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Coopetition as an entrepreneurial process: Interplay of causation and effectuation

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ABSTRACT

The present study views coopetition as an entrepreneurial process that involves coping with uncertainty, risk-taking behavior, exploring and exploiting opportunities, and developing innovative solutions. It also shows that coopetition can be not only an intended but also an emergent process with low levels of goal specificity, which enables the incorporation of effectuation theory into coopetition research. The empirical part of the article is based on a longitudinal case study of three media companies from Finland that compete and cooperate simultaneously. Our results demonstrate that coopetitive interactions combine effectuation and causation, and this interplay depends on stages of the coopetition process and on managerial levels. Therefore, the effectuation lens allows to examine coopetition process from a novel micro-perspective of individual decision makers. Our cross-disciplinary study concludes with outlining new avenues for future research in both coopetition and entrepreneurial effectuation.

1. Introduction

In the current era of highly networked relations, collaboration, sharing and open source, firms get involved in cooperative relations with even their direct competitors in order to gain access to resources and benefits they could not otherwise have (Luo, 2007). These benefits may include cost sharing, co-marketing solutions and collaborative innovations, which all stem from the phenomenon of coopetition, simultaneous cooperation and competition (Ritala, Golnam, & Wegmann, 2014). Overall, coopetition has become visible across multiple industries and types of organizations (Bengtsson, Eriksson & Wincent, 2010).

Coopetition is a stream of research and a concept within business network studies, rooted in the International Marketing and Purchasing (IMP) Project Group (Håkansson, 1982). After more than two decades of coopetition research, Bengtsson and Kock (2014) have outlined several directions that are prevalent in this area of study. The first relates to the studies that describe coopetition in terms of game theory and view it as balanced win-win relations. The second stream applies the resource-based view and discusses the mutual gain of resources through coopetitive relations. The third one is grounded in the network view of coopetition, adopting the perspective of the network position of firms involved in coopetitive relations. Despite the variety of research within these streams, the dynamics of coopetition are still understudied (Bengtsson et al., 2010), and the view of coopetition as a process has been largely neglected (Bengtsson & Kock, 2014; Bengtsson, Kock, Lundgren-Henriksson, & Näsholm, 2016; Dahl, 2014).

In addition, several studies underline that coopetition as a paradoxical and bias phenomenon unfolding through two opposite logics and conflicting goals is a risky endeavor and can be characterized by high levels of uncertainty (Bonel & Rocco, 2007; Ritala & Hurmelinna-Laukkanen, 2013). Hence, although a coopetitive strategy is a mechanism to decrease uncertainty, it is in itself a clear source of uncertainty (Padula & Dagnino, 2007; Ritala, 2012). Further, actors involved in coopetitive relations tend to seek new opportunities and innovative solutions, and exploit them together with their partners (Ritala & Tidström, 2014; Yami & Nemeh, 2014). Because dealing with uncertainty, taking risks, and exploring and exploiting opportunities have been recognized as the ultimate features of entrepreneurial behavior (Alvarez & Barney, 2005, 2007; Kirzner, 1997; Sarasvathy, 2001; Shane, 2000; Shane & Venkataraman, 2000; Zahra & Wright, 2011), this article argues that coopetition resembles an entrepreneurial process and should thus be studied employing theories from the entrepreneurship domain, too. In the extant literature, this entrepreneurial feature of coopetition has attracted little research attention, and there have been few articles related to coopetition published in mainstream entrepreneurship journals. Those that have connected the coopetition phenomenon to entrepreneurship mainly do so through the context of

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small- and medium-sized enterprises (SME) or addressing coopetition as a growth strategy (see e.g., Soppe, Lechner, and Dowling, 2014; Bengtsson & Johansson, 2014) rather than by focusing on its true entrepreneurial features (see e.g., Czackon, 2009; Robert, Marques, & Le Roy, 2009). Hence, coopetition has not been approached from the perspective of individual entrepreneurs, and there has been little conceptual work in the intersection of coopetition and entrepreneurship.

This paper suggests incorporating the emerging entrepreneurial theory of effectuation (Sarasvathy, 2001; Arend, Sarooghi, & Burkemper, 2015; Read, Sarasvathy, Dew, & Wiltbank, 2016; Reuber, Fisher, & Coviello, 2016), which enables the explanation of coopetitive relations not only through the entrepreneurship lens but also by grasping their non-goal-driven and emergent features, a scantly studied aspect of coopetition research (Dahl, Kock & Lundgren-Henriksson, 2016). Therefore, this study aims to explore coopetition as an entrepreneurial process and intends to answer how decision-makers across managerial levels use entrepreneurial logic of effectuation and combine it with its inversion, causation, in the development of coopetition. In combining coopetition and effectuation, this cross-disciplinary study offers important contributions. *First*, it contributes to coopetition research by responding to the calls for new theoretical advancements in this area (Bengtsson et al., 2016). Our study focuses on the individual level of top and middle managers of coopeting companies that altogether contribute to the formation, execution, and development of simultaneous cooperation and competition. This individual perspective is novel and emerging in coopetition (Dahl, Kock, & Lundgren-Henriksson, 2016; Tidström & Rajala, 2016; Park, Srivastava, & Gnyawali, 2014). Recently, there has been an increased interest in emotional, cognitive, and behavioral aspects of coopetition; this interest has become visible in the increasing paradox discussion that aspires to understand how the contradicting logics of cooperation and competition are handled optimally to attain the benefits from coopeting (Bengtsson et al., 2016). The adoption of theories and the subsequent level of analysis has, however, remained mainly at the organizational level (Fernandez, Le Roy, & Gnyawali, 2014; Gnyawali, Madhavan, He, & Bengtsson, 2016), excluding coopetition at the individual level (Le Roy & Fernandez, 2015). In this regard, effectuation as a cognitive and entrepreneur-centric decision-making theory (Sarasvathy, 2001), has a major potential to grasp how coopetition is shaped by individuals.

Second, this article contributes to the effectuation theory by extending its boundaries into other areas and applying its principles to coopetition, previously studied outside entrepreneurship. While effectuation theory has been mainly developed in the context of small and young entrepreneurial firms, this study adds to corporate effectuation (Blekman, 2011; Werhahn, Mauer, Flatten, & Brettel, 2015) by evidencing effectuation in established organizations with long experience in the industry. We also extend Sarasvathy's (2001, 2008) idea that causation and effectuation are constantly intertwined in human reasoning. We respond to the calls for studying the transition from effectual and causal logics and vice versa (Read et al., 2016) and for conducting process-based research on effectuation (Gupta, Chiles & McMullen, 2016). We specifically demonstrate how causation and effectuation are interrelated in time (different stages of the coopetition process) and organizational space (different managerial levels) and connect the two logics with the levels of goal specificity and uncertainty.

2. Theoretical background

2.1. Entrepreneurial effectuation: summary and stepping stones

The effectuation approach started to develop at the end of the 1990s and the beginning of the new millennium (Sarasvathy, Simon, & Lave, 1998; Sarasvathy, 2001). The theory introduces effectuation as a means-driven non-predictive logic of entrepreneurial reasoning that is an alternative to goal-driven causal logic. Sarasvathy (2001: 245) stipulates that '*causation processes take a particular effect as given and focus on selecting between the means to create that effect. Effectuation processes take a set of means as given and focus on selecting between possible effects that can be created with that set of means*'.

Effectuation follows several principles. *First*, instead of acting causally and arranging resources according to predefined goals, effectual entrepreneurs start with means that are to hand there and then, and constantly adjust their goals to these means (Sarasvathy, 2001). With the three types of intangible resources, namely 1) 'What I am' (entrepreneurial identity and abilities); 2) 'What I know' (knowledge); and 3) 'Who I know' (networks), an effectuator creates new ends (Sarasvathy, 2001, 2008). These can be new firms, products/services or markets, and their creation assumes iterative networking and interactive commitments with various stakeholders (Read, Dew, Sarasvathy, Song, & Wiltbank, 2009). Ultimately, it is not only the set of means that is of particular importance for the effectual process but also what entrepreneurs cognitively perceive as means and what they actually do with them to achieve certain effects (Sarasvathy, 2008). Notably, this means-driven logic does not imply the absence of goals and planning. Goals are organized in hierarchies where satisfying low-level goals (sub-goals) facilitates accomplishment of high-level goals (desired end-states) (Bandura, 1988, 1989; Beach, 1985). In the effectual logic, the sub-goals and planned sequences of acts directed towards their achievement (action units) have low specificity due to uncertainty. Hence, effectuation is purposeful but deals with high-level goals in goal hierarchies (Read et al., 2016).

Second, instead of causally conducting extensive and expensive research of preselected markets, effectual entrepreneurs work jointly with any and all interested stakeholders (Sarasvathy, 2001). Notably, '*in effectuation, clear goals do not drive the stakeholder selection process — i.e., the goals of the new venture or the predicted features of the opportunity do not drive who comes on board. Instead, who comes on board drives what the goals of the enterprise will be*' (Sarasvathy & Dew, 2008: 729). Together they negotiate and re-negotiate roles and relations within the growing effectual network. Hence, effectual co-creation relates to '*the cooperative shaping of the market rather than a competitive scramble for (predicted to be) valuable resources that drives industry dynamics*' (Read et al., 2009: 14). Through this process, all the stakeholders obtain either financial or emotional ownership of the entrepreneurial resources. It is a conscious choice not to control and influence the network, in order to let the other partners manifest unexpected opportunities and co-create new combinations and a variety of possible outcomes from the relations. The effectuation logic supposes that the environment is endogenous to the actions of entrepreneurs, and they cannot be viewed separately from their networks (Read et al., 2009).

Third, instead of causally counting expected returns and risks, effectual entrepreneurs stake as much as they can afford to lose, because under conditions of high uncertainty they cannot predict the return on investments and success of the venture (Sarasvathy, 2001). Intelligent altruism becomes a fundamental behavioral assumption of this affordable loss principle. Intelligent altruism is rooted in the logic of bounded rationality, which is different to the opportunistic behavior of unbounded rationality logic in Transaction Cost Economics. Bounded rationality is the opposite to mathematical rationality as optimization. It implies that an individual's abilities to make optimal, or at least satisfactory, decisions are limited by the cognitive limitations of their mind, environmental conditions of information isotropy, and lack of resources (Simon, 1957, 1991). The concept of docility is central to intelligent altruism and means '*the tendency to depend on suggestions, recommendation, persuasion, and information obtained through social channels as a major basis of choice*' (Simon, 1993: 156). Altogether, intelligent altruism (as opposed to opportunism), favors negotiating to bargaining, and, moreover, integrative negotiating to distributive. Put simply, the stakeholders involved in the venturing process do not share an existing "pie" but design, "bake", and co-create it together. Hence, this co-creation allows for more flexible and innovative outcomes.

Fourth, instead of the causal exploitation of pre-existing knowledge and "going by the book" (e.g., particular technology; source of competitive advantage), effectual entrepreneurs exploit contingencies in order to control the emerging situation (Sarasvathy, 2001: 252). This relates to leveraging unexpected outcomes and surprising situations, because uncertainty is treated as an opportunity and a resource rather than a disadvantage. Thus, having some preconceived goal in mind would discourage entrepreneurs from creating a more favorable environment for opportunities (Dew, Read, Sarasvathy, & Wiltbank, 2009; Read et al., 2009).

2.2. Coopetition as an entrepreneurial process and its implications for effectuation

Rusko (2011) argues that some scholars define coopetition on a broad level as the whole network of a firm's suppliers, customers and competitors, while others adopt a narrower focus and see it as a dyadic cooperative relation between two competitors. In their review of coopetition research, Bengtsson & Kock (2014: 182) provide an inclusive definition of coopetition, which is seen as '*a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, regardless of whether their relationship is horizontal or vertical*'. This definition enables us to view coopetition not only as an inter-organizational phenomenon, as their previous definition suggested, but also to include other levels of analysis (Bengtsson & Kock, 2000).

Lumpkin & Dess (1996: 136) view an entrepreneurial process as '*the methods, practices and decision-making styles managers use to act entrepreneurially*'. From that stance, we start by outlining several characteristics of coopetition that call for studying it through the lenses of theories from entrepreneurship in general and effectuation in particular, and will demonstrate its process nature. This perspective on entrepreneurship would enable us to see what explanations effectuation can offer to reveal new ways of researching coopetition.

2.2.1. Coopetition as an emergent strategy

The received literature has largely considered coopetition as a deliberate strategy and a by-product of managerial decision making. While agreeing upon this intentional coopetition, several authors also acknowledge the parallel existence of unintended and emergent mechanisms of coopetition (Tidström, 2008; Dahl, Kock, & Lundgren-Henriksson, 2016). For instance, Mariani (2007, 2009) examines the formation process of coopetitive relations and particularly emphasizes their unintended side. His studies demonstrate that the coopetition process is to a large extent dependent on external forces (e.g., institutional environment), and thus can be emergent. Also, Mariani (2007) describes induced coopetition, initially competitive relations in which cooperation has been imposed by policy makers, where '*coopetitive advantage is sometimes leveraged intentionally only after it has been unintentionally achieved*' (p. 120). Because the cooperation component is unexpected, the resulting coopetition is an emergent and unintentional process that can later develop into deliberate and strategic coopetition through self-reinforcing mechanisms.

In line with these findings, the study by Kylänen and Rusko (2011) shows that coopetition can be highly unintentional due to decisions made by local municipalities. The authors argue that while intentional coopetition is '*a balance between cooperation and competition that is a result of conscious, strategic planning based on rational thinking*', in contrast unintentional coopetition is '*a relationship between cooperation and competition where inter-organizational processes are approached as more contingent, constantly evolving and emergent. Instead of rational thinking, expressed words and deliberate strategies, it may primarily rise from impulse, and stem from spontaneous and instinctive acts*' (p. 194).

While these studies reveal unintended components of coopetition showing that goals of the coopeting parties can have low specification, they have not gone further than providing highly descriptive results and tagging this phenomenon as "intuitive", "spontaneous", "impulsive" or "instinctive" coopetition (Kylänen & Rusko, 2011; Mariani, 2007). We see this evidence of unintended and emerging coopetition as the initial gateway for effectuation to suggest alternative explanations. These new insights will be covered further below.

2.2.2. Coopetition as a source of opportunities and innovations

Ritala & Tidström (2014) show that coopetition can serve as a rich pool for value-creation opportunities. In addition, under unfavorable industry conditions, coopetition can be a forced strategy to deliver survival opportunities (Bonel & Rocco, 2007). Also, coopetition strategies have been emphasized as the main triggers for innovations as they allow firms to develop new products (Bounken, Clauß, & Fredrich, 2016; Estrada, Faems, & de Faria, 2016), and innovative business models (Velu, 2016), learn from partners and share knowledge (Bouncken & Kraus, 2013), and protect innovations from imitation (Ritala, 2012; Ritala & Hurmelinna-Laukkanen, 2013). Yami and Nemeh (2014) conclude that while dyadic coopetition between two firms fits incremental innovations, multiple coopetition between more than two firms suits radical innovations. Interestingly, Roy and Yami (2009) show this dependency is valid also in the opposite direction, where strategic innovations lead to increasing cooperation and competition.

The entire effectuation process is focused on enhancing conditions for opportunity creation and discovery that result in innovations (designing new products, new ventures, new markets) (Read, Sarasvathy, Dew, & Wiltbank, 2017; Sarasvathy, 2001); thus, it is fully coherent with this opportunity-development view in coopetition research. However, as an entrepreneur-centric and highly cognitive approach, effectuation can add understanding of the nuances of halting coopetition opportunities from the individual perspective, a view that has been neglected in the coopetition domain (Park, Srivastava, & Gnyawali, 2014). The principle of means-driven reasoning can add knowledge on how these opportunities are realized cognitively and responded to by individual implementers of coopetition strategies in coopeting organizations, from the point of view of who they are, what they know, and who they know, and how they turn these opportunities into innovations applying, for instance, the principles of affordable loss and leveraging contingencies.

2.2.3. Coopetition as a de-risking behavior

Engaging in coopetitive relations can be very risky; indeed, competitors can be the riskiest partners (Le Roy & Czakon, 2016). For instance, in knowledge-intensive innovation networks there is a high risk of opportunism and undesired knowledge spillovers between coopetitors (Ritala & Hurmelinna-Laukkanen, 2013). The study by Bonel and Rocco (2007) demonstrates three classes of coopetition risk. First, stemming from the saturation of one or more activities simultaneously; second, relating to unexpected negative outcomes resulting from the substitution of an internal practice by the external one of the coopetitor; and third, associated with the replacement of a set of activities and their complementarities with a whole cluster of externally imposed practices. However, at the same time, coopetition is an efficient risk-sharing and risk-reduction strategy. Thus, coopeting parties can have access to additional resources (Luo, 2007), share costs and risks of failure of innovative projects (Ritala, Golnam, & Wegmann, 2014).

While risk implies predictive thinking, and estimating the negative outcomes of an event with a degree of numerical probability (Knight, 1964), effectual non-predictive logic instead sees the future as unknown and follows the principle of affordable loss (Sarasvathy, 2001, 2008), thus de-risking relations with various stakeholders. When parties invest in their relations only as much as they can afford to lose, they automatically set the risk level low or even do not perceive these relations as risky. Hence, the effectual logic offers a new way of looking at risks of cooperating with competitors and de-risking coopetition, which will be elaborated on further in this paper.

2.2.4. Coopetition as coping with uncertainty

Coopetition has largely been seen as a mechanism to decrease uncertainty (Bouncken & Fredrich, 2012; Padula & Dagnino, 2007). Ritala (2012) stipulates that coopetitive strategies are most applicable under conditions of high market uncertainty, when, for example, the industry develops swiftly and its future is unpredictable. Under these conditions, coopeting firms can share risks and costs and increase their innovativeness and market performance. When market uncertainty is low, cooperative relations tend to prevail over competitive relations. The Bouncken and Kraus (2013) study on SMEs in knowledge-intensive clusters demonstrates that coopetition is advantageous when technological uncertainty is high. At the same time, coopetition outcomes can be unexpected and very uncertain, which requires flexibility and responsiveness from coopetitors (Ritala & Hurmelinna-Laukkanen, 2013).

Coherent with coopetition, the effectuation logic is also applied under conditions of high uncertainty, goal ambiguity and information isotropy (Sarasvathy, 2008). However, while coopetitive strategies aim to decrease uncertainty, effectuation takes environmental uncertainty for granted as the general contextual condition. Through the principle of leveraging contingencies, uncertainty is not perceived as a negative factor that needs to be decreased (Harmeling & Sarasvathy, 2011). Rather, uncertainty becomes a condition for more entrepreneurial opportunities. Adopting this perspective, coopetition research can shift its focus from seeing uncertainty as a dependent or independent variable of coopetition towards viewing it as an indigenous and integral part of the coopetition process.

2.2.5. Coopetition as a network-based strategy

Historically, coopetition studies originated from the IMP Project Group (Håkansson, 1982) and, thus, are highly influenced by the business network research tradition (Ford & Håkansson, 2006; Håkansson & Snehota, 2006). Indeed, networked relations are a fundamental assumption for and the context of the phenomenon of coopetition (Bengtsson & Kock, 2000; Rusko, 2014). Overall, network-based studies have examined coopetition at two different levels of analysis: inter-personal and inter-organizational networks. From an inter-personal perspective, the study by Simoni and Caiazza (2012) shows that interlocking social networks of directorates, and their evolution, determine the driving forces of coopetition and facilitate cooperation among competing firms. Coopetition from the perspective of inter-organizational relations has been demonstrated by Bengtsson and Kock (2000), who view it as an interaction in a dyad of two firms. The authors distinguish three types of coopetitive relations: 1) interactions where cooperation dominates competition, 2) relations where cooperation and competition are equally present, and 3) relations where competition prevails over cooperation. The highest level of coopetitive relations has been described by Peng and Bourne (2009) with regard to coopetition between two networks within the health care industry.

Network relations are also one of the key aspects of effectuation. The effectuation process model (Sarasvathy, 2001) emphasizes the importance of networks at least twice. First, network relations compose the 'Who-I-know' part of effectuators' means, and become the starting point of the effectuation cycle; and second, they are fundamental to the principle of reliance on partnership instead of conducting market research. Co-creation of a future new product, firm or market with any and all interested stakeholders implies relations with both partners and competitors (Sarasvathy & Venkataraman, 2011).

This is the exact point where effectuation can be added to and included in the network-based research stream in coopetition. Received studies in this stream mainly focus on the '*what*' of networks and their static characteristics (Bengtsson & Kock, 2014). They look at how relations contribute to resource acquisition, strategic positioning within business networks, and competitive advantage (see e.g., Gnyawali & Madhavan, 2001). Effectuation, in turn, can add to the understanding on the dynamics of the formation of coopetitive relations and '*how*' they come into being. Effectuation can provide explanations on how coopetition networks are formed by their members, without any preconceived structure of a future network or idea about their desired position in them. The effectual process of self-selection by staking something you can afford to lose (Wiltbank, Read, Dew, & Sarasvathy, 2009; Read et al., 2009: 14), and the concept of interactive commitments (Sarasvathy, 2008: 105), could help model the coopetitive networking process.

2.2.6. Coopetition as a process

It was Bengtsson, Eriksson, & Wincent (2010: 170) who included the word 'process' in the definition of coopetition, describing it as '*a process based upon simultaneous and mutual cooperative and competitive interactions between two or more actors at any level of analysis (whether individual, organizational or other entities)'*. Adopting this process-based view, Dahl (2014) proposes three scenarios of change in coopetitive relations. First, relations characterized by high competitive tensions and a high level of perceived hostility usually come with a low level of trust; therefore, their key change mechanism lies in external forces and intra-organizational learning – the areas where the counterpart interests do not overlap. Second, relations with a high level of trust and commitment that are dominated by cooperation will have inter-organizational learning as a key change mechanism. Third, in relations characterized by equally balanced levels of cooperation and competition, the main mechanisms of transition are intra- and inter-organizational learning. Dahl (2014) concludes that more empirical research on the process of change in coopetitive relations would advance coopetition research.

Having process-theoretic origins, and thus coherent with the process perspective (Sarasvathy, 2001; Gupta, Chiles & McMullen, 2016), effectuation can be helpful in grasping the dynamic components of coopetition, something that is lacking in coopetition research (Bengtsson & Kock, 2014). A potential stepping stone to understanding these dynamics is the idea that causation and effectuation are iterative and mixed in the entrepreneurial process (Sarasvathy, 2001) and that over time, effectual strategies tend to become more causal (Sarasvathy, 2008; Sarasvathy & Dew, 2005). In this respect, it could be useful to explore how causal and effectual logics are intertwined along different phases of the coopetition process.

2.2.7. Coopetition as an orthogonal construct

In coopetition, viewing competition and cooperation as the two ends of a continuum is a tempting but misleading perspective (Bengtsson, Eriksson, & Wincent, 2010). Instead, competition and cooperation are two co-existing interactions where the presence of high competition does not suppose a low level of cooperation and vice versa (see e.g., Lindström & Polsa, 2016). The interplay between the two types of interaction flows becomes visible in the possible tensions resulting from simultaneous cooperating and competing (Bengtsson & Kock, 2014). It can be also seen in emerging interaction patterns that change strength, direction (Dahl, 2014) and/or balance between cooperation and competition over time (Park et al., 2014; Tidström & Hagberg-Andersson, 2012) at the relational and/or organization levels. Likewise, Perry, Chandler, & Markova (2012) express a similar idea about the relation between causation and effectuation, which suggests the coherence of the two theories. They argue that the two logics are not the two ends of one continuum, rather they should be seen as orthogonal. This means the opposite of causation does not imply effectuation; rather, causation and effectuation are the two axes on one frame of coordinates. Hence, the simultaneous use of causation and effectuation has a positive synergistic effect on performance (Smolka, Verheul, Burmeister-Lamp, & Heygens, 2016) and helps to survive under turbulent changes in the business environment (Laine & Galkina, 2016).

Table 1
Complementarity between coopetition and effectuation.

	Coopetition	Effectuation
Emergent strategy	While being intentional and deliberate, coopetition can be also "spontaneous", unintended and emergent	Effectuation and its four principles are the tools to explore the unintended non-goal-oriented strategies
Opportunities and innovations	Through knowledge sharing and learning from partners, coopetition triggers innovative behavior and is a pool of opportunities	Effectuation is a means-driven entrepreneur-centric process of opportunity discovery and creation that results in new products, new ventures, or/and new markets
De-risking	Cooperation with competitors is a risk-reduction and risk-sharing strategy	Effectual principles of affordable loss and cooperating with all interested stakeholders (also competitors) allows for de-risking competition
Uncertainty	Coopetition is favorable under conditions of high uncertainty because it serves as a mechanism to decrease it	Effectuation logic is applied under conditions of high uncertainty, goal ambiguity and information isotropy
Networks	Network relations (both inter-personal and inter-organizational) are a fundamental assumption for coopetitive relations	Network relations are essential part of the 'Who I know' part of effectuators' means; they are the basis for the principle of reliance on partnership instead of conducting market research
Dynamic process	Dynamics of change depend on the dominance of either cooperation or competition, or their balance, in interactions	Effectuation is based on a process model; causal and effectual logics are intertwined in decision-making
Orthogonality	Competition and cooperation can co-exist and shape each other over time	Causal and effectual logics can co-exist and be synergistically intertwined

2.3. Synthesizing coopetition and effectuation

Combining theoretical approaches from different research areas has been recognized as a powerful mechanism to conduct novel studies and make theoretical contributions (Corley & Gioia, 2011; Whetten, 1989). The above discussion has outlined the complementarity between coopetition and effectuation (see Table 1), which is important in achieving theoretical rigor in cross-disciplinary studies (Bello & Kostova, 2012: 541). Their compatibility shows that effectuation theory can complement coopetition in order to explain the entrepreneurial and non-goal-oriented side of the coopetitive processes.

Advancing this point, we bring together the two theories by introducing causal and effectual types of interaction in coopetition. In practice, these flows can appear in various combinations and intensity. For instance, the cooperation flow can be effectual and the competition flow can be causal at the same time and vice versa; both flows can be either causal or effectual.

2.3.1. Causal interactions in coopetition

In coopetition, the relationship flow of *causal cooperation* is based on a high level of trust supposing that the relation is long-lasting and well established. The deliberate nature of interactions means that both parties can predict each other's behavior and motives, and act collectively and strategically to achieve predefined common goals, which implies that they have the information and existing knowledge required for this cooperation. It also presupposes the careful selection and strategic choice of partners in terms of cooperation. Hence, the level of uncertainty is low in this type of relationship.

In *causal competition* interactions, the competition-dominated logic implies that parties act opportunistically to maximize their own interest and profit. The causality of this interaction type assumes that both parties can strategically define their own goals on what they want to achieve (or avoid), and with this goal-oriented logic they can estimate the expected outcomes and returns. This relation is possible between companies in established industries where competitive relations have a long history. Although this type of relation cannot be characterized by trust and accessibility to necessary information, it involves a relatively low level of uncertainty because counterparts know both their own and the competitors' motives.

2.3.2. Effectual interactions in coopetition

In coopetition, the *effectual cooperation* flow implies relations that are stakeholder dependent, rather than goal-driven or resource-dependent. It can include dyadic interactions with '*any and all interested people*' (Wiltbank et al., 2009: 117) including '*early partners, customers, suppliers, professional advisors, employees, or the local communities*' (Sarasvathy & Venkataraman, 2011: 126). It implies a high level of commitment between counterparts; however, following an effectual logic, partners are committed not to the final goal of the partnership but to the variety of outcomes it can bring, and the variety of new opportunities. Hence, having some pre-conceived goal in mind would limit the potential opportunities. In effectual cooperation, parties give and share something they can afford to lose without knowing if there will be a financial or other return. Using the metaphor of Sarasvathy (2008), they do not share the pie but design and co-create it, improvising, experimenting and not knowing how it will turn out and what share of the pie they will get. Effectual cooperation is thus a non-predictive, non-goal-oriented and non-adaptive process, because the environment is not considered something to which to respond to. Also, this type of cooperation occurs under conditions of high uncertainty, goal ambiguity, and information isotropy; for instance, it can be the start of a new project, an organizational change, new product launch, new equipment purchasing, or entering a new market.

Although effectual cooperation relies on commitments, trust is a theoretically inapplicable concept for it. A trusting behavior supposes that the trustor has a certain goal orientation and expectation regarding a particular action that the trustee will perform (Bialaszewski & Giallourakis, 1985: 207; Mayer, Davis, & Schoorman, 1995). This expectation, in turn, implies that the trustor has a predicted desired goal and, therefore, follows a causal logic. However, effectual cooperation does not follow a goal-driven reasoning because the relations do not have a clear purpose. It is a process of establishing relations of opportunity rather than relations of trust. Although trust can be found empirically in effectual cooperation, '*theoretically speaking, effectual logic does not require any particular assumption about trust ex ante*' (Sarasvathy & Dew, 2008: 734).

Effectual competition may seem at first glance to be a contradiction in terms, because competition's fundamental principle implies opportunistic behavior and estimating expected returns, which immediately implicates the causal logic of reasoning. However, in this paper we understand effectual competition as a process of de-risking competition. Starting from means (What I am, What I know, Who I know) allows for control of the things that effectuators can manage directly (e.g., the amount of time, money) and setting the level of how much of these resources they can afford to lose. Conversely, following a causation logic and starting from determining the level of expected returns (that are often set high) would imply a higher degree of initial risk that would further need to be decreased. De-risking means establishing the level of risk that entrepreneurs can afford to be comfortable with. This comfortable level of risk is naturally set low; from this low level, effectuators look to how they can increase their returns without taking further risk. Hence, the effectual principle of affordable loss enables decreasing the costs of failure. Instead of conducting systematic competitive analysis and estimating potential market shares, effectual competition implies getting as many interested people as possible on board, and co-creating this market together. De-risking competition through this partnership enables acquired non-redundant and diverse (although isotropic) information on the business environment, which in turn helps in changing direction and making the most of unexpected change (the principle of leveraging contingencies). Thus, effectuators are able to control (rather than predict) the high level of uncertainty they are constantly dealing with.

3. Methodology

Taking into account the evolving nature of both the coopetition and effectuation research fields, and the process-based focus of this study, a qualitative research design based on a case study strategy is an appropriate methodological choice for exploring the individuals in coopetition (Edmondson & McManus, 2007; Yin, 2004). Moreover, our attention to the process conditions of a longitudinal approach allows us to follow the dynamics of the coopetitive interactions. Longitudinal case research has been argued to fit process research, as it creates the opportunity to follow how changes unfold in organizations over time (Hassett & Paavilainen-Mäntymäki, 2013).

The case study involves three media companies from Finland. The three studied companies publish newspapers in a minority language and have a history of strong competition due to overlapping subscriber areas. However, in the present industry context characterized by the entrance of new competitors into the market, general recession, and changes in consumer and advertiser behavior, these relations have changed radically. Due to the digitalization of media, the traditional role of printed newspapers has changed dramatically, and the firms need to find new strategies in order to survive the future.

In 2013, the companies decided to initiate cooperative activities in order to cut costs and increase their chances of survival under the conditions of this industry upheaval and high uncertainty. However, inter-organizational cooperation has not been previously considered a norm for conducting business in the industry, and has consequently been approached with suspicion. Attempts to initiate cooperation in the past have been made, yet with no results. Grounded in the journalistic profession, competition has conventionally been viewed as the only industry practice, providing customers with unique news and journalistic material. Thus, the initiated coopetition, where cooperative interactions were implemented against a competitive mindset were viewed as a new strategy caused by the industry crisis.

Cooperation between the companies was organized around materials exchange and joint distribution of newspapers. The material exchange, a particular focus of this study, was arranged around a joint article pool where the companies uploaded and extracted the materials they wished to share. This sharing voluntary and rather loose in its initial structure. The articulated aim of this exchange was saving on resources and focusing on firms' core areas, thus, increasing their chances to survive under crisis conditions. As coopetition progressed, the companies also developed some other projects related to the material exchange organized around article series.

3.1. Data collection

The data were collected in 2013 and 2014 from the three media companies (Company A, B and C) using interviews as the primary data collection method (see Table 2). We used a snow-ball sampling technique at different managerial levels in order to find suitable respondents (Patton, 1990). In total, we conducted 28 in-depth semi-structured interviews with top and middle managers from these firms, averaging 50 min in length. As far as possible, we interviewed the same managers twice in order to follow the development of the interactions. Thus, we examined the initial stage of coopetition, when it had just been agreed upon by the companies, and the later implementation phase, when the coopetition activities were executed.

The *first round of interviews* focused on establishing the coopetition, its background, announcement, and incentives for coopeting. Even though the respondents did not use the word coopetition, the phenomenon became evident through the prevalence of the competitive practices alongside the cooperative materials exchange. The first-round interviews also covered the relational history between the companies: how they discussed, decided about, and organized the exchange of materials and how they viewed its future development.

The *second round of interviews* aimed to grasp the progression of coopetition and respondents' experienced about it. In this round, more middle managers were involved into the interviewing because the exchange of media materials moved into its execution phase and managers lower down in the hierarchy became responsible for it. These interviews focused on how and why the respondents had contributed individually and collectively to the development of the material exchange, how they felt about it, and perceived others' efforts in its development. Interview guides were used for both rounds of interviews (see Appendix 0); however, the respondents were given the opportunity to speak as freely as possible.

To ensure the quality of the data (Yin, 2004), and to achieve data triangulation (Patton, 1990), we conducted an observation of one inter-organizational meeting. At this meeting, middle managers from the three companies were evaluating the exchange of materials, media coverage of this cooperation, and the development of an on-line material-exchange system. This allowed for a holistic understanding of the emergence and development of the material exchange and cooperation as a whole, and for verification of the interview statements.

We consequently examined coopetitive interactions occurring at both higher and lower managerial levels during the formulation and implementation phases of coopetition. In this regard, managers at higher organizational levels mainly took part in formulating and deciding about the development of the coopetition strategy. This involved frequent inter-organizational meetings and internal informing others about decisions made during these meetings. The *formulation phase of coopetition,* therefore, to a great extent encompassed top managers who discussed and made decisions about the material exchange and other forms of future coopetition.

Managers at lower organizational levels were mainly involved in the execution of coopetition and communicating this new strategy across the companies. The *implementation phase of coopetition,* therefore, included establishing a continuous exchange of material between the companies. In particular, it included decisions about uploading and extracting material and experimenting with new forms of journalistic exchange for the future. It should, however, be noted that some middle managers were involved in both stages of the coopetition process. For example, some of them took part not only in inter-organizational meetings when the strategy was initiated but also engaged in developing the exchange on a daily basis at the intra-organizational level. In addition, the distinction between the two phases is largely functional rather than temporal; in terms of time, there were some overlaps as some coopetition activities had already been implemented while others were under formulation and development, such as the planned series of articles.

3.2. Analyzing the data

Due to the qualitative course of the research, the informal analysis of the interview data started during the interviews, which resulted in specifying questions or recognizing emerging and unexpected themes, and during their transcription. As the analysis progressed, it became more formal. We used both manual analysis, e.g., highlighting different parts of the transcribed text, and the NVivo software as an aid in handling the large amount of transcribed material.

The analysis progressed through several stages and was based on the

Table 2
Case companies, the data collection rounds, time and duration of the interviews.[a]

	Company A	Company B	Company C
2013	Top manager #4: 4.6.2013, 1:39:39 Top manager #6: 25.6.2013, 50:31 Top manager #5: 22.8.2013, 31:42 Middle manager #2: 7.8.2013, 55:03 Middle manager #6: 25.6.2013, 36:20 Middle manager #3: 25.6.2013, 38:30 Middle manager #5: 25.6.2013, 26:20	Top manager #8: 20.6.2013, 58:40 Top manager #2: 20.6.2013, 43:22	Top manager #9: 28.6.2013, 43:15 Top manager #7: 14.8.2013, 55:07 Middle manager #1: 14.8.2013, 58:56
2014	Top manager #6: 27.5.2014, 1:03:41 Top manager #4: 3.6.2014, 1:14:20 Middle manager #2: 28.5.2014, 46:06 Middle manager #4: 27.5.2014, 28:45 Middle manager #6: 27.5.2014, 22:17 Middle manager #5: 27.5.2014, 25:56 Middle manager #3: 27.5.2014, 20:15 Middle manager #8: 8.9.2014, 51:50	Top manager #3:11.6.2014, 29:24 Top manager #2: 11.6.2014, 1:07:10 Middle manager #9: 11.6.2014, 24:05 Middle manager #10:11.6.2014, 56:13	Top manager #1: 24.6.2014, 1:00:59 Middle manager #12: 24.6.2014, 59:43 Middle manager #11: 24.6.2014, 26:18 Middle manager #7: 8.10.2014, 47:14

[a] The acronyms do not appear in the numerical order since all the interviewed managers were first listed in the alphabetical order and in accordance to their managerial levels; the numbers we assigned after that.

qualitative content analysis (Miles & Huberman, 1994). First, the interviews, media coverage, and notes from the observation were scanned for *entrepreneurial characteristics of coopetition*. Themes such as risk-taking, uncertainty, innovative behavior and opportunity recognition were identified from the literature. Second, they were refined and revised against the data that were coded accordingly. Similarly, we detected *causal and effectual features* of both cooperative and competitive interactions in the three companies. We applied the criteria of Fisher (2012) to recognize causation and effectuation in the data. For example, causal features related to themes such as long-term plans assessment, written plans and/or orally expressed plans, expected outcomes, prediction, goal orientation, and using previous knowledge. Effectual features of coopetition related to themes such as absence of goal, uncertainty, experimentation, flexibility, inability to predict, inability to estimate future outcomes, and unexpected opportunities. In generating these descriptions, we noticed that the features occurred differently between managerial levels, as well as between the formulation and implementation stage of coopetition. The analysis, hence, moved on to comparing the features across these levels.

The analysis also included forming an understanding of the *development of coopetition over time* along the phases (see Table 3). Prior to the materials exchange (pre-formulation phase), there had been major relational difficulties in terms of establishing interactions and contacts between the companies. Their prior competitive relations could explain this. There were a lot of suspicion about cooperation between the companies, which was caused by a fear of a potential merger. Grounded in the establishment of the ongoing materials exchange (formulation phase) and of a continuity in the relational interactions, the relational dynamics, hence, shifted to cooperation domination, which paved the way into discussions and developments of future projects (implementation phase). The development of the dynamics and an in-depth description of the coopetition process are offered in the following section where the case findings are discussed.

4. Analysis and discussion

4.1. Coopetition as an entrepreneurial process

The analysis revealed that the mutual initiatives undertaken by the three firms resemble an entrepreneurial process along both the formulation and implementation phases of coopetition. Because the studied firms have been strong competitors in the past and have experienced difficulties in their inter-firm relations, many of the mangers pointed to the high level of **uncertainty** in terms of the future outcomes of the initiated coopetition project. For example, some even questioned whether cooperation would work at all because of the prevalence of the sustained competitive practices, and accordingly a skepticism concerning the use of materials produced by other firms existed:

> Top Manager #4, Company A, first round of interviews: "The big challenge when it comes to cooperation is to forget competition […] Is it at all possible to cooperate?"

The exchange was therefore viewed as a **risky** endeavor because the managers realized the inherent challenge for all parties involved to put aside the sustained competitive thinking. This uncertainty was reinforced by the overall uncertainty in the Finnish media industry caused by the upheaval. The whole idea of cooperating in terms of materials exchange was an effort to decrease this uncertainty; however, as a totally new way of interacting and thinking about each other, it became in itself a new source of uncertainty. This can be illustrated by the following quotes from our interviews:

> Middle Manager #1, Company C, first round of interviews: "The old business model that has been working for a long time is not working anymore…"

> Top Manager #1, Company C, second round of interviews: "The crisis in the media industry has led to the fact that everyone has to discover new solutions […] We are not seeking to sponsor each other, we are seeking to create better business conditions for our own and the others' business."

Overall, integrating cooperation into the competitive background was perceived both as an organizational and a relational change, i.e. a paradigm shift; a new way of thinking about both the firms' own roles and their interactions with each other. Despite the relational difficulties in the past, the respondents expressed their enthusiasm and positive attitude towards these changes and welcomed new forums of discussion that were constituted by the interactions.

Some managers acted as corporate entrepreneurs and were the main triggers of moving the coopetition project forward. These specific managers saw their chances to establish a continuous flow of exchange and communication between the firms, and thus to break with the past competitive mindset. These efforts were grounded in a wish to save the language-minority media; they also had a personal passion to realize cooperative projects. These coopetition advocates were in general formally middle managers; however, they acted as boundary spanners between top and middle management in the formulation and implementation of coopetition. These were the ones taking the first and main initiatives cornering the exchange, and adopted a creative approach towards coopetition activities. These included initiating and organizing inter-organizational meetings, speaking about the exchange

Table 3
Development of the coopetition process.

Key themes/second order codes	Coopetition activities	Outcomes	Development of cooperation/competition dynamics
Coopetition stage			
Pre-formulation	**Key sub-themes/first order codes**: • **Coopetition**: Occasional inter-organizational contact between managers; • **Competition**: Rivalry the industry norm; • **Feelings about coopetition**: prevalence of fear and suspicion	**Key sub-themes/first order codes**: • **Expression of coopetition intent**: Tentative discussions about potential inter-organizational exchange; • **Coopetition attempts**: failure to introduce cooperation components into competitive relations	**Key sub-themes/first order codes**: • **Competition**: dominates over cooperative attempts; • **Cooperation**: is not yet compatible with competition
Formulation	**Key sub-themes/first order codes**: • **Causation**: predicting the goals of other actors involved in coopetition, known market players and rules, acting upon imposed and communicated goals concerning coopetition, planning of coopetition activities; • **Effectuation**: committing to initiation of coopetition, visioning together future forms of coopetition, tentative experimentation with mutual activities	**Key sub-themes/first order codes**: • **Inter-organizational communication**: establishment of ongoing interactions and discussions between the companies, a relational basis for future projects; • **Change in mindset**: emerging transition towards acceptance of coopetition; collective coping with the industry crisis	**Key sub-themes/first order codes**: • **Cooperation**: begins to penetrate competitive relations; • **Competition**: exists from previous phase; • **Cooperation/competition interface**: bargaining of the compatibility between cooperation and competition; signs of change
Implementation	**Key sub-themes/first order codes**: • **Causation:** defining outcomes based on mutual decision-making, selecting coopetition as a future path based on fulfillment of goals, planning; • **Effectuation:** increasing experimentation, improvising to work out ways to coopete in practice, co-creating future coopetition with partners	**Key sub-themes/first order codes**: • **Realization of inter-organizational discussions in practice:** Exchange of materials; routine of inter-organizational meetings • **Development of future joint projects**: trial and error; learning • **Materialization of changing mindset**: planned series of articles; cooperation around opinion polls	**Key sub-themes/first order codes**: • **Cooperation**: establishment of continuous social exchange; • **Competition**: exists from previous phase; • **Cooperation/competition interface**: structuring between areas of cooperation and competition; cooperation is compatible with competition

in a positive manner in order to get 'everyone on board' both at the intra- and inter-organizational levels, and structuring and creating the exchange in practice.

Moreover, some respondents said that the whole coopetition process would never have started or even been possible without those proactive individuals. These managers holding an **entrepreneurial attitude** were prone to see different **opportunities** in the emerging and existing forms of cooperation, to try previously unknown methods of exchange between the firms, and were thus willing to take **risks** when it comes to possible future negative outcomes:

> Top manager #1, Company C, second round of interviews: "I want to signal that we have to think outside of the box. We are trying to create a new corporate culture here, to build new business opportunities […] We have to find new cooperative projects all the time, concretize, come to an agreement […] there are always problems at the beginning with new ideas […] There are a lot of opportunities. Above all, it […] exists in an open and innovative atmosphere […] All the time when there are new ideas, I instantly think whether this could be done through cooperation."

> Middle manager #12, Company C, second round of interviews: "There's a risk in using the same material; readers may produce the reaction that 'I have already read this'. We need to think about it, if it is worth it. What do we gain from cooperating, and what is in the other scale pan?"

While the evidence presented above points to the overall entrepreneurial features of the coopetition process, below we discuss the aspects of time and space in our analysis, presenting our findings in terms of the stages of the coopetition process and the managerial levels.

4.2. The formulation phase of coopetition

In this phase, the expanding discussions concerning *cooperation* between the parties were approached as a symbol for the shifting shared views - from approaching cooperation as a threat to organizational identities to seeing the possibilities to cooperate in some areas. **Managers at higher levels** saw future opportunities from cooperation as potentially immense, but not defined. The exact goals of cooperating were not specified; top managers were uncertain about what would actually emerge from new strategy and whether it would work at all:

> Top Manager #5, Company A, first round of interviews: "We'll see how far this cooperation will get us in the future…"

Thus, managerial attention was put on formulating the possible structure of cooperation, its future forms and procedures, as well as specific activities and task distribution between the parties. However, the actual anticipated outcomes were not specified and possible adjustments in the structures were left to the future. Managers left the material exchange to develop according to the specific contextual needs of the companies and to emerge from the voluntary contributions of other managers. Hence, it also became a starting point for the emerging relations through which individuals could test and develop their interactions:

> Top Manager #4, Company A, first round of interviews: "These discussions have just started, and where we will end up, we don't know. […] We are discussing all the time different things we could do together."

This uncertainty was thus shared through numerous inter-organizational discussions and collective generation of ideas, where managers were exchanging ideas, debating, and evaluating different forms of cooperation. These discussions could be seen as a starting point for the coopetition process. The three companies also shared costs of consultancy services that they used to assist them during this transition to what many perceived to be future institutionalized cooperation. The general shared attitude towards cooperation was positive and top managers were highly committed to the emerging new possibilities. Some of the top managers acted as true corporate effectuators; they viewed the coopetition initiative as a co-creation process where every member commits to a final result without knowing what that result will be. They also demonstrated the affordable loss principle, flexibility, and a willingness to experiment that resulted from the inability to exploit pre-existing knowledge. The quotes below support the above discussion:

> Top Manager #7, Company C, first round of interviews: "We do not have that much to lose from this [cooperation]."

> Top Manager #1, Company C, second round of interviews (N.B. the respondent is talking about the formulation phase): "I think it is important that you do not formalize too much, that you do what works best at that time […] different projects need different leadership and different ways of working."

When the three companies agreed that cooperation would be mainly around exchange of media materials, the formulated strategy was communicated to the rest of the personnel. In parallel, there were also press releases and interviews with the top managers and industry consultants published in the newspapers. These events announced the actual start of new relations between the three media companies and made more people enthusiastic about, and committed to, cooperating.

As for the *competitive* interactions between the parties, top managers treated them as a familiar aspect of the relations, since the firms could use their pre-existing knowledge from the established competition in the past. Moreover, when the coopetition project started, respondents admitted that the level of competition had decreased, which in turn led to a lower level of uncertainty about their relations. The decreasing level of competition was also used by the top managers as a justification for the emerging cooperation, something that became particularly evident through the media coverage. The parties started to focus more on their own geographical areas and target audience. In this manner, direct competition was further decreasing. This solution was commonly accepted and deployed across the case organizations, suggesting that top managers were able to clearly define the areas and goals of competition and also to estimate the goals of the other parties. Hence, the level of uncertainty, for example, in terms of possible opportunistic behavior from others was low. The quotes below demonstrate this evidence:

> Top manager #4, Company A, first round of interviews: "Everything that can be made by one party and utilized by everyone should be developed. And then you define what should be separated. And that is what we have done."

Based on this reasoning we propose:

P1. At higher managerial levels, the formulation phase of the coopetition process is likely to have effectual cooperative interactions and causal competitive interactions.

At the same time, the coopetitive process manifested itself differently at **lower managerial levels** during the formulation phase of coopetition. The goals of the new inter-organizational cooperation were set and communicated by top managers in the form of both written and spoken guidelines, plans, and prospective milestones; the cooperation strategies of lower-level managers were therefore driven by these specified goals. These guidelines from the top allowed the managers to act causally and in line with the plans. However, since the initial cooperation was voluntary, middle managers could test various projects and experiment with new ways of cooperating. This learning by doing, discussing and sharing views on cooperation in detail (e.g., specific tasks, systems of reporting, resource allocation), both at the intra- and inter-organizational levels, helped to decrease uncertainty resulting from sometimes incomplete and unclear goals of the exchange set by top managers. Even though the managers could not estimate the future results of cooperation, they welcomed possible emerging opportunities therefrom:

> Middle manager #5, Company A, first round of interviews: "Now we have opened a lock for further cooperation, and what that will mean I have no idea, but there are opportunities."

Thus, these managers showed commitment to the coopetition project without knowing its future returns. Interestingly, some respondents showed proof of both causation – such as intentionality and planning – and effectuation – such as emergence and low goal specificity – in their accounts:

> Middle manager #2, Company A, first round of interviews: "We have planned it [cooperation]. We will have a meeting soon, and then we will take the next steps. […] You have to purposefully and slowly without forcing it [cooperation], let things emerge […] if one does not contribute [materials] then one does not get anything […] But this is the beginning, and it can evolve into anything."

The *competition* flow of interactions between the firms was to a great extent influenced by the previously experienced difficulties in relations. Similar to the top managers, the middle managers were familiar with competition among the three companies due to the fact that they all shared the same history and profession. In light of the emerging cooperation, competition was treated as existing yet as low. Due to this perceived shared collective mindset, they could clearly distinguish and handle the areas where they competed:

> Middle manager #5, Company A, first round of interviews: "I do not think that we will cooperate when it comes to the areas where we really compete […] we all have the journalistic background."

Overall, the managerial attention of middle managers at this stage was divided between known-from-before competition and unknown future cooperation. On one hand, they had to keep business running as usual before implementing a thought-through material-exchange strategy; on the other hand, they were dealing with internal layoffs caused by the crisis in the industry, at the same time as cooperation between the three companies was starting to be implemented. The discussion leads us to the following proposition:

P2. At lower managerial levels, the formulation phase of the coopetition process is likely to combine both causal and effectual characteristics in cooperative interactions and to have causal competitive interactions.

4.3. The implementation phase of coopetition

As coopetition progressed, its aims took shape and became less uncertain at **higher managerial levels**. Starting with *cooperative* interactions, the parties could realize cooperation together and meet the targets established in the formulation phase of coopetition. The cooperation between the parties was to a great extent seen as the most appropriate way of developing trust between the firms and maintaining long-lasting relationships into the future:

> Top manager #6, Company A, second round of interviews: "All the parties gain something from cooperation. We can't cooperate if some party is suffering from it, it should be a positive outcome. And a long term one. […] Today, I see that we can gain from cooperating concerning material that we do not have the possibility to get otherwise."

The frequency of inter-organizational meetings increased as time passed, and in these meetings top managers from all the companies presented their thoughts on the industry development. The commitment to cooperation was still high due to a perceived consensus and shared views concerning how and why to proceed into the future; cooperation seemed to work and even skeptical individuals turned positive. This optimism stemmed from the fact that the managers of the three firms could see the first results from the newly developed procedures and routines; therefore, the low-level goals of cooperation got more specified. One example is a new project that included joint production of a series of articles; it emerged from the voluntary and informal exchange of materials, which was at this stage largely seen as a test project, through which everyone could learn the actual practices of cooperation. This new initiative was however more formalized, and each case company had to produce materials in a specific order, but was not obliged to publish them. Top managers, therefore, focused on increasing and speeding up cooperation through formalization and planning in order to deal with the escalating crisis in the media industry. They also had more provided information about industry dynamics than other managerial levels because of the regular discussions with consultants. These features point to a causal orientation of cooperating:

> Top manager #4, Company A, second round of interviews: "The materials exchange is something we have realized as a part of a bigger picture of cooperation […] Everyone wins from it, we just have to speed it up […] First there was suspicion […] but I don't see this problem anymore. We have talked so much about these things".

With regard to *competition*, there were no significant changes in this interaction flow from the previous phase. Although cooperation was growing, competing around the production of local news that was established through past interactions, was still present. Hence, the parties could outline the activities related to competition and their expected outcomes, which also points to causality. The quote below supports this evidence:

> Top Manager #1, Company C, second round of interviews: "So one can ask, what is competition exactly? Can we cooperate more if we still have our own customers? And that is what we are discussing now… where shall we compete? And we think that it's with local material."

The following proposition can be derived from this discussion:

P3. At higher managerial levels, the implementation phase of the coopetition process is likely to have causal cooperation and causal competition.

As for the **lower managerial levels**, the causal and goal-driven *cooperative* interactions of the coopetition formulation phase switched to more effectual cooperative interactions. If middle managers followed instructions from top managers at the formulation phase, they became the real implementers of cooperation in the implementation phase. For example, some goals and tasks of the cooperation, such as the frequency of uploaded material in the materials exchange, were not specified or realized as intended from the beginning, whereas other unintended forms of cooperation emerged. Although the level of uncertainty was high concerning the future, it is worth noting that these managers welcomed the positive unexpected outcomes and were ready to experiment. They saw this experimentation as 'fun' and also tried to spread a positive attitude towards the new projects in the companies. This became particularly evident in the planned series of articles. Through inter-organizational formal and informal contacts, managers could come up with suggestions or requested specific materials to be produced from the other companies. We interpret this as innovative entrepreneurial behavior and an openness to emerging opportunities. This constituted a symbol for the relational development to others, and the commitment to cooperation was therefore high; middle managers were enthusiastic about different forms of new projects and ideas emerging form the overall cooperative discussion between the parties:

> Middle manager #7, Company C, second round of interviews: "It's really fun, and definitely the only way to go is increased cooperation. And now it's starting to gather pace."

In addition, the attention of middle managers was on balancing activities connected to the own customers and local material, while at the same time contributing to uploading articles and sharing material. Notably, the articulated overall goal of the cooperation, namely sharing resources that could help the parties to survive, was not given the most attention; it was perceived as an accompanying result that would be achieved anyway. The relational establishment and the future possibilities arising from this cooperation were praised the most:

> Middle Manager #2, Company A, second round of interviews: "Through this [the materials exchange], more cooperation has emerged. And the awareness of the importance of cooperating has increased enormously […] We don't know exactly where this [cooperation] will go, but the spirit is good and we'll see where it will lead. […] We have to do more things, try out more things what work. And not be afraid of letting things go. If we were to come to a point where the materials exchange is not good, that's ok. Now it works, but were it not to, we would have to find something better."

Another example of effectual cooperation was the task regarding opinion polls related to the local elections. This was one of the first tasks undertaken through cooperation. Middle managers from all three companies accomplished it together through co-creation. They did so through a common document created in Google-drive, where everyone made own contributions. We believe this example fits the metaphor of Sarasvathy (2008) where she compares effectual co-creation with baking a pie, where every stakeholder commits to a final result and stakes something he/she can afford to lose without knowing what the final pie will taste like and what exact share of the pie each stakeholder will get.

At the implementation phase, the *competition* flow of the relations changed. Although the parties still had areas where they competed, such as local news, the perception of this competition was different from the formulation phase when the journalistic practices were perceived as shared:

> Middle Manager #10, Company B, second round of interviews: "The perceptions of competition are changing. For everyone."

> Middle Manager #8, Company A, second round of interviews: "[…] competition decreases […] and that I think is a pity since you are triggered by competing."

Accordingly, this competition did not have an exact goal and was not treated as a source of risk, rather seen as a general context and a healthy trigger that keeps everyone alert, and that does not hinder cooperation. Paradoxically, the empirical evidence of this competition was seen in the context of cooperation. It was a certain competition where no one loses anything, a competition not related to be better than someone else, but for the sake of doing a job in best possible way so that every party can win from it. It manifested itself, for example, through efforts to be better than others when contributing to common projects, or through coming up with new ideas that would be beneficial to all three firms in the knowledge that the team will be rewarded rather than a single individual. This cooperation was a way to de-risk competition between the companies. Ultimately, the benefits were created for the respective parties' customers in the form of media products in the minority language:

> Middle Manager #4, Company A, second round of interviews: "At the same time as we are competing, we have a mutual goal of surviving."

Based on this analysis we derive our fourth proposition:

P4. At lower managerial levels, the implementation phase of the coopetition process is likely to have effectual cooperation and effectual competition.

Hence, our analysis shows that effectuation and causation can be

Table 4
Dynamics of the interplay between effectuation and causation along the coopetition process.

Cooperation interaction	Effectual	Causal/Effectual	Causal	Effectual
Competition interaction	Causal	Causal	Causal	Effectual
	Proposition 1 Higher managerial levels	Proposition 2 Lower managerial levels	Proposition 3 Higher managerial levels	Proposition 4 Lower managerial levels

Pre-formulation phase | Formulation phase | Implementation phase

Coopetition process

iterative and simultaneous in the coopetition process. Table 4 demonstrates that the dominance of causation and effectuation changes along the process depending on time (stage of the coopetition project) and organizational space (managerial levels).

Thus, we propose that:

P5. *As the coopetition process develops, higher-level managers' coopetition interactions are likely to become more causal, while lower-level managers' coopetition interactions are likely to become more effectual.*

Assuming that causation is associated with managerial behavior and effectuation relates to entrepreneurial behavior (Sarasvathy, 2001, 2008), our findings show that higher-level managers became less entrepreneurial as coopetition develops, and middle managers, conversely, tended to become more entrepreneurial along the process. Also, the commitment of middle managers to coopetition and resource sharing increased despite the growing level of uncertainty and unspecified goals of the materials exchange in the implementation phase (see Fig. 1).

This can be explained by the strategic roles and the changes in managerial attention of top and middle managers. While top managers were the main formulators of the new strategy, they were mostly active in the formulation phase. Middle managers served as the main implementers of coopetition; they were mostly involved in the process at the subsequent implementation phase where they could discover and demonstrate their creativity and innovativeness in practice. This is particularly true of those middle managers whom we earlier referred to as boundary spanners and coopetition advocates. They held personal incentives in realizing cooperation given the relational history, or simply enjoyed the togetherness and emerging inter-organizational contact. Hence, the emergence of coopetition, and consequently the shift in the cooperative and competitive dynamics over time, can be derived from the parallel effectual and causal interaction patterns across managerial levels. A practical implication of this idea is that coopetition can be used as a mechanism to trigger an entrepreneurial attitude in a corporate context.

5. Coopetition and effectuation: opportunities for further research

We began this cross-disciplinary study by outlining the coherence between coopetition research and effectuation. Building on this complementarity, we showed what implications effectuation offers for exploring the coopetition process from an entrepreneurship perspective and grasping its non-goal-driven components. Further, we presented an empirical case study of three coopeting companies in the Finnish media industry, and demonstrated how causation and effectuation are interrelated in the cooperation and competition relationship flows along the coopetition phases and at different managerial levels. Thus, this study bridges the gap in the entrepreneurship literature by showing effectuation in established firms from established industries, and the gap in the coopetition literature by concentrating on individual entrepreneurial-minded managers of coopeting firms. Taking our findings further, we will now reflect on the new possibilities effectuation can open for coopetition and how coopetition research may enrich effectuation theory.

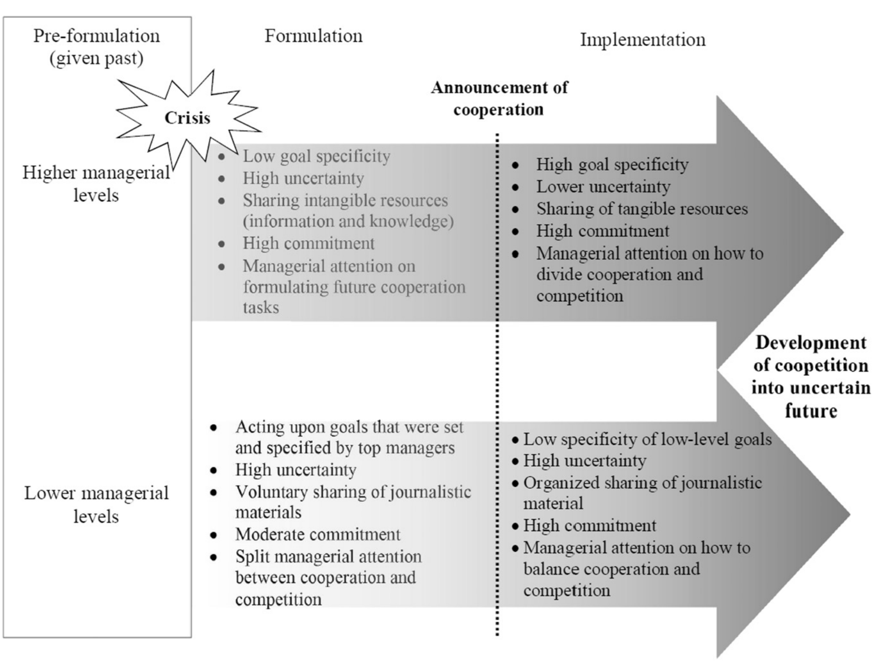

Fig. 1. Dynamics within coopetition process along the phases and across managerial levels.
The intensity of the grey color in the Figure reflects the intensity of coopetitive activities.

5.1. *Effectuation in coopetition research*

Bengtsson and Kock (2014) highlight five directions for future coopetition studies that would extend the frontiers of this research domain. They argue that scholars need to:

Understand the balancing of cooperation and competition;

Understand the coopetition paradox and engendered coopetition tension;

Apply a multilevel perspective on coopetition;

Understand the dynamics of coopetitive interaction, and

Understand coopetition's impact on business models and strategy.

Concluding this article, we wish to address these issues from the perspective of effectuation theory and show how it could respond to these challenges. We combine the discussion on the first and second issues into one, because they are closely linked and can be approached similarly.

5.1.1. *Effectuation and understanding the coopetition tension and the balance between cooperation and competition*

According to Bengtsson and Kock (2014), the paradoxical balance between cooperation and competition and tensions between these contradictory logics should be better understood by including psychological and cognitive dimensions and linking them with firm performance. Effectuation is a highly cognitive theory and can provide new aspects of understanding coopetition tensions and paradoxes. We propose that viewing coopetition strategists as effectuators may even relieve the issue of coopetitive tension. With the effectual logic, coopetitors act without any specified outcome for their relations and, hence, do not estimate the resulting optimal balance between the cooperative and competitive flows of the interactions. Rather, both flows would be treated equally as rich pools of effectual means for opportunity development and materializing contingencies. This can be particularly true under high uncertainty and concomitant low goal specificity, as in our empirical study, when coopetition becomes the natural way of coping with harsh business conditions. Thus, with the effectuation lens, the contradicting coopetitive relations can be treated as something not to influence but as an organically developed context to which to respond to. Therefore, our findings contribute to the coopetition paradox discussion by addressing how managers in a rather organic and emergent manner use the contradicting logics of interaction in the development of the coopetition process. While intended managing of coopetition tensions through championing managers and innovative behavior in daily activities are known (Le Roy & Fernandez, 2015), we suggest that future coopetition research should have a greater focus on emergent coopetition activities. Furthermore, scholars may examine how deliberate and emergent strategies are intertwined synergistically to cope with the coopetition paradox.

5.1.2. *Effectuation and a multilevel perspective on coopetition*

Bengtsson and Kock (2014) stipulate that the recent focus of coopetition studies has shifted from the firm level to the network level of analysis. However, there has been no research adopting a multilevel perspective with a bottom-up and/or top-down approach explaining how coopetition, for example, at the organizational level effects coopetition at the individual level or vice versa. As stated earlier, this drawback relates to the missing component in coopetition studies, namely the individual (employee, manager, or an entrepreneurial founder) who participates in and makes sense of coopetition strategies. The call for focusing on micro foundations of coopetition as means to understand its multiple levels has been also expressed in the later article by Bengtsson et al. (2016). We suggest that effectuation uncovers this missing component by adopting a highly cognitive and entrepreneur-centric focus and can therefore help to establish the link between different levels of analysis. In particular, viewing coopetition strategists as 'effectuators' reveals how and why managers at different organizational levels draw on the simultaneity of cooperative and competitive interactions logics shaping the development of the coopetition process and dynamics.

However, it can also help to advance coopetition even further by not only looking at bottom-up and/or top-down dependencies but also at more complex situations where it is hard to distinguish between individual and organizational levels of analysis. This is common in small entrepreneurial firms (Johannisson, 1998; Hite & Hesterly, 2001) or in innovative and hybrid organizational forms where structures are temporary, non-hierarchical and mixed, and where individuals epitomize these structures (e.g., virtual innovative teams, hackathon projects). In this regard, applying effectuation can be advantageous because effectual artefacts (new firms and new markets at higher levels of analysis) are inherent to the imagination of entrepreneurs (the lower levels of analysis), inseparable from these individuals, and integral parts of the entire effectuation process.

5.1.3. *Effectuation and understanding the dynamics of coopetitive interaction*

Responding to the call to study coopetition as a process (Bengtsson & Kock, 2014; Dahl, 2014), the present study has shown the implications of effectuation for grasping coopetition dynamics, and has explored them empirically. Given that this is just the beginning of the journey, we hope our approach will be extended and promote an exciting discussion in the coopetition research field as effectuation can offer interesting nuances when it comes to understanding the evolvement of coopetitive relations.

According to the effectual logic, interactions and relations cannot be oriented towards future goals because the future is never defined. Moreover, '*the effectual nature of the commitment process allows the members of the network to proceed as though the universe at any given point in time consisted only of the people at the table – as though the external world is relevant only to the extent it is embodied in their aspirations and abilities*' (Sarasvathy, 2008: 106). Therefore, effectual relations rely on the *actual* actors of immediate reality that are known right here and right now due to the principle of leveraging contingencies (Sarasvathy & Dew, 2005). This unpredictive logic of effectuation imposes a different view on managing coopetition relations. Whereas some authors point to the need to manage coopetitive relations (see e.g., Le Roy & Czakon, 2016), from the effectuation perspective the coordination of these relations becomes irrelevant because they do not have any predefined and highly specified goal (Sarasvathy & Dew, 2005). Instead of fitting into existing structures, positioning and coordinating activities of other actors, effectuation implies reshaping existing environments and co-creating new ones (Wiltbank et al., 2009). This calls for a future focus on coopetition strategies as inherently incorporating emergent features, and as developing and changing over time due to individual actions and interactions (Dahl et al., 2016).

5.1.4. *Effectuation and understanding coopetition's impact on business models and strategy*

Bengtsson and Kock (2014) call for a better understanding of what influence coopetition has on strategy and business models. In addition, there is a growing interest in coopetition as an unintended strategy (Dahl, Kock, & Lundgren-Henriksson, 2016). Our study has taken the first steps in exploring these emergent aspects of coopetition empirically, and demonstrated the potential of effectuation to find alternative explanations for these non-goal-oriented characteristics. Our hope and ambition is that these steps will be followed.

Adopting the view that the competition and cooperation flows can dominate one another in coopetition (Bengtsson & Kock, 2000), an exciting direction could be to examine the impact of the competition/cooperation balance on causal and effectual strategies. The reverse dependency could also be examined; scholars could study, for example, whether effectual strategies lead to cooperation-dominated or competition-dominated relations. Also, effectuation as a theory of decision-making and reasoning can add to the strategy-as-practice view of coopetition (Dahl et al., 2016). Effectuation's close attention to the inner attributes of entrepreneurs and their mindsets (Who I am, What I know, Who I know, perceived affordable loss, and networking) could provide useful insights on understanding the micro-level of coopetition strategy and seeing it "as lived experience". The four effectuation principles can serve as tools to examine how coopetition strategists think, act and interact, and how that affects organizational activities.

5.2. Coopetition in effectuation research

The recent debate in the *Academy of Management Review* has highlighted several directions that would help to move effectuation research forward (Arend et al., 2015; Gupta, Chiles, & McMullen, 2016; Read et al., 2016; Reuber, Fisher, & Coviello, 2016). We suggest that coopetition has a great potential to advance effectuation theory, and the results of this study can be used to address at least three outlined directions.

5.2.1. Coopetition and transition from effectuation to causation and vice versa

In order to distinguish effectuation as a discrete logic of entrepreneurial decision making, the received studies have mainly focused on conceptualizing effectuation solely or strongly contrasted it with causation (Sarasvathy, 2001; Dew, Read, Sarasvathy, & Wiltbank, 2011; Dew et al., 2009; Brettel, Mauer, Engelen, & Kupper, 2012). Only recently scholars have started to look at combinations and a balance of the two logics (Reymen et al., 2015; Maine, Soh, & Dos Santos, 2015; Laine & Galkina, 2016). Hence, Read et al. (2016: 531) stipulate that '*effectuation research needs to spell out in more detail… useful ways to mix and match predicitive and nonpredictive strategies…*'. In response to this call, our study demonstrates both the transition from one logic to another and their co-existence at different managerial levels. Even though in our article coopetition represents just a context for this interplay, we believe the coopetition logic can offer further important insights for understanding hybrid combinations of causation and effectuation. Coopetition represents a third type of interactions, which is essentially different from a simple sum of cooperation and competition (Bengtsson & Kock, 2000, 2014). While many researchers point to the simultaneity of causation and effectuation, they mostly show it as a parallel and passive co-existence, where the two logics may occur at the same time but are still separated in relation to organizational space and/or tasks. No research has shown true hybrid "*effecausal*" practices where the two logics co-occur indissolubly and reinforce each other. Therefore, effectuation research will benefit from more research on hybridity of causation and effectuation.

In addition, coopetition research has acknowledged the paradox logic that lies at the core of bringing together cooperation and competition; several studies have been conducted on tensions and conflicts in coopetitive relations (Fernandez et al., 2014; Tidström, 2014). Even though causation and effectuation have similar orthogonal relationship as cooperation and competition, surprisingly, scholars that have examined combinations of causation and effectuation mainly emphasize the positive effect of using both logics (Smolka et al., 2016). However, we are unaware of any research that has paid attention to potential conflicts and tensions resulting from ambidextrous and controversial mix of two logics. Firms and individuals may face contradictions and dissonant behavior if they try to be at the same time consistent but agile, develop routines but experiment and improvise, and simultaneously focus on profit and breakthrough. Therefore, we suggest that effectuation research should adopt this paradox thinking from coopetition and explore potential tensions and conflicts between causal and effectual decision making when they are used simultaneously.

5.2.2. Coopetition and equity in effectual cocreation

According to Read et al. (2016), effectuation scholars should explore deeper the mechanisms of effectual cocreation and equity relations that develop along this cocreation. In other words, who owns the final product of cocreation (e.g., new product, new venture, new market) if numerous stakeholders participate in this process? Responding to this call, our study has shown the dynamics of how joint media products have been cocreated by competing parties. These results can be taken further. Assuming that effectual cocreation involves '*any and all interested people*' (Wiltbank et al., 2009: 117) including even competitors, effectuation can build on results from coopetition studies that show how competitors can cooperate for knowledge sharing (Bouncken & Kraus, 2013), creating innovative products (Bounken, Clauß, & Fredrich, 2016) and new business models (Velu, 2016). In addition, coopetition logic can provide insights for examining equity relations during cocreation. While cocreation as such is more about cooperation-dominated relations (with competitors or any other party), sharing the result of this cocreation is more about competition-dominated relations. For instance, yesterday's partners and co-founders may become fierce competitors when dividing resulting benefits of a newly created venture (Breugst, Patzelt & Rathgeber, 2015). Therefore, we suggest that further examination of coopetitive dynamics in the process of new venture creation will advance effectuation research.

5.2.3. Coopetition and effectuation as a field-level phenomenon

Reuber et al. (2016) argue that received effectuation research has been mainly conducted at the individual level; to move this field forward, more studies need to explore effectuation as a field level phenomenon. Our study brings together coopetition and effectuation and shows the congruence of the two theories, which, in turn, allows effectuation to use coopetition tools and tradition of inter-firm industry-level research. In this regard, the studies demonstrating emergent and unintended mechanisms of coopetition (Dahl et al., 2016; Kylänen & Rusko, 2011; Mariani, 2007, 2009) could be taken further. For instance, scholars could study how non-goal driven coopetitive relations between various stakeholders at the industry-level contribute to effectual cocreation and emergence of new industries and markets and what is the role of institutional forces in this process. Overall, our ambition and hope is that this article will open an important passageway for effectuation, through which it will access the heritage of coopetition research and open up new possibilities.

6. Limitations

The studied companies have developed coopetitive relations from initially competitive relations; therefore, this past competition has an influence on how the coopetition process unfolds. We admit that a coopetition process that starts from initially cooperative relations and develops into competition (see e.g., Tidström & Hagberg-Anderson, 2012), or starts from scratch without any previous history of interactions, can develop differently and would have a different interplay between causation and effectuation.

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Appendix

Interview guide for the first data collection round
Introduction

- Tell me about your background and your current position in the organization

Theme: Cooperation and competition

- Tell me about the background to the collaboration
- Describe the previous contact between the organizations
- What is the scope of the collaboration?
- How is the collaboration organized and executed?
- How would you describe the collaboration?
- How would you describe the goal of the collaboration?
- Tell me about your experience of competition between the organizations

Theme: The present

- What are the implications of the collaboration for your daily work?
- How would you describe your role in the collaboration?
- How would you describe your organization?
- How would you describe the other organizations?
- How would you describe the opinions of others in the organization towards the collaboration?
- Tell me about how the collaboration has been communicated and talked about

Theme: The future

- How do you view the future of the collaboration?
- How do you view future competition?
- What are your expectations of the collaboration?
- What expectations do you think the other parties have of the collaboration?

Interview guide for the second data collection round – Top managers
Theme: Changes and developments in the collaboration

- How would you describe the development of the collaboration?
- Has the development of the collaboration lived up to your expectations?
- Tell me about the decision-making process concerning the collaboration.
- Tell me about how the collaboration has been taken into account in your strategy
- Tell me about your role in the collaboration
- How would you describe the collaboration and its goal today?

Theme: Inter-organizational interaction

- How would you describe the contact between the organizations?
- How would you describe the other organizations' participation in the collaboration?
- Have you experienced any incidents that you can recall?
- How do you think the other organizations experience the collaboration?
- Tell me about your experience of competition
- How do you think the other organizations experience competition?

Theme: Intra-organizational interaction

- How would you describe your participation in the collaboration?
- How has the collaboration been communicated, talked about, and motivated in the organization?
- Have you heard any comments concerning the collaboration that you can recall?
- Have you experienced any difficulties or problems?

Theme: The future

- Tell me about your thoughts concerning cooperation between the organizations in the future
- Tell me about your thoughts concerning competition between the organizations in the future

Interview guide for the second data collection round – Middle managers
Theme: Changes and developments in the collaboration

- How would you describe the development of the collaboration?
- Has the development of the collaboration lived up to your expectations?
- Tell me about the decision-making process concerning the collaboration
- Tell me about your role in the collaboration
- How would you describe the collaboration and its goal today?

Theme: The exchange of material

- How would you describe the exchange of material?
- Tell me about how you use the exchange of material in practice
- Tell me about your experiences of using the exchange of material

Theme: Inter-organizational interaction

- How would you describe the contact between the organizations?
- How would you describe the other organizations' participation in the collaboration?
- Have you experienced any incidents that you can recall?
- How do you think the other organizations experience the collaboration?
- Tell me about your experience of competition
- How do you think the other organizations experience competition?

Theme: Intra-organizational interaction

- How would you describe your participation in the collaboration?
- How has the collaboration been communicated, talked about, and motivated in the organization?
- Have you heard any comments concerning the collaboration that you can recall?
- Have you experienced any difficulties or problems?

Theme: The future

- Tell me about your thoughts concerning cooperation between the organizations in the future
- Tell me about your thoughts concerning competition between the organizations in the future

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