptive, and focused on technical managerial aspects of SCP (*Bresnen, 2010*). According to *Phua (2013)* the individual level of analysis is underexposed. That means that individual experiences have been averaged away in an attempt to develop a general theory (**section 2** studies the nature of qualitative construction partnering research more closely).

In this plethora of aspects and perspectives of SCP that have been addressed, one understanding of SCP that seems to gain popularity, is that it should be considered to be a fluid concept (*Gottlieb and Haugbølle, 2013*) or emergent practice (e.g. *Bresnen and Marshall, 2002*; *Bresnen, 2007*; *Bresnen, 2009*). The word 'emergence' in an organizational context is rooted in, for example, *Mintzberg et al. (1997)* who distinguishes between deliberated and 'emergent strategies.' Whereas deliberated strategies are deliberately designed and implemented by managers, an emergent strategy is formed in daily practice where professionals together in many daily formal and informal interactions form all kinds of patterns and routines. Therefore, an emergent strategy is dynamic, fluid and is highly time and place dependent. Whereas a deliberated strategy points towards the future and focuses on what should be done, an emergent strategy looks back to the past and focuses on what already is done.

Stacey (2011) calls this ongoing process of interaction that forms the strategy as it is 'complex responsive processes'. Because an organization is shaped through these ongoing complex responsive processes, plans, ideas, models, etc. that are designed to control the ongoing complex responsive processes would be a myth and only

provide an illusion of control. *Stacey (2011)* argues that although managers may try to deliberately design and implement a strategy, that deliberately designed strategy will never be applied one-on-one in daily work practice, no matter how well considered the strategy is designed. *Stacey (2011)* argues that all plans, designs, step-by-step plans, blueprints, etc. are just one of many 'gestures' that people at work floors receive. These plans only partially influence complex responsive processes in which the emergent strategy is formed. The dominant ways of thinking about organizations are all variations on a triangle-shaped model that represents strategic, tactic and operational level. This triangle-shaped model represents a false image of how organizations come about *(Stacey, 2011)*.

SCP as an emergent practice means that it is not considered a blue print, but that the new way of collaboration is formed in many daily work floor interactions between professionals that constantly negotiate and give shape to their new daily work floor routines. The management strategy is just one of many gestures that may influence new ways of collaborating with each other. All professionals with their own frames of reference, interests, history, competences and personal character constantly negotiate and together create the patterns as they are. Therefore, studying SCP as an emergent process means that these ongoing complex responsive processes need to be studied at an individual level of analysis to not average away the individual experiences. Studies that dig deeper in those work floor practices of SCP in construction industry do not exist yet. There is no insight in what people actually do in their daily work practice and how they form a strategy such as SCP. Without having this insight, it is impossible to intervene in an efficient and effective way, nor for the managers, neither for other professionals in the field. Focusing on daily work floor experiences of professionals in the field, may lead to fresh insights as to how people in the field contribute to the situation as it is and how in the future, they can intervene more effectively with the purpose for smoother collaboration, decrease waste of time and money and increase quality.

Construction sector

The construction industry is a large industry. The industry covers civil works as well as buildings and within both branches many subindustries may be distinguished. It is very likely that how people collaborate in one country may vary significantly from another. In this research in particular, where individual local and context related experiences of collaboration in the supply chain are studied, results of this research cannot be transposed just like that to another situation in this industry. **Figure 1.1** shows the position of this study within the construction industry. This research focusses on Dutch social housing associations. The Netherlands was chosen for convenience reasons. Social housing associations have a special position within the

Dutch construction industry. Owning approximately a third of the total housing stock in the Netherlands, they are one of the biggest clients in the Netherlands. Being such a large party in the construction supply chain, means that they are likely to dominate the sector. At the same time, social housing associations must cut down expenses. Therefore, many managers in the field of social housing are interested in implementing an SCP-strategy. In some construction projects SCP is more likely to be adopted than in others. Social housing renovation projects are more repetitive in nature than other engineering projects, since social housing associations own many similar objects that need to be renovated. The actors involved in repetitive projects are also mostly locally oriented, since the scale of the projects do not specifically demand non-local or even international partners. Since the objects that need to be renovated are similar in nature, the work that needs to be done is also similar. Most work covers removing asbestos, isolating walls and roof, and replacing or painting window frames. Because of the likelihood of this subsector to adopt SCP on a wider scale, we decided to focus our study on this subsector of the construction industry. In studying work floor experiences, we are especially interested in the experiences of the project leaders who work for the Dutch social housing associations. Project leaders are considered as important in translating the abstract strategy of SCP into daily actions.

FIGURE 1.1 Different branches in the construction industry and focus of this research

§ 1.2 Problem statement, research objective, and research questions

Problem definition

The problem is that not enough attention has been paid to what happens at the work floor level when project leaders try to apply principles of supply chain partnering. However, gaining this insight is necessary, because supply chain partnering is formed by ongoing processes of interactions in daily work practice. In order to improve performances, and to intervene more effectively, gaining greater insight into work floor experiences of project leaders who try to apply principles of SCP is necessary.

Research target

This research aims to describe work floor experiences of project leaders who work for Dutch housing association and who attempt to apply principles of SCP.

Research question

To reach this target the following question will be answered:

What are work floor experiences of project leaders that work for Dutch housing associations who try to apply principles of SCP?

We deliberately formulated only one broad open research question, because the work floor experiences were studied holistically. By not formulating specified sub-questions beforehand, we created the right circumstances for themes to emerge inductively. As we collected and described the work floor experiences, themes emerged inductively. The following themes emerged and are addressed in the conclusions in **section 7**:

- The importance of the intra-organizational supply chain in effective collaboration;
- Leadership;
- Inconsistent use of values that are associated with the concept of SCP;
- Power dynamics and ethics.

This study relies on the assumption that current literature about construction partnering is abstracted from daily work practice. To justify this assumption, a literature review was conducted and that answers the following sub-question:

What is the nature of qualitative construction partnering research?

§ 1.3 Research approach

According to *Gubba and Lincoln (1994)* the three pillars that define a research paradigm are ontology, epistemology and methodology. It is important to explicate the researcher's position in these pillars, because procedural and theoretical choices and considerations are made based on this position. Terminology about ontology, epistemology and methodology can be interpreted in multiple correct ways. That is why this section will elaborate on the three pillars.

Ontologically, this research assumes that everything that is perceived as reality is socially constructed. That means that any notion of reality is both temporary and context dependent. Reality is constructed in the experience of individuals and therefore multiple correct constructions of reality can exist. Epistemologically, this research assumes that it is impossible to know the socially constructed reality in a neutral and objective manner. All human beings, including scholars, can know socially constructed reality only from their own non-neutral frame of reference. Nobody can stand outside their personal frame of reference. Therefore, every notion of reality that people have is non-objective and restricted by the boundaries of language. That means that this research does not aim to present 'the one and only truth' (*Feilzer, 2009*). Instead, this research presents a researcher's interpretation of a social construct.

Methodologically, this research is based on a literature review, three case studies (See **table 6.1** for an overview of facts and figures about the three case studies), and an overarching study in which the cases are compared to each other. Although the research approach in each case differs slightly, in each case study narrative techniques are used. The main method to gather data was conducting open, semi-structured interviews in which the participants were asked for their experiences with SCP and the context that enabled or restrained them for applying SCP. The main method to analyze data in each case study was constructing a narrative about and with the participants in the case study. For each case, study narratives were created and validated by presenting the narrative to the participants. The exact approach varies slightly in each case study.

Details about the exact approach in each case study are described in **section 3**, **section 4**, and **section 5** of this thesis. An overview of the changes in gathering and analyzing data in each case study is described in **section 6**.

The case studies were brought together in two ways: on the one hand, predetermined dimensions were used to compare the data. The dimensions were provided by *Eriksson (2015)* and are strength, scope, duration and depth. These dimensions were also used to evaluate the utilization of the dimensions. The results of this comparison are described in **section 6**. On the other hand, while conducting the cases, themes emerged inductively. The results of the inductive synthesis of the cases are described in **section 7**.

§ 1.4 Visibility, comprehensibility and acceptability as alternatives for validity, reliability and generalizability

Validity, reliability and generalizability in interpretative research have a different meaning than in positivistic research. According to *Golofshani (2003)* validity 'determines whether the research measures that which was intended to measure or how truthful the research results are' and reliability refers 'to the extent to which results are consistent over time'. Generalizability determines the extent to which the results of a sample represent the total population. Concerning validity, reliability and generalizability, positivistic researchers rely on statistical procedures that can calculate, for example, to what amount the sample results represent the total population.

Interpretative researchers cannot rely on those statistical procedures and should find alternative ways to increase the credibility of their research. The reason that interpretative research should find alternatives for validity, reliability and generalizability, is that differences in purpose of both types of research makes these notions irrelevant (*Golofshani, 2003*). Interpretative research is not focused on trying to get to know 'the one and only truth' of a phenomenon (in this case the phenomenon of interest is SCP as an emergent practice). The phenomenon itself is socially constructed and highly time and place dependent and can be known only from human non-neutral frames of reference. Therefore, the purpose is not to study a sample and extend the results to the wider population. After all, the phenomenon itself is time- and place dependent, and the way to study it depends on the frame of reference of the researcher. There is already an acceptance that repeating the study will result in different outcomes, because the phenomenon itself changes, as well as the researchers' frame of reference.

This line of reasoning sheds a different light on relevance of validity, reliability and generalizability. That does not mean that 'anything goes'. Of course, interpretative studies need criteria to guarantee quality of their research and convince readers that the research is worth to spend time on (*Golofshani, 2003*). Various authors provide alternative criteria for guaranteeing quality of interpretative research. For example, *Guba and Lincoln (1985)* propose Credibility, Neutrality or Confirmability, Consistency or Dependability and Applicability or Transferability as criteria. *Maxwell (1992)* proposes descriptive, interpretative, theoretic, evaluative validity and generalizability. *Akkerman et al. (2008)* proposes visibility, comprehensibility and acceptability to check quality of qualitative research.

This proposal by *Akkerman et al. (2008)* is rooted in the idea that every qualitative researcher goes through a process of reducing and interpreting raw data to come to conclusions. According to *Akkerman et al. (2008)* researchers should make that process visible, comprehensive and acceptable. That means that in describing the research in, for example, peer-reviewed articles attention should be paid to describe this process in a transparent way and that arguments to support choices should be convincing, following the standards of the discourse. Several actions are undertaken to guarantee visibility, comprehensibility and acceptability of this research. Besides these actions, for each case study specific choices are made which are described in **section 3**, **section 4** and **section 5** of this thesis.

The first action to increase visibility and comprehensibility of the process of reducing and interpreting raw data was to pay more attention to describe the process of analyzing data in each case study. **Section 2** of this thesis shows that peer-reviewed qualitative construction partnering research pays relatively little attention to describe this process. As a rule of thumb, an equal amount of words should be spent on describing the process of gathering data and on describing the process on analyzing data.

The second action to increase acceptability of this research, was to publish the core of this research (**section 2**, **section 3**, **section 4**) as peer-reviewed articles in academic journals (**section 5** is submitted and accepted as a conference paper for the ENHR-conference in Tirana in 2017). These sections have been reviewed by international peers. This guarantees that the research meets international academic standards.

The third action to increase acceptability of interpretation was to present the constructed narratives to the participants of the research. They were invited to reject, confirm or nuance the narrative where possible. The researcher was surprised by the positive responses to the narratives by the participants, although the narratives were not always in their favor.

The fourth action deviates a little from *Akkerman's et al. (2008)* proposal and refers to generalizability. The literature review in **section 2** shows that in current qualitative construction partnering research, results are generalized in a somewhat opaque manner. Moreover, internal validity (to what amount does the sample represent the total population) gets less attention. We consciously chose a small subsector (Dutch housing), because we assume that SCP as an emergent practice is highly time- and place-dependent and therefore cannot be copied one-on-one to other subsectors.

§ 1.5 Academic relevance

This research contributes to the academic discourse about construction partnering in a theoretical and methodological way. Concerning theoretic contribution, the academic discourse about construction partnering provides little insight in what happens at the work floor when professionals attempt to apply principles of SCP. The level of analysis is mostly at case level or higher (which is confirmed in the literature review in **section 2** of this thesis), and therefore important individual details have been averaged away. That is a missed opportunity to gain a deeper understanding of how SCP is formed and expressed in daily work life and why it is expressed in this way.

Methodologically, this research is based on assumptions about the nature of qualitative construction partnering research. Therefore, firstly, these assumptions were studied in a literature review (**section 2** of this thesis). This literature review resulted in various methodological gaps in qualitative construction partnering research, which makes this study academically relevant. Secondly, this research employed several different narrative research techniques, which is rare in current construction partnering research. Employing narrative techniques does not only provide a new perspective on construction SCP, but also provides new perspectives on conducting research in this academic field.

§ 1.6 Practical relevance

According to *Stacey (2011)* decades of organizational research have not resulted in a 'body of scientifically respectable evidence that the approaches, tools and techniques put forward in most textbooks do actually produce successes'. According to *Stacey (2011)*, currently, commercial organizations succeed and fail as much as they did decades ago, and they succeed and fail without any person who can predict why or how to control success or to avoid failure. Therefore, *Stacey (2011)* questions the adequacy of current organizational research, that is based on the dominant triangle shaped way of looking at organizations. The dominant system is based on prediction and controlling of organizations, by using measurable targets, planning, and implementation strategies (*Stacey, 2011*). This is a false image and most interventions are based on this false image. That is why *Stacey (2011)* calls these managerial interventions 'myths' and maintains that they only provide 'an illusion of control'.

This research provides a different way of thinking about organizations, and pays more attention to what happens at work floor level, without trying to quantify nor qualify. The purpose is to become aware of what we are doing. The expectation is, that this increase of awareness will lead to alternative interventions.

§ 1.7 Readers guide

This thesis includes a literature review about the nature of construction partnering (section 2), three case studies (section 3, section 4, and section 5), a comparison of the three cases (section 6) and it ends with a conclusion (section 7).

Section 2 evaluates the nature of qualitative construction partnering research. The purpose of doing this was to evaluate assumptions about construction partnering research that circulate. For example, it is said that it is stylized, abstract and that the individual level of analysis is underexposed. This research relies on such assumptions. Therefore, it is important to evaluate whether the assumptions can be justified.

Section 3, section 4 and section 5 provide peer-reviewed articles about the first, second and third case study. The cases are all about work floor experiences of project leaders who work for Dutch housing associations and try to implement principles of SCP. **Table 6.1** shows an overview of facts and figures about the three cases.

In **section 3**, a project leader of a department of renovations and maintenance in a Dutch housing association together with the researcher tried to contribute to the implementation of SCP. The results show that stakeholders could not come to shared understanding of strategic needs. It also shows that that pattern influences and was influenced by social aspects, such as leadership, and trust. The case stresses the importance of the intra-organizational supply chain.

Section 4 focuses on multiple project leaders working for the department of renovations and maintenance in a Dutch housing association. This study shows how project leaders perceive relationships in the internal supply chain and the strategies that they develop to cope with these intra-organizational relationships. Furthermore, it is argued that the key values of SCP, as understood by the project leaders, such as sharing responsibilities and addressing feedback towards each other openly, are not applied in intra-organizational relationships.

Section 5 deals with the experiences of a group of professionals from a Dutch housing association and a Dutch contractor that consider themselves a successful supply chain. This case shows that the perceived success is based on repetition in collaboration, but the contractor in this self-perceived successful supply chain still had to go through procurement and selection procedures. Furthermore, the collaboration is focused on the project level and does not seem to have direct effects on the rest of the client organization. Continuation of the self-perceived successful collaboration is uncertain. It may also be observed that key values were used inconsistently, thereby giving rise to ethical questions as to why some individuals or groups are being treated differently from others.

In **section 6**, the cases have been compared to each other. The comparison has been based on four dimensions of strength, scope, duration and depth that were provided by *Eriksson (2015)*. Finally, **section 7** incorporates a number of conclusions. In this section, the main research question is answered, and the themes that emerged inductively throughout conducting the cases are also evaluated. The conclusion does not only provide a reflection on this research, but also contains academic and practical recommendations.

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2 The nature of qualitative construction partnering research. A literature Review.

Author's notes

The first words of the literature review of this section were written in April 2015, but the idea was already born in 2008, when I followed the course 'Philosophy of Science' at the University of Amsterdam. This course, and especially reading 'The Structure of scientific Revolutions' by Kuhn (2012), have inspired me to conduct this review. In 'Structure of scientific Revolutions' Kuhn describes how phases of normal science are followed by crises and phases of new normal science. A phase of normal science means, according to Kuhn, that research is based firmly upon 'one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying foundation for its further practice'. This way of thinking about science shows the importance of the academic community and its acknowledgement and shared ideas about the acceptability of science and knowledge. The experience of working as a PhD-student in an academic community, resulted in a deeper personal understanding of Kuhn's theory and the importance of the academic community. My experience is that scholars form and are being formed by the formal and informal academic discourse they work in. This is expressed in different ways and levels.

I my experience, one expression of forming and being formed by the discourse is the process of publishing peer reviewed articles in academic journals. In the process of publishing articles, a researcher depends on the international community of fellow-researchers, supervisors and other peers. The ongoing interactions between the individuals in this network create the international standards for research in the field of study we operate in. My experience is that an academic article (such as the articles in this thesis) goes through multiple phases before it gets published. In that process, the researcher(s) collaborates with peers in its/their community. The article constantly adjusts to the researcher's and other's individual explicit and implicit standards for good research and therefore the final article is an expression of the collaboration between the researcher(s) and the community he/they operate in. Examples of these phases of collaboration are described below and are based on my own personal experiences of publishing an academic peer reviewed article.

First, I (the first author) have chosen to write an article about the research process more or less chronologically. I consciously use the phrase 'more or less', because often, the research process is a lot messier than the author can describe in the article. To produce a clear, concise, redundancy-free and understandable article, the researcher must 'tidy up' the direct experiences and make the direct experiences more abstract. This is a first reduction of data, which requires first steps of interpretation. This process of interpretation and finding the right words to get the message across, already implies academic standards. In an early phase of this PhD-process I followed a course called 'academic writing in English', and I learned that academic authors utilize an academic discourse, and that written academic products contain specific use of words, phrases, style, and structure.

Secondly, the co- author constantly reads and comments on early concepts of the article. In my case, in all articles of this PhD-project, the co-authors were more experienced than me. They commented on several versions based on their experiences and their frame of reference and standards for acceptable research in this specific field of academic research. The co-authors commented on the content of the article, as well as on the structure, style and used language. In this literature review, for example, it was a sometimes a search for the right tone of voice.

Thirdly, when submitting the article, the researcher should take into account the journal's standards for reviewing articles, such as the domain of interest of the journal, a word limit, and formats for developing an abstract. Relatively simple standards, such as word limit, may influence decisions taken by the authors. In most cases, I had to omit paragraphs in the original manuscript. Striking out paragraphs can be difficult, because it requires to make choices. At the same time, it forces authors to be more focused and go to the essence of the message that the author wants to get across. I like to emphasize that such standards enable and restricts at the same time.

Fourthly, after submitting the first version of this article, the article gets reviewed by international peers, who have their own ideas, understanding and work in their own local scientific community with perhaps slightly differing scientific standards. The peers, in my case, are more experienced and commented based on their experiences and frames of reference. In my experience, the feedback that the reviewers provide is always extensive, constructive and critical. From the perspective of the researcher, sometimes it feels that the reviewers are mild, and sometimes the comments are sharper. Besides the content of the feedback itself, the tone of voice of the reviewers may also influence how a researcher responds to the feedback. Besides, sometimes the feedback by reviewers seems contradictory. It is up to the author to convince the reviewers that she made the right choices. That shows that there is always a rhetorical element in getting the article published. Although in first instance it can be difficult to receive the feedback,

we truly feel that it helped to improve the quality of the articles. For example, based on the reviewer's comments, we reframed this article and we adjusted the purpose, which highly influenced the structure and message of the article.

By describing this iterative process of writing and publishing an article I attempt to show that the final paper represents a collaboration between the first author's ideas, the co-authors, the journal's revisers, and that it is informed by the wider discourse in the field. It is therefore maximally adapted to the discourse of this specific field. This shows that scholars not only shape the scientific research discourse, but at the same time the scholars are shaped by the research discourse. I understand this as an interpretation of what Kuhn calls 'normal science'. As an academic researcher, I operate in a phase of normal science.

Kuhn, T.S. (2012). The structure of Scientific Revolutions. With an introductory Essay by Ian Hacking. Chicago, The University of Chicago Press.

This article was written by Marieke Venselaar and Hans Wamelink. This article was accepted by Engineering, Construction and Architectural Management at January 4th 2017 and will be published by this journal.

§ 2.1 Abstract

This paper investigates the nature of qualitative construction partnering research, by reviewing academic peer reviewed papers about this topic. Results show that most papers focus on multi-player, inter-organizational relationships in supply chains that collaborate in new building projects. Intra-organizational relationships collaborating in existing projects are underexposed. Also, four methodological gaps are identified. 1) Insight in the process of data analysis is underexposed. 2) Reflection on the role of the researcher(s) in the research process is underexposed. 3) The individual level of analysis is underexposed. 4) The way in which the results are generalized remain somewhat opaque, especially reflections on internal generalization is underexposed. All identified gaps have in common that specific time and place dependent details that may have influenced understanding of studied individuals are underexposed. This may explain why construction partnering research is experienced by some authors as stylized and abstracted from working practice. The identified gaps are translated into recommendations for further study. Applying the recommendations, will lead to a research discourse that represent the characteristics of ordinary working practice and the process of studying that working practice. More focus on local time and place

dependent factors of the studied individuals as well as the process of studying it, inevitably leads to encountering (and becoming more aware of) personal, subjective and unexplainable decisions and behavior. By applying the recommendations, this paper attempts to contribute to further development of academic research on this topic and increase effectiveness of partnering in the construction sector.

§ 2.2 Introduction

Professionals as well as scholars are interested in improving building processes in order to deliver higher quality to end users. A potential method to improve building processes is to strengthen collaboration between parties within the building supply chain. Forms of improved collaboration are often referred to as, for example, partnering, project partnering, supply chain partnering, supply chain integration, supply chain collaboration, or supply chain management. In this paper we use 'construction partnering' as overarching concept of all its before mentioned concepts. Construction partnering promises improvement of working relationships and project performance in terms of quality, cost and time (e.g. *Bresnen, 2009*, *Bygballe et al., 2010*, *Hong et al., 2012*).

Over the past decades, a considerable number of peer-reviewed research papers related to construction partnering has been published, covering a wide scope, and many perspectives and aspects of partnering (e.g. *Bygballe et al. 2010*; *Hong et al., 2012*). *Bygballe et al. (2010)* show that construction partnering encompasses project-based as well as strategic-based relationships. *Bygballe et al. (2010)* also show that partnering studies may focus on the dyadic relationship between client and contractor or may take into account multi actors within the construction supply chain, such as consultants, designers or end users. *Hong et al. (2012)* show that peer-reviewed research papers about construction partnering cover a wide variety of topics, such as theory and model development, problems and barriers to implementation and review of development and application.

Different research approaches and methodologies are employed in studying construction partnering. According to *Hong et al. (2012)* 'the core methodology used in partnering research primarily relied on empirical analysis of the industrial feedback and a hands-on partnering experience'. *Anvuur and Kumuraswamy (2007)* suggest that empirical studies as well as 'a plethora of anecdotal evidence support the espoused benefits of partnering'. The observation that there is a considerable amount of qualitative peer-reviewed construction partnering research seems to support the

statements by *Hong et al. (2012)* and *Anvuur and Kumuraswamy (2007)*. *Bygballe et al. (2010)* show that approximately 34% of their set of 87 peer-reviewed construction papers consists of case studies. (36% of the population consists of surveys, 17% were purely conceptual/literature review articles. 'The remainder was a combination of other qualitative studies, simulations, etc.', *Bygballe et al., 2010*). *Bemelmans et al. (2012)* reviewed partnering literature, specifically focusing on supplier-contractor collaboration in the construction industry. Although this study represents only a small part of partnering papers in the construction industry, *Bemelmans et al. (2012)* and shows that 15 articles of a total of 32 of the articles studied used a case study approach. These observations imply a close fit between construction partnering research with the actual practice and performance of construction partnering.

Other authors suggest that construction partnering research is somewhat abstracted from daily practice. *Bresnen (2007)* suggests that the effect of a more prescriptive approach of partnering research is that it promotes a model of partnering 'that is stylised and abstracted from any immediate practical context in which it might be applied'. According to *Phua (2013)* methods conducted by scholars in construction management often reflect a 'hypothetic-deductive tradition', focusing on quantifying and determining 'the relationships between variables of interest in context-specific situations'. According to *Pink et al. (2014)* in construction research in general there 'has been an apparent reluctance to embrace the interpretative paradigm and qualitative methods more generally'.

Thus, on one hand construction partnering research seems to fit closely with actual practice and performance of construction partnering, and on the other hand it is said to be hypothetic-deductive, stylized and abstracted from daily practice. This seemingly aberrant observation raises questions about the nature of qualitative construction partnering research. Therefore, by assessing peer-reviewed papers, this paper investigates the nature of qualitative construction partnering research.

Insight in the nature of qualitative construction partnering research is valuable, because it helps to identify gaps and/or saturation in methodology and content. Therefore, it can contribute to determining new directions and ideas for future research. However, no systematic research about the nature of qualitative construction partnering research has been conducted yet.

This paper is divided into five sections. **Section 2.3** describes a theoretical framework in which we explain our understanding of the 'nature of qualitative construction partnering research'. **Section 2.4** focuses on the methodology that was used to review the papers. **Section 2.5** presents the results. **Section 2.6** discusses the findings and describes our conclusions.

§ 2.3 Theoretical framework

Construction partnering research

In order to be able to assess peer-reviewed papers about construction partnering research, we first needed to explore our understanding of 'construction partnering research'. Construction partnering is a general concept, containing many synonyms and derivatives, such as supply chain collaboration, supply chain management, construction partnering, etc. Because construction partnering is seen as a general concept, it is difficult to define construction partnering.

Scholars like *Vrijhoef (2011)*, and *Yeung et al. (2012)* have been involved in defining supply chain partnering and articulating differences between supply chain partnering and its synonyms and derivatives. However, among professionals in daily work life these terms seem to be used in an arbitrary way and not in a strict sense as the definitions might imply. Moreover, there seems general agreement about a lack of a unified understanding of the concept (*Bygballe et al. 2010*).

Bresnen (2009) argues that supply chain partnering is an informal and emergent practice, arguing that it is best described as developing towards collaboration using various formal and informal tools. It can be seen as a 'highly situated phenomenon' that, although informed by a wider discourse and institutional norms, manifestation in practice 'owe as much to local sense-making and situated (experiential) learning processes' (*Bresnen, 2009*). That means that in practice it is manifested in various ways, depending on unique local and time-related circumstances. All in all, we consider supply chain partnering as a general concept referring to different kinds and processes of collaboration between agents within the construction supply chain, rather than a specific form of collaboration between partners in a construction supply chain.

Because we understand construction partnering as a general concept, boundaries of what construction partnering research is, are not delimited, but have some grey areas. For the authors of this paper, the most questionable boundary was whether research about Public-Private Partnerships (PPP) is part of Construction Partnering research. According to *Tang et al. (2010)* PPP evolved in different generations and also knows several definitions that vary locally. One of the definitions is 'contractual arrangement between a public-sector agency and a for-profit private-sector development, whereby recourses and risks are shared for the purpose of delivery of a public service or development of public infrastructure' (*Li et al., 2005*; *Tang et al, 2010*). The definition of PPP seems to overlap our understanding of construction partnering in terms of collaboration between parties within the construction industry. However, for the sake

of this study about the nature of construction partnering, we consider PPP research as a different scientific community that holds different scientific traditions. For example, important literature reviews concerning construction partnering, such as *Bygballe et al. (2010)* and *Hong et al. (2012)*, did not include PPP-oriented papers either. Therefore, in this study we do not take into account PPP-oriented research. For the same reasons we decided to not take into account literature about (international) joint ventures.

The nature of research

In order to be able to gain insight in the nature of qualitative construction partnering research, we also needed to explore our understanding of the phrase 'nature of research'. Understanding this phrase is necessary to be able to develop assessment criteria to assess qualitative construction partnering research. The remainder of this section explains what criteria we used, and why we used these criteria.

The phrase 'nature of research' can be understood in several ways. The nature may be understood by examining aspects of the position in the field that is addressed, as was done previously by *Hong et al. (2012)*. The nature may also be understood by examining the approach and methodologies that are employed, as was done by *Bygballe et al. (2010)* and *Bemelmans et al. (2012)*. We consider content and approach as intertwined and interrelated. Therefore, we included both aspects in our assessment.

To assess the nature of partnering research, we followed the standard structure of each peer-reviewed research paper. This structure was divided into three dimensions: 1) the aim and background of study, 2) approach and methodology, and 3) conclusions. The remainder of this section describes the criteria that we used to assess those three dimensions.

First, we assessed the aim of research, because the way in which the aim of research is formulated reveals something about the nature of the research. On one hand, as might be expected in qualitative research, the researcher might try to get better understanding of a certain phenomenon, with the underlying assumption that more understanding leads to improvement (*De Lange et al., 2010*). These types of research often do not focus on producing the one and only (generalizable) truth, but put emphasis on in-depth and profound understanding of a specific situation. Those research aims and research questions often have a broad character. Not seldom words like 'getting more understanding of…' or 'get more insight in…' or 'exploring…' are used in formulating an interpretative aim or research question. One the other hand, the researcher might attempt to find knowledge, with the purpose to explain, control or predict a phenomenon, sometimes with the purpose of prescribing behavior and/

or actions for actors in this phenomenon. These aims are often more associated with quantitative research approaches. In that case, according to *Baarda and De Goede (2006, pp 51)*, in general there are three types of research questions (frequency, differences, and specific cause-effect relations) that may be asked. However, these types of questions might also be used in case study research. If that is the case, this might explain why some research is experienced as 'positivistic', 'stylised' and 'abstracted from reality'.

Secondly, we used the introduction and the aim of study (and if necessary other parts of the paper as well) to assess the position of the research in the field of qualitative construction partnering research. Inspired by *Bygballe et al. (2010)*, *Eriksson (2015)* and *Hong et al. (2012)*, we categorized each paper into: 2a) focus on dyadic or multi-player relationship (*Bygballe et al., 2010*), 2b) focus on intra- or inter-organizational relationships (*Eriksson, 2015*), 2c) focus on project-based or strategic-based relationships (*Bygballe et al. (2010)*, and 2d) focus on new building or existing projects.

The third assessment criterion concerns employed methods of gathering data. This can be done in a plethora of ways. First, we identified whether or not a case study was conducted. If applicable, we also identified the type of case study, such as longitudinal or action research. Further, we identified ways of gathering data at a more practical level, which are often techniques such as different types of interviews, observations, or documents.

Fourth, we assessed how data were analyzed. This might be done in either a hypothetic-deductive way, or an inductive way, or a combination of the two. Also, we assessed what analysis techniques are used, for example pattern matching, or explanation building (*Yin, 2014*).

Fifth, the role of the researcher in the research was assessed. Qualitative data are often gathered using techniques such as interviews and observations. These techniques require a close relationship between the researcher and his or her object of research, or the researcher actively holds distance to his or her object of study. Either way, in an ideal situation the researcher actively develops and communicates a strategy about managing this relationship. In qualitative research it is important to show reflexivity on their role as a researcher in relation to the object of study (*Maxwell, 1992*). That means, in general, that the role of the researcher is problematized. According to *Riley and Love (2000)* on one hand, data can be presented 'with no explanation about the process of analysis', and on the other hand these processes can be described particularly and precisely. We assessed the role of the researcher by indicating to what extent the researchers problematized and/or were reflexive about their own role within the research process.

The sixth assessment criterion is the theoretical background on which the research is based. This issue was raised previously by *Phua (2013)*. *Phua (2013)* addresses this topic, and argues that many theoretical lenses that are used in construction management research, such as transaction cost theory, resource dependency theory and agency and social exchange theory, 'rest on the assumption that decisions are based on bounded rational choices that are driven by considerations for economic efficiencies'. Those theoretical lenses are said to place 'too little emphasis on individual-level constructs', while at the same time, the idea that people deliver projects and not the systems is widely recognized (*Phua, 2013*). We assessed the theoretical background of each paper on this point.

The seventh assessment criterion is related to data analysis, and concerns the level of analysis. *Phua (2013)* addresses the issue of level of analysis and observes that in construction management research individual-level constructs are seldom taken into consideration. *Bemelmans et al. (2012)* observed that in the context of supplier-contractor collaboration in the construction industry the inter-organizational level dominated over interpersonal level, claiming that in none of the articles in the field of study solely interpersonal relationships were considered and only four articles paid structural attention to both interpersonal and inter-organizational relationships. According to *Phua (2013)*, by not adopting individual level, important insights from organizational studies are missing. 'Research in management and organizational studies show that individual-level constructs in terms of individual beliefs, cognition, values and prepositions can have a significant effect on organizational-level decisions and performance' (*Phua, 2013*). We assessed our papers on level of analysis by identifying whether a country level, case level, case/individual level, or individual level was adopted.

The eighth criterion concerns generalizations and is divided into three sub-criteria 8a) internal generalizations, statistical generalizations, and analytical generalizations. Generalizing qualitative data is often perceived as more complex than generalizing quantitative data, since generalizing quantitative data can rely on very specific prescribed statistical procedures. According to *Maxwell (1992)* generalizability refers to 'the extent to which one can extend the account of a particular situation or population to other persons, times, or settings than those directly studied'. Three main issues have to be considered in generalizability. First, *Maxwell (1992)* claims that for qualitative researchers internal generalization (generalizing within the studied community, group, or institution) is usually more important than external generalizations (generalizing to other communities, groups or institutions). We assessed to what extent internal generalizability is considered in the peer-reviewed papers. Further, as *Maxwell (1992)* claims, qualitative research is usually not designed to generalize the outcomes to wider populations, especially not in a statistical sense (*Maxwell, 1992*). In assessing the

peer-reviewed papers, we looked at whether or not the authors externally generalize their findings, and if so, whether this is done in a statistical and/or analytical way. Concerning analytical generalizations, according to *Yin (2014)* case study results 'may shed empirical light' on theories that 'go beyond the specific case or experiment'. Lessons learned in one case study 'could be applied in reinterpreting the results of existing studies of other concrete situations [...] or to define new research focusing on yet additional concrete situations' (*Yin, 2014*). For this study, we assessed whether the authors generalized their findings in an analytical sense as *Yin (2014)* suggests. **Figure 2.1** shows an overview of the assessment criteria.

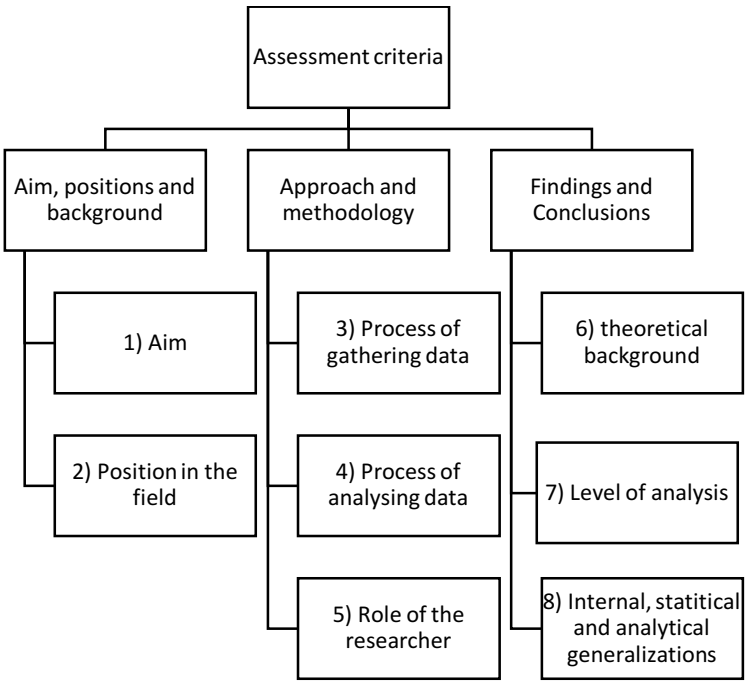

FIGURE 2.1 Assessment Criteria

§ 2.4 Methodology

The process of selecting papers

Before we got started with our analysis, we needed to select papers using keywords that cover the wide range of derivatives and synonyms related to construction partnering (since we consider supply chain partnering a general concept). We used two combinations of keywords: 1) supply chain AND construction, and 2) Partnering OR Partner OR Partnership AND Construction. Inspired by *Bygballe et al. (2010)* and *Hong et al. (2012)* we searched Business Source Complete and Scopus for papers. Since we are interested in describing the state of the art, instead of describing a complete historical development, we only searched these databases for papers published since 2010. This first phase resulted in a set of 176 peer-reviewed papers.

Based on abstract analysis, we excluded papers about PPP and Joint Ventures (see **section 2.3** for the explanation). Also, the selection contained papers that did not have construction partnering as the main topic. For example, we found papers on the evaluation of BIM software. The abstract mentioned that BIM could be used in partnering constructions, but that was not the main topic of the paper. After also excluding these papers, our final selection consisted of 125 papers.

At this point in the research, we analyzed abstracts from those 125 papers (and if necessary consulted the paper itself) to identify empirical and non-empirical papers such as literature reviews and conceptual studies. We had two reasons for doing this. The first was that literature-based studies are difficult to categorize into qualitative or quantitative research, and secondly, non-empirical studies are by definition abstracted from practice. Including these types of papers would lead to a discussion that reaches beyond the scope of this paper. Therefore, these types of papers were excluded.

Then we divided the empirical-based papers into two groups: 1) quantitative empirical-based papers (which appeared to consist mainly of survey questionnaires, and papers that focus on developing a model, sometimes using simulation techniques to 'test' the model, and which used empirical data to develop the model), and 2) other. As shown in **figure 2.2**, we identified 59 empirical-based papers in the latter category. **Figure 2.2** shows the results of our abstract analysis.

We considered 59 papers too large a dataset for in-depth qualitative investigation. To reduce this number of papers, we had to find the articles that represented the research community the best. Therefore, we decided to select the most cited papers. Because the publishing year influences the number of citations, simply because an 'old' paper

has more chance to be cited than a more recent one, we decided to select the top four cited papers of each year. This allowed us to reduce our initial selection to 20 papers that represent the research community most. We considered 20 papers sufficient to conduct proper qualitative analysis and also a manageable number in terms of practical feasibility.

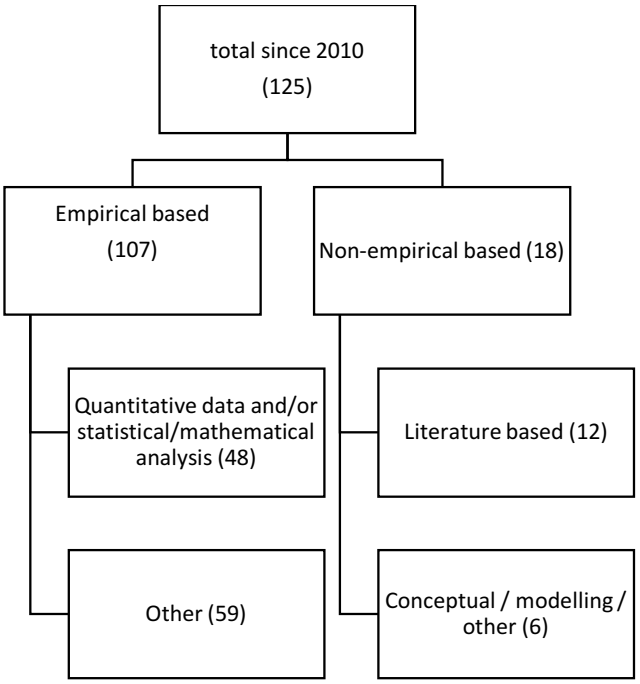

FIGURE 2.2 Overview results abstract analysis.

The numbers refer to the total amount of published peer-reviewed papers on construction partnering from 2010 until 2014

The process of analyzing the papers

First, using a preliminary version of *appendix A*, the first author of this paper conducted a pilot study. The purpose of the pilot study was to refine and adjust the assessment criteria. This allowed us to make the step-by-step process of interpreting the papers more transparent. For this pilot study, papers from before 2010 were use. Thus, these papers were not included in our final dataset. The first author assessed the papers deductively using an Excel sheet to get a quick overview of the results. In addition,

analysis reports were written. General notes were reported, as well as the author's interpretations and ideas about the papers that could not be processed in our initial theoretical framework. Writing the analysis reports resulted in adding two important criteria: 'level of analysis' and 'generalization'.

Secondly, the pilot study approach as well as the pilot study results were discussed with several experts, the second author of this paper and one of the co-authors of *De Lange et al. (2010)*. Furthermore, the provisional results were presented and discussed in an expert platform consisting of PhD students who are no experts on construction partnering, but with good knowledge of philosophy of science and differences in research paradigms.

Thirdly, we processed the feedback and reduced, adjusted and refined our final assessment framework (**figure 2.2**). The 20 papers were assessed by the first author using this final assessment framework. This involved reading the papers as a whole for the purpose of getting a basic understanding of them, and then carefully re-reading each paper for a more detailed assessment. Meanwhile, the second author assessed five of these papers as well in a similar way, using the final framework. Differences in interpretations were discussed and resulted in final adjustments of the framework. Finally, the first author went through all 20 papers again.

§ 2.5 Results

Appendix A shows the results of our assessment of the 20 most cited peer-reviewed papers on construction partnering since 2010. It needs to be emphasized that *Appendix A* (and underlying explanation in the remainder of this section) should not be seen in isolation, but rather in the context of this study. Also, our results should not be taken as a definitive truth. Please be aware that this is our interpretation and we hope it inspires fellow researchers. The last part of this section is a step-by-step explanation of our assessment as shown in *Appendix A*.

1. Aim of research

The way in which the aim of the research is formulated sometimes reveals something about the nature of the research. In 11 of the 20 papers, words like 'explore', 'understanding', 'addressing', 'gain insight in' or 'scrutinize' were used to describe the research aim. *Badenfelt (2010)*, for example, formulated their aim as 'The present

paper seeks to deepen our understanding of the complex and dynamic relationship between aspects of trust and control in client–contractor interactions'. Here, the purpose is to gain a deep understanding of a specific situation.

Other formulations of research aims seem to point at predicting and controlling a situation. For example, in their abstract, *Hughes et al. (2012)* formulate their aim as: '*This research aimed to test the hypothesis "The use of incentivisation with a gain/pain share of about 15 per cent is a precursor to the achievement of successful infrastructure partnering projects in South Wales"*'. Testing such a hypothesis and investigating a cause-effect relationship indicates quantitative research, as suggested by *Baarda and de Goede (2006)*. And indeed, a part of this study concerns quantitative research, processing quantitative data in statistical procedures.

Although there are clearly two directions research aim formulations can take, assessing them is not as black and white as that. In some cases, formulations can be interpreted in both ways. For example, *Osipova and Eriksson (2011)* formulate their aim as: 'The aim of this study, therefore, is to investigate how procurement options influence risk management in construction projects'. This formulation does not explicitly reveal a quantitative or qualitative execution of the research. It needs to be emphasized that one direction is not 'better' than the other. However, the second way of formulating an aim (which implicitly leads to predict and control a future situation) might lead to what *Bresnen (2007)* identifies as 'stylised and abstracted from any immediate practical context in which it might be applied.'.

2. Position in the field

The construction industry is a wide industry, including small and large, new and existing civil and building projects across the world. Supply chains in this industry can be large and complicated, involving many inter- and intra-organizational individuals and groups of individuals. Not surprisingly the peer-reviewed papers cover a wide range of projects and supply chains operating in this industry. *Appendix A* shows an overview of the position of each paper within the field.

Appendix A shows three studies involve a case study focus on a dyadic relationship for the duration of one project. The list also shows that the main focus in most studies is on inter-organizational relationships. Only *Ellegaard and Koch (2012)*, *Eriksson (2010)* and *Sandberg and Bildsten (2011)* focus on intra-organizational as well. Like inter-organizational aspects, intra-organizational supply chains are part of the supply chain as a whole, as emphasized by *Flynn (2010)*. Although it is acknowledged that the intra-organizational supply chains are an important factor in the supply chain as a whole, this intra-organizational focus in underexposed in qualitative construction partnering research.

Appendix A also shows that most research focuses on new building projects. Of this list, only *Eriksson (2010)*, *Hughes et al. (2012)*, *Jefferies et al. (2014)* and *Laan et al. (2011)* (explicitly) focus on partnering in existing projects or situations. In the case study employed by *Laan et al. (2011)*, new building and existing building are combined. Perhaps coincidentally, but the three studies mentioned concern civil projects. This means that, as far as we can assess (because in some papers it remains unclear whether the case study concerns an existing or new building project), none of the papers explicitly focus on renovation or maintenance of existing residential or non-residential buildings. However, for example in the Netherlands, this branch of the construction industry is becoming increasingly important. For example, Dutch housing associations own 2.4 million residential units and their assets are increasing with each year (*www.aedes.nl, retrieved 17 October 2016*). Partnering in maintenance and renovation in such housing associations may lead to a decrease in costs and an increase in quality, and is therefore an important factor in the strategies of housing associations in the Netherlands. All in all, it seems that partnering in existing projects is underexposed in qualitative construction partnering research.

To summarize, we can say that this set of papers focus on multi-player, inter-organizational, project-based supply chains that collaborate in new building projects.

3. Process of gathering data

The set of papers can be divided into two groups: papers that are based on one or several case studies (17), and papers that are not (3). Data are gathered using different methods, such as interviews and expert panels, and different types of observations Four studies are based on action research (*Pan et al., 2012*; *Taggart et al., 2014*; *Smyth, 2010*; and *Zimina et al. ,2012*). *Appendix A* shows an overview of the methods used for data collection.

Among the papers about case studies, the author most referred to was *Yin (1994)*, *Yin (2003)* and *Yin (2009)*. 10 papers referred to one of Yin's works on design and methods of case study research (*Badenfelt, 2010*; *Berente et al., 2010*; *Ellegaard and Koch, 2012*; *Eriksson, 2010*; *Jefferies et al. 2014*; *Johnson et al, 2013*; *Laan et al., 2011; Pan et al, 2012*; *Sandberg and Bildsten, 2011*; *Ying and Tookey, 2014*).

Further, the majority of the authors have their own unique approach, combining several existing approaches and data-gathering techniques provided by several authors that they refer to. Scholars that adhered strictly to the principles of an existing research approach are *Fernie and Tennant (2013)*. *Fernie and Tennant (2013)* used a Grounded Theory Strategy as proposed by *Glaser and Strauss (1967)*. *Lu et al. (2013)* and *Osipova and Eriksson (2011)* do not base their research design on existing approaches by other authors.

To conclude, our assessment of the way in which data are gathered in qualitative construction partnering research does not specifically point at research that can be characterized as stylized and abstracted from daily work practice.

4. Process of analyzing data

Appendix A shows that two of the assessed papers (*Hughes et al. 2012*; *Smyth, 2010*) used statistical procedures to analyze data, while all other papers adopted an interpretative procedure to analyze data. **Table 2.1** shows the numbers of words spent on the methodology section and the number of words used to describe the process of analysis and the relationship between these two. In general, relatively little attention is paid to describe the process of analyzing data. Some authors do not describe this research phase at all. However, this phase is just as important as the method of data collection, especially when qualitative data are the object of analysis, and the researcher cannot rely on statistical procedures.

	AVERAGE	MINIMUM	MAXIMUM	MEDIAN
Total amount of words spent on methodology section	880	330	2885	700
Total amount of words spent on process of analysis	140	0	525	75
Proportions in percentage Words spent on process of analysis	17%	0%	18%	16%

TABLE 2.1 Number of words spent on the methodology section and the process of analysis and the relationship between the two (numbers are rounded off).

5. Do the researchers reflect on their role in the process?

In our assessment, we found that *Fernie and Tennant (2013)*, *Taggart et al. (2014)*, *Pan et al. (2012)* and *Zimina et al. (2012)* provide relatively more information, compared to other authors, on the researchers' relationship with the object of study. For example, *Zimina et al. (2012)* described that 'previous professional experience of the researchers as quantity surveyors and cost engineers contributed to a better understanding of the current state of the industry'. Also, *Zimina et al. (2012)* describes that in the process of gathering data 'the researchers were directly involved and worked with the project teams almost on a daily basis'. *Taggart et al. (2014)* for example, provide specific and concrete insight in the relationship between the researcher and his object of study. For example, they describe that 'posters were placed on site explaining who the field researcher was and his intentions'. Further 'the field researcher (author 1) spent

time (typically one half day per week) over a four-month period on the project and 'participated' in the process of snagging data as a participative observer'. Perhaps coincidentally, *Taggart et al. (2014)*, *Pan et al. (2012)* and *Zimina et al. (2012)* all adopted an action research strategy. *Fernie and Tennant (2013)* based their extensive reflections on 'six recognized tenets of grounded theory, namely: emergence and researchers distance, theory development, coding procedures, specific/non-optional procedures, core category and evaluation criteria'.

The ability to reflect on the role of the researcher in the research process and in relation to his object of study lacks substance, or is described in a somewhat unstructured, meager and scattered manner. *Berente et al (2010)*, for example, state that 'the interviewers probed these differences to understand their significance to the participants as well as the probable impact on the firm or industry as a whole' (*Berente et al, 2010*). *Berente et al. (2010)* also explain that the researchers 'iterated through these analyses multiple times and compared findings to ensure that the examples and episodes were tightly grounded and consistent with the individual firm' (*Berente et al., 2010*). However, these comments may cause confusion among readers, because, for example 'iterating through data' is still rather vague and does not accurately describe specific action of the researchers. Questions about, for example, problems and dilemmas they faced and differences in interpretation of data, remain unclear but are potentially interesting to enrich findings.

6. Theoretical background

As mentioned earlier, *Phua (2013)* suggests that many theories on which the papers are based, 'rest on the assumption that decisions are based on bounded rational choices that are driven by considerations for economic efficiencies'. The content of the theoretical background is also described in *Appendix A*. It is very difficult to assess whether a theoretical lens 'rests on the assumption that decisions are based on bounded rational choices', because the theory itself as well as the interpretation of the theory depend greatly on the author and the reader of the paper. Therefore, it appeared impossible to categorize the theoretical background of each paper. However, one salient observation is explained by using an example.

For example, *Ellegaard and Koch (2012)* mention that they apply a 'resource-based perspective' meaning that 'business exchange is perceived as a process where buying and supplying companies actively access and influence their resource mobilization. This theory can be understood and applied as a theory that 'rests on the assumption that decisions are based on bounded rational choices' (*Phua, 2013*). However, as the study shows, the results of the research also describe non-rational behavior of actors in the field. Thus, although the theoretical background implies rational behavior, the

execution of the research (as well as the findings) of studies with such a theoretical background does not necessarily imply rational behavior as well. Using those 'rational' theories, however, could lead to a feeling that the research as a whole is stylized, predictive and abstracted from daily work practice.

7. Level of analysis

Appendix A also shows that 15 papers analyze data at case level. In seven of these papers individuals are quoted to illustrate the case level. However, no specific individual level of analysis is used in any of the assessed papers. In-depth research of the position of an individual (in relation to the network in which he operates) is lacking. The emphasis on case-level or higher, might explain why construction partnering research is perceived as being somewhat abstracted from individual experiences.

In our set of peer-reviewed papers, we identify a great interest in case study research. Obviously, case study research delivers different insights than non-case study research. In general, case studies give insight in local practice and the papers offer insight to a lesser or greater degree into what actually happens on the work floor and how participants give shape to their daily work routines.

The knowledge and insight that is gained through conducting case studies varies in level of abstraction. In some papers the actual voice and behavior of participants is apparent through quotes from participants and by providing detailed descriptions of actual situations and behaviors. Other papers tend to present data in a more abstracted way, such as through constructing models and abstracted theories.

An example of a paper in which the actual voice and behavior of participants is represented written by *Taggart et al. (2014)*. *Taggart et al. (2014)* identified that electrical design drawings usually give no 'dimensional layout' of placing sockets and that the electricians executing the work 'randomly decided themselves on what spacing to use', resulting in many defects and thus rework. *Taggart et al. (2014)* also identified that this rework is generally accepted as 'simply' part of the job. Another example is provided by *Badenfelt (2010)*. *Badenfelt (2010)* describes that a client of a construction project put a web camera at the building site with the purpose – as claimed by that client – to keep track of the construction process. However, the contractor says that the client every now and then called about 'a pile of dirt in one of the corners' and how this type of behavior affects the trust-relationship between those parties. Also, *Berente et al. (2010)* stay close to their empirical data and use 'vignettes' to show the collaboration between architect, contractor and sub-contractor and how collaboration practices are adjusted with each sub-contractor. However, these examples are few.

8. Internal, statistical and analytical generalizations

We assessed that *Smyth (2010)* considers internal generalization, by mentioning that the used sample represents 33% of the population, which is, according to *Smyth (2010, pp. 259)* reasonable. As *Appendix A* suggests, other papers do not problematize internal generalizations (the extent to which the findings can be generalized within the studied community, group, or institution *Maxwell, 1992*), although most papers do list the respondents that were involved in the study.

For example, *Ellegaard and Koch (2012)* provide a clear overview of studied companies and their 20 interviewees who are, according to *Ellegaard and Koch (2012)*, 'the most central production and purchasing employees' of the main organization and their direct partners. However, the total number of individuals who were active in their case is unclear. Therefore, it remains unclear to what extent the individuals represent the case study. Thus, in this example, it is clear who participated in the case, but the internal generalization was not problematized. Therefore, we can only conclude that focus on internal generalization in qualitative construction partnering research is underexposed.

We also assessed the use of statistical analysis. *Hughes et al. (2012)* and *Smyth (2010)* used statistical procedures to analyze their data. *Hughes et al. (2012)* combined questionnaires and interviews 'to gather both breadth and depth of data' from two infrastructural case studies and used statistical procedures to analyze the data gathered with the questionnaires. Also *Smyth (2010)* combined his qualitative approach with a quantitative component. The quantitative part entails categorizing and ranking 150 demonstration projects, of which 20 projects were selected for further qualitative analysis. Two of the assessed papers (namely *Ellegaard and Koch, 2012* and *Ying and Tookey, 2014*) literally recommend to perform a quantitative study in order to be able to generalize results in a statistical manner. Assessment criteria 3 already showed that not much quantitative data was gathered. Thus, we conclude that qualitative construction partnering research make little use of quantitative data gathering and analysis procedures.

Appendix A shows that *Berente et al. (2010)*, *Ellegaard and Koch (2012)*, *Eriksson (2010)*, and *Gottlieb and Haugbølle (2013)* literally refer to possibilities for analytical generalization. For example, *Ellegaard and Koch (2012)* argue that the single case study 'also represents a limitation as broader analytical generalizability has traded off with detailed insight'.

Most of the other authors do consider opportunities and limitations for (analytical) generalizations. A difficulty is that authors point at limitations and/or opportunities for external generalizations, but are not always clear about what exactly these

opportunities and limitations are. We observe a highly varied list of projects that served as case study, in many cases the possibility for generalizing results analytically from one case to another remains questionable, also when the cases are similar in terms of type of relationship studied and type of project that served as case study. When partnering is considered an emergent practice, local and personal circumstances may have influenced the results and also analytical generalizations might become problematic.

The assessment of generalizations, especially analytic or 'external' generalizations, gave rise to discussion and debate among assessors. We observed that papers sometimes lack transparency about the assumptions on which the (suggestions and limitations of) generalizations are based. We also observed that papers can be ambiguous about generalizing results. Ambiguity is when on one hand it is suggested that it is not possible (or one should be careful with) generalizing results, while on the other hand, results and conclusions are formulated in such a way that the authors imply generalization at a high level. The process in which construction partnering research is generalized is sometimes opaque and/or ambiguous.

§ 2.6 Discussion and conclusion

The aim of this study was to analyze the nature of qualitative construction partnering in order to find gaps and/or saturation in position in the field as well as the methodologies that are used. The study shows that since 2010, 125 papers about construction partnering have been published, of which 59 papers are empirical and non-quantitative. We cannot conclude that qualitative construction partnering research is saturated, but we do think that qualitative construction partnering research has matured over time. Based on an abstract analysis (as shown in **figure 2.2**), we conclude that peer-reviewed construction partnering research is not biased towards quantitative nor qualitative research.

We assessed 20 qualitative empirical peer-reviewed papers, covering a broad range of case studies in different fields and with different focus areas. Although not all papers are transparent about whether their case study concerns an existing or new building project, most papers focus on multi-player, inter-organizational relationships in supply chains that collaborate in new building projects. Intra-organizational relationships collaborating in existing projects are underexposed.

Observing the list of case study projects, we found that the case study projects vary in size, type of construction, and place. This raises questions about whether or not it is appropriate to speak of 'a construction industry'. After all, individuals working on an infrastructural project in the Netherlands will probably encounter different problems than individuals building a tower block in New Zealand. Therefore, readers should be careful to apply the insights gained in one situation to another situation.

In the 20 analyzed papers we identified four methodological gaps: 1) Insight in the process of data analysis is underexposed. 2) Reflection on the role of the researcher(s) in the research process is underexposed. 3) The individual level of analysis is underexposed. 4) The way in which the results are generalized remain somewhat opaque, especially reflection on internal generalization is underexposed.

All identified methodological gaps have in common that specific place and time dependent details that may have influenced understanding of studied individuals are underexposed. Local situations are often chaotic, messy, unruly, capricious, intuitive and unpredictable. The process of studying that local situation may be characterized the same. Underexposing that character may contribute to a feeling that construction partnering research can be stylized and abstracted from individual experiences.

We think that the chaotic character of working practice and studying that working practice can be represented more in the peer-reviewed papers. The above-mentioned four methodological gaps are easily transformed into recommendations for further study. 1) The first recommendation is to problematize and elaborate more on the way in which data are analyzed. It is recommended to explicate important decisions that are made in the process of analysis. 2) The second recommendation is to be more explicit and detailed about the role of the researcher in the research process. There is an opportunity to enrich qualitative research by involving researchers and participants, and by explicating the researchers' role, the participant's role and the relationship between these two roles within the research process. 3) The third recommendation is to conduct an individual level of analysis, although that choice highly depends on the exact object of study. 4) The fourth recommendation is to be more explicit about the extent to which the results of the particular study can be generalized, or what local and personal circumstances may prevent from generalization to other situations. Special focus should be placed on the extent to which the studied individuals represent the group or community.

Following the recommendations (which are one-on-one related to the identified gaps), will result in research that better represents the chaotic characteristics of ordinary working practice and the process of studying that working practice. Adopting the recommendations will increase awareness in the working field of the difficulties and

decisions encountered by the researcher, and in that way the reader is more aware and knowledgeable of the context-related character of the study. This will reduce the chance that the reader takes away insights from the study that are irrelevant to his own working practice. Applying the recommendations will lead to different conclusions and recommendations to improve construction partnering in working practice.

Also, adopting the recommendations will lead to the questioning of objectivity of knowledge. More focus on local time and place dependent factors of the studied individuals as well as the process of studying them, inevitably leads to encountering (and becoming more aware of) personal, subjective and unexplainable decisions and behavior. Describing and analyzing these personal, subjective and unexplainable points in the research process will improve the quality of the research, although it sometimes may seem contrary to what is commonly considered scientific research (namely objective and rational). Taking these unexplainable points in the research process seriously may lead to opportunities for further improvement of research and construction partnering practice.

We have attempted to provide more insight into the nature of qualitative construction partnering research. However, our study is limited to some degree. Firstly, by the fact that this paper divides empirical-based papers into either qualitative and quantitative research, but the boundary between those categories is not as clean cut as it may appear. This is because studies may combine qualitative and quantitative approaches. Moreover, studies that are based on surveys (and in this study are identified as quantitative), may be less quantitative as they may initially seem. The data that were gathered in a quantitative study may be the object of a more interpretative analysis by the researcher.

Another limitation is that this study took into account peer-reviewed papers only. However, peer-reviewed papers are just one of many possible sources of information. Although these papers are quite formal, they are produced by a much more informal research community. Discourse analysis of (parts of) that global informal research community could be interesting to get to know more about why the nature of qualitative construction partnering research is as it is. It could make implicit underlying (conscious or subconscious) power dynamics explicit, which in turn could play a role in educating and emancipating of scholars.

Finally, comparing the nature of construction research to the nature of qualitative research in other fields of study could increase our understanding of both fields. In this case, for example, comparing qualitative construction partnering research to partnering research in other – not so technical – fields of studies may be interesting, such as education or the medical field. Also comparison with fields of study that are perceived as innovative, such as marketing or ICT, could be interesting.

Despite these limitations, our research explicates 'gaps' that lead to opportunities for scholars studying construction partnering. These opportunities may also be valuable for reviewers, supervisors and other actors that shape and at the same time are being shaped by the academic research discourse on construction partnering. By applying these opportunities, we hope to contribute to the further development of academic research on this topic and to increase effectiveness of partnerships in the construction sector.

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3 Implementing supply chain partnering in the construction industry: Work floor experiences within a Dutch housing association.

Author's notes

As I mentioned in the prologue, a direct inspiration for doing this research was my personal experience of redeveloping the curriculum of Real Estate Management Studies where I have worked as a teacher. At that time, my colleague and I took the view that we changed the organization from the bottom up. With the right intentions, we sincerely expressed our own values about what may be considered good education in a team plan and set a strategy that we also translated to the operational level. This bottom-up change process happened more or less at the same time as I conducted the first case study that is described in this section of the thesis. The idea in this article was to find a pioneer in a housing association that would change the organization from the bottom up as well. In writing the article, we experimented with an analogy of a wildfire, in which the pioneer was the 'spark', the context was the 'oxygen', etc. This analogy never made it to the final article. Moreover, my ideas about bottom-up change processes changed fundamentally, based on the research but also based on what happened in my work as a teacher.

What my colleague and I did, can be divided in several steps. The first thing that we did was writing a team-plan, in which we expressed our ideas. We described our ideas at strategic-, tactical, operational- and team level. I remember this process of writing the team plan as a rather solitary process, but as our plans developed, we started to engage others in developing and executing our plans. We experienced that both the work field and the research center were especially interested in our ideas to collaborate with them more closely, so that teachers, students and professionals would co-create the courses together.

On the other hand, there was also considerable resistance to our ideas, especially among students. We had the idea that if students would spend more time at the school building itself, that would contribute to a greater sense of commitment. So, we developed a time schedule that involved spending a lot more time together at the school. However, the students were, among many other things, worried about the availability of suitable working places where they could concentrate and combining studying (which is

expensive) with their jobs. Whether their resistance was justified or not, a group of students felt a need to develop a website where they could (mostly anonymously) express their worries. Apparently, they did not feel they were being heard otherwise. What they wrote was at some points very personally directed towards us. That was quite confrontational and intimidating to me. In hindsight, I think that, whatever the quality of our ideas was, if we listened more to the student's worries and taking their worries more seriously, the differences between their and our ideas of 'good education' might not be so different as they may had seemed at that point.

But this was the situation we were facing, and at some point, the new curriculum was being implemented. Quickly, we experienced that the execution of our plans was not practically feasible at some points. For example, we had overlooked that our plans involved a lot of revision work. It was necessary to provide our students with feedback. It was more than we could manage at that time. Moreover, our day- and week-schedule was too full and dependent on guest-teachers. Of course, there was also the problem of finding suitable working places. Quickly, we began to adjust the schedules to make it more feasible for guest-teachers, students, and teachers. This is just one of many adjustments that we had to do in order to make the program more feasible.

After about a year, we sort of found our way in this new curriculum, which was clearly a compromise between our initial plans and the adjustments that we (me and my colleagues) had to make while executing the plans. Meanwhile, the context that we worked in also changed. There was a compulsory accreditation, and new colleagues joined us, while other colleagues left our team. And at a certain point, it was decided that our curriculum and the other curricula in our institute would merge into one, meaning that (again) a totally new curriculum would have to be developed. At this moment (April 2017), we are phasing out the last students of the 'old' curriculum and Real Estate Management Studies will not exist any longer.

I would like to emphasize that this description of the process is a non-formal evaluation from my own personal perspective. I acknowledge that others may have experienced this process differently. I think for all the participants in this narrative this was a turbulent phase. The change process resulted in some successes and there were definitely some less successful aspects as well. We had not seen these less successful aspects coming at all. As I described in the prologue, my colleague and I were involved in what we experienced at that moment as 'a bottom-up change process'. We were convinced about the legitimacy of our ideas and actions. In hindsight, I realize that there was none. But that did not mean that we were wrong either. The way I see it now, it was nothing but us being very actively involved in complex responsive processes. The result of our 'bottom-up change process' that we tried to accomplish was a compromise of individuals that were involved in this change, and by doing we developed the curriculum as it was.

This experience influenced my ideas about organizational change, and especially influenced my ideas of bottom-up change processes. I am telling this story, because what happened in my job as a teacher at the University of Applied Science influenced my ideas of this PhD-research. I think this was the main reason to let go of our analogy of the spark and the wildfire, because I do not believe any longer that this is a right analogy. One point that I now see in a fundamentally different way, is the individual manipulability of an organisation. In first instance, I believed in the ability of a pioneer to change an organisation from the bottom-up. But I know now that managers are not able to control and manage an organisation by implementing a plan top down, nor is a pioneer able to control and manage an organisation by implementing a plan from the bottom up. I consider that now as a cognitive bias and thinking about bottom-up change processes is based in the same triangle shaped image (that represents the strategic, tactical and operational level) of an organisation. Certainly, individuals can shape their context as much as the context shapes an individual. And certainly, because work floor professionals depend more on their managers than their managers depend on them, it is likely that the manager has a bigger (but still limited) circle of influence. But what I am attempting to describe is that an organization becomes what it becomes through the interplay of people and ongoing conversations, rather than through a blue-print, strategy, or whatever change plan an individual (or group of individuals) come up with.

This article was written by Marieke Venselaar, Vincent Gruis, and Fenne Verhoeven. This article was published in March 2015, in Journal of Purchasing and Supply Management, Volume 21, Issue 1, pp. 1-8.

§ 3.1 Abstract

Although much research has been conducted about advantages and challenges for supply chain partnering (SCP) in the construction sector, focus has been mostly on formal aspects of implementation within organizations. Understanding social aspects, however, might be just as crucial to implementation of SCP as understanding managerial and intra-organizational dynamics. Therefore, this paper presents the results of a study in which a work floor professional together with a researcher tried to contribute to the implementation of SCP within the maintenance and refurbishment processes of a Dutch housing association. The results showed that stakeholders could not come to shared understanding of strategic needs, and that that pattern influences and was influenced by social aspects such as leadership and trust, which confirms the importance of explicit attention for social interactions at work floor level for successful implementation of supply chain partnering.

§ 3.2 Introduction

Last decade, supply chain partnering (SCP) has increasingly been seen as a way to increase efficiency and quality of the production processes in Construction Industry (CI) (*Akintoye et al., 2000*; *Bresnen and Marshall, 2000a*; *Bresnen and Marshall, 2000b*; *Bygballe et al., 2010*; *Hongh-Minh et al., 2001*; *Khalfan and McDermott, 2006*). CI is a fragmented industry (*Bresnen and Marshall, 2000b*; *Horta and Camanho, 2014*; *Vrijhoef, 2011*) and is known for its harsh, tough and competitive character (*Tazelaar and Snijders, 2010*). Combined with project uniqueness and therefore a low level of repetition, coordination problems and underperformance are common in CI (*Vrijhoef, 2011*). The main goal of SCP is to improve performance by establishing close relationships and integrating respective activities between upstream and downstream actors, such as project managers and (sub)contractors, in the supply chain (*Bresnen and Marhall, 2000b*; *Bygballe et al., 2010*).

Different approaches of the SCP concept have emerged, and resulted in a wide range of practices at work floor level (*Bresnen and Marshall, 2000b*; *Bygballe et al., 2010*; *Vrijhoef, 2011*). An often-used definition of SCP is '*a long-term commitment (or it may be applied to a shorter period of time such as project duration) between two or more organizations as in an alliance for the purpose of achieving specific objectives by maximizing the effectiveness of each participant's resources*' (*CII, 2012*). However, SCP is by no means universally applicable, and the way in which SCP is applied highly depends on circumstances and context (*Bresnen and Marshall, 2000a*; *Vrijhoef, 2011*). CI, for example, is characterized by location-bound design, on-off production, changing production coalitions for each project, outdoor and environmental circumstances, multiple clients and suppliers involved in a single project, lack of a focal company, etc.

Much research has been performed on SCP in general and more specifically in the CI since its introduction twenty years ago (e.g. *Bresnen and Marshall, 2000a*; *Bresnen and Marshall 2000b*; *Bygballe et al., 2010*; *Gadde and Dubois 2010*; *Vrijhoef, 2011*). Many of these studies have a rather cognitive and rational character. Moreover, predominantly, prescriptive, formal SCP tools are addressed, such as selection procedures, workshops, charters, facilitators and measurements. Other scholars have studied 'critical success factors' required to develop partnering relationships and achieve the promised benefits of SCP (*Bresnen and Marshall, 2000b*; *Bygballe et al., 2010*). *Bresnen and Marshall (2000b)*, *Bygballe et al. (2010)*, and *Gadde and Dubois (2010)* found that in CI organizations, SCP is often interpreted as a technical–managerial problem, mainly involving the application of appropriate tools and techniques.

However, the focus on designing prescriptive tools for successful SCP implementation in CI does not provide insight in daily work floor experiences. Therefore, the implications of using the tools at work floor level remain unclear. Also, many scholars have acknowledged the need to account for social aspects (*Bresnen and Marshall, 2000a*; *Gadde and Dubois, 2010*; *Gruis, 2011*; *Kim et al., 2010*). An extensive literature study by *Kim et al. (2010)* showed that commitment, trust, communication, and leadership are critical factors of success for partnering. Still, only few researchers have actually dug further into how the social aspects can be handled in daily work practice (*Bresnen and Marshall, 2000a*; *Bresnen and Marshall, 2000b*; *Kadefors, 2004*; *Kim et al., 2010*; *Wong, 2001*; *Wong et al., 2007*).

The current perspective on rather technical-managerial determinants of SCP and a lack of empirical research in the dominant research discourse indicate a strategic choice paradigm. According to this paradigm, managers consciously, logically, and rationally analyze an organization's environment and its internal capabilities and based on that information they set intentions – in the form of plans, programs, strategies, etc. – to come to the best possible results. The manager's intention boils down the organization and in that way the organization becomes what it is (*Stacey, 2011*). Abstract tools, such as software or contracts, are provided to help the professionals to perform the intended plans, programs or strategies. This technical top-down approach and the use of abstract management models neglect actual experiences of professionals (*Groot, 2010a*; *Groot, 2010b*; *Stacey,2011*). It is taken for granted that the plans, programs, and strategies are performed by autonomous individuals, who have their own individual background, knowledge, convictions, values and intentions and that these individuals give shape to and form the process of executing plans, programs, and strategies.

Similar to *Stacey (2005)*, *Schön (1983)* refers to the gap between the highly abstract scientific discourse and the daily work practice of professionals: 'Formal models have been usefully employed to solve problems in such relatively undemanding areas as inventory control and logistics.' (*Schön, 1983*). In more complex situations, where the problem is not clearly defined, such as in our case study, models 'failed to yield effective results'.

Instead of using formal models and all their disadvantages, organizational life can be approached as emerging phenomena 'in complex, responsive processes of relating' (*Stacey, 2005*), which is called complexity theory. Complexity theory advocates that plans, programs, and strategies should be considered as 'gestures' (*Stacey, 2005*). A top down initiative to work according to principles of SCP might be considered as such a gesture. However, an organization is formed by how work floor professionals respond to these 'gestures'. Some gestures may shape the themes of communication. However, the meaning does not lie in the gesture itself, but in the processes of gesture-response. This process of gestures-responses strongly relates to *Weick's (1995)* concept of sense

making. Sense making is a construction of meaning (*Weick, 1995*) and 'is about such things as placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding and patterning.' Sense making is required to achieve changes in behavior. In the process of sense making, it is unlikely to expect that work floor professionals will silently obey and follow the rational decisions – or gestures – that are put upon the technical-managerial way. Instead, 'recipients need to be enabled to recreate their ways of working' (*Balogun and Jenkins, 2003*). Through formal and informal conversations, across all formal aggregation levels within and between formal organizations, professionals constantly negotiate and interpret all kinds of gestures and in that local interplay between people who are doing their work, the organization is formed, rather than through the overall plan.

Concerning SCP in CI, hardly any attention is paid on how work floor professionals respond to SCP. Studying daily work floor experiences might, however, give important insight in barriers that might slow down the development towards SCP in CI. As *Bresnen and Marshall (2000a)* argue, people and their relationships are the heart of collaborative approaches. Hence, this study aims at getting more understanding of work floor experiences of professionals in CI who are confronted with the principles of SCP. A Dutch housing association that is implementing SCP as a key strategy in their asset management served as the case in our study. This paper describes how the researcher (first author) and a work floor professional together tried to work according to the principles of SCP, which themes emerged from the interplay with other stakeholders, and the generated insights in how social aspects play a role in the emergence of the themes within the development towards SCP.

This paper is structured as follows: **Section 3.3** describes the research paradigm, deliverables, function, approach, and methodology. **Section 3.4** comprises the context and narratives about work floor experiences. The narratives are analyzed and grounded in theory in **section 3.5**. **Section 3.6** presents our conclusions and places the results in a wider context.

§ 3.3 Research methodology

According to *Stacey (2011)*, the key debate on strategy process is about whether strategic management is a matter of intention (strategic choice paradigm) or whether strategies emerge through the interplay of local interactions (as complexity theory

advocates). In our study, the latter perspective is adopted. The objects of research involve the practical problems of work floor experiences with SCP in their historical, social, cultural, and political context. Different professionals at various organizations might experience other problems, because their experiences highly depend on their context, personal convictions, and personal values that have developed throughout time. Therefore, our study will generate value-based knowledge.

The epistemology of value-based knowledge influences the function and the methodology of our study. First, as mentioned before, previous research focused on designing prescriptive tools for SCP. *Stacey (2005)* claims that focus on impersonal higher levels leads to a situation in which local experiences are disregarded as rather un important. By taking local situations and experiences seriously, we get a different notion of what is practical (*Stacey, 2005*; *Oost and Markenhof, 2004*). Therefore, the function of this study is describing and analyzing work floor experiences in order to get understanding of the problems in day-to-day-practice. Second, concerning methodology, we assumed that, as *Stacey (2011)* suggests, an appropriate method for understanding of interactions between individuals is the use of narratives. The narrative is 'a spoken or written text giving an account of an event/action or series of events/actions, chronologically connected' about what the individuals consider important and what sense is made of the gestures (*Creswell, 2007*). *Creswell (2007)* suggests four steps to collect narratives, that can be performed in arbitrary sequence, which we deployed as follows.

Selecting one or more individuals to participate in the project

The first step is to select one or more individuals 'who have stories or life experiences to tell' (*Creswell, 2007*). In order to do so, we first had to choose an organization within the supply chain. We chose the perspective of a Dutch housing association. Especially since governments cut back subsidies, housing associations need to accomplish more with significantly less money and SCP is considered to be part of a solution to this problem (e.g., *Bortel et al., 2013*). Furthermore, the housing association sector dominates the building and construction sector, owning about 30% of the total housing stock and being one of the biggest investors for contractors in the Dutch housing construction, maintenance, and refurbishment market (*Gruis, 2011*). Therefore, we selected a housing association that is adopting SCP as one of its main organizational innovations. The work floor within this housing association's department of 'real estate improvement' was identified as the focus of our study because the management of that department chose SCP as the key strategy to reduce 20% of their costs. The researcher had to identify one or more individuals within this department who were enthusiastic about the idea of trying to initiate a bottom-up change process towards SCP. We conducted a 'pre-assessment', in

which the researcher interviewed 7 out of 8 of the department's project leaders (one project leader did not want to participate in our research) and to select the individual intuitively. All interviews were recorded and transcribed verbatim.

We soon began to entitle these individuals as 'pioneer(s) in a hotspot', following *Gratton (2007)* who states that 'You always know when you're in a hotspot. You feel energized and vibrantly alive'. Based on the pre-assessment, we selected one participant, fictitiously named 'John' (please note that all the respondents' names are fictitious for privacy reasons). John was chosen based on his enthusiasm and eagerness, since we felt that we were in a hotspot when interacting with him. John clearly had several ideas about executing SCP and how it would influence his job and he said to be monitoring everything in order to develop organizational quality as well as personal functioning. His critical, reflective attitude was deemed to be helpful in the bottom-up change process. John was the only interviewee with which the researcher felt the energy that *Gratton (2007)* described. Therefore, we chose to invite John as the main participant in our study.

Spending considerable time with them to gather stories

After selecting the main respondent(s), *Creswell (2007)* recommends to spend considerable time with him/them to gather stories. The first phase of pre-assessment fluently emerged into this second phase, which we called the experimental phase. The aim of this phase was to make sense of SCP and try to develop a project following the principles of SCP. From March to September 2012, John and the researcher worked together to develop ideas about SCP, and to implement these ideas in the organization. The experimental phase consisted of 100 hours of observation and participation, and was documented in 33 journals.

The researcher worked together with the respondent(s) in a process of mutual learning the researcher, as she acted as a participatory observer (*Clark et al., 2009*). The researcher adhered to some basic rules: (1) she did not operate independently, but always in consultation with John. (2) She acted as a sparring partner for John. John and the researcher reflected on experiences and together they determined their interventions. In these reflective conversations the researcher and John reached shared understanding (*De Lange et al., 2011*). The purpose of these rules was two folded: on one hand, the researcher tried to blend in the situation as much as possible, to really understand the respondent's perspective, behavior, convictions and values. On the other hand, the aim of the reflective conversations was increasing respondent(s)'s awareness of his/their perspective, behavior, convictions and values to pave the way for improvement of his/their own work practice (*De Lange et al., 2011*).

Collecting information about the context of these stories

The pre-assessment that we used to select John, was also used to collect information about the case study context. We roughly analyzed and categorized the transcribed interviews and observation journals inductively. The researcher used this knowledge for better understanding of the context in which John's experiences took place. Main results are described in **section 3.4**.

Analyzing and restorying

The last step in the narrative approach was to 'analyze the narrative, and then 'restory' them into a framework that makes sense'. Therefore, we used our raw data (documented in 33 journals) to write down the process chronologically. John was involved in describing this process. Then we indicated milestones in the process. Milestones are the moments in the process that we considered as important insights or actions. Based on the milestones, the researcher wrote the narratives. John and the researcher gave a workshop in which John shared his experiences with other professionals from several organizations in the CI. In retrospective, this appeared to be a valuable event, because it gave the researcher insight in how John experienced the process. Because it is impossible to present every generated narrative in this paper, we selected three milestones to describe more detailed, using our raw data again. John was not involved in this process. We chose these three milestones, because we considered these most illustrative to our purpose of describing work floor experiences, and they depict the complexity of SCP in CI.

§ 3.4 Case study: context and narratives

This section provides three narratives that show how professionals, in interplay with each other, shape the partnering processes, although sometimes it is not the shape they had in mind beforehand. Together, the narratives demonstrate an apparent chaotic web of interactions across all aggregation levels, organizational boundaries and knowledge domains. From this web of interactions patterns emerged, but simultaneously these patterns influenced interactions. This first describes the study context in more detail, which is important knowledge to understand the narratives that follow.

Context

The department 'real estate improvement' was chosen as the focus of our study, and is responsible for refurbishment project of 30.000 units in a large Dutch city. Traditional refurbishment projects roughly follow a few stages: First, the department of 'area management' initiates improvement projects by providing 'start-up memos'. The start-up memos are deduced from 'district strategies' that the department 'area management' develops for the housing association. Second, project leaders within the department of 'real estate improvement' are responsible for elaboration of the start-up memos into 'project memos', which are then presented to the board that gives a 'go' or 'no go'. Third, after a 'go', the project leader invites a tender and together with the (sub)contractor produces a definitive design and realizes the project. The managing director of this department (fictitiously called Andrew) aimed at reducing costs by implementing SCP. He targeted at reducing two percent of yearly costs for ten years by (1) partnering with preferred (sub)contractors within specific districts, (2) developing product partnering relations (for example preferred contractors for locking systems in the housing estates), (3) developing SCP with preferred partners with the objective to achieve cooperation structures that extend beyond single projects, and (4) involving contractors in an earlier stage in the process. To achieve these targets, Andrew intervened in several ways: He selected preferred contractors with whom the project leader had to establish projects and he introduced building information modelling (BIM)-software. BIM-software is an ICT- solution that enables stakeholders in the project to work together and simultaneously on a joint project in a virtual environment. Andrew instructed Phil, the project leaders' team leader, to stimulate SCP among the project leaders and help them whenever they needed. To do this, Phil organized meetings and walk-in consultation hours, but the pre-assessment showed that these meetings were not considered fruitful and eventually people started not showing up. Willy was hired as an external BIM-expert. His official position was to provide technical solutions, but in practice it turned out that he functioned as a sparring partner for the project leaders. Next to these technical-managerial interventions, the managing director believed that a change in culture was necessary to accomplish the targets, because 'SCP asks for another way of working'. The managing director had no specific ideas about how to accomplish this change in culture. Participating in this research was one of his interventions, because he believed that project leader's self-reflection could help them to become more aware and therefore also support change in behavior.

Narrative 1: A narrative about a BIM-session

Pre-assessment showed that all respondents agreed that the main difference of SCP compared with the traditional building process of inviting tenders is that (sub)contractors are involved in early phases of the project. Project leaders establish early involvement

by organizing 'BIM-sessions'. In BIM-sessions, project leaders invite co-makers, such as contractors, subcontractors, and occasionally end users, in early phases to co-create projects. This is a narrative about a BIM-session John organized for one of his projects, coming from one of the 33 observation journals: John admits that he is nervous for his second BIM-session. Last week did not go well. The purpose of that session was to compose a list of technical measures for a refurbishment project. However, every proposed intervention caused a lot of discussion. People got irritated and contractor complained: 'Can we bring some more structure in this?' Today John developed a conceptual list of technical measures that he wants to be considered. Today's dialog is supposed to be based on this concept list. The group consists of John, the concierge of the building, two contractors (Pete and Dimitri), two installers (Bastian and Dave), an architect, and Willy (The BIM-consultant). John explains the purpose of the meeting. They need to come to a list of measures to be taken in three scenarios: maintenance for 15, 25, and 40 years. John proposes to base their discussion on his concept list. A discussion between the concierge and Dimitri about social safety and locking a few compartments of that building emerges. After about 20 min John says: 'I propose to direct the discussion to the list.' and the discussion about social safety ends without clear conclusions.

Although, according to John's list the discussion should be about facades, a discussion emerges about whether or not gas connections for cooking need to be maintained. Willy proposes to move back to the list, but is ignored by the rest. John cannot tell what the association's policy is about gas connections and cooking. After 15 min, again the discussion is about social safety and locking systems. Once more, the association's policy about this topic is asked for and John cannot answer that question. The same dynamic arises on the topic of sustainability. Dimitri gets irritated and says 'What's all this about, it's not a game we're playing! You must say something about your policy!'.

Afterwards, John told the researcher that he was satisfied about this session, although he realized that a lot of questions remained unanswered. John became aware of his poor knowledge of organizational policy. He (unsuccessfully) tried to get his question answered by asking Phil, Andrew, and Ricardo (Area Management) and by consulting his direct colleagues.

Narrative 2: A narrative about a team meeting

After fruitless attempts to get the questions answered, John and the researcher decided to initiate a team meeting in order to discuss the problems and to try to develop a common framework for SCP. We prepared this meeting by developing a 'conceptual framework of SCP' to base the discussion we intended to stimulate on. Our main target was to emphasize the internal problems we experienced, because we identified several barriers towards efficient work processes within the organization.

The group consists of five project leaders (including John), two draftsmen, Andrew and the researchers. Phil is absent. We meet in the organizations restaurant. The atmosphere is informal and energetic. We promised Phil and Andrew to present a framework for SCP. Although John has specific ideas, he does not seem to get these ideas on paper. The framework is presented on three PowerPoint-slides. John takes the lead in this presentation. He seems confident. People quickly begin to respond and an energetic conversation that flies of in all directions follows. Issues concerning organizing BIM-sessions are discussed. People express their concerns about how tedious these BIM-sessions can be. They question, for example, who to invite, how to activate participants, and how to involve tenants in the process. We agree that this new way of working is a life style and involves new competences, group dynamics, and leadership styles.

Internal issues are discussed as well. The project leaders question the composition and status of budgets. Also, the internal structure and unclear responsibilities within the organization are discussed. Project leaders discuss that a clear vision lacks. Andrew indicates that this vision is described in the starting memos written by the department of are a management and is surprised to find out that the project leaders write their own start documents. 'I will make sure that in the future you don't have to write your own starting memo's any longer. That is just not right.' The meeting ends with the researcher and John promising to conduct a pressure cooker experiment, in which they will try to develop a project to definitive design in only three days. Then suddenly Andrew becomes autocratic and starts distributing tasks and assignments. Nobody responds to this behavior and silently accept all tasks. Then the meeting ends and everybody goes his own way again.

This narrative shows how participants recognized the problems discussed and clearly felt a need to share. Afterwards, a few of John's colleague project leaders told the researcher how fruitful they perceived this meeting to be. As one of the project leaders put it: 'Finally, we talked about what it's really about'. Also, John and the researcher had a good feeling about this meeting and perceived that this might be the beginning of the change process they attempted to initiate. However, no further actions were undertaken to solve the issue of the starting memos.

Narrative 3: A narrative about the pressure cooker experiment

Three months later (the three months included a six-week summer holiday), John and the researcher conducted the pressure cooker experiment. This time John invited only the main contractor and Willy to avoid a tedious BIM-session again. Instead, John arranged pre-meetings with several colleagues to discuss the starting memo for the project that was the central subject of the pressure cooker experiment. John wanted

to make sure that he got the right assignment and requirements this time to avoid the same dynamics with the contractor as happened earlier. According to John, they agreed on developing two feasibility studies, which would be the basis for a new starting memo. John takes the lead in this session.

The session starts at 9.00 AM instead of the intended 8.30AM. The first hour seems to lack structure. The BIM-consultant asks what the purpose of this meeting is. This question remains unanswered. Instead, ceiling renovation costs are discussed.

In between discussion about content, contractors, draftsmen, and John informally discuss their way of working. For example, they discuss the new role of the architect in the supply chain. One of the contractors gives his vision on how Dutch associations should return to their core business: controlling their real estate portfolio in an administrative way and outsourcing all other activities. They have conversations about the future of partnering and the different roles of all co-makers in this process.

After the break, new developments occur. While the draftsman draws something, the contractor calculates costs, and the co-makers literally come closer together. Phil and Andrew visit the meeting to get a sense of the energy. Andrew asks how long the building complex will be exploited after the renovation. Again, confusion about the exploitation period as well as the starting memo arises. Andrew asks if the assignment by area management is clear. But his questions remain unanswered and get overruled by other issues to be discussed.

The remainder of the day participants work on one computer and discuss the future of SCP in general. By the end of the day, John discusses the results with Ricardo of the department of area management. According to John, Ricardo is enthusiastic about the results so far. John says the second day worked out similar to the first day, and according to John participants decided that this was an effective work method.

Evaluating the pressure cooker experiment, John indicated that he was satisfied about working together with the external partners. John did not experience them as passive recipients any longer, but as pro-active. How exactly this dynamic changed is unclear.

However, Ricardo was not satisfied with the results, because he expected something else. According to John he responded laconically and said: 'Well, maybe we are going for another scenario.' Phil and Andrew expressed their disappointment about the results as well. Opposite to Ricardo, they expected the project outcomes to be more defined. John was angry about the situation: 'You can imagine how angry I am'. This narrative showed that John, his management, and area management appeared to differ in expectations regarding the output of the pressure cooker experiment.

§ 3.5 Analysis and discussion

This section aims at getting more insight in the patterns that emerged from the apparent chaotic web of interactions in which John was entangled and how these patterns influence and are influenced by the interactions. The main pattern we will discuss concerns how the participants failed in getting shared understanding of strategic needs and how social factors (leadership and trust) influence and are influenced by this pattern.

Lack of shared understanding of strategic needs

These narratives showed that throughout the entire SCP-process, all participants circled around questions concerning policy, targets, ambitions, and strategy. The first narrative shows that a lack of clear targets caused a tedious BIM-session, not satisfying results of that BIM-session, and an irritated contractor. Between John and his (sub) contractors, a dynamic emerged in which (sub)contractors were waiting for John to tell them his vision on technical measurements, while John was waiting for the (sub) contractors to come with ideas and possibilities about technical measurements. The second narrative showed that when people finally get to talk about these problems, energy arises and people find it fruitful to talk about it. The third narrative showed that, because John, Phil, Andrew and Ricardo could not come to shared understanding of the deliverables, the results of the pressure cooker became useless and disappointed all internal as well as external participants.

Problems with defining targets and activities are not uncommon in the Dutch housing sector. *Overmeeren(2014)* and *Van der Kuij (2014)* indicate that housing associations hardly formulate measurable targets and alignment between strategic needs and operational execution lacks. One of the reasons is that housing associations are hybrid organizations (*de Jonge, 2013*). Hybrid organizations are public organizations that also participate in commercial markets. Prioritizing targets and activities appears to be complex in such organizations and this indistinctness causes difficulties in managing such hybrid organizations (e.g., *Anheiher, 2010*; *Bieleman et al., 2010*).

Kim et al. (2010) point out four development stages of SCP: (1) identifying strategic needs, (2) assessing and selecting a partner, (3) implementing a partnership, and (4) reassessing and reshaping the partnership. Thus, the first stage of developing SCP has not been fully developed yet neither by the internal nor the external partners in our case study. Obviously, this case showed that stakeholders were not able to develop consensus on the targets to be achieved, which was particularly visible in narrative 3.

Still, as the narratives show, John did discuss the expected results with Ricardo, Phil and Andrew, but he discussed that in separate conversations. Apparently, Ricardo, Phil and Andrew never discussed the expected results together. In retrospective, it would have been more logical if Ricardo was more involved in the actual BIM-sessions, to align expectations. After all, he was an important internal principal in this supply chain.

As stated in the introduction, SCP can be either seen as a formal process that can be actively engineered or as an informal and organic development (*Bresnen and Marshall, 2000a*; *Bresnen and Marshall, 2000b*). The first perspective would fit in a strategic choice paradigm, whereas the latter perspective would fit in the complexity in the complexity thinking. From a strategic choice paradigm, it would be concluded that Andrew, Phil, and/or Ricardo failed in providing a clear policy and because of that John did not have appropriate tools to work with and therefore the SCP remained unsuccessful. From a complexity view however, conclusions are less normative. Reading the narratives, we understand how participants in this process could not come to consensus and the participants would not come to consensus and the participants would be advised to become more aware of the dynamics and through a joint process of trial-and-error and reflection come to a solution that fits all stakeholders.

Leadership

It is argued that 'strategic needs' emerged from an apparent chaotic web of interactions. This section aims at understanding how interactions influence and are influenced by this pattern. In this section we will base our analysis on the topic 'leadership'. Throughout the process John and the researcher experienced this as an important aspect, and leadership is often stressed as a major factor in literature on SCP as well (e.g., *Gruis, 2011*; *Kim et al., 2010*; *Wong, 2001*).

To understand how leadership influences the lack shared understanding, first leadership needs to be defined. The wide array of leadership definitions shows three common aspects (*Muijen and Schaveling, 2010*). First, leadership concerns a process between a leader and a subordinate. Second, leadership involves personal characteristics that make a person able to influence and stimulate another person to contribute to meet targets and success. Third, leadership is about an interplay between leaders and followers and not about their formal position. According to *Muijen and Schaveling (2010)* throughout the years, research focus shifted between these aspects.

The complexity theory concentrates on the third aspect. It suggests that it is not the formal position that defines leadership, but the person to whom the power ratio is titled. That raises questions about formal leadership. If, as complexity theory suggests, an organization is formed by local processes of gesture- response rather than by an

overall plan, formal leaders and managers in organizations will have more power than work floor professionals, because they are able to communicate with more individuals. Moreover, they can instruct, persuade or even force others to do what they intend to do (*Stacey, 2011*). On the other hand, they provide resources and legitimize actions. But also, the individuals that respond to the gestures have power. How individuals respond to the gestures depends on their intentions, knowledge, and understanding of the gestures and situation. If a certain response is accepted by many others, then that individual will gain more power and will be considered a leader.

When analyzing leadership, John's position in the supply chain should be considered. John had three roles. First, John acted as a principal for his (sub)contractors and in this position, he took leadership towards (sub)contractors in, for example, the BIM-sessions. Second, John was a contractor for his 'internal principal' (Ricardo), and therefore Ricardo acted as a leader towards John. Third, John acted as a subordinate for Phil and Andrew. In short, sometimes John acted as a leader, and sometimes John received leadership.

Participants showed various kinds of leadership behavior. After SCP initiation, Andrew and Phil (management) switched from a socially constructive change strategy and facilitating leadership style to a monovocal top-down approach and autocratic leadership style (narrative 2). Phil tried to get involved by providing consultation hours, although not many project leaders made use of that. John complained about how involved Phil and Andrew were in the process. The same could be said about Ricardo. Ricardo was an internal principal for John, but his expectations were not clear (narrative 3). Besides, the frequency of interaction between Ricardo and John was low. From the relationship between John and the (sub)contractors we already indicated that John failed in providing (a discussion about) shared understanding of strategic needs. Also, John felt incompetent when it came to lead group dynamics. He seemed unable to discuss the problem of the lack shared understanding of strategic needs. That resulted in tedious BIM-sessions (narrative 1), complaining (sub)contractors (narrative 1), and unclear expectations of the results of the pressure cooker (narrative 3).

Overlooking the narratives, we could not identify a person – neither a natural, nor an 'official' leader – with more knowledge and understanding than others to whom the power ratio was titled. Instead, we saw all participants circling around questions of strategy, ambitions, plans, etc. We did see however, that Andrew and Ricardo both enabled and constrained John in his attempt of developing a fruitful process of SCP. On the one hand, Andrew provided the strategy of SCP, BIM software, preferred partners, and a room to meet that legitimized John to organize the BIM-sessions. Also, Andrew impeded John, by not being explicit about his expectations and preferred internal procedures.

To understand how leadership is influenced by lack of shared understanding of strategic needs, we analyzed the issue of John not feeling competent when it came to leading group dynamics throughout the BIM-sessions. Narrative1 showed that because John was unable to answer the (sub)contractor's questions (narrative 1), a certain group dynamic arose. John also lacked skills to analyze the group dynamics and discuss the analysis with the participants. He was not able to intervene properly and make the BIM-session less tedious.

It is no surprise that demands for usable knowledge will change as the task changes (*Schön, 1983*). John's task clearly changed when it comes to leading BIM-sessions. In the traditional way of inviting tenders, John developed projects in a technical manner. He determined the technical measures, and wrote specifications needed to invite tenders. He mostly communicated one-on-one with his (sub)contractors. In the new situation, John was confronted with group dynamics. He clearly had not developed competences in that domain yet.

The introduction of SCP and performing, for example, BIM-sessions made John more aware of his shortcomings and lack of knowledge. He tried to find a way through all kind of unique situations that have all the same features: complexity, uncertainty, instability, uniqueness, and value conflict. *Schön (1983)* and *Stacey (2011)* both suggest that it is not only analytical techniques that are required to work under these turbulent conditions. In this case, according to *Schön (1983)* and *Stacey (2011)* learning skills about leading group dynamics would not be sufficient.

Schön (1983) argues that, instead of grounding professional skills in very specific scientific knowledge, problem solving in day-to-day practice utilizes 'more rule-of-thumb local regulations and rules'. It is not specialized, firmly bounded, scientific, nor standardized. It requires a new way of learning, which *Schön (1983)* calls reflection-in-action. Narrative 3 showed this behavior of reflection-in-action, when John and the (sub)contractors began discussing the new roles and responsibilities of the participants in SCP. Similarly, narrative 2 showed reflection-in-action about the internal leadership, processes and responsibilities. Unfortunately, this discussion appeared to be unique, and not continuously.

Trust

Previous sections showed how complex interactions influenced and were influenced by confusion about leadership. All these interactions eventually led to a situation in which the (sub)contractors and John delivered results from a pressure cooker experiment, however the results were not accepted by Ricardo, Phil, and Andrew. Although the readers of the narratives know that it was unintentionally, the (sub)contractors

perceived that John was abusing their efforts, because involving (sub)contractors in the early phases of the process demands extra unpaid efforts by the (sub)contractors.

John realized that this affected his trustworthiness towards the (sub)contractors, but he was unable to change these dynamics, because John was dependent on others. Besides, in reflection John concluded that he did not have enough knowledge about group dynamics. In short, this process affected the level of mutual trust in several ways. Trust is a complex notion. This section aims at using examples of our case study to show how trust manifested in local interactions in different ways, between internal as well as external participants.

Many scholars indicate trust as a linking pin for divergent areas, such as leadership, communication, and organizational change (*Fulmer and Gelfland,2012*; *Gruis, 2011*; *Kadefors, 2004*; *Kim et al., 2010*; *Wong et al., 2007*). Trust can be linked to micro-level (such as effort and performance or leadership effectiveness) as well as to macro-level (such as strategic alliances) (*Fulmer and Gelfland, 2012*). Moreover, within each level different referents of trust can be distinguished (such as leaders, teams or organizations) (*Fulmer and Gelfland, 2012*). Besides, trust knows multiple antecedents and consequences. All aspects seem interrelated. That makes it difficult for scholars to identify who trusts whom (or what) at which aggregation and how it is developed (and please note that for professionals at work floor level, it seems to be even more difficult to get a grip on the notion of trust, since it is not their daily practice to analyze such abstract notions). While the pre-assessments showed that most project leaders consider trust to be the 'lubricant' of relationships. Thus, it is a living concept among project leaders in this organization.

Despite its complexity, an often-used definition of trust is 'the willingness of a party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.' (*Mayeretal.,1995*). This definition includes two dimensions of trust, which are (1) positive expectations of trustworthiness and (2) willingness to accept vulnerability. Another distinction made on trust is the (1) ability (or domain-specific competence of a trustor), (2) benevolence (or the conviction that the trustee would do good to the trustor) and (3) integrity (or that the trustee adheres to a set of principles that the trustor finds acceptable).

Based on general literature on trust, *Wong et al. (2007)* has developed a trust framework specifically applicable for construction contracting. This framework distinguishes three types of trust. Interpersonal trust refers to trust between people and or institutional trust refers to trust in the functioning of organizational, institutional, and social systems (*McAllister, 1995*; *Wong et al., 2007*). Concerning interpersonal trust affect-based trust

and cognition-based trust are distinguished (*McAllister, 1995*; *Wong et al., 2007*). The narratives showed examples of trust on all three levels.

First, the pattern of not coming to shared understanding of strategic needs refers to system-based trust. More specifically *Wong et al. (2007)* distinguishes three features of system-based trust: (1) organizational policy (specifies priorities and explains business procedures), (2) communication systems (defines the channels for interactions of an organization), and (3) contracts and agreements (defines relationships and obligations between individuals). The narratives showed that the housing policy of the association is unclear (feature1). Besides, it was unclear who was responsible for providing the policy. It could either be area management or the management, but in daily work practice it appeared that the project leaders write their own start documents (feature2). Therefore, the official status of the start documents was unclear (feature3).

Second, cognition-based trust, which is grounded in individual beliefs about peer reliability and dependability and it highly depends on competence and responsibility (*McAllister,1995*). Because John had no clear understanding of what people expected from him, regardless of who's 'fault' that was, he could not meet the expectations. The (sub)contractors, Ricardo, Phil, and Andrew constantly kept signaling others' dysfunction. John, for example, constantly kept receiving negative feedback on his results. In short, in this case unclear mutual expectations about results seem to lead to decrease of mutual cognition-based trust.

Third, the narratives showed examples of affect-based trust. Affect- based trust concerns emotional bonds between individuals (*McAllister, 1995*) and is affected by the frequency of interaction. *McAllister (1995)* and *Bijlsma-Frankema and Costa (2005)* both point out that if actors trust each other, they seek interaction with them, while distrust creates discord. In between BIM-sessions, there was hardly any communication between John and his (sub)contractors. Also, according to John, the frequency of communication between John and his management was insufficient, while according to *Bijlsma-Frankema and Costa (2005)* interaction is needed to build trust.

§ 3.6 Conclusions

The target of this study was to get more understanding of work floor experiences of professionals in the CI who are confronted with SCP-principles. We expected that describing and analyzing work floor experiences would increase insight in what exactly

SCP entails in practice. Our study showed that, in this context, the lack of reaching shared understanding towards strategic needs was a barrier for fruitful SCP. Theories about trust and leadership showed that the social aspects influence and are influenced by the pattern of participants being unable to come to shared understanding of strategic needs, and that they are mutually interwoven.

Lack of shared understanding has shown to be a serious barrier in the development towards SCP and leadership is important to overcome that barrier. The narratives showed examples of how formal leaders enabled and constrained people at the work floor to develop to SCP. The narratives also showed that it is not clear who formally was responsible for providing the strategic needs. Also, no person was found to whom the power ratio is entitled. Besides, the narratives showed that this problem is not identified, nor discussed. The example of 'leading groups and group dynamic' shows a way of how reflection-in-action could support finding new ways of leader- ship in new situations. And, without claiming to be comprehensive, the narratives also show the role of different types of (lack of) trust between different individuals at different aggregations at the work floor as well as leadership, the issue of trust was not discussed with each other which also hampered the implementation of SCP

Our findings do not imply that the implementation of SCP is a result of chance. It is a result of local interactions by people with their own intentions. In their daily work practice people constantly negotiate with each other. The result is a consensus, or compromise, of all these local interactions. Our findings do stress the importance of explicit (managerial) attention for processes of sense making at work floor level, by stimulating shared visions on strategic needs and promoting leadership and trust within the work floor, thus confirming *Bresnen and Marshall's (2000b)* plea that implementing partnering also requires an understanding of the likely impact on individual's and group's motivation and interests. And, although we did not focus on prescriptive tools, such as contracts or total quality management, we do not deny these tools can help professionals in developing fruitful SCP. Rather, our results indicate that none of these tools should be considered as quick fixes that guarantee success. Development and application of such tools should go hand in hand with an honest description and reflection of actual work floor experiences. Therefore, for improvement of the situation, work floor professionals would benefit from developing skills in analyzing and discussing work floor experiences.

Finally, it should be noted that work floor experiences may vary from one project to another. The knowledge that this research provides is value-based, because the identified practical problems depend on their historical, social, cultural, and political context. This study contributes insights into how SCP principles can be dealt with at

work floor level. This suggests that further awareness of the link between different levels of analysis is needed to develop an understanding for such practices.

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4 Studying intra-organizational dynamics in implementing supply chain partnering: a case study about work floor experiences in a Dutch housing association.

Author's notes

I am thankful that the University of Applied Sciences of Utrecht gave me the opportunity to do this research and to support me financially. For four years, I spent approximately three days doing this research and two days working as a teacher in Real Estate Management Studies. For me this proved to be a good combination of tasks, because what I experienced as a teacher inspired me to do the research, and the research inspired me to teach.

The housing associations that were the object of study in the first and second case of this thesis, were also involved in the courses that I taught. They were involved in several courses for undergraduates and graduate students of Real Estate Management at the Institute of Built Environment at the University of Applied Sciences in Utrecht. Besides the more technical and financial aspects of renovating Dutch housing, social aspects of supply chain partnering have always been a topic in those courses.

The second-year students, for example, were assigned to develop investment proposals for housing complexes in Amsterdam and other Dutch cities. Although knowledge about supply chain partnering – as an alternative for procurements – was part of this course, it was difficult to involve this in the development of the investment proposal. The dynamics of supply chain partnering at an abstract level were easy to teach. It is relatively easy to list the advantages and disadvantages of working with preferred partners compared to working with procurements. However, the underlying complexity of what actually happens at the work floor level appeared more difficult to explain to young students who did not see much yet of the actual work floor. The students themselves had no or little work floor experience to reflect on. For the professionals that we worked with, as well as for me as a teacher and researcher, it is not always easy to be in the middle of something and reflect on it at the same time. Explaining the complex

daily processes to a young person who had no experience almost seemed impossible at some points. Besides, as the articles explain, a lot of individual effort was put in applying SCP, but it did not affect formalities in the organizations yet. For example, the structure of investment proposals did not change due to applying SCP.

It was slightly different to discuss SCP and the effects of SCP with third and fourth-years students, who did an internship in the field. Therefore, they have practical experience and seen a part of the field from the inside out. Especially students that did the internship at a housing association, a contractor or subcontractor, were interesting for me as a teacher. My experience is that in informal conversations, students are often more critical and essential. A recent example is a graduate student who was asked to evaluate the internal supply chain of a contractor. In conversations with this student, he tells me about how detached from each other those departments operate, and how people's expectations of deliverables differ. How people start to get irritated, and how work processes end up becoming tedious. If I ask him if a planning or design tool will solve this problem, he answers a heartfelt 'no'. However, when I read his concept-thesis, it is a rather technical story about different planning and designing tools that can be used to plan and design. Apparently, it is difficult to describe his 'real' observations in his thesis.

I think, the example shows a broader underlying problem. This underlying problem, I think, consists of several aspects. Firstly, focusing and describing normal daily work life at operational level, puts the student as well as the employer in a very vulnerable situation. If the student would really focus and describe normal daily work life, there is no escaping from getting personal. Especially for a young student this is a real challenge to do. Abstracting from one's own daily work practice (by for example, focusing on planning and design tools) makes it less personal and therefore seems a lot safer. (A funny salient detail in this anecdote is that the student's supervisors from the organization ask for reflection on daily work life themselves. In a way, this can be seen as a way to abdicate their own responsibility to a student. Poor student, he is in a precarious situation!) Secondly, focusing and describing normal daily work life cannot be done entirely objectively and neutral. Therefore, I think this is often not seen as a serious way of doing research. Often, research is associated with a distant researcher, who collects evidence to objectively confirm or reject a hypothesis. I think that alternative ways to do research that adheres to our intuition should be explored more. Thirdly, I think that most people have a triangle-shaped image of organizations, and that problems can and should be solved at a strategic and tactical level, so that at operational level people can use the strategy and tactical tools to improve their operational performances. I think that there is a general denial and/or unawareness of how complex responsive processes (the ongoing interaction between people) constitute situations as they are.

Of course, as a researcher I experienced the three difficulties of taking normal daily work life seriously in research myself. I had to find my own way in this. I hope as a teacher that I contributed to increasing this awareness among myself, my students, and the participants in my research.

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§ 4.1 Abstract

This study aims at uncovering intra-organizational dynamics in implementing supply chain partnering. Narrative techniques are used in a qualitative case study in a Dutch housing association. This study shows how project leaders of a Dutch Housing Association perceive relationships in the internal supply chain and the strategies that they develop to cope with these relationships. Furthermore, it is argued that key values of SCP as understood by the project leaders - such as sharing responsibilities and addressing feedback towards each other openly - are not applied in intra-organizational relationships.

§ 4.2 Introduction

Supply chain partnering (SCP) has become an established topic of studies and is often advocated as 'good practice' in the construction sector. Nevertheless, it is hard to exactly pinpoint the concept of SCP. Many definitions, synonyms and connotations circulate and it seems that SCP has increasingly become a buzz-word that represents a paradigm shift in the industry. Furthermore, some scholars argue that SCP should be considered as an emergent practice which can take on many different shapes (e.g. *Bresnen, 2009*; *Hartmann and Bresnen, 2011*; *Marshall and Bresnen, 2013a*; *Marshall and Bresnen, 2013b*). *Bresnen (2009)*, for example, argues that the nature of partnering is subject to local interpretations and is 'likely to be a very specific manifestation of local practices [...] inevitably informed by a wider discourse and accepted practice within the sector'. *Bresnen (2009)* further argues that 'local practices

and negotiated interaction are likely to be much more important in creating a more emergent conception of partnering' and recommends 'adopting approaches to research that — like more interpretative and ethnographic methods — are able to tap into the "lived experience" of partnering as a way of developing greater understanding about the phenomenon'.

Furthermore, most studies about SCP mainly focus on multi-organizational relationships or the relationship between client and contractor (*Bygballe et al., 2010*; *Eriksson, 2015*), although it is acknowledged that the functioning of the organization within partners involved in SCP affects the functioning of the whole supply chain and that implementation of SCP requires organizational change as well (*Briscoe et al., 2001*; *Eriksson, 2015*; *Gruis, 2011*; *Roders et al., 2013*). The intra-organizational relationships and the way in which SCP is experienced within an organization is not often discussed in detail in current literature on SCP in the construction industry. This could be partly explained from the specific, project based nature of SCP practices in the construction industry. As *Eriksson (2015)* puts it 'in an engineering project the client's internal functions of for example operations and purchasing are clearly external to the project, whereas external suppliers are internal to the project'. Indeed, these internal functions and departments might be perceived as external to the project. But the question is whether this perception is desirable. For example, the financial department of an organization might be perceived as external to the project, but is likely to have great power on the outcome and functioning of a supply chain as a whole. Since there is hardly insight in how these internal supply chain dynamics work, the influence of powerful individuals or departments within a partnering organization may be overlooked.

Therefore, this study aims at uncovering intra-organizational dynamics in implementing supply chain partnering. We expect that, by taking a phenomenological approach, an in-depth study of what happens inside an organization that is developing towards SCP can generate insights that can be beneficial to the supply chain as a whole. On the one hand the client can use these reflections to improve performance towards external supply chain partners. On the other hand, the supply chain partners can use these reflections to better respond to the client's internal practices, strengths and weaknesses.

The article starts with describing the theoretical framework we have adopted for our study, viewing SCP as an emergent practice. **Section 4.4** describes our research method in which we have adopted a phenomenological approach. **Section 4.5** presents the results of our case study. **Section 4.6** discusses the results. **Section 4.7** presents conclusions and recommendations.

§ 4.3 Theoretical framework

Emergence in the field of organizational theory is not an uncommon phenomenon. *Mintzberg et al. (1997)*, for example, distinguishes intended strategies (which can either be deliberated or unrealized), and emergent strategies 'where a pattern realized was not expressly intended' (*Mintzberg et al., 1997, p. 11*). Nevertheless, as *Mintzberg et al. (1997)* argues, few strategies are purely deliberated, 'just as few are purely emergent' (*Mintzberg et al., 1997*). Related to this, the field of organization theory and strategic management knows a broad range of prescriptive and descriptive models and paradigms, some emphasizing strategy as an intended concept and others emphasizing emerging aspects. *Mintzberg et al. (1997)*, for example, describes ten schools of strategic management. Of those ten schools, the 'learning school' considers strategy formation as an emergent process. This school was, 'in some sense' (*Mintzberg et al., 1997*), founded in *Lindblom (1995)*, who suggested that policy making is a messy process instead of a controlled one, and in which policymakers try to deal with a world 'that is too complicated for them' (*Mintzberg et al., 1997*). Scholars within this school are concerned with prescription versus description, or formulation versus formation. They observed that only a small amount of strategies was implemented successfully. This may either be blamed on 'the doers', as the more prescriptive management schools would argue. A managerial respond to this would be to 'tighten up control systems'. It may also be blamed to bad strategy formulation. But the real problem could also be in the disassociation between thinking and acting (*Weick, 1995*).

Scholars sympathizing with the emergent strategy school argue that it is not realistic to expect that work floor professionals will silently obey and follow interventions, by for example their management, that are put upon them top-down in the organizational hierarchy. Instead, the work floor professional needs to place such interventions into 'frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding and patterning' (*Weick, 1995*). So, in between the managerial gesture and the work floor professionals' responses to it, there is inevitably a process of interpretation, or sense making, as *Weick (1995)* calls it. Processes of sense making can start with a managerial intervention. However, work floor professionals do not make sense of all managerial interventions. Sometimes, managerial interventions are just ignored by the work floor professionals.

Organizing and sense making are 'de facto very close to synonyms' (*Peverelli and Verduyn, 2012*). According to *Peverelli and Verduyn (2012)* both activities are concerned with 'the reduction of equivocality by actors through ongoing social interaction'. Sense making (and organizing) are reductive in nature, because actors

transform seemingly chaotic and unstructured information into manageable and understandable chunks. Throughout ongoing processes of sense making groups of actors gradually emerge, sharing beliefs on reality (*Peverelli and Verduyn, 2012*).

Processes of sense making and emergence might be influenced by many more aspects than just managerial interventions. Sometimes work floor professionals make sense of gestures that lie beyond the managerial scope and these external gestures might cause emergence of new strategies at work floor level. For example, the emerged strategy might be influenced by the wider discourse of SCP that work floor professionals pick up by going to conferences, reading magazines or talking to colleagues from other organizations. In that way, the work floor professionals are influenced by the wider discourse, and they can take part in shaping the wider discourse at the same time. External factors that influence the emerged strategy may be countless and for the work floor individuals themselves just as opaque as for the researchers that study the work floor professionals. External factors might be in the professional sphere, but might also be very personal such as personal history or character of the person. Thus, the emerged strategy at operational level is shaped by (and at the same time shapes) a wider SCP-discourse, the intended and emerged strategy by the management of their organization, and many other external factors.

If implementation of SCP is viewed as an emergent phenomenon, concepts of micro-power, as discussed by for example *Elias (1970)* play an important role in the emergence of organizational patterns (*Homan, 2013*; *Stacey, 2011*). *Elias' (1970)* suggests that micro-power is a dynamic phenomenon and is not something one owns, rather something that is produced through social processes. *Elias' (1970)* ideas about power and social dynamics plays an important role in understanding how it is possible that unintended dynamics emerge. As a thought experiment, *Elias (1970)* introduced game models to show how individuals together create society. He imagines a sport match, for example a tennis match, in which several players of different levels participate. It should not be visualized as a game of two people playing with each other, but multi-players are all playing against each other. The strength of players and the number of players influence the configuration of the field. People begin to realize that they are stronger as they cooperate. In that way, subgroups can arise. If the strength and number of players does not change, a more or less balanced game can arise. Changes in strength or number of players leads to reconfiguration of the field. For example, the subgroups increasingly estrange from each other, they form new figurations in which all players more or less play their own autonomous game, or they stay integrated, but form a new configuration with a high complexity in which different levels can be distinguished. Using game models, *Elias (1970)* argues that society (or organization) comes about through interplay of individuals.

§ 4.4 Research approach

We view the implementation of SCP as a strategy that emerges in daily work life and the way in which it works out in practice cannot be predicted beforehand. That makes the standard method of accumulation of evidence (as is done in quantitative, positivistic scientific approaches) highly problematic (*Stacey, 2011*). Instead, complexity of daily work life can be dealt with by adopting qualitative research approaches such as narrative research (*Stacey, 2011*) or phenomenology (*Creswell, 2007*). Both approaches are interrelated and overlap, but whereas, according to *Creswell (2007)*, a narrative study reports the life of a single individual, a phenomenological study describes what participants have in common as they experience a phenomenon (*Creswell, 2007*). Because we wanted to involve several individuals in this study working in the same context, we adopted a phenomenological approach. In doing so, we employed *Creswell's (2007)* steps of conducting phenomenological research.

Having chosen a phenomenological approach (which Creswell identifies as the first step), the next steps, according to *Creswell (2007)* are 'identifying a phenomenon of interest and recognize and specify broad philosophical assumptions of the phenomenon'. In this study the phenomenon of interest was the emergence of supply chain partnering in a Dutch housing association that implements supply chain partnering. Housing associations in the Netherlands dominate the construction sector, owning about 30% of the total housing stock and at the same time, due to several reasons, they are under financial pressure and need to improve their cost efficiency (*Gruis, 2011*). Many housing associations see SCP in maintenance, renovation and new construction as a key strategy to reduce their management costs (e.g. *Bortel et al., 2013*). The management of the case organization had chosen to implement SCP and therefore we were able to study the experiences of the professionals that were about to experience the expected changes. Also, the management of the organization was willing to cooperate and expected the employers were willing to cooperate as well. Therefore, the case can be typified as a convenience sample: it had the necessary characteristics, there was a willingness to cooperate and relates to a wider development in the construction sector.

Figure 4.1 shows the main steps of the process of gathering and analyzing data in the case study. **Figure 4.1** implies that the process contained clear and separate steps. However, in reality the process was iteratively and fluid.

Step 1a in **figure 4.1** shows that, as *Cresswell (2007)* suggests, interviews were done in order to collect data. *Creswell (2007)* argues that data collection often consists of in-depth interviews with 5 – 25 respondents who are confronted with the phenomenon.

Creswell (2007) suggests that two open questions should be asked: 'What have you experienced in terms of the phenomenon and what context or situations have typically influenced or affected your experiences of the phenomenon'? Therefore, we started our data collection with 15 semi-structured, 60 to 90 minutes, open in-depth interviews with participants from different departments, varying from project leaders, site supervisors, purchasers, forecast-men and managers, having all interviews transcribed verbatim. Respondents were selected randomly from all five sub-departments of 'maintenance and renovation'. Based on these interviews, we decided to interview two team leaders as well, since they were topic of discussion in many interviews with initial respondents.

There was no strict interviewing scheme, but all interviews more or less had the same structure. Creswell's two main questions were never asked literally, but the interviewer always introduced herself and her research by explaining that she is interested in work floor experiences of SCP and that she considered her interviewee as a work floor professional. Most of the time, this introduction leads to spontaneous reaction of the respondents which then evolved into a conversation about personal experiences with SCP. The researchers deliberately chose not to structure the interview, because we considered that the topics that the respondents would bring up spontaneously would say something about what they consider important in their experience of the situation. Nevertheless, the interviewing researcher made sure that some questions were always discussed. These questions were: what is your function within this company? Who are you working with? How do you define SCP or what do you consider SCP? Where do you experience successes and/or barriers and opportunities towards developing SCP?

Step 1b in **figure 4.1** shows that parallel to the process of interviewing, the researcher also did observations that were described in observation logs. Observations were of two types: The first type of observations consisted of spontaneous and personal observations that were done before, during and after the interviews. For example, she described how she heard frustration in the tone of voice among respondents, an important aspect of an interview that is difficult (if not impossible) to catch in an interview transcript. The second type of observations were planned observations with the goal to be able to get more understanding of a situation. For example, a respondent described that the team meetings were 'worthless'. Based on that, the researcher decided to attend such a meeting to be able to have more constructive discussion about it with the respondents as well as with the team leader. The journal logs are subjective by definition because they represent the researcher's interpretation of what was going on in the organization and therefore also biased by definition. For example, body language and tone of voice might be misinterpreted. Therefore, the logs were not used for formal coding. They were, however, used to provide context to some of the interview results.

After data collection, the process of analyzing data started. According to *Creswell (2007)*, this process includes that researchers 'go through data' and 'highlight significant statements' and describe the 'essence' of the phenomenon (*Creswell, 2007*) and the context or setting 'that influenced how the participants experienced the phenomenon' (*Creswell, 2007*). However, these steps leave much room for researchers' interpretation. Within the process of analysis many methodological choices had to be made. For example, describing an 'essence' requires narrative methods, which can be done in several ways. To deal with this process of analysis, we used insights and methodological approaches from *Boje (2001)* and *Peverelli and Verduyn (2012)* as will be explained below.

Step 2, 3, 4 and 5 in **figure 4.1** show that the researchers took several steps to come from raw data to the narrative and reflections on the narrative. For step 2 in **figure 4.1**, the general coding, NVivo 10 was used. The general coding resulted in a list of seemingly incoherent list of codes. The researcher presented these codes to the respondents and with their permission, she presented the results to the management as well. Main topics of the presentation were: 1) differences and similarities about the assumptions of SCP, 2) the essence of the project leaders' experiences, and 3) characteristics of the internal social network in relation to the external social network. Although comments were made on details, in general the respondents felt that the findings were in line with their own experiences.

The initial analysis, the feedback by the respondents and the feedback by reviewers of this journal to a previous version of this article, were used for refined coding and creating an ante-narrative, as step 3, 4, and 5 in **figure 4.1** shows. For the refined coding, we used *Boje's (2001)* insights of using narrative methods for organizational and communication research. We included 7 key interviews with project leaders and individuals from other departments in the process of refined coding. We analyzed the transcripts at sentence level with the purpose to analyze what was said about others in the intra-organizational supply chain. Each interview resulted in approximately 75 relevant sentences. We categorized all sentences. Categories were for example: 'Project leaders' experiences or opinions about Department of Purchasing in general' or 'Project leaders' experiences or opinions about person X'. Then we cross-analyzed all summarized statements in order to find inconsistencies, rebel voices, and topics that are swept under the carpet. We used Excel for the inventory, grouping and summarizing of statements. Other interviews, observation data and journal logs were used to verify our findings.

The final step was creating an ante-narrative based on our previous process of refined coding. To do that, we chose to follow *Boje's (2001)* method of network analysis. According to *Boje (2001)*, one of the applications of network analysis is that it seeks

to understand the complex dynamics of storytelling among people across their social networks. We expected that telling the stories of different actors within the internal supply chain would reveal dualities, ambiguities and different interpretations.

This is also the point, where the research got a more critical flavor. *Reisigl (2013)* argues that there is no such thing as purely 'descriptive' science, because that would be free of any attempt to explain and argue. The epistemological position in this study can therefore be characterized as none-positivistic, believing that 'neutral science' does not exist and there is no possibility of an objective view to the research object. Instead, researchers are aware, concerned and bring forth questions that make 'transparent opaque, contradictory, and manipulative relationships' (*Reisigl, 2013*).

Concerning presenting and creating narratives, *Boje (2001)* provides a framework that helps with the refining codes and creating and presenting the narrative. *Boje (2001)* distinguishes between narrative and story. According to *Boje (2001)* an academic narrative requires plot and coherence, while the work floor professionals' experiences are messy, fragmented, polyphonic, lack of plot, chronology, and have many open-ended story lines. To translate the experiences into a narrative would require 'counterfeit coherence and order on otherwise fragmented and multi-layered experiences' (*Boje, 2001*). Therefore, *Boje (2001)* introduces 'ante-narrative' (*Boje, 2001*). 'Ante-narrative is constituted out of the flow of lived experience, while narrative method is more meta' (*Boje, 2001*) and *Boje (2001)* considers ante-narrative as something in between lived stories and academic narrative. **Section 4.5** describes the results of this phase of creating an ante-narrative based on our refined coding.

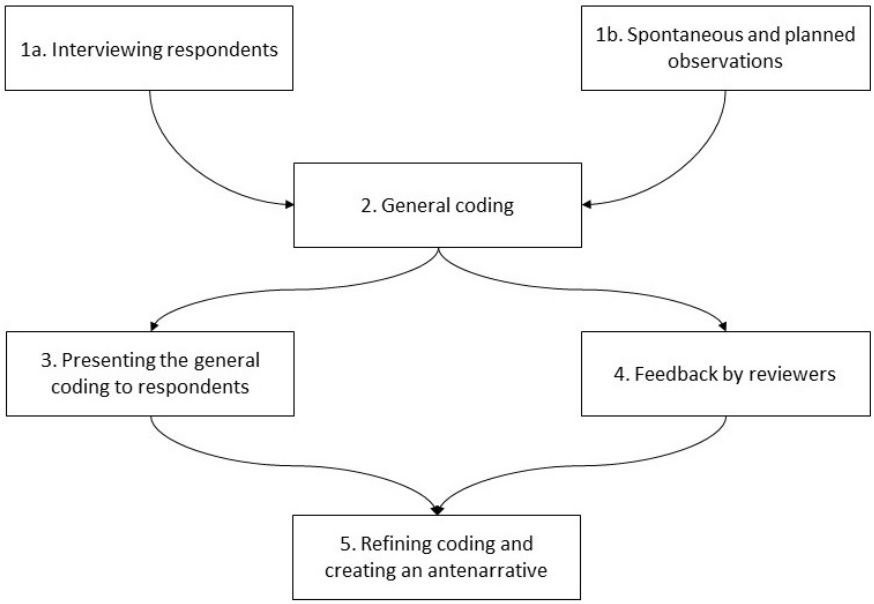

FIGURE 4.1 Research process

§ 4.5 Results and discussion

In this section, we describe our results in three parts. Part one and two reflect the context and setting that may have influenced the project leaders' experiences. The intended formal management strategy that may have influenced the project leader's experiences is described. Further, this section describes the work floor professionals' interpretation of SCP. This interpretation may be influenced by the management's intended strategy and it may be informed by a wider SCP discourse. Lastly, this section provides the ante-narratives, which we consider the "essence" of the project leaders' experiences.

The context in which the study took place

This study focuses on getting insight in the way in which project leaders at the work floor of a Dutch housing association experience a process of implementation ideas of SCP. We especially focus on the intra-organizational supply chain. We conducted our study in a large Dutch housing association that chose to implement SCP in their

maintenance and renovation processes. Therefore, within the association, we focused on the department of 'Maintenance and Renovation'.

The housing association in this case owns 60.000 units in the Netherlands and had approximately 800 employees at the time the study was conducted. The selected department consisted of 75 employers and was responsible for maintenance and renovations of the total housing stock of the association.

At the time we started collecting data (starting February 2013 until October 2013) the department 'Maintenance and Renovation' had been reorganized since 6 months (officially October 2012); Four regional sub-departments (e.g. Amsterdam and Amersfoort), working relatively independently of each other, were merged into one structure. **Figure 4.2** shows the new structure of this department 'maintenance and renovation'. All departments consisted approximately 5 to 8 individuals.

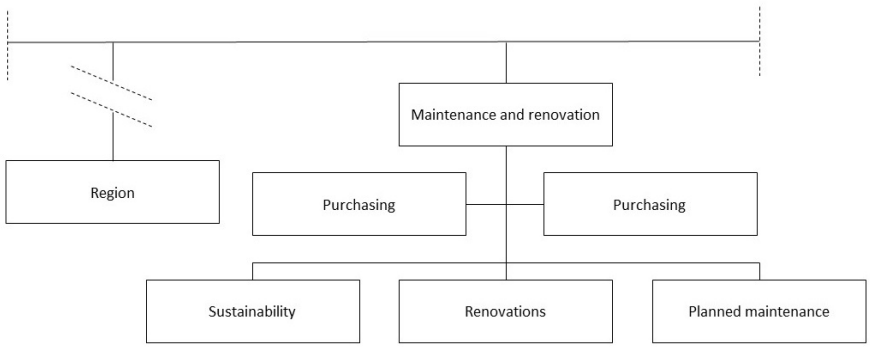

FIGURE 4.2 Formal structure of the department of 'maintenance and renovation'.

Sustainability, renovations and planned maintenance were newly founded sub-departments. The departments consisted of a team-manager, project leaders and planners. These departments used to work with more traditional forms of procurement, such as traditional tenders but also building team-structures were employed. At the time of gathering data, all project leaders were male and had at least 3 years of experience in this job. They all had a technical or business educational background and/or career path. In general, the project leaders' tasks were considered similar to the old situation.

Also, the sub-departments 'Purchasing' and 'Forecasts' were newly founded. In general, 'Purchasing' was (among other things) responsible for selecting contractors and developing a 'purchasing-strategy'. 'Forecasts' (among other things) was responsible for developing long term maintenance plans and budgets. Before the reorganization the members of both teams used to be project leaders and direct colleagues of the current project leaders. The sub-departments 'forecasts' and 'purchasing' did not exist in the old structure. These newly founded departments were composed mainly of people who in the old situation used to work as project leaders for this same organization. Therefore, the profile and background of the team members was similar to that of the project leaders. Applying for the new teams was voluntarily.

When we started collecting data, there was no clear vision on how to implement and perform the SCP strategy. The management team had divided views on whether SCP should be implemented top-down, bottom-up or through an iterative approach. The ambition was to cut down the costs of maintenance of the housing stock (approximately € 1.400,- for each unit each year) by 20%. How exactly SCP should contribute to this ambition and how it was measured by whom was not yet clear. No performance indicators were available yet. Part of the strategy was establishing a 'front runners group', consisting of members of departments sustainability, a team-leader, Purchasing and Forecasts. The Front Runners Group was said to have a pioneer status. Their target was to design a process model and then execute it in a pilot project. Along with implementing the SCP-strategy it was announced that human resources would be reduced by 20%, though without forced layoffs.

At the time we started collecting data the strategy of SCP echoed at work floor level, although no formal announcements of it had been made yet. The management presented their ideas formally in March 13th, 2013 (8 of 15 respondents were interviewed before this formal meeting). In general, work floor professionals reacted neutrally to this formal announcement, though they indicated the presentation as somewhat 'general'. The work floor did not indicate this formal presentation as a critical turning point into their process towards SCP. Indeed, no significant difference in the interview responses between before and after this presentation was observed. **Table 4.1** puts abovementioned organizational changes and our research process into a simple time line.

FORMAL REORGANIZATION	OCTOBER 2012
Start gathering data process	February 2013
Formal management presentation	March 2013
Presentation results to respondents	September 2013
End gathering data process	October 2013

TABLE 4.1 Time line organizational changes and process of gathering data

SCP as perceived by the project leaders

All respondents were asked to define SCP, but none of them was able to do that. 14 out of 17 interviewees believe that all colleagues define SCP differently. However, results show that respondents agree that SCP concerns establishing long term relationships with contractors in order to effectively use each other's sources and share responsibilities and risks. How these elements are to be realized in practice remains subject to differing interpretations though.

The respondents from all departments are able to describe important soft factors that support supply chain partnering. One respondent articulates that with SCP the targets are known beforehand, all parties together are responsible for reaching the targets, and difficulties and feedback are addressed openly. Also, most respondents have a clear vision of how they want to be treated as a project leader, by a contractor, in a SCP-situation. Things are described as 'the contractor needs to be interested in me. He needs to understand what our motives are', and 'you must give each other open and honest feedback. Even if they are in a dependent situation'. The preferred attitude of contractors is described as 'pro-active', or 'half a word should be enough to get the work done'.

Our data also show that the project leaders are in need for clear guidelines, tools, and vision about how SCP should be practiced in daily work life. According to the project leaders, this should be provided by the managers. Some project leaders feel that they are 'thrown in de deep' and 'trying to keep their head above the water'.

Intra-organizational patterns as perceived by the project leaders

Analysis of our data indicated four relationships in the intra-organizational structure that were most discussed. The relations were the project leader in relation to the 1) team leader, 2) Department of Purchasing, 3) Department of Forecasts and 4) Front Runners Group. In the next paragraphs each relationship will be discussed.

The first intra-organizational relationship concerns the team leader. In general, project leaders tend to speak rather negative about their team leaders. About one team leader it is said that the team leader 'frustrates instead of facilitates', and that 'team meetings are worthless', mostly because they 'don't discuss what should be discussed'. Moreover, as another project leader says, their team leader 'just does not understand what is going on' or 'they rely too much on the results of the Front Runners Group'. Another team member explains that when he tries to discuss problems he encounters in daily work life with his team leader, the team leader gives the project leader the feeling that he 'is whining' and that they 'need to get back to work'. One project leader argues that he does not 'need somebody who thinks we are whining. In order to develop we want to find solutions together. Then you can't use such a jammer.'

A strategy to cope with this perceived problematic relationship emerged in two branches. 1) On one hand project leaders begin to organize team meetings without presence of the team leader. Sometimes these meetings are planned, and sometimes the meetings arise spontaneously. These meetings are informally meant to exchange experiences, mostly concerning intra-organizational related issues, but also, for example, the selection procedures to select contractors are discussed. 2) Another strategy to cope with the perceived relation with the team leader is to avoid discussing perceived problems and not expressing criticism. An observation of a team meeting showed that the team meeting was about many practical daily work-related issues, like holiday data. The team leader works really hard to tick off all the points on the agenda and the project leaders cooperate, but do not initiate to discuss what they think is important, by, for example, asking questions.

When the most criticized team leader is asked how he sees his role in the team he responds that there is a nice atmosphere in the group. He refers to a day of team building where they had a good laugh together. According to this team leader, people in the organization learn arduously. 'Most people here are doers. What we forget is to evaluate. We don't do that.' When the team leader is confronted with the researcher's observations, the team leader says that he is aware that people talk when he is not there but he cannot seem to get grip on this situation. As he says, he is happy that he got the opportunity to become a team leader of this team and apparently the organization trusts him to do this. But he feels only a beginner in change management, and he does not know how to turn the situation.

The second intra-organizational relationship concerns the department of Purchasing. The relationship is characterized by three main themes: 1) The department of Purchasing was newly founded and the members of the department are still figuring out what their responsibilities are and what contributing procedures they need. 2) The department is perceived as an extra chain in the internal supply chain. As one project leader puts

it, 'an extra link appeared within the process. Instead of accomplishing more with less, it becomes accomplishing less with more'. 3) A perceived difficulty with Purchasing is that they potentially have power over the project leaders, because it is said that they are supposed to select contractors with whom the project leaders have to work with. As one of the project leaders formulates it 'I have difficulties with the fact that Purchasing makes certain decisions of which we bear the responsibilities'. For example, purchasers manage a list of approved contractors. Therefore, the project leaders bear consequences of decisions that were made by Purchasing. One project leader says that 'all of a sudden' a Purchaser has a saying in what the project leader previously did on his own. 'Now I have to ask, 'Can I please work with...?' That makes no sense to me at all.'

An exemplar illustrates the strategy of coping with the department of Purchasing. In an experimental process a project leader and a calculator, working as a couple, selectively forgot to involve the department of Purchasing in their selection process. Purchasing was involved in developing a list of contractors to invite, but was not involved in developing procurement and selection guidelines, neither were they involved in the actual interviews with the contractors. The purchasers knew about the experiment the project leader and the calculator initiated, but they are not involved and do not try to get involved either.

Members of the department of Purchasing acknowledge that they are searching for their responsibilities and how they contribute to the main production process. An external consultant was hired to guide the purchasers through that process. According to one of the purchasers, they are currently 'more concerned with daily issues, which causes that less attention is paid to developing a general purchasing policy'. Also, one of the purchasers says that Purchasing takes over some tasks that previously were done by the project leaders themselves. Some of the purchasers acknowledge that a project leader is the distinct figure to bear the primary project responsibilities, and therefore some purchasers experience difficulties with the division of tasks.

The third intra-organizational relationship concerns the department Forecasts. This relation is less discussed in the interviews and in a less intense manner than the relationships with the management and Purchasing. The core of this relationship is that project leaders feel that Forecasts is not really involved in their daily business. One of the project leaders indicates a problem that project leaders are supposed to establish long term relationships, but internally there is no long-term vision on which projects needed to be accomplished in future years. Forecasts is supposed to deliver such a long-term vision. As a project leader argues, he foresees problems in developing long-term relationships with contractors: 'At this point, I am wondering: where are those projects that we can expect the upcoming years? If they are not there, we cannot guarantee continuity to our contractors.'

None specific emerged strategy to cope with Forecasts was identified yet. The project leaders seem to perceive a dead end. A project leader argues: 'We don't hear anything. We pull and we reach out, but they don't make use of that. Nothing happens.' How the pulling and reaching out is established in practice remains opaque.

In an interview with a team member of Forecasts, the professional says that the relation with the project leaders 'is not close'. Also, Forecasts does not seem to feel involved in the SCP-strategy. One team member argues: 'Yearly I deliver a list of projects that need to be done, and it may not sound nice, but how these projects are established in practice, whether it is in a SCP-construction or not, I don't care that much'.

The fourth intra-organizational relationship concerns the Front Runners Group. The Front Runners Group consists of delegates from all mentioned departments. The project leaders don't know who exactly is part of the front runner group. According to the project leaders, the Front Runners Group hardly communicate about their ideas and experiences. The Front Runners Group is perceived to operate rather isolated. Experiences of the Front Runners Group and the project leaders are hardly shared. The project leaders generally think that the relation between the Front Runners Group and the management is strong. If a manager cannot answer certain questions, they mention the Front Runners Group as the group of people that will find out.

At the same time, the Front Runners Group is perceived as a threat, because 'in the end their ideas determine how we will work within the supply chain'. According to the project leader and a calculator that work in a couple they are successful in their experiments. 'However, we don't know what is coming next. Perhaps, eventually, the Front Runners Group develops something completely different and then we have to do it their way and everything we invented was useless'. The same couple think it is a missed opportunity that none of his team members is part of the Front Runners Group. He blames the team manager for that: 'He did not do his best for us. If somebody tells him that our team is not a member of that Front Runners Group, he just accepts it. If we ask him, he just does not give answers.'

In a plenary meeting with members of the Front Runners Group and the project leaders, the researcher presented her findings of a lack of communication between both parties. Members of the Front Runners Group, respond by saying that there was not much to present, because their ideas have not yet been fully developed. Moreover, as they say, 'It works both ways. We do not get any questions either.'

§ 4.6 Discussion

The previous section gives insight into how work floor professionals of a Dutch housing association deal with the managerial initiative of implementing SCP. As mentioned in **section 4.3**, the implementation of SCP can be seen as a mixture of deliberated and emergent strategies, and that seems the case here as well. A clear example of an intended strategy by the management in the process towards SCP was to form a Front Runners group that was among others to design a process model for SCP that could later be used by all project leaders. However, it is unlikely that the perceived lack of communication between the Front Runners group and the rest of the project leaders was intended. Moreover, it is unlikely that the management could foresee that front runners group was going to cause feelings of threat among the other professionals. Another example of an intended strategy was the establishment of the department of Purchasing that was founded, among other things, to help the project leaders with the selection of contractors. But it was not intended to have Purchasing being put on the side line, because the project leaders experienced this as an extra chain in the supply chain.

It is unclear whether it was an intended or emergent strategy that the project leaders experimented with forms of SCP. On one hand, the project leaders are encouraged to experiment with collaborating with contractors, by, for example the formal presentation on March 13th. On the other hand, the project leaders feel discouraged, because the project leaders feel that the managers rely on the results of the Front Runners group too much. Furthermore, project leaders are not only informed by internal ideas about SCP, but also by the wider discourse, as is shown in several cases.

Finally, another remarkable observation is that some dynamics did not emerge where one would expect an emergent strategy. For example, the relation with Region department is hardly discussed nor problematized. This department (that is also referred to by the project leaders as internal client) develops visions on, for example, quality, budget, and exploitation periods of the housing complexes. In relation to this department the project leader is the contractor, so it is a relevant department in the internal chain. The fact that it has not been brought up in experiences could point out that the interactions between the project leaders and this department are not experienced as problematic and/or that the interactions with this department are not very intense in daily work practice.

As mentioned in our literature framework, these gaps between intended and emerged strategies are neither to blame to the thinkers nor the doers, rather to a disassociation between thinking and doing (*Weick, 1995*).

On the one hand, this gap leads to unwanted emerged dynamics. On the other hand, some emerged strategies are promising (such as the successful project leaders' experiments).

Reflection would be helpful to overcome unwanted emerged dynamics or to profit from promising emerged processes. However, our case study shows that project leaders do not feel a platform to discuss their experiences and ideas openly. For example, in general the project leaders feel unheard by their team leader, because they feel, for example, to be considered as 'whiners' when they try to discuss topics that were important to them. Consequently, certain issues are not openly discussed. A strategy to cope with this is to gather around 'out of sight of the team leader' to discuss the topics anyway. In *Elias' (1970)* metaphor, the project leaders start a new game in which they exclude the team leader, while at the same time 'struggling along' (*Homan, 2013*) with the team leader's game. 'Struggling along' in this way can be seen as cooperating with the game at superficial level, while at the same time, out of sight of the team leader, the project leaders play a different game. This increases the experienced gap between the project leaders and their team leader and decreases the opportunity to overcome unwanted emerged processes and profit from promising emerged processes.

Lastly, related to the emergence discussion, it can be questioned whether our ante-narrative is solely about implementing SCP or that the results are mixed up with, for example, the reorganization strategy as well. In our case for example, it is debatable whether the emerged strategy as response to the new department of Purchasing is result of implementing the SCP strategy or implementing the reorganization. Also, the perceived functioning of the team leader would be a problem in a non-SCP environment as well. We think this debate is valid. However, for this study with this research approach, we argue that it is impossible to avoid these kinds of noises for two reasons. First, SCP is difficult to define and also in this case it seems that respondents believe that it represents more than just 'using another contract' or 'using a new process chart flow'. SCP can be considered as representing a bigger culture change towards certain values discussed by the respondents. That makes changing towards SCP comprehensive and affecting lot of aspects of the organization. Second, implementing a strategy is never done in a further blanc canvas. In every organization in which a strategy is implemented, other processes happen at the same time. All these processes affect each other. It is therefore difficult – if not impossible – to distinguish one process from the other, let alone to distinguish one-on-one cause and effect relations. Therefore, in studying changing processes towards SCP from a holistic view as chosen in this study, might affect the results but also increases comprehensiveness on this topic.

Inconsistencies

In section 4.5 we have discussed the values on which SCP is based according to the project leaders. The project leaders do not seem to practice these values in intra-organizational relationships. Project leaders mention and support values on which SCP is based such as openness, transparency, proactivity, equivalence and integration. However, intra-organizational relationships are perceived by the project leaders as restrained, vague, reactive, and disintegrated. For example, the relation with the front runners group and also with forecasts can be described as disintegrated, since they feel that they don't get information that they should get.

On the other hand – most probably without being aware of it – the project leaders do not always treat their colleagues according their own formulated standards of SCP. If the key values of SCP, as described by project leaders themselves, are compared to what the project leaders say about how they cope with internal relationships, inconsistencies are observed. We will give 4 examples of these inconsistencies: 1) In relation with the external contractor, the project leader thinks it is important to be open, honest and transparent. In relation to the team leader, these values are not expressed in behavior, since they act a lot 'out of sight of the team leader'. They also say that feedback should be addressed openly, but they stopped to give feedback openly to their team leader. 2) In relation with the external contractor, project leaders feel that half a word to the contractor should be enough to let them know what they want. Internally, the project leaders say that are in need of tools, frameworks, and uniformity and thus need more than half a word to be able to perform. Another layer in this inconsistency is that the departments that are supposed to develop the tools, uniformity, and frameworks are considered as a threat or an extra chain in the supply chain. 3) The project leaders say that a contractor should be pro-active. However, in internal relations the project leaders' strategy to cope with certain relations is characterized by avoidance, rather than proactivity. For example, in relation to Purchasing the project leaders chose to selectively 'forget' to involve the purchasers. 4) The project leaders think it is important to invest in the relationship, and to try to understand each other. But our data do not show that the project leaders invest expressly in internal relationships. In short, project leaders treat and don't feel treated by internal relations by their own formulated principles of SCP.

Our data do not provide clear reasons for these inconsistencies. A first possible reason is that the project leaders are not fully aware or disagree that the values of SCP could also be applied on the intra-organizational supply chain. When intra-organizational relationships are discussed it is mainly related to the reorganization. Related to this, it is also possible that the project leaders do not realize fully that (all) intra-organizational relations are part of the supply chain and therefore do not apply the same standards

on these relationships. Indeed, as mentioned in our literature framework, and observed by *Eriksson (2015)*, internal functions and departments might be perceived as external to the project. Because *Eriksson (2015)* observed this as well, this lack of awareness might be a sector wide, rather than a case specific problem. Awareness and acknowledgement that the intra-organizational dynamics is part of the whole construction supply chain can help to overcome this. This study hopes to increase this awareness and acknowledgement, among professionals in the field as well as among fellow researchers. More focus on intra-organizational dynamics in the field as well as in academic research is needed to increase awareness and acknowledgement even more. A second plausible reason for the inconsistencies is that the project leaders are aware of the inconsistencies but lack needed skills to change. For example, project leaders are aware of the perceived none-constructive relationship with the team leader, but they lack communication skills or skills of conflict resolution to solve this problem. Instead they develop different – less constructive – strategies to cope with this perceived problem. A third possible reason is fear. For example, it was announced that in future fte would be reduced and people would have to leave the organization. This might cause fear of expressing criticism towards, for example, the management and strategies of avoidance and 'struggling along' are developed. Of course, the observed inconsistencies might be a combination of above mentioned arguments. Furthermore, it is important to realize that the inconsistencies are most likely not intended.

§ 4.7 Conclusions

This study aimed to uncover intra-organizational dynamics in implementing supply chain partnering in a Dutch housing association. By taking a phenomenological approach, we showed that that the implementation of SCP becomes what it is as a result of mixture of intended and emergent strategies. Further we discussed that key values of SCP as understood by the project leaders are not applied on the intra-organizational supply chain.

This insight in how work floor professionals deal with managerial initiatives of implementing SCP can be used in a practical way by several parties. The recommendations, however, should not be considered as an attempt to abolish emergent strategies and to get more control. After all, this study adopted the insight that the situations in which the participants of our study are in, is the result of a combination of intended and emergent strategies. An emergent strategy is an accumulation of many daily social interactions. The way of coming out of this situation

(and handling the perceived problems) will also be a result of an intended as well as emergent strategy.

A recommendation concerning intra-organizational dynamics is that too many internal supply chain partners may cause more task specialization and fragmentation in the supply chain as a whole. This case study shows that it is fair to question the utility of some departments or functions and even more abolishment should not be a 'no go-area' for the sake of streamlining the production supply chain. However, in this particular case reconsidering a previously made decision might cause even more agitation in an already stormy phase in this organization. Therefore, this is not an easy area to discuss.

A recommendation concerning the emergent strategy is that awareness, acknowledgement and reflection on intra-organizational dynamics might be a first step in improving the situation and changing unintended and unwanted intra-organizational dynamics. An emergent strategy is a result of many daily interactions. Although emergent strategies are often unpredictable and as a whole not manageable, an emergent strategy is not a result of chance, because the individuals interact deliberately. A recommendation to cope with unwanted emergent strategies is to analyze one's own daily interactions and analyze how these interactions contribute to maintaining the situation as it is. It can be a personal process, in which the individual should be willing to face one's own share in the situation. This is much easier said than done and there is no winning recipe for doing this. However, much literature on self-reflection can be found, and also many individuals benefit from help from a peer or a coach.

The reflections on internal relations bring forth various ethical issues as well. For example, the project leaders experience a form of injustice, because they bear responsibilities that are caused by other department's decisions. Another example of potential injustice is that the Front Runners Group potentially influence the project leaders daily work heavily. But there is no actual reason to assume that the Front Runners Groups' ideas and experiences are better than those of the project leaders, because the project leaders' experiences are not discussed openly. A third example is that the project leaders do not seem to treat their intra-organizational relations in the same way as they would like to be treated themselves. Apparently, the Project Leaders seems to practice different values for different groups of people. Further, as discussed, they might have plausible reasons because they are put under pressure and it might be caused by not having the right competences to turn the situation, rather than the wrong intentions. A fourth ethical issue is that reflecting on organizational dynamics in the way we did in this paper puts people in a vulnerable situation. Especially in a situation where jobs are at stake it is important to handle the delicate information

well. This is done in several ways. For example, data are processed anonymously in this paper and in working with the respondents, researchers should constantly be aware of the political arena he or she is working in and take that into account when reflecting with the respondents themselves. This issue is common in organizational studies, but therefore it is not less important. Further inquiry can help to unravel these ethical issues and stimulate debate about it.

When taking into account the insights generated by this study, of course, one must also take into account the limitations of this study. First, the results of this study are obviously limited to one Dutch housing association that was in the middle of an implementation process. A recent reorganization shook up old existing routines, which may have caused chaos and unestablished relationships. Second, by no means we try to claim that we presented the one and only truth. Although we involved respondents closely in analyzing data, we are aware that potentially several stories could have been told about this particular situation. Still this study is valuable because critical reflection of a situation is a first step to improvement. The insights of this study also help to improve the scientific discourse in a number of ways. The adopted research approach provides insight in how barriers have been created through interplay of participants locally. For researchers, it might be easier to rely on abstract, but clear and understandable, models, blueprints, and strategies. However, in these abstract images of daily reality, there is a danger of denying complexity of daily experiences. Embracing complexity of daily work life is a first step in understanding and therefore improving of it. Therefore, further research applying similar approaches is recommended in organizations that are implementing SCP, including other parties in the construction supply chain.

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5 Evaluating a self-proclaimed successful Dutch supply chain partnership.

Author's notes

Since 2010 I have practiced yoga on a regular basis. Like most other physical exercise, I feel that practicing yoga keeps me fit and stimulates the production of endorphin and other 'happy hormones'. That is what I experience when I practice yoga. Besides, practicing yoga also taught me life lessons. Right after presenting the findings that are described in the article below to the respondents of the organizations of this case study, I attended an international yoga teacher training in an area called 'Enchanted mountains' near Florianopolis in Brazil.

I expected that this teacher training would focus on yoga poses and perhaps a bit on anatomy. Indeed, I did learn about anatomy and the physical benefits of different yoga poses. However, what I did not expect was the focus on the spiritual side of yoga. Of course, I knew there was a philosophy behind yoga, but I never expected it to be such an appealing philosophy.

What I learned, for example, is about the 'yamas' and 'niyamas', which are guidelines for living with others and living with yourself. To be brief, the guidelines are non-violence, truthfulness, non-stealing, moderation, non-attachment, purity, contentment, discipline, self-study, and surrender. With a group of international yogis who attended the teacher training, we discussed what those guidelines may mean in our normal daily life. Like the other students, I interpret the guidelines in a broad sense. That means that, for example, I think we all agree that 'non-violence' is a basic rule in daily (work) life. But there is also non-physical harm that we can do to each other and to ourselves. Especially in work life there can be a constant focus on evaluating results, quality and 'how good you perform'. We constantly evaluate and judge each other's performances and way of being. Can that be in a way violent as well? And what are the effects of those forms of violence? It can put a lot of stress on people. Is stress a form of violence?

Another example of a 'yama' is non-stealing. Of course, you are not allowed to take something that belongs to somebody else. But what about stealing time? How often do you steal somebody's time? How often do you show up late for an appointment, so that

the other wastes time by waiting for you? How often do you try to convince somebody about something that you are convinced about, but that the other did not ask for? Especially, this last question provided me food for thought. In daily work life we organize many meetings, but what is it that we actually do in those meetings? Isn't convincing each other of our own ideas of how things should be something that we do daily at work floors? When is that constructive and when does it become stealing time? What would daily work life be like, if we would stop stealing each other's time and be less attached to our own personal ideas about how things ought to be?

There are too many questions and considerations that I can ever describe in such a limited amount of words. All these questions and considerations made me look at the research from a different angle. I feel that I tapped into a deeper layer of understanding of what 'complex responsive processes' are and what it is we do in normal daily work life.

The word yoga means something like 'being united' with oneself and with each other. Yet what we do in organizations often does not feel united at all. Often, the focus is on differences rather than on similarities. My experience is that applying yamas and niyamas in daily life, can make communication more peaceful, more honest, less stressful, more thankful, less attached to ego, purer, more acceptant, more disciplined, and more understanding and more devoted at the same time.

In short, this yoga teacher training inspired me to look at the research from a different angle. Of course, standards in ancient wisdom differ from contemporary standards in Western ideas of science and should never be applied one-on-one without considering and questioning the principles critically. I think it is important to tell this yoga experience, to learn a little bit more about my frame of reference and the opportunities and limitations that this personal frame of reference entails.

This article was written by Marieke Venselaar. The abstract was submitted at April 12th 2017 (and accepted at June 16th) for the ENHR-conference in September 2017 (European Network for Housing Research). The full article was submitted July 31th 2017 and will be presented at the conference.

§ 5.1 Abstract

This study aims to reflect on experiences of professionals from a Dutch housing association and a contractor who perceive their relation as a successful supply chain partnership (SCP). Employing a narrative approach, this study shows the subgrouping in informal relations within and around the successful supply chain. The subgrouping shows examples of visible and hidden power dynamics. We conclude that, although the perception of success may have positive spin-offs, the members are not always positive about each other, SCP is applied to only a limited part of the client's internal supply chain, SCP is applied in an arbitrary way that not always seems to be fair, and continuation of the success in the future is uncertain. The study provokes many practical interventions, but the main recommendation is to keep reflecting on informal relations to address some of the social issues.

§ 5.2 Introduction

Since a number of years, a Dutch housing association and a Dutch contractor have been collaborating in three large renovation projects of housing complexes and a few smaller maintenance projects. A project manager and a project leader of the client organization and a commercial manager and the head of the regional branch of the contractor organization form a team and they consider themselves as an example of 'a successful supply chain partnership'. This team is interested in being evaluated to detect 'blind spots' and develop even more success. The practical reason to do this study is to evaluate this team that considers itself to be a successful supply chain partnership.

That Dutch housing associations aim at incorporating principles of Supply Chain Partnering (SCP) is not a rare phenomenon. The attention that has been paid to SCP in practice, as well as in literature (*Bygballe et al. 2010*, *Hong et al., 2012*), shows that the advantages of working with principles of SCP, such as reducing costs, reducing project duration, and increasing quality, are acknowledged by many. Because of several political related issues, the need to reduce costs and increase quality is high. Dutch housing association own 2.4 mln housing units (*www.aedes.nl, retrieved at November 24th, 2016*). This equals approximately a third of the total housing stock in the Netherlands. Therefore, housing associations are one of the biggest clients and dominate the sector.

The way in which a successful supply chain partnership should be evaluated, depends on several factors, such as how supply chain partnering is understood, the goal of SCP, and the criteria to evaluate. This study understands SCP as an emergent practice (*Bresnen, 2007*; *Bresnen, 2009*). The notion of emergence is rooted in organizational theory in, for example, *Mintzberg et al. (1997)* who distinguishes between a deliberate and emergent strategy. Whereas a deliberate strategy provides future guidelines for decision making and actions at operational level, an emergent strategy represents what is already being done in an organization. Therefore, to know SCP as an emergent practice, actual work floor experiences should be studied, rather than the initial strategy itself. In the process of emergence of SCP, actions are undertaken with SCP as an argument, while SCP itself was not precisely described beforehand at all. Therefore, the organization reflects the participant's understanding of SCP. This way of understanding SCP has consequences for evaluating the successful supply chain partnership. The ideas are further explored in **section 5.3**.

The practical reason to do this study is to reflect a successful supply chain partnering that needs to be confronted with their blind spots to become even more successful. The academic relevance of this study is that we analyze a successful supply chain partnership, with the understanding of SCP as an emergent practice, which has not been done before. This study provides insight in work floor experiences of professionals who work in a supply chain, and it provides practical recommendations for implementing and applying SCP.

This research has been structured as follows. **Section 5.3** explores the ideas of SCP as an emergent practice and the consequences for evaluating a supply chain partnership. **Section 5.4** describes the research approach, and the methodology and techniques that we used to gather and analyze data. **Section 5.5** provides the results and they will be reflected on the four dimensions of SCP. In **section 5.6** a number of concluding remarks will be made.

§ 5.3 Theoretical background

Supply chain partnering as an emergent practice

This study takes the view that SCP is s a buzz-word that represents a (desired) paradigm-shift in collaboration between enterprises and individuals within the construction supply chain. Therefore, the concept of SCP may also be understood as an

ideology. According to *Stacey (2011)* an ideology can be thought of as an imaginative whole of norms and values that constitute criteria for the choices of action. Many synonyms and related concepts circulate, such as supply chain collaboration, supply chain management, supply chain integration, etc. While some authors are concerned with identifying differences between different concepts, practitioners seem to use the terminology interchangeably. Therefore, this study considers the different notions as representors of similar ideas and may be used interchangeably. Applying SCP in daily work life may influence 'hard' organizational factors, such as different use of contracts, and allocation of tasks, responsibilities and risks from client to (sub-)contractor and vice versa. The new collaboration that SCP represents, may also influence or influenced by 'soft' factors. Important soft factors that are often mentioned, are trust, leadership, and communication.

The objective of applying SCP is effective and efficient collaboration, to decrease costs or increase quality for end-users. An often-heard target is to reduce costs with 20%. However, it is hard to base this 20% cost-reduction on evidence. Also, SCP is an alternative for the adversarial relationship between client and contractor. Further, SCP is understood as an alternative for traditional procurement processes, where time and money is wasted on long and tedious selection procedures. It has also been said that clients desire to make use of the contractor's expertise in early phases of the renovation project.

Thus, SCP is a buzz-word or ideology, and not a precise defined form of collaboration strategy. Rather, it represents abstract ideas that at operational level may take many different shapes and forms. Understanding SCP as an emergent practice means that the form of collaboration in practice is a result of ongoing conversation between individuals that in their daily iterative pattern of interaction form the situation as it is. Together they shape the organization as it is, rather than the strategies, blueprints, or other types of plans that are designed by managers higher in the hierarchy of the organization and that are said to boil down to the work floor (*Stacey, 2011*).

This means that the way in which SCP is shaped in a certain context, depends on the individuals who are engaged in forming the collaboration. Everyone has her or his own level of knowledge, characteristics, emotions and agenda. Patterns emerge from an ongoing reflexive conversation. In the theory of complex responsive processes, blueprints, strategies, policies and plans are just one form of influence in the construction of the whole (*Stacey, 2011*). However, how (and if) other individuals respond to those gestures is unpredictable. Therefore, *Stacey (2011)* argues that too much attention has been paid to the managerial interventions, and too little attention has been paid to the processes that the managerial interventions provoke.

Forming of sub-groups

Within that process of ongoing conversation at the work floor, it is normal that subgroups emerge. The forming of sub-groups is an informal process. The formation of subgroups in general can be based on many different aspects, such as the formal position in the project and the interests and responsibilities that come with that formal position. For example, the management of the client organization inherently have different responsibilities than, for example, building site workers. Moreover, the educational level and competences of the individuals may influence the formation of subgroups. Furthermore, there are personal and individual aspects which influence the formation of subgroups. The formation of subgroups is not something which can be inherently right or wrong, although it may not be perceived as something neutral by the participants nor by the readers.

Analyzing the formation of subgroups may reveal valuable information about the members of the organization. According to *Stacey (2011)* ideology and power play are important factors in the forming of sub-groups. Ideologies hold values that 'have the effect of including those who adhere to them and excluding those who do not'. *Stacey (2011)* stresses that this can be either good or bad or both. Since SCP is considered to be an ideology, analysis of subgroups might reveal how SCP is thought of and experienced in daily work practice in a local situation.

According to *Stacey (2011)*, in the ongoing conversation at work floor level, the dynamics of power is a key aspect. In the context of studying complex responsive processes, power is not understood as something one possesses formally, rather power reflects dependent relationships. If somebody needs something (love, money, work, status, whatever), they have more power over the other than the other has power over them (*Stacey, 2011*). From this point of view, power is not so much something which one possesses, but the result of the interaction between people.

According to *Lukes (1980)*, in discussing the issue of power, various strategies may be used (whether consciously or unconsciously) at three levels. At the first level, the power exercise is visible. This happens in, for example, price negotiations where two or more parties try to convince each other by using arguments and rhetoric. The second level power of power exercise is subtler, but still visible. This power dynamics is exercised when certain conversations are swept of the table. That is what *Lukes (1980)* calls the hidden side of power. The labelling and accompanying actions are so subtle that they never really come to the surface. The third face of power is when the power is internalized in such a way that the participants do not even realize that there is an exercise of power.

The practical reason to conduct this research was to evaluate a self-proclaimed successful supply chain partnership. When SCP is considered to be an emergent practice, this has consequences for how the successful supply chain is evaluated. No predetermined criteria for success are used to analyze the data. Instead, this evaluation focuses on the configuration of subgroups, it will evaluate power dynamics between the subgroups and the ideology on which the power dynamics are based.

§ 5.4 Methodology

General research approach

In this research, we focus on the subgrouping in and around the successful supply chain partnership. This will result in propositions about the application of SCP in this situation. This research was done in a research tradition that assumes that all knowledge is socially constructed in its context. Epistemologically, this socially constructed knowledge can never be known in an objective manner, because the knowable can only be known from an individual and unique frame of reference. We do not aim to present an objective reality, but an interpretation of a situation that was validated by multiple participants.

Process of gathering data

This research consists of three phases: an initial group conversation with the successful supply chain, one-on-one interviews and observations with the individual participants, and an evaluative presentation of the results. The first phase involved a group conversation between the four initiators of this research and members of the successful supply chain. The purpose of this group conversation was two-folded: the researcher tried to get a historical overview about their partnering experiences, and the researcher was interested in their perceived factors of success, and perceived barriers and threats. The initial group conversation was processed in a report and verified with the participants.

The second, and most time-consuming phase, consisted of conducting open, semi-structured interviews and observations. **Table 5.1** lists al interviewees. In first instance, the four participants who initiated this research were interviewed and using the interviews, a snow ball method was used to select the other interviewees. All interviews lasted 1 to 2 hours. The interviews were recorded and transcribed verbatim.

The main question always was: 'What are your experiences in working with principles of SCP?', which is a basic question in a phenomenological study like this (*Creswell, 2007*). One of those interviews spontaneously changed into a group-observation and interview. This meeting was attended by the client's project leader, the contractor's project leader, the client's building site supervisor, the contractor's front man, the subcontractor's managing director, and a contractor's intern. Furthermore, the client's head of 'department of living and social maintenance' and senior consultant of the 'department of living and maintenance' were interviewed as a duo.

In the third phase, the researcher presented the research outcomes and a group discussion followed. This meeting was attended by the client's managing director, both client's project leaders, the head of the department 'living and social maintenance', the contractor's commercial manager, the contractor's head of the regional branch, the contractor's project leader of the pre-realization phase, and the managing director of the subcontractor. The group discussion was recorded and transcribed verbatim. This discussion was used to gather data, and to validate the research outcomes.

CLIENT	CONTRACTOR	SUB-CONTRACTOR
Managing director department of renovation and maintenance	Commercial manager	Managing director sub-contractor (installations)
Project manager	Head of regional branch	
2 Project leaders	Project leader pre-realization phase	
Head of department 'realization and maintenance'	Project leader realization phase	
Head of department 'living and social maintenance'	Building site front man	
Senior consultant 'living and social maintenance'		
Building site supervisor (hired as freelancer)		

TABLE 5.1 Participants in the case study

Data-analysis

Several different techniques to analyze data are applied. In first instance, three interviews that were considered as key interviews were used to analyze at sentence level. Following *Peverelli and Verduyn (2010)* we identified 'truth claims'. A truth claim is a sentence in which a respondent claims a certain truth. The following example (from another case study) shows how these truth claims are identified:

'The way I see it, supply chain partnering may be defined in many different ways. The way we perceive it, it looks more like a building team. Building team plus, instead of real supply chain partnering. And we are on our way to a perfect shape that fits us. But the definition is that we invite people in order to together realize a project. And that is how wide it all is.'

The truth claims that were identified are:

Supply chain partnering can be defined in many different ways.

Supply chain partnering is at least one step further than building team plus.

A perfect way that fits us exists.

The definition of SCP is that you invite people in order to together realize a project.

Then, the truth claims were categorized. The main category was 'who says what about who?'. We did this in order to find the configuration of groups. This theme is elaborated in **section 5.5**. We call this configuration of groups a sociogram (**Table 5.1**) (*Peverelli and Verduyn, 2010*). A sociogram differs from an organogram, because it does not reflect the formal organizational structure as an organogram does, but it reflects the informal configuration of subgroups as interpreted by the researcher. We are aware of the disadvantages of using such a sociogram. A first disadvantage is that people experience the same reality in different ways. An objective and rational helicopter view is therefore impossible. Instead all participants (including the researcher) have a subjective and non-rational worm's eye view. Validity of the sociogram was increased by presenting the sociogram to the participants and asked for feedback. A second disadvantage is that each model, and therefore also this sociogram, is an abstract and static image of reality. However, informal relationships are detailed and dynamic. Moreover, informal relationships may be perceived differently by different people. The sociogram can never express the details and dynamics as perceived by all participants. We do not claim that we present the one and only truth. As *Peverelli and Verduyn (2010)* argue, drawing sociograms 'will not be the final goal'. Instead, it is a starting point to reveal power relations and the norms and values that they are based on the power relations.

§ 5.5 Case study results

Phase 1: Case description and starting situation

The four individuals that initiated this study collaborated in three Dutch renovation projects that respectively consisted of 110, 274 and 396 housing units in more or less the same team composition. All projects were renovated without moving the tenants out. Although in each project the team composition differed slightly, the four people that initiated this research consider themselves as a successful supply chain partnership. The repetition in collaboration was not intended from the outset, but developed throughout the years. In the first project, the contractor was selected based on a traditional procurement. For the other two projects, the contractor was selected based on a 'soft procurement'. A soft procurement means that costs and other financial conditions were just one of several other 'soft' selection criteria, such as the contractor's plans to communicate with tenants. While data were gathered, the contractor was in a selection procedure for a fourth project. Although they collaborated in several projects, it does not yet concern a preferred partnership. During the case study, the client's project manager decided to leave the organization to work elsewhere. Before perceived successes and challenges are described the client's and contractor's organization will be described briefly.

The client's organization

The client organization is a housing association in the east of the Netherlands and owns approximately 10,000 housing units. The participants in this case study all work for the department of 'renovation and maintenance'. The difference between the client's project manager and the client's project leader is that the project manager is involved in the earlier phases (such as initiation) of the project, selection procedures, and contracts, while the project leader is involved in the latter phases, such as designing, planning, calculation and realization phase.

A salient feature of this housing organization is that the management of this organization was involved in a fraud case a decade ago. The participants of this case study believe that this history of fraud still influences people's behavior in the organization. For example, there is still extra control by external committees. Especially in the process towards working with preferred partners, they expect difficulties because of this history of fraud. On the other hand, especially the project manager believes that the management understands that other ways of working, such as supply chain partnering, has advantages. He also believes that eventually it will be inevitable to

implement. A procurement policy still prevails at the moment of gathering data, but apparently the participants felt that there is room to interpret this policy creatively. As the project manager says, one always has to be transparent about one's reasons for approaching a project in such and such way.

The contractor's situation

According to the commercial manager and the head of the regional branch of the contractor, the management deliberately implemented a strategy of 'a new way of working'. According to the commercial management and the head of the regional branch, this forced a different attitude among building site workers and their supervisors at the building site. All employees had a choice to cooperate in this new strategy. If somebody choose not to cooperate, they had to leave the organization, as explained by the commercial manager. This actually caused forced layoffs, albeit in a step-by-step process. According to the managing director and the head of the regional branch, there have always been proponents and opponents to this new way of working, who were easy to distinguish. It started with approximately 50-50, and now they estimate it as 80-20%. According to the managing director, certain individuals are just not suitable for this new way of working. Those people, who apparently still work for this contractor, will not be planned in SCP-projects.

Successes and challenges

The collaboration is perceived as successful. A few experiences are: 1) The same team of building site workers worked in each project. The participants experience that the building site workers learn and adapt to each other's needs. For example, it is said that they carry each other's materials upstairs. 2) There were more internal evaluations. How the evaluations took place remained unclear in this conversation. Later in this case study, it appeared that the evaluations concerned mainly informal short evaluative conversations at the building site. According to the participants, building site workers can communicate their ideas, which makes them more motivated. Formal evaluations appeared to be technical of character. 3) A successful action was performed by the client's project leader. He went to the building site, and spoke to the building site workers how satisfied he was with the results. That was appreciated among the building site workers as well as the commercial managers and the head of the regional branch. 5) The contractor works with the ambition of 'zero delivery defects. The building site workers see it as a competition. They constantly remind each other of this ambition. If, for example, there are two delivery defects, they say 'hey, who did this?' In that way, they kept each other aware and sharp.

Challenges for future collaborations are also identified. 1) One of the client's challenges was the demarcation between renovations and maintenance. Internally, discussions were about what is service maintenance and what is not? 2) According to the client's project manager 'money' is still the most precarious point. The contractors say that they work with a profit margin of 2-3%. But the client's project manager questions how that is defined. He says that he does not believe that it actually is 2-3%. 3) Another challenge is routine. If a collaboration will last for more projects in the future, there is a risk that everything becomes a fixed routine. If one places a bath room for the sixth time, it may become boring. 4) Furthermore, within the client's organization there may be differences in culture and the types of contracts that are used are quite diverse.

Phase 2: The configuration of sub-groups

This section describes the subgrouping of informal relationships as interpreted by the researcher based on the interviews and observations. The sociogram has two main branches: 1) the successful supply chain, 2) others who are not directly engaged in the successful supply chain. The first group is called the successful supply chain, because the group members consider themselves as successful. The boundary between the successful supply chain and the others is not black and white. The informal relations are dynamic, may change over time, may be perceived differently by different individuals, and may overlap. Of course, the subgroups communicate with each other. **Table 5.2** shows the sociogram. This remainder of this section describes characteristics of the identified sub-groups.

BRANCH 1: SUCCESSFUL SUPPLY CHAIN	BRANCH 2: OTHER
Construction workers	Construction workers
Subcontractors	The overlooked client's intra-organizational supply chain
Special positions	

TABLE 5.2 The sociogram of identified subgroups divided into two main branches

The successful supply chain

The group of four people who initiated this evaluation, are part of this subgroup. Using a snow ball technique, other members of the successful supply chain are identified. The group conversation already indicated that the composition of this successful supply chain developed throughout years, rather than it was intended beforehand. It appears that individuals from different hierarchical positions in the organization participated in

the successful supply chain. These participants are another client's project leader, the contractor's project leader, the contractor's front man, and two sub-contractors with whom the contractor regularly works.

In general, members of the successful supply chain seem to share values about 'the new way of working' and recognize that in each other. However, for some people that is difficult to formulate that in words. For example, the contractor's planner who is part of this successful supply chain, says about the client's project manager: 'He does something that gives me the feeling that I can be open and honest'.

However, as mentioned, the boundaries between who is part of the successful supply chain and who is not, are not sharp. For example, the client's managing director says (and the others confirm this) that he supports this collaboration. However, the client's project manager misses concrete actions from this managing director that supports their initiative of working in this supply chain.

Despite the positive energy that is felt in group settings, a few remarkable observations that also describe the relation between the clients and the contractor in general must be mentioned. Throughout the process of gathering data, employers of the client organization from different departments and hierarchical levels (including the client's members of the successful supply chain), together created a memo in which they agree that for each type of project a suitable form of contract will be determined. This memo says that occasionally a contractor might be selected one-on-one, for example when the project is under high time pressure. One of the reasons for this choice is that the client is afraid to lose the advantages of competitive pricing that is guaranteed in traditional procurement methods.

At the moment of gathering data the professionals that work for the contractor seem to be not aware of this client's strategy. Interviewees from the contractor party make clear that they put extra effort in the projects, because they aim at becoming a preferred partner. The contractor's calculator mentions that the costs that they made to participate in the selection process have to be earned somewhere. As one interviewee formulates it 'if one lies about the general costs, one has to lie about the composition of the pricing as well. Otherwise, as a contractor, you will never get the right prices'. Related to this, sometimes a remarkable use of words reveals something about the respondent's feelings about contractors in general. A client's interviewee says, 'I am not totally naïve, I understand that the contractor aims to earn a few pennies'.

Special position within the successful supply chain

Within the successful supply chain some individuals have a special position. These individuals are 1) the project leader about whom is said that he does not understand yet the principles of supply chain partnering and the actions that these principles provoke and 2) the client's building site supervisor. As for the former, the individual interviews show that the project leader, who was one of the group of four people that initiated this research, does not have the successful image as the initial group conversation suggested. In the one-on-one-interviews with the group members, it was said that the client's project leader does not understand what type of behavior this new way of collaboration demands. It is said that he sometimes 'falls back into his old behavior', by which it is meant that he, among other things, tries to control the contractor too much. Occasionally sometimes the interviewees do refer to other such individuals as well (such as one of the client's other project managers). The language that is used to describe these persons is remarkable. Interviewees tend to say things like 'we are a little bit more developed in our thinking', inherently suggesting that they are more developed than others. One person says about the project leaders: 'that is just really bad'. The project leader is aware of his image. He says that he is well aware of the advantages of this way of working, but that he has the feeling that not all contractors are decent enough to work this way. However, this project leader considers the contractor in this case as dependable enough. Further, this project leader says that he aims to change, but experiences this as a difficult process and sometimes he catches himself to be 'controlling too much'. It appeared to be difficult for the others to address this feedback to this particular project leader, although 'more internal evaluations' was identified as a factor of success of this supply chain partnership.

What's more, as for the role of the client's supervisor, the members of the successful supply chain have a vision on how he should work. According to the rest, the task of the building site supervisor should be controlling quality. If the client's building site supervisor tries to control too much how the building site workers should do their jobs, there is a chance that responsibility shifts from the contractor to the client. For example, if the client's building site supervisor insists on using a certain glue, the risk shifts from the contractor to the client. The client's building site supervisor says that he experiences problems at the building site, that makes him control the building site workers and this in turn inhibits him to have the 'right' attitude. As the contractor's project leader says, a consequence is that the he tries to 'work around' this client's building site supervisor, by which he means that he (and the building site workers) accept the situation and try to make the best of it.

Building site workers who are part of the successful supply chain

A special sub-group within this successful supply chain consists of building site workers that worked in the same team composition in each project. As the members of the successful supply chain say, they are adapted to each other's needs. This adaption is expressed in, for example, carrying each other's materials upstairs. However, the client's building site supervisor has a different view on this. He says that this may have been the case on a number of occasions, but this is not business as usual at all. Another successful aspect of this team of building site workers is, according to most members of the successful supply chain, the 'zero delivering defects'. However, also at this point, the client's building site supervisor takes a different view. He says that when the delivery is checked, 'the last flaws are cleared away', to formally have zero delivering defects. If there is still a delivery defect, the building site workers say, 'just give me one minute to fix it' and they will instantly fix the problem. Either way, the amount of delivering defects seem to be diminished.

The team members of the successful supply chain mention that an advantage of working with the same team of building site workers in multiple projects, is that they work faster and that makes it more difficult to estimate labor costs. Especially when it concerns large projects, for example 400 living units, 'the law of big amounts' comes into force, as both the client's project manager and the contractor's calculator acknowledge. One respondent of the contractor party gives a concrete example. It is always difficult to calculate how much a job, such as placing a window frame, will cost. However, it is important to know how long such a job will take and to calculate labor costs for this job. As one respondent explains, 'If we calculate an hour too much for an apartment (on a job of 400 living units), and we calculate €40, - per hour for a building site worker, it will cost them € 16.000,-. The other way around it will cost us €16.000,-' Thus, the advantage of repetition makes it more difficult to estimate costs. Placing the first window frame, will probably take longer than placing the last window frame, when construction workers developed a routine in doing that.

Related to managing a project's labor costs, is managing a project's material costs. Different views circulate when it comes to costs of materials – and the money that can be saved by smart purchasing of materials. The client's project manager holds the opinion that a contractor 'is not allowed to make money on purchasing materials', for which he does not provide a reason. Not all other respondents agree with this vision. Still, the project manager proposed to use any possible profits gained from smart purchasing of materials as a risk buffer and – if necessary – use it to pay any unexpected costs. If the project is finished and there is still money in this risk buffer, the contractor is allowed to keep a part of this money. The contractor's head of the regional branch did not share this project managers' view, but agreed with this proposal anyway.

The sub-contractor as part of the successful supply chain

Other members of the successful supply chain are the sub-contractor, although none of the client's respondents never specifically invited them. The contractor works with two preferred subcontractors of which one participated in this research as an interviewee. Some respondents from both the client and contractor side, mention the price negotiation system between the contractor and subcontractor. According to a client's respondent, the contractor has a special purchasing strategy. 'They work with preferred partners, and although they know they are preferred partners, there is still a negotiation process'. This respondent considers this a bit shady. According to this respondent, if there is still space for negotiation, apparently, the sub-contractor did not offer his best price in the first place. However, on the other hand, the contractor's calculator argues that it is a good thing to 'reciprocally give arguments', because that is also a form of transparency. In order to increase transparency, the client's project manager was invited to attend the negotiation process and see all the sub-contractors' bids, but he never made use of that.

The client's employers that are not part of the successful supply chain

The configuration of sub-groups shows that there are two branches: the successful supply chain and others that are not member of the successful supply chain. Some individuals are not involved in the changes in supply chain partnership, while this researcher expected them to be part of it. The first party that is not involved is the department of 'living and social maintenance', who is responsible for communication with tenants in general. Amongst respondents it is unclear how the successful supply chain partnering influences the role of this department. Communication with tenants by the contractor is important in the supply chain partnership, and has become an important aspect of the selection procedure. Sometimes, the contractor hires an extra person that is responsible for this communication. The department of communication with tenants was engaged in multiple selection procedures, but there hardly is any communication between the contractor and the employers of 'living and social maintenance'. There is a story of a letter to tenants that was passed over to several individuals, such as the client's project leader, the contractor's project leader and the client's consultant of the department of 'living and social maintenance'. It was not clear who was responsible for the quality of this letter. The respondents from the department itself argue that, compared to the old way of working, their role will become more specific. Perhaps in the future the contractor will do the general communication, and this department will focus on special and difficult cases. However, in the interview they say that they have never actively thought about this yet.

The second party that is not actively engaged in the successful supply chain, is at the beginning of the supply chain, where, for example, financial budgets are determined. The client wants the contractor to come up with innovative ideas. However, when the contractor is selected, basic budget and exploitation period are fixed. It is possible to change the budget, but then 'the project leader has to come with strong arguments' and convince the other department in a formal way. It seems something that the project leader and the project manager want to avoid at all costs if possible, because it takes extra time. Thus, the innovative ideas that the contractor can bring about are delimited, based on budget and time.

The third party that is not actively engaged in the successful supply chain, are the colleagues of the maintenance phase. The contractor normally provides guarantees, as would happen in a traditional procurement, but maintenance phase (or a part of it) is not part of the contractor's responsibilities. The client organization employs its own technical staff, and does not intend to change this.

Building site workers that are not member of the successful supply chain

There is a group of building site workers that is not part of the successful supply chain. The language that is used when respondents speak about this group is remarkable. This group of people is characterized as 'lazy', 'unwilling', 'not motivated' and 'unreliable'. Powerful language is used when they speak of building site workers, such as 'if you don't control those guys, everything goes completely wrong. They just don't work very hard. [...] Of course, there are also good ones, but in general they are slackers'. Another interviewee formulates it more positively as 'free people' or 'people who like to work outdoors'. The contractor's commercial manager explains: 'if they are allowed to clock off at three, at a quarter to three they will sit in their van waiting to go home'. All respondents with whom this group is discussed see differences between different types of building site workers. For example, building site workers in renovation projects have to be able to communicate with tenants, whereas the building site workers in new-to-build projects do not have to communicate with tenants. The contractor's commercial manager says that some building site workers are not able to work on renovation project, because of their inability to communicate with tenants. In addition, differences in behavior between different types of building site workers, such as bar benders and electricians are identified. No building site worker was interviewed for this research.

§ 5.6 Discussion

The results describe the configuration of subgroups. The next step is to try to understand what this configuration of subgroups represents. This section is divided in two parts. First, the power dynamics between subgroups is explored further, based on a few examples. Second, we propose five observations that say something about successfulness of this supply chain.

Power dynamics between subgroups

The results show multiple cases of visible power exercise between people. An example of power between subgroups being exercised visibly, is when the head of the regional branch and the subcontractor negotiate about pricing of a certain project. They 'reciprocally give arguments' and reach a price that they could both agree upon. Even though this is perceived by some as shady, it is a visible process of exercising power. Another example is when the client's project manager claims that contractors are not allowed to make money on smart purchasing of materials. He proposes a system involving a risk buffer, something which the contractor's head of the regional branch agreed to, although he does not think this is fair.

The cases also show examples of hidden power exercise. A form of hidden power is the situation in which the contractor implicitly expects to become a preferred partner and the client seems to benefit from this expectation. Silence about this topic is observed (and perhaps evaded by) talking about more 'safe' and tangible topics, such as labor costs and material costs) or the decision about it is postponed. Nonetheless, at the same time members across the client organization together created a memo that clearly says that the client organization does not intend to work with preferred partners. When this topic was discussed in the final group conversation, the client's managing director refers to the client's Board of Governance, who, as the managing director claims, will never agree with working with preferred partners, because of their history of fraud. Thus, he implicates that he is interested in making them preferred partners, but at that moment he was unable to do so. By taking this position, the hidden form of power dynamics remains as it is.

Another form of hidden power is used in the case of the client's building site supervisor. Although he has serious arguments against this new form of collaboration, the rest of the successful supply chain does not seem to really listen to his set of arguments. His arguments are swept off the table, and instead they 'work their way around' him. Also, hidden power is used in the case of the client's project leader who is said 'to control the contractor too much'. Although regular evaluation was mentioned as a factor of

success in this successful supply chain, this project leader does not receive open and honest feedback. Because this is never discussed openly, the project leader does not get a chance to defend himself. It also makes it more difficult for him to prove otherwise. If, occasionally, the topic is on the table anyway (for example, this happened in the third phase of this research when the researcher presented her findings to the participants), both parties downsized the topic and swept it off the table.

The third dynamic of power is when power is internalized in such a way that the participants do not even realize that there is an exercise of power. This research argues that the way in which some people speak about and treat building site workers that are not engaged in this successful supply chain, might tend to be an example of this third internalized power. It is normal to calculate labor costs of building site workers very precisely, while it is not normal to calculate office work in a similar way. At least it raises some ethical questions. The main ethical question is why building site workers are thought of and treated in a completely different way than people who work at the office.

Five observations about the successfulness of the supply chain

The first observation is that the perception of being a successful supply chain has positive spinoffs. The perception of success is based on multiple experiences that they had and that were perceived as successful. Although the list of successes is somewhat arbitrary, concern different phases in the building process, differ in size, effects are not clear and there are as many challenges as there are successes, there seems to be a general belief that this group operates successfully. Also, labelling oneself as a successful supply chain has positive spin-offs for the atmosphere within the group. The participants start to communicate with each other in a more friendly and respectful manner. As another spin-off, in this case, the success is shared both by clients as well as contractors. Declaring oneself as a 'successful supply chain' implicates an intention to collaborate again in the future. This is clearly an advantage for the contractor's side. Indeed, the results show that the contractor's commercial manager invested time, money and effort to become a preferred partner. Therefore, the client also benefits from this contractor's implicit expectation of becoming a preferred partner.

The second observation is that, although the participants of the successful supply chain communicate *with* each other in a more friendly and respectful manner, at some points the participants of the successful supply chain communicate in a less friendly and respectful manner *about* each other. Within the successful supply chain, individuals are identified by others who are said to not adhere to the ideology or about whom it is alleged that they do not understand how to apply it (the client's building site supervisor and one of the client's project leaders). The results also show that, as for individuals who (in the eyes of the successful supply chain) do not adhere to their ideology of SCP

or how to apply it, no specific actions are undertaken to change this situation. The main strategy to cope with these people is to avoid talking about it, and as one respondent says, 'try to work one's way around those people.'

A third observation is that the ideology of SCP is applied inconsistently. This observation is grounded in our data at several points. First, within the successful supply chain there are individuals about whom is spoken negatively, but those individuals are not provided with constructive feedback, although one of the successes were more internal evaluations. Thus, in this specific case, the self-declared successful supply chain does not apply their values to their own group members. A reason to not express this critique for the contractor's side can be that it is not in their 'strategic interests' to do this (perhaps the contractor is still afraid to criticize their client's behavior), but it may also be a lack of competences to start this conversation in a constructive manner. Furthermore, the client's project manager claims that a contractor is not allowed to earn money on smart purchasing is part of the SCP, but not grounded in rational (and by some not considered as fair) arguments. The values of SCP are not applied to building site workers that are not part of the successful supply chain. Therefore, applying SCP has a somewhat opportunistic character.

A fourth observation is that the ideology of SCP is applied to only a limited part of the actual supply chain. One of the challenges was 'the demarcation between renovation and maintenance'. However, related to this, it was observed that at some points there was a demarcation between the successful supply chain and others. In other words, it was observed that the supply chain can be thought of as something wider than the participants were (actually) aware of. Especially the demarcation with the department of 'communication with tenants' and the department where the financial budgets cause process delay and decrease of quality at some points. Therefore, the question is not so much about what the demarcation should be, but (rather) how responsibilities of tasks of other departments in the client's organization change due to applying SCP.

The fifth observation is that, although applying SCP may have positive spin-offs, the underlying problems in collaboration that SCP is trying to solve, has not changed. This is illustrated best by the first example of the hidden face of power: the contractor acknowledges to put more effort in this collaboration, with the hope and/or expectation to become a preferred partner. The client, whether consciously or unconsciously, lets them believe that this is the case. However, at the same time, a memo was developed in which they decided that the client prefers processes of 'soft selection'.

§ 5.7 Conclusion

A client's project manager and a project leader, and a contractor's commercial manager and contractor's head of regional branch asked for an evaluation on what they consider an example of 'successful supply chain partnering'. The configuration of sub-groups may be thought of as an expression of SCP and the underlying norms, values and actions that are undertaken. We presented the configuration of subgroups and the relations of subgroups. An analysis of the configuration shows that the perception of being a successful supply chain has positive spinoffs, such as a good atmosphere in the group. However, although the participants of the successful supply chain communicate *with* each other friendly and respectfully, at some points the participants of the successful supply chain communicate less friendly and respectfully *about* each other. Moreover, the ideology of SCP is applied differently in different situations, therefore applying SCP has a somewhat opportunistic character. Further, the ideology of SCP is applied to only a limited part of the actual supply chain. Lastly, we have observed that, although applying SCP may have positive spin-offs, the underlying problems in collaboration that SCP is trying to solve, has not changed. It is up to the participants themselves to decide whether this set of norms and values represents their success.

It must be noted that it is possible that the members of the core team initiated this research with a hidden agenda. That agenda may involve showing goodwill in participating in supply chain partnership to each other and perhaps also to other potential clients and contractors (perhaps even without being aware of it). The (particular) setting may have prompted participants (also perhaps unconsciously) to respond to questions in an adjusted way. However, data also show that each participant said things that made them vulnerable and there is no reason to assume that in the interviews false information was provided intentionally. Besides, the data still result in a perspective on supply chain partnering that we think is worth considering.

This study was not conducted to get to know the one and only objective reality. Rather, it shows that a situation can be experienced differently by different actors. Therefore, readers are invited to read this with a critical view and come with alternative visions. A sincere ambition to try to understand each other (and oneself) is most important to keep ongoing processes alive.

The results of this study may provoke practical interventions, such as engaging actively more client's departments, such as 'living and social maintenance'. But before jumping to such practical interventions, understanding SCP as an emergent practice, means that patterns came about through a complex interplay of individuals, rather than through the managerial interventions. Therefore, one must understand that

managerial interventions are but one step in problem solving processes. Informal relations within and between organizations should undergo an ongoing evaluation. This discussion is not a one-time conversation to get it right for once and for all. It takes time to address these issues and it requires vulnerability of the participants. The identified issues came about through the interplay of people and the issues can be solved in exactly the same way.

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6 Work floor experiences of construction partnering in the Netherlands. Comparison of three case studies.

Author's notes

Obviously, this last article I wrote heading towards the end of the research. For myself I called this 'the overarching article'. In first instance, I attempted to write an article that described all the lessons that I learned throughout the years that combined all the experiences that I went through last years. That was quite a challenge and quickly I realized that I had given myself an impossible assignment. I realized that there is no final conclusion that covers everything. There is no final sentence, nor is there a set of sentences that incorporates all the lessons that can be learned by experience. After all, the way I learned the lessons was not by reading an article either.

I stayed in touch with some participants of all three cases. Therefore, I know a little about what happened after I finished the cases. I hear stories of successes, and I also hear stories that suggest less successful aspects as well. For example, it is still a struggle to measure the successes and measure the performances of the client as well as the contractor. What I heard from a student who did a graduation study at one of the client organizations in the case study, is that they experiment with Key Performance Indicators. However, the Key Performance Indicators seem biased towards evaluating the contractor instead of the successfulness of the client. This is of course merely one interpretation of the situation, but from this perspective the client still dominates the contractors, and the underlying antagonistic relation has not changed yet. In another case, I hear that initial managerial interventions have been cancelled and the ambitions to work with SCP have been downsized. In all cases I hear about project leaders and other colleagues, that change their job within or outside the organization. They have other functions and tasks. One important respondent in this study quit his job and as far as I know, he is traveling the world.

Recently I talked to a few professionals of one the cases about Total Cost of Ownership, which was a new term in this organization. They just started using Discounted Cash Flow method to calculate going concern value of one of more assets over the exploitation period of a building. I was surprised, because I assumed that they already did that. At least, it seemed logical to me. It was just a spontaneous conversation, and

I did not check whether may be others in the organization already used Discounted Cash Flow methods. What I attempt to describe, is that organizations are in ongoing transformation. It is never finished and new terminology that influences people's actions and awareness arise, while other 'hypes' end. This overarching article is an interpretation of what happened in a certain time slot at a certain place.

§ 6.1 Abstract

This research aims at understanding daily work floor experiences of project leaders of Dutch housing associations who try to apply the principles of SCP. By comparing three cases it was found that: 1) despite the attention, engagement, and effort put into applying the principles of SCP, there are no indications that this lead to fundamental and structural improvement of intra- and inter-organizational collaborations. 2) intra-organizational relationships are just as important as inter-organizational relationships when it comes to implementing principles of SCP. 3) integrative activities are conducted and perceived as not rational, chaotic, contradictory, not finished and/or not followed up. Although the results may provoke practical managerial interventions, we recommend not to come to that kind of managerial interventions too quickly. Instead, we recommend getting actively involved in complex responsive processes that constitute the forming of SCP. In this way, cooperating with supply chain partners becomes a matter of a dynamic and personal process of development, rather than a managerial problem that is abstracted from daily work practice.

§ 6.2 Introduction

Effective and efficient collaboration in the construction industry have been object of research for decades (*Bygballe et al. 2010*, *Hong et al. 2012*). Supply chain partnering (SCP) is considered as an alternative for long and expensive procurement strategies that are based on lowest bid of the contractor. SCP can be considered a buzz word and there are many related concepts, including supply chain collaboration, supply chain integration, and construction partnering. Each concept may pinpoint a subtle difference, but in daily work practice, the terms are used interchangeably. Rather than a specific form of collaboration, SCP and its related terminology captures the overarching

idea of an alternative working method. This new method emphasizes collaboration over traditional procurement methods. *The Construction Industry Institute (1991)* defined partnering as "*a long-term commitment between 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*".

Supply chain partnering (SCP) promises more effective and efficient collaboration. However, so far, it appeared to be impossible to measure the results of applying SCP in a quantitative way, but based on the attention that has been paid to this topic in the work field as well as among scholars, there appears to be a shared trust and belief in the benefits of SCP to construction project outcomes among participants and scholars. Despite decades of experiments in the field and research by scholars, it is questionable to what amount SCP really is adopted. *Fernie and Tennant (2013)* conclude that the adoption level of SCP in the UK is low. *Smyth (2010)* concludes that improvement in the UK construction sector are not carried out in a sufficiently rigorous way for continuous long-term improvement. *Gottlieb and Haugbølle (2013)* conclude that the effort that has been put to apply SCP in the Danish construction industry only met the expectations to some extent.

A reason that despite the attention that has been paid to SCP, the adoption of SCP remains low, might be a lack of understanding of what goes on at work floor level. As *Phua (2013)* argues, an individual-level of analysis in construction partnering studies is scarce. That means that most construction partnering research, so far, is abstracted from direct experiences of professionals in the field. Individual experiences are averaged away. Therefore, there is little insight in what happens at operational level of applying SCP and too little understanding of what professionals in the field experience when they apply SCP. Instead of a helicopter view, they must take a worm's eye view, and study emergence at the micro-level. According to *Eriksson (2015)* deeper and more detailed knowledge about how various management practices work and affect each other are critical to successfully implement and achieve integration (*Eriksson, 2015*).

This focus on daily work floor practices alludes to the understanding of SCP as an emergent practice, that has gained attention among scholars (*Bresnen, 2007*; *Bresnen, 2009*). Instead of a planned strategy implemented from the top down, SCP as an emergent practice results in the continuous, communicative interplay of practitioners in the field, which *Stacey (2011)* calls "complex responsive processes". Studying SCP

as an emergent concept means that the focus shifts from the design of the strategy to the application of the strategy. As an emergent concept, the abstract ideas of SCP are shaped through the ordinary, daily work floor practices of professionals, such as project leaders, calculators, planners, and building site workers. According to *Mintzberg et al. (1997)*, to study an emergent strategy, one must look back and identify patterns created throughout time. So, when adopting an emergent perspective, managers (as well as scholars) should focus on describing and reflecting on what people already do, instead of prescribing what people should do. In understanding the emergence of SCP, work floor professionals and their daily work actions matter greatly. However, existing construction partnering research rarely considers typical, daily work situations seriously.

Recently, several studies sporadically give insight in what goes on at operational level (e.g. *Ellegaard and Koch (2012)*, *Gottlieb and Haugbølle (2013)*, *Jefferies et al. (2014)*, *Sandberg and Bildsten (2010)*, *Taggart et al. (2014)*, *Zimina et al. (2011)*). For example, *Ellegaard and Koch (2012)* observed that a department of purchasing forced project managers to work with specific suppliers. Communication consisted of "handing over written directives, rules, and procedures" which limited interactions between people and departments (*Ellegaard and Koch, 2012*). Relational integrative elements like solidarity, obligation, respect, trust, and mutuality were absent. Despite instructions, some project managers did not agree with the purchaser's instructions, and "decided to use other suppliers despite the directive" and "buy their components elsewhere" (*Ellegaard and Koch, 2012*). These dynamics lead to a strategy in use that was clearly not intended, but one that emerged through a very specific, local personal and non-rational interplay of individuals and departments. However, the amount of such studies that do give insight in what happens in daily work life at operational level is relatively small. The studies concern different types of construction projects in different countries, focusing on various project phases and parties. Therefore, the studies do provide little ground for comparison.

To conduct an individual level of analysis, and produce research that is coherent and not anecdotal, ethnographic, phenomenological and or narrative research approaches can be conducted. *Pink et al. (2013)* argue that more ethnographic research approaches should be conducted in the construction research. This type of research differs significantly from other construction partnering research, because it taps into ordinary daily work life, and provides a less abstract image of what goes on in daily work life at a building site. However, in their work produced so far, their focus seems to be on the realization phase of construction, while applying SCP concerns other construction phases as well.

Construction partnering studies that view SCP as an emergent practice are scarce but necessary to understand how SCP is applied at work floor level. Without insight into how people give shape to such an abstract concept, managerial interventions remain a wild guess and most likely won't improve the situation. Therefore, in this paper, we compare three case studies on project leaders that work for Dutch housing associations and who try to apply the principles of SCP to better understand work floor experiences of implementing SCP.

We chose to focus on the project leaders of Dutch housing associations, because they are important in translating the abstract strategy of SCP into daily actions. Besides, Dutch housing associations own 2.4 million units in the Netherlands, or about one-third of the total housing stock (www.aedes.nl/feiten-en-cijfers/woning.html, 2017, March 31). As one of the largest client organizations, they dominate the Dutch construction sector and are very likely to influence their partners whenever they attempt to implement SCP principles. Dutch housing associations also own large quantities of similar assets that need to be renovated and maintained, so SCP is more likely to be implemented easily.

The paper is structured in six sections. The next section (**section 6.3**) provides a theoretical framework for the study, followed by the research approach, tools, and techniques used for gathering and analyzing the data in **section 6.4**. **Section 6.5** describes similarities and differences between work floor experiences in the three cases studies. In **section 6.6**, the results are discussed and grounded in literature. **Section 6.7** details the conclusions of the study.

§ 6.3 Theoretical framework

This research focuses on the work floor experiences of professionals in Dutch housing associations who attempt to apply the principles of SCP. The adequacy of any research depends largely on the lens used to analyze the data gathered. The lens used for this paper is based on the theory of complex responsive processes (*Stacey, 2011*). This theory argues that organizations become what they become through an interplay of individuals, rather than through a designed strategy, blue print, or other deliberated plan. According to *Stacy (2011)*, in this local interplay "the population-wide patterns of organization and strategy both desired and realized" emerge.

The theory of complex responsive processes, has been used in organizational studies and it is based on the idea that patterns emerge from daily work floor practices (*Stacey, 2011*). Therefore, it seems an appropriate theoretical framework (or 'lens') to understand SCP as an emergent process. To explain the theory, it is useful to first describe some of the 'other' perspective on organizations: 'systemic ways of thinking about organizations', which is considered the dominant way of thinking about organizational dynamics (*Stacey, 2011*).

Systemic management theories assume that an organization is shaped by strategies, plans, programs and direction, developed by the managers of the organization, that boil down through the hierarchy of the organization. Systemic management thinking assumes that organizations can be guided 'from a helicopter view', in an objective and rational way. In this way, (managing) organizations seems relatively straight forward. Difficulties and failures in implementing strategies can either be blamed on the strategy itself or on the implementation process.

However, various scholars have adopted other ideas about development of human society and behavior within society and organizations. *Stacey (2011)* argues that organizational reality is more complex than systemic management theories imply. Complexity theory considers strategies, plans, programs, and directions etc. (from now on simply called strategies) as a first gesture to which work floor professionals might respond. Meaning of the strategy does not lie in the strategies itself, but in the processes of gesture-response made with the strategies (*Stacey, 2011*). As soon as a strategy is introduced, work floor professionals give their own meaning to it.

Processes of gestures and response can be experienced as chaotic, messy, unruly, capricious, intuitive and unpredictable. Still, in that apparent chaos of interactions, patterns can emerge (*Homan, 2013*, *Stacey, 2011*). Complexity theory is about processes of gesture-response and the patterns that emerge from these daily interactions by work floor professionals. When SCP is understood as an emergent practice, it means that the strategy of partnering gets its shape by interplay between local individuals. Therefore, the way in which people collaborate changes constantly and highly depends on time, place and local circumstances.

It is argued that it is difficult to fully accept complexity and involve that complexity and consequences into academic research. Opponents of complexity theory might suggest that complexity is used too easily in arguing that nothing is predictable and therefore no precise scientific results are possible. Without denying the difficulties of complexity theory, this purpose of this paper is not to convince readers that complexity theory is 'the one and only truth about analyzing organizations'. Rather, it is used as a framework

that provides a fresh perspective in a research community that is mainly dominated by a systematic view on organizing.

Thus, the lens of organizational development because of ongoing complex responsive processes in daily work practice was used as a perspective to gather and analyse our data. Using this lens results in narratives about practices at work floor level. Using this lens provides a deeper and more detailed knowledge about how various management practices work and affect each other. Using this lens may also lead to incoherent and anecdotal research. According to Eriksson, "there is a need for conceptual and empirical research that is comprehensive by addressing several dimensions, yet detailed in the investigation of how specific dimensions interact" (*Eriksson, 2015*). Therefore, *Eriksson (2015)* developed a framework that allows researchers to ground a detailed investigation into dimensions of SCP. We will use this framework in this study to compare the detailed investigation and in order to further explore the utility of the framework.

Strength, scope, duration, and depth are the four dimensions of the SCP framework developed by *Eriksson*.[1] First Eriksson considers the strength of integration. The strength of integration is related to "the extent to which integrative activities and technologies are utilized" and concerns the joint utilization of practical and tangible tools. This includes the formulation of joint objectives and follow-up meetings, the use of joint offices and joint ICT-tools. Utilizing these tools may be identified in domains of internal, supplier and customer integration, according to *Eriksson (2015)*. Second, Eriksson continues with explaining the dimension 'scope', which concerns "the number and nature of supply chain partners and their interdependencies" *(2015)*. Third, the duration of integration concerns both the length of the relationship over a series of projects and the timing of the involvement of a single project. Fourth, the depth of integration concerns who performs the activities, such as top-management, middle managers, engineers, or production personnel on the shop floor. One drawback of using this framework is that it deals with high abstractions, which diminishes the detail of the direct experiences. There is a danger of averaging away the different interpretation of each party, but it is exactly those differences that may highly influence the success of the collaboration. However, when a micro-level is adopted, more details are available that make it easier to understand the daily work experiences and the individuals' motivation why they behave as they do.

1 Eriksson uses the synonymous term "supply chain integration" instead of "supply chain partnering."

Using Eriksson's four dimensions is useful in studying work floor experiences of professionals who aim to apply the principles of SCP from a micro-level of analysis, but it does not provide a complete picture. For one, assessing the dimensions depends on the perspective of the assessor. For example, in *Ellegaard and Koch*'s case study of the purchaser who dictated suppliers (see introduction), some project managers "decided to use other suppliers, despite the directive" *(2012)*. Assessing Eriksson's dimension of scope in this example becomes problematic because it is difficult to pinpoint the nature and interdependencies of the partners in this example. Secondly, it is questionable whether "forcing a project manager to use a specific supplier" is part of the dimension of "strength of integration" and related to the utilization of practical and tangible tools. A third difficulty is that the framework implies a static, fixed situation, yet local situations are often dynamic. In the case that was described by *Ellegaard and Koch* it is imaginable that the situation develops over time (or even during a project). So, assessment results constantly change. Despite these difficulties, we applied Eriksson's framework for our SCP case studies because it provided a structure for more detailed observation and we try to evaluate the dimensions as such and contribute to the development of the framework.

§ 6.4 Methodology

Ontological and epistemological assumptions

The ontological standpoint of this research is that every perception of reality is a social construct. That means that each notion of reality is temporary and context dependent. Reality is constructed in the experience of individuals. Epistemological standpoint is that humans can know this social construct only from their own personal and limited frame of reference. Because, a person can only have limited access to the phenomenon itself, multiple constructions of reality are possible. Individuals may undertake actions to expend and nuance their frame of reference, but nobody is able to stand outside their frame of reference. That means that this research presents an interpretation of a social construct. The social construct of interest in this study is 'the implementation of SCP by project leaders that work for Dutch housing associations'.

This study consists of three main phases. First, three cases are selected. Second, three case studies are conducted in a linear order. Third, the cases are compared and synthesized. Each phase is explained in the rest of this section.

Case selection

Table 6.1 shows an overview of the three case studies and their characteristics, listed linearly. The first and second case studies were reported and published as peer-reviewed articles. The third case study was accepted as a conference paper for the ENHR-conference in September 2017.

	CASE STUDY 1	CASE STUDY 2	CASE STUDY 3
Number of living units (houses, apartments, studios).	30,000	60,000	10,000
Number of employers	Approximately 400	Approximately 800	Approximately 100
Time of collecting data	March '12 – Sept '12	Feb '13 – Oct '13	June '15 – Feb '16
Phase of implementing SCP	Beginning	Beginning	Beginning
Participants	(1) our main respondent was a project leader from the client organization.	(7) project leaders and (8) other employers from the client organization.	(11) participants from the client organization and the contractor.
Gathering data	(7) interviews (33) observation journals	(15) interviews (23) observation journals	(11) interviews (6) observation journals
Analyzing data	Created narrative and milestones with key respondent	Inductive analysis at sentence level; Nuanced findings with observations	Inductive analysis at sentence level; Nuanced findings with observations

TABLE 6.1 Facts and figures of the three case studies

The number of assets differs between each case study. The housing association in the first case study owns approximately 30,000 living units, which is considered large in the Netherlands. With approximately 60,000 living units, the housing association in the second case is one of the largest in the Netherlands. The housing association in the third case study, with only 10,000 living units, is categorized as medium, but since its organizational structures were comparable (among other favorable aspects), we accepted the size difference and included it in the study.

In choosing the three case studies, we looked for favorable aspects. In each one chosen, the participants were at the beginning phase of implementing SCP, with several managers in strategic positions and several project leaders interested and willing to apply its principles. We also looked at the willingness of the participants to cooperate as respondents. In each case study, the researcher experienced a high level of willingness to cooperate among all respondents, an enthusiasm about participating, and passion in the interviews.

Gathering and analyzing data in each case study

The main method of gathering data was through conducting open, semi-structured interviews. **Table 6.1** shows an overview of the number of interviews that were conducted in each case study. The semi-structured interviews were based on two main, open questions, as suggested by *Creswell (2007)*:

"*What have you experienced in terms of applying principles of SCP?*"

"*What context or situations have typically influenced or affected your experiences?*"

The interviews were combined with spontaneous and planned observations to increase our understanding of what was said and to capture (for example) a sarcastic tone of voice. One planned observation involved the researcher attending a team meeting that was often discussed negatively by respondents. Although the observations clearly enriched the data, the reports were not used for formal analysis.

In all three case studies, the researcher verified her findings with the respondents. In the first case study, this was done one-on-one, with the primary respondent. In the second and third case studies, the researcher organized a presentation with several respondents to present key findings and conclusions and provide an opportunity to respond. In the presentation, the researcher followed the line presented in the published articles (case 1 and 2) and the research report (case 3). There were no significant differences between the researcher's and the respondents' interpretations of a situation in any of the cases. The researcher was surprised that the respondents were very open for reflections, even if the results were not particularly in their favor.

Although the methods of gathering data are similar in each case, they differed in two ways: 1) the number and variety of participants increased, and 2) the level of the main researcher's active participation decreased. As **Table 6.1** shows, in the first case study, we used data gathered from one project leader. In the second case study, we used data collected from a group of project leaders. In the third case, we used data gathered from a group of project leaders as well as data from individuals from other roles within the supply chain. As expected, the expanded number and variety of participants provided new insights in each case study.

We approached each case as an independent study, and analyzed data inductively, using respondents to verify our findings. We took several, different steps for each case to create a narrative and draw conclusions from raw data. In the first case study, we created a narrative with the primary participant that identified several milestones by generally coding and identifying the main themes in a plethora of details. In the second

case study, the main steps also entailed general coding. In the third case key-interviews were used for coding at sentence level, and the other interviews were used to refine the initial coding. In all three cases, the participants' responses played a major role in verifying our findings. In the first and second case, the feedback by peer-reviews helped refine the scope of the analysis. Treating all three case studies independently resulted in two published peer-reviewed articles and a conference paper.

In analyzing the data of the three independent case studies, we took a holistic approach. Each participating project leader had several different projects that he or she managed at the same time (only one project leader was female). Usually, there are no black-and-white differences between projects that are SCP or not. Some project leaders stated, "We have always worked following SCP-principles." In the same organization, other colleagues said, "I have zero experience with SCP." Our goal was to gain an understanding of their daily work floor experiences as they attempted to apply the principles of SCP, but that notion of "attempting to apply SCP" became very broad. Also, the interpretations and perception of what SCP is and is not differed widely. We decided not to exclude interviewees who stated they had "zero experience" because the boundaries between SCP and non-SCP situations were too wide to assess in a rational way.

Synthesizing cases

The most challenging part of synthesizing cases, as is also discussed by *Noblit and Hare (1988)*, is retaining the uniqueness and holism of our previous interpretations of the project leader's experiences. The cases were grounded in everyday life of the project leaders, and we aim to maintain that in the synthesis of the cases. This phase of comparing and synthesizing the cases could be conducted in two ways. One way is accumulating the knowledge that was gained in the three cases. This is, according to *Noblit and Hare (1988)* a rather positivistic approach of handling the knowledge gained in field studies, and leads to abstraction drawn away from the direct experiences that we were interested in.

The other way, as *Nobilt and Hare (1988)* consider favorable, is that synthesizing interpretative cases should be a different interpretative study in itself. Following the argument by *Noblit and Hare (1988)*, the three narratives that were created in earlier phases of this research should be input for creating 'the synthesis of interpretative research', or a 'meta-narrative'. The main action in putting together the various studies, is finding key 'metaphors', which *Noblit and Hare (1988)* use as synonym for 'themes, perspectives, organizers, and/or concepts'. This involves creating a list of key metaphors, phrases, ideas, and/or concepts, and juxtapose them. This results in an initial assumption about the relationship between the cases. In this way, the particular is protected, holism respected, and comparison enabled (*Noblit and Hare, 1988*).

In this study, we used *Eriksson's (2015)* four dimensions as the starting point of our comparison, and thus we conducted what *Noblit and Hare (1988)* argue a somewhat positivistic approach. Although this research is not grounded in the positivistic research traditions, this approach was chosen, because Eriksson proposes to use the dimensions as an answer to the need "for conceptual and empirical research that is comprehensive by addressing several dimensions, yet detailed in the investigation of how specific dimensions interact" (*Eriksson, 2015*). Although, according to *Noblit and Hare (1988)* this is a rather positivistic approach to combine interpretative studies, this approach was also chosen to test the utility of the framework. It is an experiment to combine the rather static and fixed dimensions with the dynamic work floor experiences that this research is interested in.

As *Noblit and Hare (1988)* suggest, the narratives that were created in the three cases already represented an interpretation. Inevitably, synthesizing interpretative studies, is an interpretation as such. However, reusing raw data would have led to a re-interpretation, which was not ideal since we had already verified our original interpretations with the respondents. For this reason, we decided to use the end products (two peer-reviewed articles and a research report) as our main source for comparison and reverted to our raw data only when necessary.

Synthesizing the cases was a highly iterative process and took, as *Noblit and Hare (1988)* suggest. On one hand, we attempted to show project leaders and managers an alternative interpretation of their own reality and we think that this insight leads to different practical interventions by both project leaders as their managers. On the other hand, this synthesis of insight in practical work floor experiences is also useful for other qualitative researchers in the construction partnering field, because it will provide a framework for more investigation in other subsectors and other contexts.

Case results

This section describes the case study results, structured using *Eriksson's (2015)* four dimensions. This research did not focus on quantifying or qualifying the effectiveness of SCP, so ranking "successfulness" was not possible. The work floor experiences as described are neutral, although readers may not experience them that way. As human beings, we will naturally develop opinions about the cases and participants, and how they operate. However, the aim of this study is to *understand* daily work floor experience, not *judge* them. So, it's helpful to suspend judgement and consider any personal opinions as an opportunity for self-reflection.

Assessing the first dimension of SCP: strength

Eriksson's dimension of strength concerns the degree of integrative activities employed *(2015)*. From the micro-level perspective, this dimension is complicated to assess. Every activity involves communication, which is inherently integrative. Every time people communicate, they integrate, so listing integrative activities would mean listing all communication. This clearly is impossible. Further, different people experience situations differently. Even the same situation may be experienced differently by different people. Determining whether 'an activity is integrative' is a highly subjective manner. Despite those difficulties, and with the awareness that we highly abstract from daily work practice, this section follows three subcategories inspired by *Eriksson (2015)*: partner selection, pricing and other formal and informal integrative activities.

The first subcategory provided by *Eriksson (2015)* is partner selection. In the first case, it was unclear for the project leader how co-makers were chosen and the selection criteria used. He said, "Co-makers are put forward by the person in charge" and believed that the "size of the co-maker's organization" is used as a selection criterion, because they are more likely to "survive the crisis" (data gathered in 2012). The project leader had some "question marks" about this process of selecting partners. "That discussion is always there, but the real problem is never identified. [...] We collaborate with many good co-makers, but other good co-makers never get the opportunity to work with us. That does not feel right."

In the second case study, the department of maintenance and renovations had been recently reorganized. Part of the reorganization was the development of a new department of purchasing. One of the tasks of this department was to develop a system to select contractors. The relation between project leaders and employers of this department seemed to be perceived by some project leaders as a problem. As one of the project leaders suggested, "Purchasing took over some tasks that we previously did ourselves. Now we have to go to someone to ask, 'can we work with...?' and that makes no sense to me at all. It feels like an extra chain within the supply chain". However, the department of purchasing was still in development, and we observed two project leaders who created non-official selection procedures. They said they forgot to involve the department of purchasing. It is not sure whether the purchasers were aware of that.

In the third case, the project leader and the contractor had collaborated on three projects and felt that indicated successful supply chain partnering. However, for each project, the contractor had to go through a procurement process. The commercial manager of the contractor party clearly had the intention to become a preferred partner. Later, it appeared that there was no intention to stipulate this formally. For each new project, the client organization kept selecting partners by using a "soft"

procurement process. In a conversation with respondents from the housing association and the contractor party, the managing director of the housing association said he receives "the most beautiful videos and brochures that cost a lot of money," but never asked for those products. For this reason, contractors were asked to present themselves in a maximum of 3,000 words. However, one contractor's planner involved in those selection procedures said this was a problem, because "to produce 3,000 words, you have to do research for 80 pages. [...] Throughout those selection procedures we do something that we think that you want to see, and we put consultants on that. Then we come together and find out that you expected something completely different." One remarkable observation is that in all cases a policy of procurement prevailed.

The second subcategory was pricing. In all three cases, with all respondents, conversations about pricing were rather incoherent and chaotic. One reason for this could be that the topic of pricing involves many subtopics, such as open book accounting, developing standard price lists, reducing organizational costs, etc. Many of these subtopics were discussed in the interviews, but there seemed to be no common agreement about one or more specific subtopic. All project leaders agreed that SCP is about reducing cost (most felt by about 20%), but there was no agreed understanding of what those specific costs were. One project leader said he asks this question recurrently, but it never gets answered. He continued, "It should be answered by the person that sets this target because he knows what he is talking about." However, it is not clear who that target setter is.

Another example of confusion about the subtopic pricing comes from a calculator who was in an educational program. To graduate, he studied differences of costs between a building team system and an SCP system. He is clearly proud of this study and learned a lot by conducting it. He talked about this with two of his colleagues, but they never read the thesis. The researcher asked him whether he is interested in presenting his findings to his colleagues. The calculator responded, "I am not sure I am the right person for that. I think an external specialist would be way better to do that. I mean, I talked about it with many people, that is more my cup of tea, rather than presenting it."

In the third case, there appeared to be a general concern regarding how competitive prices could be guaranteed when a client works with a preferred partner. A commercial manager of the contractor party said, "As long as we have to participate in those selection procedures, you will see that our general costs will remain higher. If we become preferred partners, the general costs will decrease. The only thing is that you have to start this." However, as appeared later, participants from the client organization do not intend to make this contractor a preferred partner.

Assessing the second dimension of SCP: scope

According to Eriksson (2015), scope concerns the number and nature of supply chain partners and their interdependencies. From the project leader's micro perspective, the number and nature of supply chain partners is large, diverse, complex and dynamic. The exact team composition (inter- as well as intra-organizational) was not always completely clear. Acting in this complex web of individuals with different agendas was complicated. One of the project leaders said he sometimes feels "like a ping-pong-ball."

An example of vague team boundaries in the first case concerns the internal client. The project leader mentioned that he worked for an internal client, a supply chain partner, although it is highly questionable whether the project leader was aware of that at that moment. This internal client was never actively involved in developing and co-creating the project plans. For one project, the project leader and the contractors managed to develop a project plan in a way that they considered a form of SCP. The project leader showed the plans to the internal client. The internal client responded laconically to it, as if he did not realize the amount of time invested in the plan. Not only was the project leader angry about this attitude, he was also worried about how the contractor would respond to this internal client's reaction.

In the second case study, we observed similarly vague project team boundaries. One example concerned the relation between project leaders and the department of forecasts. One project leader explained that he would like to plan projects with the contractor for the forthcoming years, but forecasts do not provide overviews about the work that needs to be done. He said, "We reach and we pull, but nothing is coming." When an employer of the department of forecasts is asked what his experiences with SCP are, he stated that he delivers a list of projects that need to be done yearly, and "it may not sound nice, but how these projects are established, whether it is in a SCP construction or not, I don't care that much." Thus, we cannot assess whether this purchasing department falls within the scope of this case of supply chain partnering.

Concerning scope in the third case study, a group of four people identified themselves as "a successful supply chain". This group consisted of employers from the housing association as well as the contractor. Despite their perceived successfulness as a team, interviews with individual members revealed that one member tended to "fall back into old behavior," meaning "he tried to control the contractor too much". One respondent (on the contractor's side) said that the way this person works is "just really bad". So, even though the boundaries of this subgroup appear clear, it is questionable to what extent the person who "falls back in old behavior" is truly part of it. This case shows that the number, nature, and dependency between the project leader and other individuals in the supply chain are not based on rationally designed structures, but rather on emotional, arbitrary, and capricious aspects.

Assessing the third dimension of SCP: duration

Concerning duration, Eriksson (2015) distinguishes between a) length of the relationship and b) timing of involvement. We added an extra subcategory, c) the duration of (parts of) the project. We added this because it appeared to be a recurring theme in our data. Again, from the perspective of the client's project leader, the length of relationships with supply chain partners is complicated to assess, since a project leader has many relationships (internal and external) to manage. Also, the intensity of the relationship varies constantly, depending on the phase of the project. For example, throughout a renovation project, a project leader builds a relationship with an external project leader of a contractor's organization. When the project ends, the informal relationship does not necessarily end as well. Perhaps there is not much communication in between projects, but that does not mean that there is no relationship. The regional Dutch construction market is relatively small, and most project leaders work with the same external professionals several times, even when they are not preferred partners.

The first sub-criterion is the length of relationship. In all three cases, there is no formal intention that the relationship between the client's project leader and the contractor's project leader will last for more than one project and a procurement policy prevailed. However, in each case, the project leaders stated that when the project succeeds, it is likely that the contractor will be selected for another project in the future.

The second sub-criterion is the timing of involvement. As mentioned, in the first case, the project leader and the contractor are in a phase of developing different scenarios with different technical interventions and different budgets. It is unclear if there already is a maximum budget (provided by the internal client) and what that budget is. In the second case, according to the project leaders, the contractor's time of involvement varies. One project leader stated that the contractor gets involved "when everything is already decided". Another project leader organized a "soft procurement" as an opportunity for the contractor to present ideas. In the third case, a similar system of soft procurement is used. In most projects, the rough outlines of the technical interventions and a budget for the project appeared to be predetermined. However, throughout the project, ideas for other (significant) technical interventions may arise and affect the budget. If that happens, the project manager has to go through a formal intra-organizational procedure to secure the extra budget. This is similar to procedures in the second case. For example, in the second case, a project leader works on a replacing the roof of a building complex. According to this project leader, the new tiles remain for at least 50 years. Working with the contractor, they have the idea of isolating the roof at the same time. This can be perceived as a success since one of the aspects of SCP is that the client desires to get technical input and knowledge from the contractor.

It would be "a missed opportunity" to not isolate the roof while the tiles are placed. However, as the project leader reported, "in this organization, it is black and white. Isolating is done in another department. If your project is not in that department's portfolio, it will not be done". The project leader tried to change this, but couldn't get through, saying he attempted to "increase awareness among the right people, but that is all one can do".

The third sub-criterion is the duration of (parts) of the project. We did not measure the exact project duration because the uniqueness of each one made measuring and (comparing) too complex. However, it is remarkable that the maintenance phase was not involved in developing project plans in any case. Maintenance responsibilities were never turned over to the contractor's organization. The total cost of ownership was not a topic that was considered in any of the cases. For this reason, we assessed the project duration as one project. In the first and second case, a shared concern was whether implementing SCP decreased project duration. In the first case, the BIM-sessions were expected to be or experienced as tedious. The groups are big, consisting of many different co-makers. Discussions fly off in all directions. The project leader struggles with how he should lead in these types of meetings. One project leader wants another project leader to feed him ideas, so he does not want to guide the conversation too much. On the other hand, he does not want the BIM-sessions to be tedious. In the second case study, we observed a similar dynamic. The recent re-organization raised a lot of dust within the organization. Many of the interviewees mentioned searching for who is responsible for what in this new situation. Also, many interviewees experienced an increase in organizational bureaucracy. Sometimes it leads to long processes of simple tasks, such as sending a simple information letter to tenants. This letter must pass several parties, such as the project leader, the contractor's project leader, the secretary for the last spelling check and the repro. In the first as well as the second case, several interviewees expected the duration of these parts of the process to decrease when the dust settles and they acclimate to the new situation. In the third case study, the participants were satisfied and experienced decreases in project duration. One reason for the shorter project duration was they got used to working with each other, and the team of building site workers did not change in each project.

Assessing the fourth dimension of SCP: Depth

The fourth dimension of depth is about who performs the activities. Obviously, similar to the difficulty with assessing the other dimensions, all communication is integration, and so this dimension is complicated to assess from the micro-perspective we chose. In the first case, for example, it is tempting to indicate the introduction of the BIM-software as an important integrative activity. After all, the project leaders quickly began to discuss and organize BIM-sessions, which seemed different than their usual way

of organizing a project. Buying software is relatively easy, compared to the complex responsive processes that followed in using the software. The involvement of the managing director who bought the software was limited to the actual implementation process. On the one hand, the introduction of BIM-software was influential, but on the other hand, it was the users who formed the situation. The collaboration between the project leaders and their partners formed the BIM-session as such. We cannot make a list of all the integrative activities because we would have to list all communication that constitutes the situation as it is.

From a more distant perspective, the project leaders experienced that hierarchical levels supported the ideas of SCP, but often they did not experience actual support from those hierarchical levels. In all three cases, the project leaders perceived that some managers are not involved in their ongoing daily practice. In the first case, peer-to-peer reflection sessions were organized, but according to a project leader, they were not very successful. He felt that the ideas mentioned were cut off and that some people were sending too many while the others had to listen. Later in this case study, the project leader's team manager organized walk-in consultation hours, but the project leaders did not make use of that.

In the second case study, project leaders also felt that they couldn't discuss certain topics in team meetings. They explained that the team leader "frustrates instead of facilitates" and added that team meetings are "worthless." One project leader said that when he tries to discuss certain topics, the team leader tells him "to stop whining."

In the third case, the managing director supported the ideas of SCP. However, one project manager said he experienced frustration because the director, "advocates the advantages of SCP all the time [...] but requires evidence, a sort of bench mark, that we do we not pay too much. [...] I was hoping that he would write down the spirit of how we work and transform it into a policy." This project manager observed that some people in his organization still have the freedom to do it in their own particular way.

§ 6.5 Discussion

When we look at narratives from the three cases, we find several similarities. None of the project leaders worked with preferred partners (by-passing expensive and time-consuming procurement and selection procedures) in any case, and there is no indication that this will change in the future. In all three cases, it was expected that

applying SCP would reduce costs, but there was no agreement as to what those costs were specifically. In general, pricing and cost remained a complex topic, and all project leaders referred to different aspects of this topic. Formally, the duration of relationship with the contractors was one project only. Informally, the respondents acknowledged that they expected to cooperate again with most of the contractors in the future. One reason for this could be the limited size of the regional market. The maintenance phase was not involved in the collaboration in any of the cases. The contractor's timing of involvement varied between projects. However, in all cases, the outlines of the project, such as approximate budget and main technical interventions, were predetermined, and difficult and time consuming to change. Implementation of SCP (especially when applied for the first time in a project setting) was not perceived as something that necessarily leads to shorter duration of (parts of) the project. In all three cases, the managing directors of the departments of renovation supported SCP. However, the managers' actual involvement in daily work practice was limited. Moreover, the support did not lead to changes in the formal strategy for the other departments in the organization outside the department of renovation and maintenance.

Fernie and Tennant (2013) raise the issue of SCP non-adoption, observing some progress at the individual level, but collectively "they do not represent a substantive adoption of supply chain management in construction." Related, *Eriksson (2008)* indicated a lack of change in organizational policy, and observed that, "although clients wish to increase cooperation with clients [...], their intentions do not have any bearing on their procurement and project management procedures." According to *Eriksson (2008)*, the reasons for this may be unawareness or the individual decision maker may not have strong enough incentives to start new and less familiar procurements. The cases show that project leaders can experiment with different and less familiar procurement procedures, but the experiments seemed to be one-off, lacking follow-up actions. The individual experiences do not seem to effect other organizational levels. As *Hermans et al. (2014)* suggest, rethinking organizational strategy and policy is at the heart of his maturity assessment model for client organizations and SCP can be part of that. There is no reason to assume that SCP is a part of an increasing maturity of the client and that the strategy reaches beyond progress at the individual level.

The data show that intra-organizational dynamics influence the local implementation of SCP just as much as external relationships. For that reason, professionals in the field should take the intra-organizational supply chain as seriously as the inter-organizational supply chain if they want to make a change. Existing literature about SCP pays much attention to inter-organizational relationships (as shown by e.g. *Badenfelt, 2011*; *Bresnen, 2010*; *Fulford and Standing, 2014*), while intra-organizational relations often remain underexposed (an example of an exception is *Ellegaard and Koch, 2012*). An explanation for this underexposure is provided by *Eriksson (2015)*, who argues that

internal client functions may well be perceived as more external to the project, whereas external suppliers are internal to the project. Although perceiving dynamics this way is understandable among practitioners, it might be not ideal. Another overarching observation is that integrative activities (including all communication that takes place) are often contradictory, unfinished and not followed up. The cases show many examples. In all three cases, project leaders are stimulated by their managers to work according to the principles of SCP, but the managers simultaneously restrict them by not changing the organization's procurement policy. On the one hand, project leaders ask for a contractor's input. On the other hand, if a contractor proposes an idea, the project leader has to go through a formal intra-organizational process to secure the budget for it.

In constant, ongoing complex responsive processes people make sense of abstract ideas such as SCP (which comes from managers, but also from other external sources), but within these processes, a strategy such as SCP is formed at the same time. According to *Stacey (2011)*, it is an illusion to blame the problems such as mentioned in this article on poor communication. Referring to the sender-receiver model of communication, *Stacey (2011)* warns managers to try to reduce noise and "get it right," arguing, "the meaning of communication lies in the social act of communicating, rather than in the gesture itself. There is no point in blaming each other for poor communication because when individuals perceive it failing, they have to carry on exploring what is meant. That is the very nature of communication."

Lastly, a few notes about the use of *Eriksson's (2015)* four-dimension framework are discussed. The main difficulty of using predetermined dimensions to compare cases is that what goes on at the work floor is chaotic, dynamic, unruly, capricious, unfinished, and messy and that character does not seem to fit well with the structured and static predetermined dimensions. For example, the framework suggests evaluating integrative activities, but from an individual level of analysis, every communication can be understood as an integrative activity. It is impossible to list and assess all communication. Another example is that some individuals see themselves as part of the supply chain, while others don't see those individuals as part of the supply chain It is questionable whether the internal client in the first case falls in or outside the scope. These types of ambiguities make it more complicated to assess the experience with help of the dimensions. An extensive degree of communication with a large number of supply chain partners forms the emergent SCP strategy. The communication is chaotic, contradictory, unfinished and not followed up. This researcher's experience is that in using the framework there is a danger that the process of abstraction from direct experiences accelerates, compared to an inductive analysis. But in the end, it is not so much the framework, rather how the framework is utilized that determines the level of abstraction. Using the four predetermined dimensions, could be considered as a somewhat positivistic approach,

but the actualization of this approach is still highly interpretative. Further, the value of utilizing the framework might not be solely in the result of the assessment. The value also lies in the process of assessing and structuring the work floor experiences. That process is a useful activity to understand what goes on at work floor level. The considerations in the process of assessing reveal details that are necessary to understand what happens at work floor level and are therefore useful in the context of this thesis.

§ 6.6 Conclusions

The purpose of this research was to understand the daily work floor experiences of Dutch housing association professionals who attempt to apply the principles of SCP. Comparing the experiences of project leaders in three case studies resulted in three core insights. (Although neutral, the findings may not be perceived so by respondents or readers of this article.) By comparing the cases we found that: 1) despite the attention, engagement, and effort put into applying the principles of SCP, there are no indications that this lead to fundamental and structural improvement of intra- and inter-organizational collaborations. 2) from a micro-perspective, intra-organizational relationships are just as important as inter-organizational relationships when applying the principles of SCP. 3) integrative activities are sometimes conducted and perceived as contradictory, unfinished and not followed up.

This study may provoke practical ideas for improvement, such as: involving departments, changing work processes, or stimulating more efficient communication (by offering courses, for example). From a traditional management perspective, these practical solutions seem easy, but we don't recommend implementing them too quickly, for any of the three cases. As this research showed, it is not the strategy, but the complex responsive processes that caused undesired situations to arise. There is no step-by-step managerial plan to overcome perceived problems. Instead, we recommend getting involved actively and asking, "what is it that I do, and how does that contribute to this situation?" Answering this question might lead to a change in personal behavior, and so a change in responses and patterns that emerge from these complex responsive processes. In this way, rather than a managerial problem abstracted from daily work practice, cooperating with supply chain partners becomes a dynamic and personal process of development, or as *Stacey (2011, p. 330)* puts it, "an ongoing iteration of the selves of the interdependent people." We believe that seriously considering ordinary daily work floor experiences is a way to cope with this ever-changing world.

§ 6.7 Bibliography

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7 Conclusions

§ 7.1 Main conclusions

This research aimed to describe work floor experiences of project leaders who work for Dutch housing associations and who attempt to apply principles of SCP. Reason to do this, was that current research about SCP does not provide insight in what goes on at the work floor. This insight is necessary, because supply chain partnering is formed by ongoing complex responsive processes of interaction between professionals in their daily work life. To intervene effectively and to improve performances of collaboration, work floor experiences were studied. This research consists of a literature review, three case studies, and an overarching study in which the insights that are gained in the three case studies are synthesized.

The nature of qualitative construction partnering research

Before conclusions of the case studies are detailed, first the results of a literature study about the nature of qualitative construction partnering research are discussed. This was done because this PhD-project relies on the assumption that current literature about construction partnering research is too abstracted from daily work life. Reviewing peer-reviewed academic articles about the nature of qualitative construction partnering research identified the following gaps. 1) Literature underexposes processes of data analysis. 2) Reflections on the role of the researcher(s) in the research process are underexposed. 3) The individual level of analysis is underexposed. 4) The way in which the results are generalized remain somewhat opaque, especially reflections on internal generalization are underexposed. All identified gaps have in common that specific time and place dependent details that may have influenced understanding of studied individuals are underexposed and that may explain a feeling that current literature is too abstracted from the individual work floor experiences.

What are work floor experiences of project leaders who work for Dutch housing associations and who try to apply the principles of SCP?

The narratives describe that with or without a managerial intervention, some of the project leaders start experimenting with applying principles of SCP. Individual

initiatives have risen, albeit in a somewhat patchy and uncoordinated way. It appeared to be difficult to unify all the supply chain partners with different agendas and frames of reference. The cases address issues in especially intra-organizational relations that hamper the collaboration with external partners. The cases also show that key values associated with SCP are applied inconsistently.

Similarities between the cases in terms of strength, scope, duration and depth

The cases were compared by using four dimensions strength, scope, duration and depth of SCP, that were provided by *Eriksson (2015)*. This resulted in multiple observations. None of the project leaders worked with preferred partners (by-passing expensive and time-consuming procurement and selection procedures) in any case, and there is no indication that this will change in the future. In all three cases, it was expected that applying SCP would reduce costs, but there was no agreement as to what those costs were specifically. In general, pricing and cost remained a complex topic, and all project leaders referred to different aspects of this topic. Formally, the duration of relationship with the contractors was one project only. Informally, the respondents acknowledged that they expected to cooperate again with most of the contractors in the future. One reason for this could be the limited size of the regional market. The maintenance phase was not involved in the collaboration in any of the cases. The contractor's timing of involvement varied between projects. However, in all cases, the outlines of the project, such as approximate budget and main technical interventions, were predetermined, and difficult and time consuming to change. Implementation of SCP (especially when applied for the first time in a project setting) was not perceived as something that necessarily leads to shorter duration of (parts of) the project. In all three cases, the managing directors of the departments of renovation supported SCP. However, the managers' actual involvement in daily work practice was limited. Moreover, the support did not lead to changes in the formal strategy for the other departments in the organization outside the department of renovation and maintenance.

The comparison resulted in practical insights in how supply chain partnering in the three cases emerged. Overarching, this comparison resulted in three core insights. (Although neutral, the findings may not be perceived so by respondents or readers of this thesis.) The core insights are: 1) despite the attention, engagement, and effort put into applying the principles of SCP, there are no indications that this leads to fundamental and structural improvements of intra- and inter-organizational collaborations. 2) From a micro-perspective, intra-organizational relationships are just as important as inter-organizational relationships when applying the principles of SCP. 3) Integrative activities are sometimes conducted and perceived as contradictory, unfinished and/or not followed up.

As described in the introduction of this thesis, this research deliberately started with one broad open research question for themes to emerge inductively. These four themes are: 1) the importance of the intra-organizational supply chain in effective collaboration. 2) Leadership. 3) Inconsistent use of key values that are associated with the concept of SCP. 4) Power dynamics and ethics. Not surprisingly, the four themes and the core insights that were derived from the comparison based on *Eriksson's (2015)* dimensions overlap and interrelate. For example, both analyses emphasize the importance of intra-organizational relations. And both analyses show the chaotic and inconsistent character of actions that were conducted to improve performances. The four themes are elaborated below.

The importance of the intra-organizational supply chain in effective collaboration

All three cases show the importance of the intra-organizational supply chain on relationships with external partners. All three cases show examples of project leaders who try to collaborate with contractors, but were hindered by intra-organizational issues. For example, the first case study shows that a serious misunderstanding with the internal client caused uncertainty of the progress of a project in which a time was invested by the contractor. In the second case study, the newly founded department of purchasing was perceived by some project leaders as an extra chain in the supply chain, which makes processes of selecting partners more complex instead of lean. The third case study shows that continuation of the success was insecure, because within the client organization it was decided not to start working with preferred partners. Based on these examples, it was concluded that different types of non-functional intra-organizational dynamics slowed down the collaboration processes with the external partners, or made continuation of perceived good practices insecure.

Leadership

From the perspective of the project leaders, it seems that their managers' focus is not on facilitating daily work practice of SCP, neither on designing and communicating a deliberate SCP-strategy. It seems that some project leaders feel victims of contextual vagaries, not always able to get a grip on managing the supply chain effectively. Interventions that were undertaken by project leaders and their managers, are patchy, contradictory, and/or unfinished. Many individual initiatives have arisen, but continuation of good practices appeared uncertain. In all three cases, the project leaders' managers (in different hierarchical levels) initiated and/or supported the implementation of SCP. For example, BIM-software was purchased, a presentation was organized, or the project leaders are supported with words. And in each case a procurement policy still prevailed and management's expectations of what project leaders should do or aim for were not clear. The social relation between the project

leaders and their managers appeared to be problematic in many individual cases. Especially the project leaders in the first and second case experience that the managers have too little insight and ear for what the project leaders do and the problems they encounter in daily work life. When those project leaders try to discuss their experiences, they often feel unheard and misunderstood.

Inconsistent use of key values that are associated with the concept of SCP

The cases show that certain values were associated with applying SCP. In the first case trust and trustworthiness are discussed. In the second case values such as 'sharing responsibilities', 'pro-activity', and 'you must give each other open and honest feedback' were discussed. In the third case, among other things, informal evaluations and expressing appreciation from the client's project leader towards the building site workers were mentioned as important values. The exact formulation of these key values always differs slightly, but there is no reason to assume that the mentioned key values differ significantly from what has often been mentioned in literature about construction SCP. It could be argued that these key values are similar to general ideas of professional behavior and should therefore be applied in non-SCP-situations as well. But that debate falls outside the scope of this study.

New insight that this study provides is that the key values that are associated with SCP were applied to limited parts of the supply chain only and applied inconsistently. For example, the internal client was not involved in the application of SCP at all, and therefore the values of SCP were not applied to this party. Another example, in the third case study, people who were perceived as 'not that far in their thinking', were not provided with a short informal evaluation, although that was mentioned as a factor of success. Especially the intra-organizational supply chain seems to be treated differently than the inter-organizational supply chain.

This dynamic of shifting application of values and the actions that provokes, seems not to be a matter of bad intentions. There is no reason to question individual intentions. Rather, a possible reason could be that project leaders are not always (fully) aware of the extent of the supply chain they are working with, as seems the case with some intra-organizational supply chain partners. Another reason could be that project leaders feel unable to apply the key values, as seems the case with, for example, the client's building site supervisor in the third case study. Further, a possible reason is that they do not believe in a positive result of doing so, as for example in relation with the Department of Purchasing in the second case stud. A last possible reason is that they fear the consequences of doing so, example in relation with some team leaders.

Power dynamics and ethics

Whatever the reason for the shifting application of key values of SCP is, the participants together have created situations that provoke ethical questions. Related to this discussion, is the discussion about power dynamics. In this study power is not seen as something that one possesses, rather it is something one gains through interactions. A constant power shift is ubiquitous in all normal daily social interactions. The cases show that in normal daily work life, people constantly negotiate, construct, conduct process of trial-and-error, and in those processes, they may gain or lose power. Power arises in normal social interactions at work floor and power dynamics can be visible or hidden. An example of a form of visible power is when the client's project manager claims that contractors are not allowed to make money on smart purchasing of materials. He proposes a system involving a risk buffer, something which the contractor's head of the regional branch agreed to, although he does not think this is fair. An example of hidden form of power is when a purchaser might have formal power over project leaders in terms of selection of contractors, but the project leader might gain back his power by selectively 'forgetting' to involve the purchaser in a selection procedure, and so on. It is well possible that an internal client, who appeared to be not engaged and informed about the change of the department of renovations and maintenance towards SCP, does not even realize the power he may have on the process. That means that certain people unexpectedly and unconsciously may appear to have a great power in the process of collaboration.

It seems that, although perhaps unintendedly and unconsciously, supply chain partnering is used strategically to gain power. The word 'SCP' (or one of its synonyms) can be used as an argument to easily convince somebody else to do something that one would otherwise not do. After all, SCP is a buzz-word that seems to represent 'good practices' in the sector, rather than it is a deliberated strategy and the key values that are associated with SCP are hard to not agree with. By strategically referring to key values of SCP power can be gained. Perhaps the clearest example of such an issue is shown in especially the first and third case studies. A possible interpretation of the case studies is that applying SCP leaded to a situation in which the contractors still go through time consuming and expensive selection procedures, are involved in earlier phases of the process (thus provide extra work), still have limited influence in the technical interventions, have more responsibilities, and are supposed to (gradually) save 20% of the costs (although it is undefined how this cost-reduction is calculated). It is highly questionable whether this is fair and whether all the effort that was put in applying SCP will solve the problems that people expect. This also feeds the impression that despite the attention, engagement, and effort put into applying the principles of SCP, intra- and inter-organizational collaborations have not improved fundamentally.

§ 7.2 Reflection on the research

Before implications and recommendations of this study are discussed, the study should be reflected and limitations should be acknowledged. The first point of reflection concerns finding the right position of the researcher in the field. The most integrated situation is that the researcher itself is employed in the field of research and does research from the perspective of 'reflective practitioner'. In that case, the researcher would have worked as a housing association's project leader. This was not the case. Instead, in the first case study the researcher acted as a participative observer, and in the second and third case study the researcher became less participative. Whatever position the researcher has in the field, the most important aspects are awareness of that role in the field, and awareness that the researcher is just as well part of the ongoing complex responsive processes. Based on this research, an ideal distance between the researcher and the object of research cannot be determined.

Another methodological quest was what it means to analyze at an individual level of analysis. As *Stacey (2011)* argues, every thinking (and communication) is an abstraction from direct experience. In the processes of gathering data, constructing narratives, and in comparing the cases, many individual details of the direct experience get lost. Throughout this study, it was experienced that abstracting from direct experiences happens gradually. Based on this research an ideal level of abstraction cannot be determined. Researchers should always be aware of how far they are abstracting from direct experiences, and what level of abstraction their study requires. The observation that in the field of qualitative construction partnering research an individual level of analysis is underexposed, remains. Also at this point the researcher has to be aware and make conscious decisions (and be transparent) at all times.

In **section 6**, four predetermined dimensions were used as an experiment to compare the cases. One reason to do this was to experiment with the utility of the dimensions. The main difficulty of using predetermined dimensions to compare cases is that what goes on at the work floor is chaotic, dynamic, unruly, capricious, unfinished, and messy and that character does not seem to fit well with the structured and static predetermined dimensions. For example, some individuals see themselves as part of the supply chain, while others don't see those individuals as part of the supply chain It is questionable whether the internal client in the first case falls in or outside the scope. These types of ambiguities make it more complicated to assess the experience with help of the dimensions. This researcher's experience is that in using the framework there is a danger that the process of abstraction from direct experiences accelerates, compared to an inductive analysis. But in the end, it is not so much the framework, rather how the framework is utilized that determines the level of abstraction.

The considerations in the process of assessing reveal details that are necessary to understand what happens at work floor level and are therefore useful in the context of this thesis.

Concerning acceptability of the results, hindsight it is a missed opportunity to not systematically involve student research. While doing this research, the researcher was employed at the university of applied sciences in Utrecht. As a teacher, she taught undergraduate and graduate students about housing associations in general, and especially about collaboration strategies in renovation projects. She and her students conducted smaller and bigger studies about supply chain partnering or related topics from different perspectives. Repeatedly, the students came to similar observations and conclusions. Recently, a student studied evaluation criteria in a SCP-construction between contractor and client. The student discovered that all evaluation criteria to evaluate the quality of the supply chain partnership were directed at the contractor and none of the criteria focused on evaluating the client. This would have supported the finding of this thesis.

Another point of attention is about objectivity and neutrality of the researcher. In this thesis, these personal details are covered in the prologue, epilogue and author's notes. I believe that this enriches the research and increases the understanding of the results. However, it is not common to involve such personal background in, for example, peer-reviewed research papers. First, the researcher is limited in amount of words that she can use. Secondly, it is impossible to exactly know what influenced what and what details are most important to describe. Thirdly, and may be most importantly, this seems to be contradictory to general scientific value of objectiveness and neutrality of the researcher. Instead of pretending to be objective and neutral, I think it is better to acknowledge that no person is capable of being objective and neutral. Therefore, the researcher should be as transparent as possible about her personal motivation. Then the reader has more fair opportunity to value the research.

§ 7.3 Academic recommendations

Recommendations concern development of theory as well as methodology. A first academic recommendation is to keep considering work floor experiences of SCP – as well as work floor experiences of introduction of any other phenomenon, such as Total Cost of Ownership, or circular building. This study has shown that constructing narratives about what happens at work floor contributes to the existing knowledge,

because it provides different insights in why and how actions are undertaken, and how it influences the working of the supply chain. The study shows that salient context-related details, such as a non-engaged internal partner, problematic relations between project leaders and managers, may highly influence the local expression of SCP. Research that is abstracted from such ongoing daily work practice, may easily overlook such relatively small, unexpected, but influential factors.

A second academic recommendation is to study ethics in work floor relationships. This research provides reasons to think that some groups at work floor level are treated with differently with different underlying values than others. The question is whether this is justified. Also, it was observed that participants together create situations that provoke ethical questions, while there is no reason to question individual intentions.

A third academic recommendation concerns the low diversity among project leaders. Most project leaders in this study are white male with a technical or business Bachelor-degree. Only one of the studied project leaders was female. In this study, no project leaders (or other participants) with an immigration background were engaged. We think this represents the diversity within the total population. Studies show that diversity in groups increase performances in general. The relation between low diversity and performance in this sector should be studied.

Methodological recommendations concern qualitative construction partnering research and are directly based on the four methodological gaps that are identified in the literature review. The first recommendation is to be more transparent about the way in which data are analyzed. Second, the role of the researcher in current qualitative construction partnering research remains undiscussed in most research. By not discussing that role, it is implied that the role is objective and neutral which is highly debatable assumption. Thirdly, it is recommended to conduct an individual level of analysis, because most qualitative construction partnering research analysis data are analyzed at project level or higher. Individual experiences are averaged away and important details that are necessary to understand complex responsive processes lack. Fourthly, results are generalized in a vague and opaque way. It is recommended to pay more attention if and how results can be generalized.

§ 7.4 Practical recommendations

Concerning practical recommendations, a common critique about thinking of complex responsive processes in general is that it does not lead to practical solutions to improve performances in the field. Indeed, research from this perspective does not lead to managerial plans or interventions. As the case studies show, managerial interventions are always interpreted and formed in many interactions between individuals in the field. As *Stacey (2011)* argues, deliberated strategies, and all related plans, are myths and only create an illusion of control. Further, because the experiences that were studied are highly context-related, findings can never be generalized one-on-one. However, other housing associations – and other parties in other supply chains – can use the findings in multiple ways.

First, the description of work floor experiences may provoke many ideas for practical interventions, but professionals who are inspired by this research are recommended to evaluate their own situation thoroughly, before coming to action. In other situations, other salient details might hinder effective collaboration between intra-organizational as well as inter-organizational supply chain partners. Therefore, the results of this research can never be used as an argument to intervene in other situations. The conclusions of this study may not be generalizable one-on-one to other situations, but they may point at weak spots in comparable supply chain partnerships. The cases show the importance of the intra-organizational supply chain collaboration as a condition for effective external supply chain collaboration. Further, the cases show the struggle about the seemingly paradox of leadership in emergent processes. Also, the cases show an inconsistent use of key values of SCP and the power dynamics between individuals in the supply chain. When professionals in other housing associations evaluate their own situation, it is recommended to be specifically alert to those topics. The weak spots can be a point of attention within that evaluation, but professionals may also be inspired by the methodologies that were used to evaluate work floor experiences. Important tools in evaluating one's own situation is conducting interviews and observations from different perspectives in different hierarchical levels among parties within the supply chain. This may be done in a formal and informal way and it might be more a matter of attitude, rather than performing extra actions. After all, a professional is part of ongoing conversation with all kinds of people daily. Therefore, there are plenty of opportunities to conduct interviews and observe situations with an evaluative eye.

A second recommendation is that, if practitioners decide to intervene, they should focus on the effects of the intervention, at least as much as they focus on the intervention itself. This recommendation is directed towards managers, but also to other professionals in the field, such as project leaders. The results in this study show

that interventions have never a one-on-one-effect on others. Others always interpret the intervention with their own frames of reference. Therefore, the action does not stop when the intervention stops. Rather the action begins when the interventions was done. Again, this is a matter of finding a right attitude, rather than a matter of undertaking all kinds of extra actions.

A third recommendation is to explore the role as managers and leaders. The study shows project leaders feel that their managers not always take the lead, and project leaders themselves seem not always able to take the lead either. There is no one-size-fits-all-solution. The right management and leadership-style depends on many local and personal factors, such as the characteristics and preferred working style of the leader, as well as the characteristics and preferred working style of the team members. There is a lot of management literature that contributes to this debate, that can help in exploring this role. Exploring one's individual role, is an individual process that can touch personal aspects that reach far beyond business related aspects. Such as self-exploration demands vulnerability and a willingness to change. Whatever the outcome of the self-exploration process will be, the cases show that many project leaders feel unheard and misunderstood by their managers. This dynamic is relatively easy to overcome, and that takes effort from both the manager and the project leader. Simple conversation rules, such as non-violent communication principles, may help in increasing mutual understanding and increasing competences of listening.

Fourthly, we observe that some parts of the supply chain are thought of (and treated) with different values than other parts. The intra-organizational supply chain is treated with less awareness and different key values than the inter-organizational supply chain. The third case makes clear that the building site workers are thought of and treated in different ways than colleagues from the office. To change this, self-awareness of use of such key values and answering the question whether this is justified should be answered individually.

Lastly, the practical recommendations have in common that they demand a high level of self-reflective competences, and therefore it is recommended to keep increasing self-reflective competences. Again, this is a matter of attitude, rather than undertaking extra actions. There are different ways to achieve this. People can start by considering their daily communication as if it were interviews or observations and start acting like reflective practitioners. This action will likely also increase skills of listening. Further, one can ask help of a coach. Or one can consider meditating. Becoming and being reflective is an ongoing process.

§ 7.5 Bibliography

Stacey, R., (2011). Strategic Management and Organisational Dynamics, The Challenge of Complexity. London: Pearson.

Eriksson, E., (2015). Partnering in engineering projects: Four dimensions of supply chain integration. Journal of Purchasing and Supply Management, 21(1), 38-50.

Appendix A: Analysis nature of qualitative construction partnering research

ANVUUR ET AL. (2011)	**Aim**	'This paper addresses the above needs by exploring the major issues in developing RIVANS'.
	Position in the field	Multi-player, inter-organizational, both project and strategic based relationships.
	Gathering data	In an extensive literature review key-issues of RIVANS are identified and validated conducting a 'focus group approach'.
	Data analysis	There are no concrete indications what analysis-techniques are used.
	Role of the researcher	The role of the researcher is not explicated.
	Theoretical background	Extensive literature review on value networks in business, the RIVANS framework and building blocks of operational RIVANS.
	Level of Analysis	Country-level.
	Internal generalisation	'Two workshops provide the forum for the groups. They brought together a representative group of built environment professionals from industry and academia in Hong Kong and two international research collaborators'.
	Statistical generalisation	No.
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

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BADENFELT (2010)		
	Aim	'The present paper seeks to deepen our understanding of the complex and dynamic relationship between aspects of trust and control in client–contractor interactions ' (pp. 301).
	Position in the field	Dyad, inter-organizational, project based, new non-residential building.
	Gathering data	A three-year longitudinal case study (referring to Yin, 1994) about a large € 32 million laboratories for a high-tech company in Sweden. 'The main data sources were, besides contract documents, non-participative observations of 26 project meetings held on the building site' (pp. 303). This was complemented with interviews with key-respondents from both client and contractor.
	Data analysis	Badenfelt (2010) refers to Strauss and Corbin, 1997) 'The analysis was guided by a coding process in which data were categorized using qualitative analysis methods'.
	Role of the researcher	There is no reflection on the role of the researcher.
	Theoretical background	The theoretical background provides an overview of recent research trends on trust and control.
	Level of Analysis	Case-level with individual quoting to support understanding at case level.
	Internal generalisation	There is no reflection on the internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations. Badenfelt (2010) does suggest that 'the findings of this study are expected to contribute not only to construction management theory and practice, but also to all types of inter-organizational projects in which contracting parties struggle with problems related to risk allocation and relational risks' (pp. 309).

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BERENTE ET AL. (2010)	**Aim**	'By using these concepts, we articulate a framework in situ of how ICT enabled inter-organizational knowledge creation takes place during the design and construction of a highly complex building' (pp 570).
	Position in the field	Multi-player, inter-organizational, project based, new non-residential building.
	Gathering data	A multi-level case study about Peter B. Lewis Building at Case Western Reserve University carried out by Gehry Partners. 'The data were collected primarily through open-ended interviews using a semi-structured questionnaire near the end and shortly after completion of the building' (pp 575).
	Data analysis	The authors iterated through these analyses multiple times and compared findings to ensure that the examples and episodes were tightly grounded and consistent with the individual firm, the project as a whole, and where applicable with pre- or post-Gehry projects in which the firm may have been involved' (pp. 576).
	Role of the researcher	There is no reflection on the role of the researcher.
	Theoretical background	The theoretical background discusses inter-organizational knowledge creation and information technology, information pooling, physical interaction and object worlds.
	Level of Analysis	Case-level with individual quoting to support understanding at case level.
	Internal generalisation	There is no reflection on the internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	Explicit reference to analytical generalisations at pp 574. Berente et al. (2010) suggest that 'it can also apply to other contexts across functional disciplines' (pp. 586).

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ELLEGAARD AND KOCH (2012)		
	Aim	'How does internal integration between purchasing and operations in the buying company affect suppliers' recourse mobilization?' (pp. 149).
	Position in the field	Multi-player, intra- and inter-organizational, strategic based relationships.
	Gathering data	A qualitative single case study' (pp. 149) about a constructor collaborating with subcontractors that produce windows, trade wooden floors, and contract electrical installations. Data were gathered with 'twenty semi-structured interviews' with employers from the construction company and suppliers. Also key-documents are used.
	Data analysis	Miles and Huberman (1994, chapter 4 and 5) are used. 'We relied on various coding procedures and tools for within cases analysis'. [...] The coding process involved a high level of iteration and switching back and forth between interview data from the informants' (pp. 150).
	Role of the researcher	Reflection on the role of the researcher is not explicated.
	Theoretical background	A brief theoretical background about elements of internal integration and effects of internal integration on external integration and supplier recourse mobilization (pp. 150 - 151).
	Level of Analysis	Individuals are quoted in the appendix. The level of analysis in the main text concerns small groups of people, such as 'the purchasers', thus: case-level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	The authors suggest - amongst other recommendations - that future research may involve survey methodology in order to generalize findings to broader populations.
	Analytical generalisation	Ellegaard and Koch (2012) argue that the single case study 'also represents a limitation as broader analytical generalisability has traded off with detailed insight'.

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ERIKSSON (2010)	Aim	"The following three interconnected research questions will therefore be investigated: (1) What is partnering? (2) When should partnering be used and to what extend? And (3) How should partnering be implemented?" (pp. 906).
	Position in the field	Multi-player, intra- and inter-organizational, project and strategic based relationships in existing civil projects.
	Gathering data	Data are gathered using 'four case studies of partnering projects produced by a Swedish mining company' (pp 909). 50 semi-structured interviews and document analysis.
	Data analysis	Several data analysis techniques are applied, such as: cross-case pattern analysis (Eisenhardt, 1989), pattern-matching analysis (Yin, 2003), visual mapping strategy (Langley, 1999),
	Role of the researcher	Reflection on the role of the researcher is not explicated.
	Theoretical background	The theoretical background is about what partnering is, when it should be used and to what extend and how partnering should be implemented?
	Level of Analysis	Case level, with individual quotes.
	Internal generalisation	The internal generalisation is not problematized.
	Statistical generalisation	No.
	Analytical generalisation	A reference is made to analytical generalizations (Yin, 2003): "Case study should however aim for analytical rather than statistical generalizations' (pp. 909). According to Eriksson (2014) the main findings [...] are probably valid for other settings as well'.

FERNIE AND TENNANT (2013)	Aim	'The research strategy has [...] adopted a grounded theory approach (Glaser and Strauss, 1967) as a way to develop substantive theory to explain the development and diffusion of supply chain management in the construction industry' (pp. 1039).
	Position in the field	Multi-player relationships in UK construction industry.
	Gathering data	A grounded theory approach in which data are gathered using 'orientation interviews were largely informal meeting with interested stakeholders' in UK (pp. 1045).
	Data analysis	Profound description of analysis techniques, using a grounded theory approach.
	Role of the researcher	Extensive description of the researchers' own role in the research process.
	Theoretical background	In the theoretical background supply chain management theory and construction supply chain management are discussed.
	Level of Analysis	Country level
	Internal generalisation	Extensive overview of participants, but no reflection to what extend the participants represent the field.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations. In this context, research findings are generalizable in so far as they provide a wide-ranging statement on the action, reaction and transaction of supply chain practice in construction' (pp. 1048).

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FULFORD AND STANDING (2014)	Aim	'The objective of this study is to identify factors inhibiting collaboration and determine how collaboration might be improved in the CI' (pp. 316).
	Position in the field	Multi-player, inter-organisational, strategic based relationships.
	Gathering data	Three mini-cases about a 1) Constructor that does government or company tenders. 2) infra-structure projects, 3) commodity provider. Data are gathered using semi-structured interviews and expert panels.
	Data analysis	Six steps of Mishler (1990) are applied. No further research-specific aspects about de analysing process are explicated.
	Role of the researcher	Reflection on the role of the researcher is not explicated.
	Theoretical background	The theoretical background is about fragmentation in the supply chain, small enterprises in the supply chain, construction supply chains and types of relations.
	Level of Analysis	Case level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

GOTTLIEB AND HAUGBOLLE (2013)	Aim	'We analyse the underlying dynamics of construction through activity theory based on a case study of the first Danish examples of partnering' (pp. 119).
	Position in the field	Multi-player, inter-organisational, project based, new non-residential building.
	Gathering data	Paradigmatic case study about a € 22 million building of headquarters for a central organization of a Danish trade union. It concerns a longitudinal case study in which data are gathered through a 'combination of questionnaire surveys, interactive workshops, semi-structured qualitative research interviews and onsite observations' (pp. 119).
	Data analysis	The way in which data are analysed is not explicated.
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	The theoretical background is about 'activity theory'. The researcher's view on partnering is that it is not a fixed definition that exactly describes what it is and what it entails in practice, but it is 'a fluid concept, which emerges from the specific circumstances of activities'.
	Level of Analysis	Case level that is generalized to country level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	'The aim of the present study is not ''to test specific hypotheses or produce statistically generalizable results, but to use the case study in an exploratory way to contribute further towards theory development by developing analytical generalizations" (Bresnen, 2010, p. 619)'.

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HUGHUS TE AL. (2012)	Aim	'The research aims to test the hypothesis "The use of incentivisation with a gain/pain share of about 15 per cent is a precursor to the achievement of successful infrastructure partnering projects in South Wales' (pp. 306).
	Position in the field	Dyad, Inter-organisational, project bases, existing infra project.
	Gathering data	Two case studies about rail infra projects in South Wales of £200 million and £3 million are conducted. 'Questionnaires and interviews were used to gather both breadth and depth of data from within these two case projects' (pp. 309).
	Data analysis	Statistic procedures are applied. The results are supported and nuanced with interviews with key figures.
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	The theoretical background is about incentives in partnering.
	Level of Analysis	Case level
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	Statistical procedures are used to analyse data.
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.
JEFFERIES ET AL. (2014)	Aim	'The aim of this paper is to investigate factors that influence the successful implementation of Project Alliancing and therefore establish a framework of critical success factors (SCF's)' (pp. 465).
	Position in the field	Multi-player, inter-organisational, strategic based relationships in an existing civil project.
	Gathering data	Single case study about an operations and maintenance of a sewage system in Australia, whereby senior managers from the six partners from the alliance are interviewed following a semi-structured interview protocol.
	Data analysis	Short description about how a 'content analysis approach' was used to 'group and compare the findings from both the review of literature and the case study project' (pp 471).
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	In the theoretical background existing critical success factors are identified.
	Level of Analysis	Case level. Individuals are quoted to increase understanding and ground the findings.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

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JOHNSON ET AL. (2013)	Aim	The purpose of this paper is to determine if an IPD contract can effectively be utilized in federal construction and, if so, to create a framework under which federal organizations can take advantage of IPD' (pp. 481).
	Position in the field	Dyadic, inter-organisational, strategic based relationships.
	Gathering data	An embedded single case study design' This type of study is appropriate to test a hypothesis with a clear set of propositions, as well as clear circumstances within which they are believed to be true' (pp 483). Further, the 'Delphi method was utilized for data collection', using a group of reviewers.
	Data analysis	This paper's analysis was developed from a combination of the reviewers' findings and interpretations, the author's own research and interpretations, and respondent validation performed during data collection and after completion of early drafts' (pp. 481).
	Role of the researcher	Except that it is acknowledged that the researcher's interpretation played a role in analysing data, the role of the researcher within the research process is not explicated.
	Theoretical background	The theoretical background is about key practices of using a contract.
	Level of Analysis	Different 'units of analysis' in this case are object of study – case level
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations. The findings seem to apply for all federal construction alliancing projects, because the authors conclude that 'If the preceding steps are followed, an effective alliancing contract can be used in federal construction without major difficulty' (pp 487).

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LAAN ET AL. (2011)	Aim	In this paper we aim to generate insight into the process of establishing and maintaining cooperative, trusting relationships in partnering projects' (pp. 99).
	Position in the field	Multi-player, inter-organizational, project based relationships, in a both new and existing infra project.
	Gathering data	Longitudinal case study about a € 40 mln rail infra project in the Netherlands. Doubling the number of tracks in the domain of a medium-sized city over a length of about 5 km. Some new and existing related buildings and infrastructure is involved. Data are gathered in three rounds of interviews with key respondents, using a protocol that was based on literature study about 'risk, trust, control and performance' (pp 101).
	Data analysis	In one paragraph it is explained how the authors reduced and categorized data, using Swanson and Holton (2005) and Miles and Huberman (1994).
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	The theoretical background is about the concept of trust, and dimensions and resources of trust and the role of trust in the governance of inter-organizational relationships. Also, the interview protocol is based on literature study.
	Level of Analysis	Case level with individual quoting.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	It is not literally suggested that the findings can be generalized analytically. It is recognized that 'we have to be careful in generalizing our findings' (pp. 106).

LU ET AL. (2013)	Aim	The research 'aims to add new insights to the knowledge body on Construction Professional Services by situating Chinese construction professional services (CCPSs) within the international context (pp 303).
	Position in the field	Multiplayer, inter-organizational relationships.
	Gathering data	Data-triangulation is applied, gathering quantitative as well as qualitative data, using 'yearbooks, annual reports, interviews, seminars, and interactions with managers in major CCPS companies' (pp 306).
	Data analysis	Two of the authors analysed the data separately, and agreement of the analysis was achieved through multiple interactions between the two authors' (pp. 307).
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	The theoretical background is about the history and current state of Construction Professional Services in China.
	Level of Analysis	Country level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	It is not literally suggested that the findings can be generalized analytically. The results apply for the Chinese market.

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OSIPOVA (2011)	Aim	The aim of this study is to investigate how procurement options influence risk management in construction projects' (pp 1150).
	Position in the field	Multi-player, inter-organizational, project based relationships.
	Gathering data	Data are gathered in 11 cases about building as well as civil engineering projects in small and large cities in Sweden. Data are gathered in several round using interviews with experts in the cases and questionnaires.
	Data analysis	The process of data analysis is not explicated.
	Role of the researcher	The role of the researcher in the research process is not explicated.
	Theoretical background	The theoretical background is about risk management in general and risk allocation through construction contracts.
	Level of Analysis	Case level
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No.
	Analytical generalisation	It is not literally suggested that the findings can be generalized analytically. It is suggested that 'future surveys should aim to target a wider range of procurement options in a larger sample of construction projects' (pp 1156).

PAN ET AL. (2012)	Aim	This paper scrutinizes the processes through which off-site technologies were adopted and utilized in house building' (pp 1332).
	Position in the field	Multi-player, inter-organizational, strategy based relationships in new residential building.
	Gathering data	Action research in two cases of residential buildings in the UK in which the researcher was 'proactively' engaged 'in the use of off-site production at three distinct but interrelated levels of governance'. Data were collected using, a questionnaire survey, interviews, focus groups, informal discussions and meetings, 'which were supported by observations, site visits, and document analysis'. (pp 1334).
	Data analysis	The analytical model (Miles and Huberman 1994) was used for data analysis, which included three concurrent flows of activity: data reduction, data display, and conclusion drawing and verification' (pp. 1334).
	Role of the researcher	The research approach was based on the collaboration between the researcher and the organization, using a coproduction model in creating new knowledge' (pp. 1333).
	Theoretical background	The theoretical background is about classifying off-site production technologies and off-site production in house building.
	Level of Analysis	Case level
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	It is not literally suggested that the findings can be generalized analytically. The authors suggest that care should be taken when generalizing the results to other countries, because of differences in context.

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SANDBERG AND BILDSTEN (2011)		
	Aim	The purpose of this paper is to explore the relationship between the coordination of activities and recourses on the one hand, and the occurrence of different types of waste on the other' (pp 77).
	Position in the field	Multi-player, intra-organizational, strategic based relationships in new building.
	Gathering data	Case study about a Swedish manufacturer that produces Timber Volume Elements, operating on the Swedish and Norwegian market. Interviews were held with different employers in different aggregation levels of this company.
	Data analysis	There are no concrete indications what analysis-techniques are used.
	Role of the researcher	The role of the researcher is not explicated.
	Theoretical background	The theoretical background is about coordination and waste and the question what exactly coordination is. It is also about value and waste in the lean concept.
	Level of Analysis	Case level
	Internal generalisation	Short reflection on the representativeness of the case: 'The case company has been chosen not for being representative of the whole construction industry or the industrialised housing concept, but because it is expected to replicate or extend the emergent theory' (pp 81).
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

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SMYTH (2010)	Aim	'While many have felt that there has been little or no progress (e.g. Green, 2006), yet scant empirical research has been put forward to support success or failure of these initiatives. This paper has the overall aim of helping to address this gap' (pp. 256).
	Position in the field	Inter-organisational relationships in the UK.
	Gathering data	'The so-called 'Continuous Improvement' programme in the UK is evaluated as a case study through an analysis of demonstration projects' (pp. 255). According to Smyth (2010) primarily an action research method was applied. Two types of evidence are used in this study: 'aggregate data over a 10-year period and qualitative data over a two-year period at the end of the first decade since the Egan Report in order to identify in greater depth trends for the future'.
	Data analysis	The analysing procedure involved several steps of categorizing data. No reference to an existing method of analysing is made.
	Role of the researcher	The role of the researcher is not explicated.
	Theoretical background	The theoretical background discusses attempts to evaluate performance improvement programmes.
	Level of Analysis	Country-level.
	Internal generalisation	'The sample is 150 demonstration projects, representing 33% of the population, selected for reasons that industry actors had written these up in short report format. This is a reasonable sample, yet the fact that only one-third has been written up is itself a constraint upon demonstration and dissemination, even before adoption is addressed'. (Pp 259).
	Statistical generalisation	Statistical procedures are used to analyse data.
	Analytical generalisation	Possibilities for analytical generalisation is not literally referred to, yet limitations and opportunities of generalizing results to other contexts are discussed.

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TAGGART ET AL. (2014)	Aim	'The purpose of the research and empirical work described herein was twofold. First to assist a small/medium enterprise to improve its productive processes towards the elimination/reduction of rework and defects. Secondly the work seeks to contribute to theory in the area of defects elimination and management through dissemination of the research findings (Baskerville 1999, Robson 2002) This involved work in the following areas: 1) understanding the improving defects identification and management system, 2) providing an understanding of the costs involved, 3) providing root cause analysis into defects with the aim of avoiding future repetition, 4) training and learning' (pp 830).
	Position in the field	Multi-player, inter-organizational, project based relationship in non-residential building.
	Gathering data	Action research case study about a health department with a project value of € 1.4 million in UK'. And, 'a substantial amount of diverse qualitative data was produced' (pp 831).
	Data analysis	No explanation about how data were analysed.
	Role of the researcher	Some indications about the role of the researcher in the research process, such as this research is part of a wider PhD-project, and the field researcher attended site 'during the latter part of the construction phase' (pp 835).
	Theoretical background	The theoretical background is about defects causation, cost of rework and defects, and collaboration in the supply chain.
	Level of Analysis	Case level, with individual quoting.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

YING AND TOOKEY (2014)	Aim	'The objective of this research sought to address how construction logistics efficiency can be improved through optimising vehicle movements to the construction site' (pp 262).
	Position in the field	Multi-player, inter-organizational, project based relationships.
	Gathering data	Case study about a 13 level tower block with roof top plant room surrounded with lecture theatre and student facility in Auckland, New Zealand. Data are gathered using interviews and observations.
	Data analysis	'These data were analysed as a whole, reduced to focus on the main questions of how these challenges occur. The causes of the problem were analysed, and generalisation of the causes were carried out using principles of supply chain management' (pp 267).
	Role of the researcher	The role of the researcher is not explicated.
	Theoretical background	The theoretical background discusses theoretical perspectives of construction logistics.
	Level of Analysis	Case-level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No, suggestions for quantitative research in the future.
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

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ZIMINA ET AL. (2012)		
	Aim	Is Target Value Design really different from current practice and why?' (pp 384).
	Position in the field	Inter-organisational, project based relationships.
	Gathering data	Action research in 12 cases amongst which Fairfield Medical Office, and The Cathedral Hill Hospital.
	Data analysis	The process of analysing data is not explicated.
	Role of the researcher	Some indications about the role of the researchers are given. For example, 'The researchers were directly involved and worked with the project teams almost on a daily basis, acting as informers of the theory of target costing, helping with the execution of the practical trials, making adjustments and collecting data' (pp 384).
	Theoretical background	The theoretical background is about target costing, target costing in construction and target value design.
	Level of Analysis	Case level.
	Internal generalisation	There is no reflection on internal generalisation.
	Statistical generalisation	No
	Analytical generalisation	No explicit reference to possibilities of analytical generalisations.

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Curriculum Vitae

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Working experience

Sept '13 – Current: PhD-Candidate

Social research about work floor experiences of supply chain partnering in the Dutch social housing sector. Expected date of defense: December 1st, 2017.

Jan '09 – current: Teacher Real Estate and Project Management at the University of Applied Sciences in Utrecht

- Develop and execute courses about applied research strategies.
- Teach applied research strategies for honor-student.
- Develop and tutor courses, projects, internships, and graduate students in the areas of applied research strategies, real estate management, project management, and ethics.
- Active involvement in innovation and redevelopment of the curriculum of Real Estate Management studies.

Sept '07 - Jan '09: Researcher/consultant residential real estate market, ING Real Estate Development, Den Haag

- Consulting role in processes of acquisition.
- Developing market-product and location-product-combinations.

Education

July '15: Summer course 'Doing Research with Discourse Analysis: A Discourse Perspective on Making Sense of Social Change, Free University of Amsterdam

- An international summer course (3 EC) about the role of language in social change.

Sept. '09 – Feb.'10: Course Didactic skills in Applied Science.

Sept '08 – Feb.'10: Philosophy, University of Amsterdam

- Finished courses: introduction in philosophy (10 EC), ethics (10 EC) and Philosophy of Science (10 EC).

Sept '04 – March '07: MSc Real Estate and Housing, specialization: Corporate Real Estate Management, TU Delft

- Graduation project about the consequences of experience economy on how organizations manage their real estate. The results are based on literature study and multiple case studies.

Sep. '01 – Sep. '04: BSc Architecture, Urbanism and Building Technology, TU Delft

Sep. 1993 – June 2000: Gymnasium, Veluws College Walterbosch, Apeldoorn

Published articles

Scientific peer-reviewed publications

- Venselaar, M., Wamelink, J.W.F. (2017). The nature of qualitative construction partnering research. A literature review. Engineering, Construction, and Architectural Management (In press).
- Venselaar, M., Gruis, V.H., (2016). Studying intra-organizational dynamics in implementing supply chain partnering: a case study about work floor experiences in a Dutch social housing association. Construction Management and Economics. (34) pp. 98-109
- Venselaar, M., Gruis, V.H., Verhoeven, F., (2014) Implementing Supply Chain Partnering in the Construction Industry: Work Floor Experiences within a Dutch Housing Association. Journal of Purchasing and Supply Management.

Other publications

- Venselaar, M. (2017). Reflections on a successful partnership between a Dutch social housing association and a contractor. Conference paper for the ENHR-conference in September 2017.
- Venselaar, M., (2014). Onbegrip werknemer gevaar voor ketensamenwerking. Renda.