

The Role of Leadership in Managing Tensions and Ambivalence in a Coopetitive Innovation Strategy

A Case Study from the Insurance Industry

Endri Aličkaj

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The Role of Leadership in Managing Tensions and Ambivalence in a Coopetitive Innovation Strategy

A Case Study from the Insurance Industry

by

Endri Aličkaj

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Preface

This thesis is written as part of my Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH) where I am pursuing a specialization in Strategy and Management.

The study is part of an ongoing research project at NHH and the Radical Technology-driven Change in Established Firms (RaCE) program, which aspires to develop novel insights, theories and models of coopetition, investigates on how leadership manage the paradoxical tension, and how it foster interfirm relationships to achieve innovation. My participation in the RaCE program has greatly aided the research presented in this thesis and their support is very much appreciated. Doing this research has been both an informative and enjoyable process.

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Also, I would like to extend my gratitude to all the informants, who took valuable time out of their busy schedules to participate and contribute in this study during the global COVID-19 pandemic period. Especially thanks to our key contact at Finance Innovation for his collaboration and for introducing me to the rest of the participants.

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1. INTRODUCTION

In high-tech industries, the demand for increased innovation and advanced research and development (R&D) has long been a strategic challenge. This is mainly due to high R&D costs, complex products, and the importance of technological standards (Gnyawali & Park, 2011). Striving for such technological improvement and successful innovation, firms are now frequently engaging in coopetitive relationships, defined as the simultaneous pursuit of cooperation and competition (Lado, Boyd & Hanlon, 1997; Bengtsson & Kock, 2000; Padula & Dagnino, 2007; Yami, Castaldo, Dagnino & Le Roy, 2010). Following such a contradictory but interconnected logic makes coopetition a complex, emotion-laden, and managerially challenging paradoxical phenomenon (Ullah-Raza, 2020).

Recently, scholars have suggested that because of the paradoxical nature of coopetitive relationships, managers experience challenges and emotions, due to paradoxical tensions (Bengtsson & Raza-Ullah, 2017; Huy, 2012). While leadership is emphasized as crucial for dealing with this, the role of leaders remains to be explored in the context of coopetition (Nesse, 2018; Tidström & Rajala 2016). Moreover, previous works have tended to overlook how emotions are managed in paradoxical interfirm relationships (Smith & Lewis, 2011). Although formal contracts, control mechanisms, and governance structures are important contributors toward coopetition success (Bouncken, Clauss, & Fredrich, 2016; Fernandez & Chiambaretto, 2016; Hung & Chang, 2012), they may not be appropriate to manage such complex tensions and emotions that still remain latent or explicitly present in the coopetitive relationship (Nesse, 2018). Thereupon, the research question for this study is the following:

*How do leaders manage the paradoxical tension and emotional ambivalence evoked
in a coopetitive innovation strategy?*

In order to answer this question, I leverage the functional leadership perspective (Morgeson et al., 2010) and apply it in the context of coopetition as an innovation strategy. In addition, I draw on research on the management of emotions in interfirm paradoxical relationships (Raza-Ullah, Bengtsson & Gnyawali, 2020) as well as the innovation literature (Padano, 2016). This choice of literature emphasizes the relational and emotional aspects of leadership in managing a coopetitive innovation strategy. This particular focus provides insights related to the emotional management of organizational paradoxes during coopetition, extending past research while acknowledging that other factors also influence the coopetitive innovation process.

In this research, an exploratory design has been pursued to understand and gain new insights into the coopetition phenomenon. The study was conducted using data from three Norwegian firms in the insurance industry, which are members of the FinTech Innovation Cluster that participated in a fraud detection coopetition project, as well as two other companies that helped facilitate the process. Furthermore, this is a multiple case study where I aim to perform a comparative analysis between the cases, highlight contrasts and similarities, and compare the phenomenon within a particular situation and across different situations. The inductive research approach is applied to collect data, generating new findings of an under-researched topic, and remaining open to multiple possible explanations concerning the phenomenon.

The study reveals how leaders deal with the interpersonal tensions associated with the paradox of competition, manifested in the form of emotional ambivalence. The data analysis shows that during this coopetitive project, the leader's descriptions indicate that there were three different emotional state trajectories – one in each firm - and the development of each trajectory was closely related to the leaders' expectations and experiences regarding value creation and capture. Yet, the findings point to that engaging in specific functional leadership behaviors was essential to manage these emotional states and make progress towards innovation. Additionally, the findings reveal that the interplay between emotional trajectories, leadership functions, and outcome perception could help manage and sustain interpersonal coopetitive relationships. Finally, it appears fundamental for firm leaders to consider emotions in managing competition, and engaging in the identified functional behaviors was key to begin attempting to achieve the coopetitive innovation potential.

2. THEORY

In this section, I review existing literature relevant to the research question. The section starts with introducing the concept and context of coopetition, followed by the review of leadership functions and the role of coopetition in innovation. A theoretical framework is described, summarizing the literature and integrating all the concepts to foster a springboard for an empirical examination of the role of leadership in coopetitive interfirm relationships.

2.1 Coopetition

The term coopetition was introduced for the first time by Brandenburger and Nalebuff in 1996 within their book 'Co-opetition'. They introduced coopetition against the background of game theory, where firms are said to be able to accomplish positive-sum gains, even if the competitor wins as well (Devece et al., 2016). In order for firms to make use of such a win-win approach, Cairo (2006) states that organizations need to be involved in two central activities - creating value and subsequently capturing the created value. The creation of value can be explained by using the metaphor of creating a pie, which is done by a pair of competitors that are actively engaging in a cooperative relationship. The generated value is then captured by dividing up the pie, whereas this is a rather competitive process with each actor's aim to get the biggest piece of the pie (Cairo, 2006; Gnyawali & Park, 2009).

Followed by Brandenburger and Nalebuff (1996), the concept of coopetition was increasingly to be found in theory and gained importance from the 1990s on (Gnyawali, 2008). The literature lists numerous drivers and positive outcomes of coopetition such as: to improve quality standards, production efficiency, and product innovation; to influence a third party; to achieve economies of scope; and setting industry standards, among others (Gnyawali & Park, 2011; Luo, 2007). Gnyawali and Park (2009) claim that “the best partner for a firm in a strategic alliance is sometimes one of its strong competitors”, meaning that in many cases, they hold complementary resources or are surrounded by the same industry factors and contexts (Hora et al., 2017).

Particularly, coopetition has been associated with achieving innovation and ensuring firm survival (Nesse, 2018).

Henceforth, to achieve innovation, competing organizations participate “in both cooperative and competitive relationships with each other simultaneously” (Bengtsson & Kock, 2000). This ‘hybrid activity’ is called ‘Coopetition’ and consequently combines the two activities of cooperation and competition (Bouncken et al., 2015). Before discussing how to manage coopetition is important to understand the nature of the phenomenon. Coopetition is paradoxical as it involves firms interacting with two contradictory logic, cooperation and competition (and not simply a trade-off between them). While cooperation highlights mutual benefits and collective interests, competition emphasizes opportunistic behavior and private interests (Khanna, Gulati & Nohria, 1998; Park & Zhou, 2005). Therefore, following such contradictory but interconnected logic makes coopetition a complex, emotion-laden, and managerially challenging paradoxical phenomenon.

2.1.1 Paradoxical tensions

Tatbeeq Raza-Ullah (2016) defines paradoxical tension as the cognitive difficulty experienced by managers when they pursue multiple and simultaneous contradictory demands inherent in coopetition. Examples of such competing demands include both creating values and appropriating value (Ritala and Tidstrom, 2014), both sharing knowledge and protecting knowledge (Jarvenpaa and Majchrzak, 2016), both learning from each other and winning the learning race (Yang et al., 2015), and both getting close and keeping a distance (Raza-Ullah, 2017). As the key actors, particularly senior managers, are often entangled with such contradictions, they find it difficult both cognitively and emotionally to deal with the simultaneous contradictory demands. For example, knowledge must be shared since it is important to develop, refine, and drive new ideas and commercialize them within different areas (Bouncken and Kraus, 2013). Through sharing, organizations can access both the implicit and explicit knowledge and complementary capabilities of each other to pursue innovation opportunities or achieve a common goal (Pesch et al., 2016). However, in addition, knowledge

sharing at the same time also raises concerns about the inadvertent leakage of sensitive knowledge (Raza-Ullah and Eriksson, 2017; Ritala et al., 2015), which can substantially harm the innovative skills and capabilities of a focal organization (Bouncken and Kraus, 2013; Sammarra and Biggiero, 2008). This creates greater cognitive complexity for coopetitive managers as their cognitions tend to clash on the issue of knowledge sharing and knowledge protection.

Research on organizational paradoxes has revealed how frustrated senior managers can become when they pursue organizational paradoxes and tensions such as exploration and exploitation: “it is a bitch to manage these two types of businesses” (Smith, 2014). This view is in line with Freudian psychology that suggests that paradoxical tension generates anxiety and frustration due to constant cognitive pulls in opposite directions, which may further invoke counterproductive defenses from managers (Schneider, 1990) moving toward their favored or a more comfortable pole. This is because humans have a natural tendency to seek order and consistency in their cognitions and thoughts (Festinger, 1957). However, if only one side of opposing demands is stressed (e.g., value creation, knowledge sharing, and learning), the demands for the other side (e.g., value appropriation, knowledge protection, and out learning) will intensify (Schad et al., 2016). Thus, when managers experience paradoxical tension, the cognitive overloads, anxiety, and huge pressure to meet multiple and simultaneous competing demands would weaken their analytical skills and strategic abilities, which would likely result in lower performance (Lewis, 2000).

Furthermore, the lack of hierarchy and control in coordinating the interactions between two different organizations causes additional ambiguity and complexity for managers, which further escalates the level of their experienced tension. For example, the coopetitive alliance between two fierce competitors, Volkswagen and Ford, could not succeed because managers, due to the heightened managerial complexity, could not even share the important knowledge related to their own marketing strategies and design skills that were essential to share in order to enter into a new market (Park and Ungson, 2001). Thus, when coopetitive managers are experiencing a high level of paradoxical tensions, they may not be able to distinguish between the knowledge that

must be shared and the sensitive knowledge that must be retained within the boundaries of a focal organization (Jarvenpaa and Majchrzak, 2016), which tends to impede performance. Furthermore, since innovation and joint R&D activities lie at the heart of coopetitive alliances (Pesch et al., 2016), coopetitive managers need to be creative, insightful, and cognitively resourceful in skillfully communicating and coordinating the ongoing innovation processes within a diversified alliance setting (Pesch and Bouncken, 2018). However, the cognitive overload caused by paradoxical tension tends to cripple their active and mindful search for creative solutions and synergistic outcomes (Bouncken et al., 2015).

2.1.2 Emotional ambivalence as the result of paradoxical tensions

The contradictory conditions in coopetition also give rise to a blend of simultaneous positive emotions (e.g., happiness and excitement) and negative emotions (e.g., sadness and anger) coexisting as emotional ambivalence (Fong, 2006; Pratt and Doucet, 2000). In a state of emotional ambivalence, people feel torn between opposing emotions (Ashforth et al., 2014). Further, a high level of emotional ambivalence in which managers intensely feel torn between the conflicting impulses, in turn, has a negative impact on decision-making and performance outcomes in ways such as in drawing attention away from a complex task that requires significant amounts of cognitive resources (Beal et al., 2005; Bengtsson and Raza-Ullah, 2017). In other words, emotions interfere with cognitions by redirecting the cognitive attention to themselves and therefore tend to thwart leaders' ability to concentrate on critical issues at hand, such as joint problem-solving and decision-making (e.g., Forgas, 2003). Also, strong emotional ambivalence would make managers less effective at producing the desired outcomes. As a result, emotional ambivalence would inhibit the cognitive functioning of coopetitive managers in terms of processing complex information and making quality decisions, which in turn, would negatively contribute to coopetitive performance. Researchers also note that an overwhelming degree of ambivalence can even lead to paralysis (Stratton, 2005), powerlessness, and the loss of perspective (Harrist, 2006). More recently, researchers have found that higher ambivalence is associated with higher levels of both psychological and physiological stress (Herr et al., 2018).

In sum, the literature predicts that the paradoxical tension of coopetitive managers leads to emotional ambivalence, which, in turn, could lead to a decline in performance.

2.1.3 Management strategies in co-opetition

Bengtsson, Raza-Ullah, et al. (2016) states that high failure rates of cooperations between competitors show that the topic of managing tension arising from the paradoxical relationships such as coopetition is still neglected, and research among scholars is scarce. To date, most of the studies that apply the paradox perspective on coopetition, or consider tension as coopetition, have suggested three major management strategies:

The first refers to the combination of formal and informal control mechanisms for information sharing, mainly the legal approach where the parties regulate the paradoxical tension through contracts. While widely used, this approach is criticized for two primary reasons. First, it isn't easy to achieve cooperation if the parties do not want to cooperate, irrespective of contracts (Fernandes et al., 2016). Second, legal issues are bound to occur along the way, given that coopetition should contribute to innovation, something that is likely to involve both new and unforeseeable aspects that the parties cannot negotiate a priori (Raza-Ullah et al., 2014).

The second strategy relates to a third-party actor's involvement that usually enforces the parties to work together. For instance, Bengtsson and Kock (2000) demonstrate how the Swedish brewery association played a critical role in defining, coordinating, and controlling the collaborative endeavors between the competing firms. Similarly, Fernandez et al. (2014) illustrate that the ordering parties forced the two competitor firms to collaborate as the tensions between them were relatively high. They provide a fair and neutral analysis of the given situation and then a rational solution to manage the tension.

The third strategy is about structural solutions, which propose either the separation of competition and cooperation concerning space, time, or levels (e.g., Bengtsson & Kock, 2000;

Oliver, 2004) or the integration of both dimensions, also called the synergistic or integrative approach (e.g., Fernandez et al., 2014; Smith & Lewis, 2011). Furthermore, Wilhelm & Sydow (2018) emphasize that the integration of cooperation and competition requires organizations to accept uncertainty and tensions and highlight organizations' need to look for synergies between these dimensions in order to manage such cooperative relationships successfully.

A criticism of these existing strategies is that the parties involved in cooperation appear to be expected to not experience the paradoxical tensions when these are “resolved” judicially, structurally or by an external third party outside. However, these tensions continue to exist despite attempts to reduce them (Bengtsson & Kock, 2014; Nesse, 2018). Chen (2008) and others (Bengtson & Kock, Tidström et al., 2016, Raza-Ullah et al., 2014) argue that managing the paradox requires transparadoxical and integrative management. Most surprising is however that despite the focus on interpersonal tensions, the relational aspect of leadership in these situations is largely unexplored (Bengtson, Raza-Ullah & Vanyushyn, 2016, Bouncken et al., 2015; Nesse, 2018). Hence taking a different approach to managing interpersonal tensions involves a relational and functional leadership perspective.

2.2 Leadership functions

Despite deploying the aforementioned juridical, third party, and structural strategies, one can not avoid or get rid of the paradoxical tension arising from interfirm relationships (Nesse, 2018). Therefore, comprehensive cooperation frameworks also suggest that firms should consider taking the relational and functional perspective into the context and dynamics of leadership when dealing with such a difficult issue (Fleishman, Mumford, Zaccaro, Levin et al., 1991; Nesse, 2018). Based on this, to manage the paradox and tension in cooperation relationships Raza-Ullah (2017) proposes that firms leadership could include three main components—analytical, emotional, and balancing. Likewise, Strese et al. (2016) investigate how different leadership styles influence the cooperation process. Below I have described each concept included in the leadership functions.

2.2.1 Analytical

The analytical dimension refers to the paradoxical thinking and mindset of senior managers that enables firms to see the constructive nature of contradictory forces (Smith & Tushman, 2005) inherent in the coopetition paradox. Analytical highlights the importance of the senior manager's mindset and managers' ability to think paradoxically to recognize and embrace the possible potential of contradicting logic and forces (Smith & Tushman, 2005), stemming from the paradoxical nature of coopetition. Furthermore, this fosters "exploring the tension in a creative way that captures both extremes" (Eisenhardt, 2000), rather than focusing either on the cooperative or the competitive dimensions of coopetition (Raza-Ullah et al., 2018).

According to the author (Raza-Ullah et al., 2018), managers with paradoxical thinking tend to be adept at developing a clear, precise, and unified understanding of the paradoxical situation. Such paradoxical mental frames create a lens through which managers constantly scan the business environment, assess potential opportunities and threats, and identify if there is a need to cooperate with a competitor. Moreover, Raza-Ullah et al. (2018) claim that this analytical dimension enables firms to understand why, how, and when it is beneficial to both cooperate and compete.

2.2.2 Balancing

The balancing part of coopetition introduced by Raza-Ullah et al. (2018; 2020) is based on the findings and literature of ambidexterity (e.g., Andriopoulos & Lewis, 2009) and literature on the management of tensions inherent in coopetition (e.g., Fernandez et al., 2014; Gnyawali et al., 2016). According to Andriopoulos & Lewis (2009), ambidexterity refers to either integration or differentiation approaches to the management of contradictory demands, like exploitation and exploration. In the context of the paradoxical relationship between coopetition partners, Fernandez et al. (2014) propose that either a separation or integration principle to the management of competitive and cooperative interactions enables managers to deal with potential arising tensions. Therefore, Raza-Ullah (2017) argues that organizations' balancing is a theoretical construct at the organizational level that involves the development of routines and processes that enable and foster the separation, integration, and balance of contradictory forces within cooperative relationships. The author points out that with the development and

enforcement of coopetition routines and processes, managers are able to take on contradictory roles and tasks and decrease the experienced tensions and emotional ambivalence arising from paradoxical forces.

2.2.3 Emotional

The emotional dimension of co-opetition refers to the ability of managers to handle emotional ambivalence. By drawing on literature about emotional intelligence (e.g. Mayer & Salovey, 1997; Salovey & Mayer, 1990) and emotional regulation (e.g. Grandey, 2000; Hochschild, 2003), Raza-Ullah (2017) defines “emotional dimension as the ability to accept, understand, and regulate ambivalent emotions and their effects.” Acceptance refers to understanding and embracing positive and negative emotions in order to develop an understanding of different situations, which is essential to evaluate and interpret the important characteristics of the situation. Understanding refers to the ability to make sense of why simultaneous positive and negative emotions like trust and distrust arise and what would be the consequence if one or both emotions are avoided (e.g., Mayer et al., 2004). Moreover, people perceive emotional ambivalence as uncomfortable, which prompts people to either avoid the situation and the emotion entirely or focus only on one preferred feeling in order to avoid the conflicting ambivalence (Van Harreveld et al., 2009). Regulation refers, on the one hand, to the decrease of the perceived disagreeableness and uncomfortableness within the person itself, and on the other hand to the ability of people to control their feelings of emotional ambivalence towards the coopetition partner, which in turn may enhance creativity and leads to increased performance (Raza-Ullah et al., 2018). Furthermore, the authors mention two strategies in order to control and regulate felt emotions: (1) surface acting and (2) deep acting (e.g., Grandey, 2000; Hochschild, 2003). Surface acting refers to people's ability to express emotions, which they do not actually feel in a particular situation. On the contrary, deep acting is given when a person deliberately changes feelings so that they are in accordance with the emotions that need to be expressed. Meaning that the experienced emotions are also expressed by the person openly (Grandey, 2000).

2.2.4 Consideration

Strese et al. (2016) investigate how different leadership styles and organizational structures influence cross-functional coopetition adoption. The author proposes that some leadership styles, in particular consideration and participation, encourage cross-functional coopetition. Consideration also referred to as supportive leadership, can be explained as the extent to which a leader demonstrates friendliness and interest in the team members' concerns, ideas, and feelings (e.g., Sarin & O'Connor, 2009; Politis, 2001). Analyzing data from the study, Strese et al. (2016) discovered that such a leadership style positively impacts cross-functional cooperation, and considerate leaders create a stimulating and inspiring environment that fosters cooperation capabilities of division to realize, recombine, and transfer knowledge between divisions.

2.2.5 Participation

The author (Strese et al. 2016) also examines the second leadership style, participation, which refers to the extent to which a leader encourages team members to participate in the decision-making process (Sarin & Mcdermott, 2003). He revealed that leaders displaying considerate behaviors foster competition between divisions, as the authors demonstrate a strong, positive influence of considerate behaviors of leaders on coopetition between departments. Additionally, an even stronger, positive effect on cross-functional coopetition was observed in Strese et al. (2016) with participative activities and division leaders' behaviors. As this leadership style encourages open discussions and debates, the authors conclude that both cooperation and competition between divisions are promoted.

2.3 Relationship between coopetition and innovation

Cooperation with competitors is of major importance when firms seek to advance their technological progress and innovative capabilities (Gnyawali & Park, 2011). Prior research has stressed the positive relationship between coopetition and innovation (Bouncken et al., 2016; Estrada et al., 2016; Ribeiro-Soriano et al., 2016; Ritala & Hurmelinna-Laukkanen, 2013) by highlighting the positive effect of coopetition on innovation (e.g., Bouncken & Kraus, 2013; Ritala, 2012).

For instance, coopetition can positively impact incremental and radical innovations (Le Roy et al., 2016; Ratzmann et al., 2016; Ritala & Hurmelinna-Laukkanen, 2013; Bouncken & Fredrich, 2012). Differentiating between the different stages in incremental and radical innovation processes, Bouncken et al. (2017) have revealed that coopetition is beneficial for early and later incremental innovation stages. Yet, such benefits apply only to the less uncertain final stages of radical innovations. Additionally, coopetition can positively affect product and process innovation (Estrada et al., 2016; Pereira & Leitão, 2016; Tomlinson & Fai, 2013). For example, Pereira and Leitão (2016) have demonstrated that the development of product innovations is facilitated through the acquisition of external knowledge in high-tech and medium-low-tech manufacturing firms.

This effect can be further promoted through coopetition, depending on the coopetitors' ability to detect and assimilate external sources, formally known as "absorptive capacity." Coopetition can also be beneficial for new product development and introductions (Bouncken et al., 2017; Wu, 2014) and the number of product lines (Quintana-Garcia & Benavides-Velasco, 2004). Moreover, research has emphasized that coopetition is an important strategy in knowledge- and innovation-intensive, dynamic, and complex industries that are typically characterized by short product life-cycles, a need for high research and development (R&D) investments, a significance for technological standards, and the required convergence of various technologies (Bouncken et al., 2017; Gnyawali & Park, 2009). In such environments, coopetition has been proposed to facilitate access to crucial resources and capabilities (Carayannis & Alexander, 1999) and to overcome knowledge asymmetries regarding innovation (Enberg, 2012; Brolos, 2009).

This exchange of resources, capabilities, and knowledge among coopetitors is important for innovation (Estrada et al., 2016; Brolos, 2009) when firms face limitations in their internal stock of resources and knowledge that potentially impede their innovation power (Camison-Zornoza et al., 2004). Typically, despite its crucial relevance, knowledge is not shared equally among firms (Enberg, 2012), and the same holds for resources and capabilities. Some firms possess resources, capabilities, and knowledge that others have not internalized and vice versa. Therefore, firms are rarely self-sufficient when innovating (Freel, 2003).

When cooperating, competitors have numerous opportunities to share, integrate, recombine, and create supplementary and complementary resources (Estrada et al., 2016), which can lead to synergies and innovative opportunities (Ricciardi et al., 2016; Nasr et al., 2015; Gnyawali & Park, 2009; Padula & Dagnino, 2007). Indeed, coopetitors can pool their R&D activities (Walley, 2007) and get access to the competitors' resources and knowledge (Le Roy & Czakon, 2016; Enberg, 2012; Bengtsson & Kock, 2000), which can promote innovation (Czernek & Czakon, 2016; Estrada et al., 2016).

However, in coopetition firms are required to share and acquire resources and knowledge from the partner based on mutual interest (Ritala et al., 2014; Quintana-Garcia & Benavides-Velasco, 2004). Coopeting partners can create a common knowledge base using all partners' experience and expertise (Ritala & Hurmelinna-Laukkanen, 2009). As a result, they can enlarge their technological diversity (Quintana-Garcia & Benavides-Velasco, 2004), improve their innovation capacity (Ritala, 2012; Bonel & Rocco, 2007), and expand knowledge generation and diffusion (Yami & Nemeh, 2014; Ritala & Hurmelinna-Laukkanen, 2009). Additionally, competition among coopetitors drives them to create and introduce new products and/or services (Le Roy & Czakon, 2016) that they would not be able to develop without the coopetitor or only much later (Walley, 2007). Hence, when rivals cooperate in innovation processes, innovation is no longer just a firm-internal process (Lasagni, 2012); it becomes a complex, intertwined action between various individual parties that each contribute resources, capabilities, and knowledge to the final product and even jointly co-create new knowledge and technologies that can lead to technological breakthroughs and innovations (Ritala et al., 2014; Bougrain & Vaudeville, 2002).

Despite the tempting advantages of coopetition in terms of the exchange of resources, capabilities, and knowledge as well as technology and innovation creation, firms need to

consider specific risks and challenges, too (Le Roy & Czakon, 2016), especially when it comes to coopetition focused on innovation activities. In fact, coopetition and the management of cooperative ties are challenging (Gnyawali & Park, 2009), sometimes dangerous (Pellegrin-Boucher et al., 2013), and filled with tensions (e.g., Le Roy & Czakon, 2016; Le Roy & Fernandez, 2015; Fernandez et al., 2014; Tidström, 2014) due to the numerous sources of risks and conflicts that stem from the complexity and interdependent nature of coopetition. For example, coopetition can lead to instability and a number of tensions “due to inherent contradictory and opposing forces” (Fernandez et al., 2014), which is why coopetition is not always an easy and straight-forward task. Coopetition is paradoxical in nature given the simultaneous existence of the two contradicting logics of interaction, cooperation, and competition, in the same inter-firm relationship (e.g., Bengtsson et al., 2016; Tidström, 2014; Pellegrin-Boucher et al., 2013). This “simultaneity” is called the “crux” of coopetition as two contradictory yet interrelated forces are simultaneously in place, which makes the relationship irrational, inconsistent, and absurd (Bengtsson et al., 2016).

2.4 A theoretical framework

Since innovation and joint R&D activities lie at the heart of cooperative relationships (Pesch et al., 2016), cooperative managers need to be creative, insightful, and cognitively resourceful in skillfully communicating and coordinating the ongoing innovation processes (Pesch and Bouncken, 2018). Thus, leadership appears critical to establishing and maintaining relationships in a cooperative innovation strategy context. The double-edged consequences of coopetition (Bouncken & Fredrich, 2012), especially in relation to innovation, should not be neglected, as coopetition can lead to positive effects on the competing firms’ innovation, performance, and growth as well as negative consequences in the form of opportunism, tensions, and limitations. Moreover, researchers have pointed out that due to the paradoxical nature of coopetition, leaders tend to face paradoxical tension resulting in a state of experiencing both positive and negative emotions, also known as emotional ambivalence (Fong, 2006; Ashforth et al., 2014). High levels of emotional ambivalence could hamper coopetition performance and thus need to be managed (Raza-Ullah & Bengtsson, 2013).

Past research has identified three strategies to be useful in order to manage coopetition, including judicial, structural, and third-party ownership designs; however, this is not enough to

successfully manage the tension and emotional ambivalence that stems from it, which may hamper the relationship as well as the innovation potential. Therefore, I take a contextual relational and functional leadership perspective in this study, to move research forward when it comes to facilitating coopetition and enable firms to achieve a coopetition-based innovation strategy. (Fernandez, Roy & Gnyawali, 2014, Tidström 2014). As the current literature on coopetition management in the context of leadership is scarce, in order to reduce the gap that exists, I particularly draw on Reza-Ullah (2017) and Strese et al. (2016) work to discover leadership functions in the empirical data that are needed to manage the paradoxical tension and foster innovation. In this way, I pave the way to address my research question and further develop new insights regarding inter-firm paradoxes and the role of leadership in managing tensions during coopetition as a strategy to achieve innovation.

3. METHODOLOGY

This chapter highlights and underlines the relevance of the methodological choices made to address this paper's research question. Therefore, this chapter first reviews the research design, followed by outlining the research approach consisting of a multiple case study and presentation of cases. Then it will be specified how the empirical data was collected and how it was analyzed. Furthermore, this study's quality is underlined by pointing out its credibility, dependability, transferability, confirmability, ethical implications and limitations. (Lincoln & Guba, 1985; Sinkovics et al., 2008).

3.1 Research Design

A research design is a general plan of how the research question will be answered, and it has implications for the research process (Saunders, Lewis & Thornhill, 2016). There are three main types of research design; *exploratory*, *descriptive*, and *explanatory*. The choice of the research design is dependent on the nature of the research question. This research aims to examine *how leaders manage the paradoxical tension and emotional ambivalence evoked in a coopetitive innovation strategy?* Since the research topic is relatively new and there is limited previous research within the subject of leadership in this context, this study uses the exploratory research design. The exploratory design has a flexible approach and intends to construct explanations as new pieces of information are available and collected (Ghauri & Grønhaug, 2005). In this research, the exploratory design is useful to gain new insights to understand a phenomenon further or clarify current understandings (Saunders et al., 2016).

3.1.1 Research Approach

There are three main approaches to the research; deduction, induction, or abduction (Saunders et al., 2016). Deduction tests and develops existing theories, while induction collects data about a phenomenon and develops a new theory. The abduction approach is a combination of deduction and induction, as it collects data to explore a phenomenon, identifies themes, explains patterns, generates new theory, or modifies the existing theory (Saunders et al., 2016). Which approach is most suitable for the research is dependent on the nature of the research question.

In this study, an inductive research approach is applied. The inductive approach is appropriate because it aims to develop new insights and theories and remain open to multiple explanations. Hyde (2000) states that inductive methods are often used in qualitative research because the theory developed through this method tends to be untested. Researchers often have an idea of what data will be gathered, and what the analytical framework will look like. However, the researcher must show improvisation, creativity and flexibility throughout the entire research process (Boeije, 2010).

This study is interesting and worth investigating because firms are increasingly facing paradoxical tension while cooperating with their competitors to achieve innovation, thus the research question aims to answer: *How do leaders manage the paradoxical tension and emotional ambivalence evoked in a coopetitive innovation strategy?* The combination of an exploratory research design and an inductive approach allows data to drive the focus and analysis of this study and also provides an opportunity to use the insights from existing literature to better inform the study and provide answers to the research question.

3.1.2 Research Method

There are two main research methods; quantitative and qualitative (Saunders et al., 2016). This research was conducted with the qualitative method as is common with explorative research. Qualitative research is characterized by non-numerical data, and it focuses on participants' meanings and relationships between them in order to contribute to the existing literature and give an in-depth understanding (Saunders et al., 2016). To best understand the role of leadership in managing the paradoxical tension in a coopetition relationship, the thoughts, and opinions of interviewed individuals involved in the exemplary coopetition case were important to examine. Thus, in order to get an in-depth understanding of the phenomena studied, there was a need to collect non-numerical data through an interactive process allowing for adaptations. Based on the evaluation of the explorative characteristics of the research question and the abductive approach, a qualitative method is suitable for this research.

3.1.3 Research Strategy and Objective

The research strategy is defined as a plan on how to proceed to answer the research question (Saunders et al., 2016). The choice of the research strategy is based on the achievement of a reasonable level of coherence throughout the research design to meet the research question's objectives (Saunders et al., 2016). By having an explorative design and qualitative method of data collection, it was suitable to conduct a case study. A case study is a research strategy that investigates a phenomenon in-depth and within its real-life setting in order to develop empirical descriptions and theory. A case study is useful for analyzing questions of what, why, or how corresponding with the research question examined in this study (Saunders et al., 2016). I explore my research question by studying the role of leadership in the management of paradoxical tension arising from inter-firm relationships among three insurance firms. Yin (2003) argues that multiple case studies are preferable to a single case study. In establishing new theories, multiple case designs provide more robust empirical results, improving the generalizability of findings (Rowley, 2002). Also, using multiple cases allows the researcher to perform a comparative analysis between the cases, highlight contrasts and similarities, and compare the phenomenon within a particular situation and across different situations (Gustafsson, 2017).

The objective of this research is to combine existing theory and the collected data, with the aim to help both practitioners and researchers with insights into how leaders can address the paradoxical tension in a coopetition strategy for innovation. Furthermore, the research identifies themes and patterns to further develop coopetition literature with a deeper understanding of the coopetition process applied to the Norwegian Insurance Industry. The case study was selected because it represents a unique overview, and analyses a phenomena that few have examined before (Saunders et al., 2016).

3.1.4 Research setting

Presentation of the cases

This study takes place in a non-profit Fintech Cluster where three insurance companies located in Scandinavia joined forces to combat insurance fraud by training fraud-detection models on a large pooled dataset. Two other companies were involved (aka Tech Inc and Legal Inc) to facilitate the process by helping to find an appropriate technical infrastructure and legal framework for the project. The idea of the project is to share anonymized data on a closed cloud platform. Individual companies will not be able to see each other's data but will be able to use the larger data set for training their own fraud-detection models through AI machine learning. The goal is to have access to more training data, thereby creating models more efficient at identifying red flags and detecting potential fraud cases.

Information about the cases has been collected during the interviews and conversations with the informants. All names and company data have been anonymized in this study to protect the interests of the companies. This also enables access to more detailed information that would otherwise not be available. Below I have illustrated the timeline of the project and described a brief introduction of the three firms participating in the coopetition.

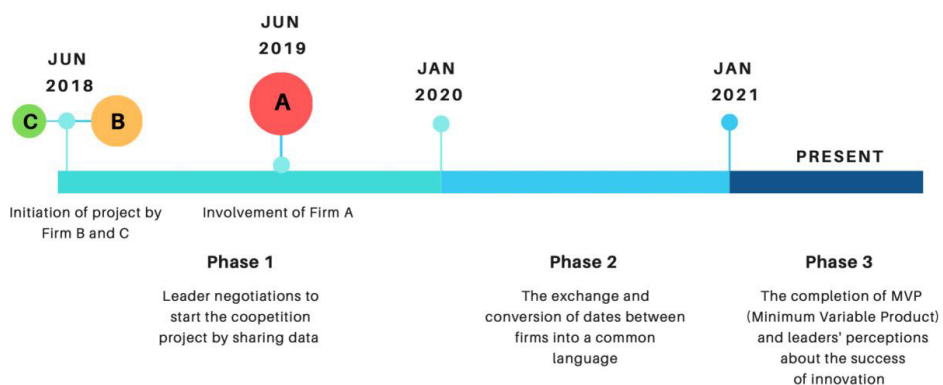


Figure 1. The coopetition project timeline

Cases introductions

Firm A:

The company is one of the largest insurance firms, owning more than 14% of the market share in a Scandinavian country. It was created as the result of a merger between the insurance companies of two large financial companies and today it counts about 1500 employees across the county. This firm participated in the project at the end of phase 1.

Firm B:

The company is a subsidiary of another large Scandivian firm and is the fourth largest general insurance company in the country with a market share of approximately 13 %. It has about 1300 employees, around 40 cities and small towns across the country. This firm initiated the project and was seeking for other partners to join during phase 1.

Firm C:

The company has a market share of about 5 % and is owned by 15 local savings banks. It has around 265 employees, a sales corps of 1,000 through banks and franchises, and over 250,000 residential and business customers with insurance solutions covering Life and Non-Life policies across the country. This firm joined the project in the beginning of phase 1.

3.2 Data Collection

This research was done with the support of the RaCE program at SNF and NHH. My supervisor, Dr. Synnøve Nesse, assisted me with gaining access to collect the primary data, and the Fintech Cluster CEO provided me with all the contacts of the people who had participated in the process. This support was essential and was extremely helpful during the data collection phase of this research. This section of the thesis explains the type of data, how it was collected, and how it was handled.

3.2.1 Data Sources

This research utilizes both primary and secondary non-numerical data. Case studies allow for the triangulation of evidence through the use of several data sources (Saunders et al., 2016). The use of multiple data sources strengthens the grounding of the research's insights (Eisenhardt, 1989; Guba, 1981). The primary data used for this research was semi-structured interviews with key leaders involved in the coopetition relationship. Semi-structured interviews are often used in exploratory studies and are appropriate when there is a need to understand the reasons for the participants' decisions (Saunders et al., 2016).

The secondary data utilized in this study consisted of public information in the form of companies' websites, LinkedIn profiles, and news articles published in the media. A PowerPoint presentation provided by Fintech Cluster was taken to better understand the process. Furthermore, interview notes and memos were kept as well and became a valuable resource during the process of analyzing the data.

3.2.2 Sample

A research sample includes all the informants from whom a researcher receives information in order to answer the research question (Thagaard, 2018). When considering data only from a subgroup rather than the whole population, sampling makes it possible to reduce the amount of data to be collected (Saunders et al., 2016). In qualitative studies, the aim is not necessarily to generalize based on the representative sample but rather gain an in-depth understanding of a phenomenon with limited research (Johannessen, Christoffersen & Tufte, 2011). The use of different forms of sampling strategies allows securing a sample that is best suited to provide rich information in order to create an in-depth understanding of the phenomenon studied (Johannessen et al., 2011).

To collect meaningful data, researchers need to negotiate access to relevant sources (Saunders et al., 2016), which was achieved as explained above. Interviews with eight informants from 6 companies were conducted. They were all in leadership positions, and in order to gain more

diverse insights, I decided to conduct my interviews at different leadership levels. This allowed for an in-depth understanding of the matter. Moreover, it showed me how individual leaders at different positions perceive and handle the paradoxical tension of coopetition. The table below gives an overview of interviewees and information on their positions:

Interview Participant	Position	Organization
Informant 1	Head of Special Investigation Unit	Firm A
Informant 2	Head of Machine Learning and AI	Firm A
Informant 3	Head of Customer & Claim Analytics	Firm B
Informant 4	Senior Data Scientist	Firm B
Informant 5	Head of Business Intelligence Center	Firm C
Informant 6	Business Analyst	Firm C
Informant 7	Project Manager	Tech Inc
Informant 8	Head of Financial Regulatory Services	Legal Inc

Table 1. Informants in the study by identification number, role and firm

3.2.3 Semi-Structured Interviews

A research interview is a conversation between an informant and researcher that allows gathering valid and reliable data relevant to the research question (Saunders et al., 2016). The author also differentiates between standardized and non-standardized interviews, where standardized interviews are structured and formal, while non-standardized interviews are unstructured and informal with no predetermined list of questions prepared. Further, the interview method's choice depends on the nature of the research question and the chosen research design (Saunders et al., 2016).

Given the exploratory research question and the case study as a research strategy, this research's primary data was collected through semi-structured interviews, also referred to as qualitative interviews. This intermediate of structured and unstructured interviews allows a higher level of flexibility than structured interviews, when aligning with the flow of the conversation through the opportunity of changing the order of questions from the interview guide (Kvale & Brinkmann, 2015), or when omitting specific questions (Saunders et al., 2016). Flexibility gives informants freedom to express their assumptions, thoughts, and experiences regarding the coopetition project. Following, it opens for follow-up questions in order to explore something specific in-depth or to clarify it, leading to more meaningful and contentful answers that can increase the insight in the research question (Saunders et al., 2016). In addition to flexibility, the interviews require a certain level of structure through predetermined themes and key questions in order to be able to compare, draw conclusions and see patterns in the data (Saunders et al., 2016).

3.2.4 Interview Guide

Semi-structured interviews are often characterized by an interview guide prepared by the researcher, consisting of themes and initial questions that are desirable to cover, as there is always a need for some direction and purpose to start an interview (Saunders et al., 2016). When developing the interview guide (attached in *Appendix B*), first, the themes reflecting variables

studied were derived based on the literature review and discussion with the supervisor. Then, the questions were generated from the themes and continuously checked upon the research question. However, the interview guide was not definite and could be changed along the way if needed, giving the flexibility to have open conversations during the semi-structured interviews to gain in-depth information. For that reason, it should be specified that some answers about specific themes were particularly remarkable, such as the paradoxical tension. Thus, more specific questions related to this tension were asked after two initial interviews. Such flexibility of the interview guide allowed me to focus on what emerged as particularly important and impacted the study.

In the interview guide's preparations, the types of questions included were open questions, probing questions, and specific or closed questions (Saunders et al., 2016). Open questions are designed to encourage the informant to provide complementary answers and were asked to establish a trustful atmosphere. To secure a comfortable setting, each interview started with introducing myself, followed by questions regarding the informant's background and position, and experience within the coopetition project. Open questions often start with *what*, *how*, or *why* (Saunders et al., 2016), and an example of an open question asked in my semi-structured interviews is; *What capabilities are useful to sustain the coopetition relationship?* To get more details and explore significant themes further, probing questions are suitable, and these questions often involve follow-up questions (Saunders et al., 2016). An example of a probing question asked is; *How would you describe the result of this project in terms of innovation?* Further, to get more specific information or to confirm a perception, a specific question like; *Did you have a clear understanding of the coopetition situation since the beginning?* is asked (Saunders et al., 2016). Finally, the informants were asked if they wanted to add something that might be of interest to the study beyond what had already been mentioned.

3.2.5 Interview Process

Participants were contacted initially through email by our main contact at the Fintech Cluster. He informed them about the study, how the data was to be used and secured that all the data would be anonymized. Further emails were then followed up with the participants, and the interviews were scheduled by myself. However, since I was part of the RaCE program, I conducted some of them along with other students who were part of the same program and with my supervisor.

Before the interviews, all informants were contacted by email, which included the study's presentation and practical information about the time frame for interviews. A consent form (shown in Appendix A) was attached and asked to be signed prior to the interviews. The consent form contained information about the research project, information about confidentiality, and informants' rights. The consent form was developed from a standard consent form drafted by the RaCE program at SNF and NHH.

Due to the emergence of the COVID-19 pandemic, all the interviews were organized through Zoom. They were conducted in 3 weeks, and each of them lasted approximately 60-90 minutes. Every interview started with reassuring that informants agreed to video recording. The conduct of the interviews was successful, despite not being able to meet the informants in person. All informants were very welcoming and interested in contributing to the research project.

3.2.6 Secondary Data

A large quantity of secondary data was also collected for this study and consisted of public information in the form of the companies' websites, LinkedIn profiles, and news articles published in the media. Then I analyzed documents by selecting the information that is either directly relevant to the research or helps me to extend the understanding of the cases. For example, companies' websites were used in order to research the organizational structures, market share, and relevant business information about the cases. LinkedIn was used in order to confirm the positions and professional history of the interviewees. Interview notes were used to facilitate the understanding of the interview data and assist with the identification of core concepts.

3.3 Data Analysis

Clear guidelines for analyzing qualitative data outlined by Saunders et al. (2016) and Charmaz (2006) were followed in this paper. As described, the data used in this study is primary, non-numerical data taken from qualitative, semi-structured interviews. The data gathered was first prepared by transcribing the recorded interviews and afterward analyzed in two steps: first, using the method of line-by-line coding (i.e., initial coding) and second, using the method of focused coding, as described by Charmaz (2006). This step-by-step approach was extremely helpful in comprehending the significant amount of information gathered through the interviews.

3.3.1 Data Preparation

The recorded interviews were transcribed entirely. During the transcription process, I was interested not only in what the participants said but also in the way they responded. Notes were added for laughter, gestures, and similar conversational features to better convey the responses' meaning. This additional contextual information ensured that important incidents that could affect the meaning of the data in the interviews would not be missed (Saunders et al., 2016). Secondary data was translated into English and transcribed into Word documents in the same format.

3.3.2 Initial Coding and Data Analysis

After transcribing the interviews, line-by-line coding was used as a first step to critically analyze the data. This form of coding, being an open approach to data analysis, helps the researcher explore the information and gain insight into how participants feel (both positively and negatively) and what their concerns are for the matter researched (Charmaz, 2006). In a lengthy process, codes were added to single or consecutive sentences that had a similar meaning in each interview. These codes contained a summary of the meaning underlying the sentence. This approach supported the process of viewing the data more thoroughly, gathering the first insights, and creating dimensions for the second stage of coding. Throughout this process, Charmaz's (2006) guidelines for coding were followed closely.

3.3.3 Focused Coding and Data Analysis

In this research, Charmaz's (2006) approach to focused coding was followed. This helped determine which of the codes would be used to gather exploratory insights and inductively generate a model. This approach was intensive and lengthy but also reflective and insightful. After thoroughly reviewing the initial codes and conversation segments, categories that supported the research question's answering with exploratory insights were constructed. Afterward, the initial codes and the associated conversation segments were color-coded into similar themes and moved into separate files.

After another thorough reviewing process of the codes and broader themes, a model with a set of greater dimensions was inductively generated, reflecting the research question's purpose. After reviewing the data another time, it was determined where each of the themes defined in the focused coding stage was located in the model. Several codes are used in more than one part of the model.

E.A : How did you motivate these employees to contribute to this project?

Yeah, it's important to encourage all my team members but also make them aware of cooperation risks. I always encourage them to just being patient and don't give up and don't be stressed or upset because things are not going that fast but just do your part then things things will turn out well

EA

Endri Aličkaj

Emotional Regulation: Showing consideration and support

I'm also open to stop the project. There is one employee in my team who is very eager for this project and basically, I've tried to reduce his expectations a little bit because you never know at some point things can be blocked.

EA

Endri Aličkaj

Emotional Regulation: Showing consideration for employees feelings

E.A : Can you describe how your leader handles this cooperation situation?

I think he (the leader of firm C) is a very good example and a rational leader that it's not angry or upset or stressed. If things are not going exactly how we want them to go, he just sits down and discusses things right rational how to proceed with a situation where we are in.

EA

Endri Aličkaj

Emotional Regulation: Showing self-restraint

Figure 2. Example for focused coding, where data is regrouped according to significant themes.

3.3.4 Thematic Analysis

After using an iterative process of initial coding, as well as focused coding, I found it reasonable to further take a third step by analysing the data through a thematic coding approach. Thematic analysis is “a method for identifying, analyzing, and reporting patterns (themes) within data” (Braun & Clarke, 2006). This method adds constructively to the research by exploiting the richness of the data.

A theme, according to Braun and Clarke, “captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set” (2006). An iterative process used constant comparison (Glaser and Strauss, 1967) to continually evaluate and iterate findings. From these analyses three overarching dimensions describing the findings were distinguished, completing the Gioia method with third-order themes. The data structure is detailed in Figure 3.

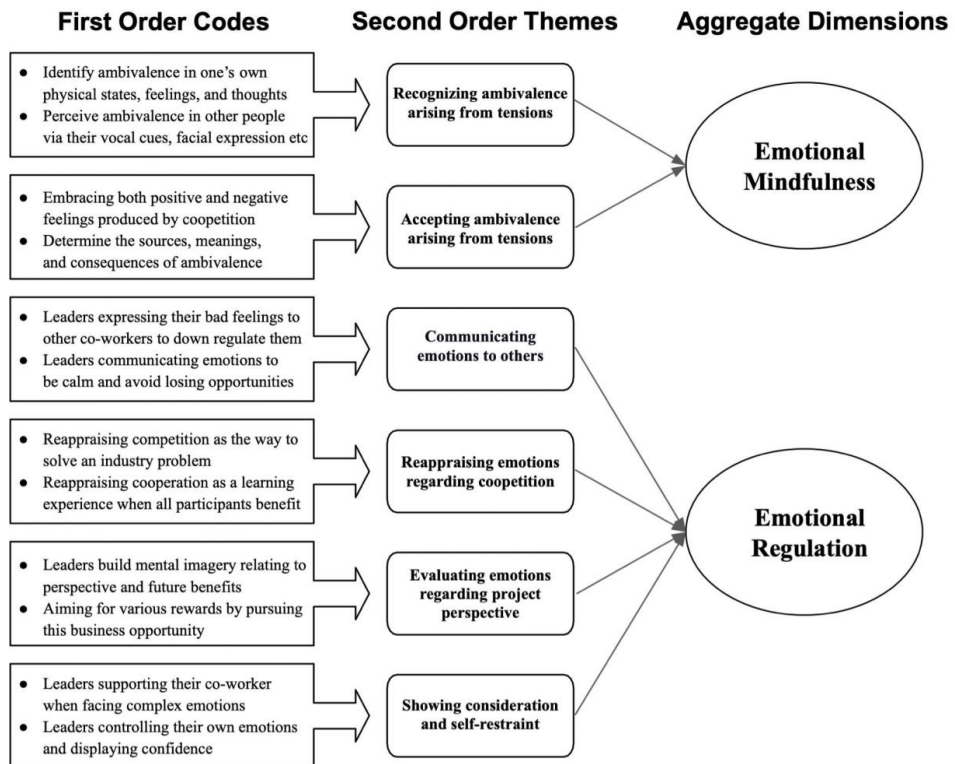


Figure 3. Data structure based on the thematic analysis

3.3.5 Temporal Bracketing

Furthermore, since the development of the coopetition project presented in the thesis occurred over time, a meaningful way to organize the data was by dividing it into phases. The main benefit of temporal bracketing is that it allows to break complex process data down into interdependent phases (Gehman et al., 2018). It thus enables researchers to examine "how actions of one period lead to changes in the context that will affect action in subsequent periods" (Langley, 1999). Moreover, this strategy fits well with a nonlinear dynamic perspective on organizational processes, and it can quite easily handle eclectic data that include events, variables, interpretations, interactions, feelings, and so on (Langley, 1999). Each phase depicted is characterized by a distinct structure, presented in the Findings (see Section 4).

3.4 Research Quality

This section illustrates how the overall quality of the research was ensured by assessing the methods that were used to gather and evaluate the data. Regarding Saunders et al 2016., the quality of research is most often determined by its validity and reliability. Validity is usually determined by examining: the construct validity, which is whether the intended variable is measured; the internal validity, which is whether the research shows a causal relationship; and the external validity, which is whether the results can be generalized (Saunders et al., 2016). Reliability addresses whether the study outcomes would be replicable if they were attempted by a different researcher (Saunders et al., 2016). However, many qualitative researchers view those determinants of research quality that were taken from quantitative research to be grounded in a different paradigmatic view and to not be applicable for qualitative inquiry (Denzin & Lincoln, 1994; Lincoln & Guba, 1985; Sinkovics, Penz, & Ghauri, 2008). Therefore, much qualitative research attempts to establish trustworthiness instead, through the measures of credibility, dependability, transferability, and confirmability (Lincoln & Guba, 1985; Sinkovics et al., 2008). These concepts of trustworthiness correspond to validity and reliability in many ways but are more appropriate for the case study approach used in this study. For qualitative research, however, Lincoln and Guba (1985) formulated different terms for validity and reliability that were adjusted to their different nature. For reliability, they use the term dependability; for internal validity, they use credibility; and for external validity, they use the term transferability (Lincoln & Guba, 1985). Lincoln and Guba's definitions are deemed to be more suitable for this qualitative paper and will thus be used to assess the research quality.

3.4.1 Credibility

Credibility assesses whether the researcher's account of the study can be viewed as reliable and plausible. Credibility can be aided by ensuring that the research was conducted properly and the findings are reviewed by the participants to confirm their interpretations (Guba, 1981). In a process called member validation, the findings were sent back to the interview participants to see if the analysis accurately portrayed the participants' insights and the events they experienced. The findings were then amended after the participants reviewed them. The open nature of the original interviews also allowed questions to be reworded and asked again to assist comprehension if the meaning was unclear to the participants.

During the interviews, participants were asked follow-up questions to confirm the meaning of their answers. Furthermore, their replies were often summarised during the interview to allow them to respond to the interpretation given immediately and correct it if wrong. Immediately after the interviews, the researchers reflected upon the participants' answers to establish a mutual understanding. After transcribing the data, the documents were sent to the participants to give them another opportunity to review their answers. In addition to continuous dialogue with the supervisor, the research approach and initial findings were presented to faculty members, professors, and fellow students at a RaCE program event, which took place as a video conference via Zoom due to COVID-19. This allowed for a review of the study in the form of feedback and constructive criticism.

Furthermore, multiple data sources were used in a triangulation process to establish further credibility to the research (Guba, 1981). Primary interview data from numerous participants were combined with a large variety of secondary data. The secondary data was reviewed early in the data collection process to ensure referential adequacy during the interviews. All of the interview participants also held different top positions at several of the firms under examination in this research, providing many perspectives on the same firms and events. Patterns and themes were searched for during the analysis, and interpretations were formulated based on multiple accounts. No category or theme was accepted that could not be verified from at least two sources. The findings relied on corroboration and coherence such that each conclusion was compared and contrasted with all the other material to be certain that there were no internal contradictions. A variety of theories were also examined and discussed during the literature review in order to ensure a thorough search for explanations (Guba, 1981). d sharpen the research focus and improve the research approach.

3.4.2 Transferability

The study was largely inductive, exploratory, and the sampling was theoretical, so it was not intended to be representative or typical but is instead intended to maximize the range of the information uncovered. When performing a qualitative case study, such as the one here, generalizations of the findings are typically eschewed on the basis that the interpretations of the events are tied to their context (Guba, 1981). The interpretations in this study are presented in conjunction with the 'Research Setting' section in order to convey as vivid a description of the context as possible. This should aid other researchers in comparing the information to other possible contexts in which transfer might be contemplated and allow them to assess the degree of fittingness.

3.4.3 Dependability

To assist a study with dependability, researchers can establish an audit trail that makes it possible for the reader to examine the processes whereby the data was collected and analyzed and how the interpretations were made (Guba, 1981). This thesis documents all the phases of the research process in order to achieve this. The codes and findings were also discovered inductively from the data. In addition, my supervisor and RaCE program presentations contributed to assessing the procedures and getting critical feedback regarding the degree to which the theoretical interpretations are appropriate in the process of "peer audit" (Guba, 1981).

3.4.4 Confirmability

Confirmability was aided by deliberate mindfulness to not allow personal values or theoretical inclinations to affect the research process's performance. A singular and clear research design and approach are used and followed closely (Charmaz, 2003, 2011, 2014). My supervisor aided in the interview process, data collection and advised the research closely. The methods and the processes performed in this study are transparent and comprehensively described to assist repetition in future studies. In addition, all the findings are supported by direct quotes from multiple participants. It might be possible that interview participants could have withheld information if they did not trust the interviewers or the process's confidentiality. However, all the participants signed a consent form drafted by the RaCE research program (see Appendix A). The consent form explained the RaCE program, how the data was to be used, an explanation

that the data would only be viewed within the RaCE program, and that it would be anonymized. Because the participants also recommended a key informant to be interviewed, it is likely that trust was established.

3.4.5 Ethical Considerations

Research ethics were considered throughout the research process due to their potentially significant impact on research quality (Saunders et al., 2016). The participants were given information on the process in advance and had the option to withdraw their participation at any time. To protect the participant's information in this research, the data has been anonymized, and all the personal names, corporate names, dates, and locations have been removed or replaced with pseudonyms. Precautions have been taken in the storage of data, analysis, and the research presentation to ensure that identities are not revealed. All the data has been stored and encrypted on a personal computer. After the completion of the thesis, it will be deleted from the personal computer delivered by the RaCE program.

3.4.6 Limitations

The study has some limitations. For instance, I conducted only 8 interviews in 5 companies, and while this may have been enough for theoretical saturation (Saunders et al., 2016) this is not certain as some over-sampling may be useful to show that saturation is fully reached. Further, interviews were conducted through Zoom, and according to Saunders et al. (2016) internet-mediated research makes it difficult to anticipate informants' concerns and attitudes due to lack of face-to-face contact. This might have impacted trust because of the absence of the physical attendance, but as stated, face-to-face interviews were not possible due to emergence of early stages of Covid-19 pandemic. Moreover, I want to emphasize that the nature of the problem is in itself a limitation. In this study I addressed the leadership context using an emotional perspective that could be very sensitive to all interviewees, thus influencing their responses, making them withhold unacknowledged, incongruent or challenging emotions. Finally, this thesis is written in a time constraint of only 5 months, where more time could have been useful. Yet, within this frame, the scope was carefully planned and executed, while the data were analysed carefully in accordance with the quality criteria above, and any possible measures have been taken to ensure this quality.

4. FINDINGS

This section presents the in-depth analysis and findings of the research. The findings are organized and presented with the interpretations accompanied by illustrative quotes. A summary in brief – one for each of the three parts of findings is presented first to guide the reader through the analysis, before I explain and illustrate these findings in a more detailed manner.

Overview

The studied coopetition project involves three Norwegian companies who joined forces to combat insurance fraud by sharing their data. The aim was to create a platform where all participants' firms could have access to, but would not be able to identify the data source, since this was forbidden by Norwegian laws including GDPR (general data protection regulation) and competition law. However, this included sharing data and cooperating with a competitor in the fiercely competitive national market of insurance.

First, the data analysis reveals that during this coopetitive project the leaders' descriptions indicate a particular pattern in the coopetitive relationships. Stemming from the paradoxical tensions of cooperating with a competitor, three different emotional state trajectories emerged, one in each, closely related to the leaders' expectations and experiences regarding value creation and capturing value from the project, develops. In Firm A, which represents the *unambivalent (negative) emotional state trajectory*, the negative emotions override the positive ones, due to the experience that the relationship's competitive part becomes more salient to these leaders than the cooperative one. The leadership of firm A tended to judge their partner as quite egocentric and attempting to maximize its interests at their expense. In contrast, in Firm C that represented an *unambivalent (positive) emotional state trajectory*, leaders experience conflicting impulses to only a small extent, and positive emotions are largely more felt than negative ones. Since they were the smallest company (in terms of data sharing) involved in the coopetition and didn't have much to lose they were highly interested in and focused on cooperative activities such as

co-creating bigger value and solving the common problem, fraud detection. Moreover, they were less concerned with the competitive part (e.g. opportunistic steps taken by partners), which served to foster experiencing fewer negative feelings. Finally, the third company, Firm B experienced strong ambivalent feelings that involve a higher degree of being torn between conflicting emotions, representing an *ambivalent (shifting between positive and negative) emotional state trajectory*. This was associated with the fact that they had to share data with their competitors. An overwhelming degree of ambivalence made them feel "stuck" and unable to make decisions and to move on.

Moving to the second set of findings, regarding how leaders manage this I found the following: To manage the emotional ambivalence arising from paradoxical tensions, the leaders needed to engage in two key leadership functions: First to activate (1) emotional mindfulness and second to (2) regulate their feelings. The data analysis further reveals that leaders used several behaviors associated with each function to become mindful of and manage their emotional states in order to be able to maintain the cooperative relationship, yet with potential different effects on results. These behaviors were related with the emotional mindfulness function: (1a) recognizing and (1b) accepting of ambivalent feelings, while these behaviors were related to emotional regulation: (2a) communicating of emotions to others; (2b) reappraising emotions regarding competition; (2c) evaluating emotions regarding project perspective and (2d) showing consideration and self-restraint. Although many functions may influence innovation and contribute to maintaining the cooperative relationship, including cognitive and emotional functions, in this paper, the aforementioned functions appeared to play a significant role in the project as they helped to stabilize the firms' leaders' emotional states by sustaining the interfirm relationships with a sole purpose: to achieve innovation.

The data analysis reveals a third set of findings regarding the interaction between the leaders' perceptions of outcomes with firm emotional trajectories and how the leaders engaged in functional leadership in regulating emotional regulation. Throughout the process, the interviewed leaders consistently perceived the outcome influence as a direct reflection of the emotional states the leaders in each firm describe in each phase. By having three different emotional trajectories, we can say that it affects all firms differently. On the other hand, the findings show that the perception of outcome provides cues about the emotional regulation capacity of leaders, helping to stabilize the emotional state of firm members. The interplay between all the three dimensions contributes to sustaining cooperative relationships, allowing

firms and their leaders to keep on working together towards innovation, despite experiencing tensions and ambivalence.

4.1 The Emotional State Trajectories in Each Firm

The following section provides a detailed summary of the emotional trajectories that each firm outlines in the three phases of project development including: *Phase 1* that refers to leader negotiations to start the cooperation project by sharing data, *Phase 2* that refers to the exchange and conversion of dates between firms into a common language and finally *Phase 3* that refers to the completion of MVP (Minimum Variable Product) and leaders' perceptions about the success of innovation.

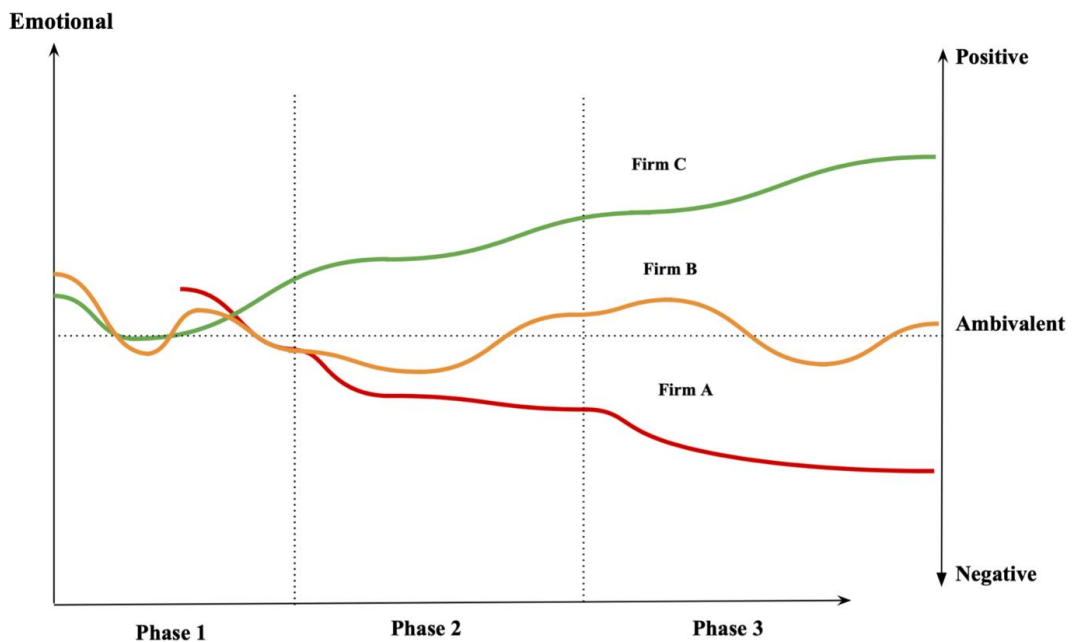


Figure 4. The Emotional State Trajectories as Experienced by Leaders in Each Firm

4.1.1 Firm A: Unambivalent (Negative)

The state development trajectory of leaders' emotional ambivalence in Firm A is shown in Figure 4 and can be characterized as unambivalent (negative). The firm's leaders' emotional trajectory suffered a gradual decline mainly due to improper pursuit of problem-solving by leadership and the perception that they would not capture the value they deserved.

Phase 1: Entering late with mixed feelings and expectations

At the starting point, the state of firm A was that they entered the coopetition as the last participant and until the end of this phase had some negative expectations regarding other firms' willingness to share. Firm A had discussed the project with other firms and Mediator F approximately 12 months before initiation; however, they only joined the project in the last place. As the largest firm within this cooperation, they contributed approximately 50% of data sharing. Further, the team inside company A had different perspectives from other firms in solving the problem. They were more towards sharing models as it was perceived as more effective and secure rather than sharing actual data. Anyway, since they joined the game lately, they had to play with the other firms' rules. As one respondent from the firm says:

When we came in, we knew that it was a bit late to the party and also knew that the direction that they were going wasn't ideal for us, from what we believed in and what we thought would make [the project] the most valuable [...] however we were confident that we were going to be able to take things in a better direction.

The hope expressed here was quickly overridden by the sense that they had less influence than desired. Thus, the approach to data sharing instead of sharing models created dissatisfaction among leaders in the management of company A. They related the slow-moving to their distinct way of solution, which came as a result of the lack of consensus among all parties. This company's leaders were not convinced that this solution was appropriate to maximize value creation and succeed in innovation.

Yeah, so I think from my part, there's a bit of frustration attached to a slow-moving off aligning the different companies' worldview. My best example of that is if there are models or data that are our best bet on getting the most value. I mean before kissing on sharing models instead of data, let's start working together first.

Along the way they also describe experiencing that other firms were conservative in sharing data. This mainly referred to firm B as they were almost the same size and had the same amount of data to share. According to them, this also contributed to the slowdown of the project and the reduction of the quality of the final output.

When one of the players or two of the players choose not to share and the other players want to share, then of course, the amount of information shared will be decreased

Seeing that the other firms' leaders and team's behaviors were not what they expected and given the fact that they were sharing about half the amount of data, made them more cautious and skeptical. During this time they experienced to some extent ambivalent feelings. As one leader says:

Uh, so, that's the yeah, the frustration for slow-moving and then, of course, it's also uncertainty attached to all be sharing too much, do the competition know something that we don't ah but next time there's something better place than where we stand how certain we are of our strategy compared to to the competition.

Phase 2 : Getting less than their share and becoming more negative

The leaders in this firm at midpoint express the risk of having contributed more than others and getting less than their share in return. In this phase, Firm A had shared a considerable amount of data and had shown the availability of their resources. The leaders were no longer convinced as to if their firm would get what it deserved from this project. During this phase, due to thinking they were following the wrong path and other firms being conservative with data sharing, they expressed that they thought that the outcome will be less valuable than they had initially expected. As one of the firm leaders pointed out, there will be less value creation, consequently less value to be captured.

Yes, yes, and of course, we are betting that we are the company that will get most of it, but we can't be sure, and I'm confident that the other companies are also thinking that they are the ones that will get the best out of it [...] Firm A was a bit naive at the starting point sharing data as it was its key focus, but I think this has been paid a little bit out by our company (perceived that they would get less than they shared). Also, the other companies have matured a bit on that side of things and are also sort of in the phase of not pushing so hard because they see that there might be a bit less value than they originally thought.

Given the fact that leaders thought that sharing data wasn't appropriate for their solution and other firms were showing a conservative behaviour, the leaders stopped the momentum and became less committed to the coopetition. At a certain point within this phase they decided to allocate fewer resources to, as they called it now, a mini-project. This appears to ultimately have reduced the chances of this project to be successful and innovative.

If that's how it's going to be then we need to run it as a slow-moving project, so we don't put any put a lot of resources on it we and we don't push too much we keep it a bit on the 'back burner' and sort of 'flat' and of course this doesn't make things go faster, but it makes us less frustrated

Phase 3: Feeling dissatisfied and about the outcome

At the end point leaders were not satisfied with the coopetition. In addition they were fearful that a bigger player would enter the party and ruin their output. At this stage the project is nearing completion of the first pilot product. However, since it has taken a lot of time and resources, and the value creation is smaller than expected, the leaders of firm A are somewhat disappointed. According to them, this coopetition project had the potential to produce a larger cake for all companies which could be the start of an innovative process for the future.

I think we started talking about this initiative two years ago, and we still haven't finished the first project. So that, it takes a lot of time and, also, when it takes time and you actually, when the project just looks at a very small fragment of what it actually can become from a visionary point of view. That can be slightly demotivating. I think so.

Although the leaders perceive that from this cooperation they will not get what they thought in the beginning, they are already afraid of the fact that a bigger player would enter the party, endangering their position in capturing the greatest part of the cake. As a leader says:

"Company X, they are now talking about becoming a part of the project, and I must admit that one of the first things I thought was that OK, well they are the biggest, they are the biggest company in Norway working with insurance, and what this means for us, for our ability or position in the cooperation. So, I think it's more how it will change the group dynamic? How will it change the possibilities to influence the direction of the cooperation? Because of course, when you are one out of three, you have more influence than if you are one of four."

In Summary:

Firm A entered the party lately and adopted other firm's rules, by accepting another solution for the problem. Then, the leaders felt that their company was sharing more than others and expected to get less in return. Finally, the firm experienced the competitive risk of having a bigger player in the game, risking their value creation.

4.1.2 Firm B: Ambivalent

The state development trajectory of emotional ambivalence in Firm B is shown in Figure 2 as fluctuating between positive and negative emotions (ambivalence). At first, the project team was enthusiastic about working on this collaborative project, however during the process, they expressed emotional fluctuations regarding value creation and then regarding capturing value. Their ambivalent feelings began when Firm A joined the party. They felt lucky to have another larger company contributing to the creation of a larger cake, but at the same time they were threatened by future competition. Based on the interviews with executives, it appears that Company B was somewhat paralyzed by these ambivalent feelings.

Phase 1: Excited to initiate the project however later felt threatened by future competition

Firm B's leaders were the ones who initiated the project. They were hopeful for finding a better solution for their common problem, fraud detection. During the first phase, they were scouting to find new partners to be part of the coopetition project and help them to grow it on a larger scale. Initially, they agreed to cooperate with Firm C; however, Firm C was a small company, and they would not benefit a lot from the cooperation. Thus, firm leadership was upset for not getting new entrees onboard. However, the situation changed when Firm A decided to join the party. As one firm leader says:

Definitely, so I think the first and main hurdle was attracting enough companies to the project. So Firm B is one of the larger insurance companies in Norway and also in the Nordics, so we already have quite a bit of data, and in the beginning, we only saw interest from Firm C, which is a smaller insurance company. So, of course, we would not benefit that much by starting the project with a tiny company, so we spent a lot of time trying to attract new partners. I would say we spent the majority of time on that bit, which was quite challenging, and I think it's also linked to the fact that some of the big companies might look at this as a competitive advantage. So, you have a lot of data, and you have more insights than smaller companies. You might not want to join due to that fact, so I would say the first one and a half years we traveled around.

Nevertheless, after a long search for other partners to join the project, the leadership of Firm B felt threatened and experiencing paradoxical tension, turning from a company that started the project to a company that hindered progress, and consequently, innovation. As one of the firm leader stated:

I think they (other firm's leaders) were very positive and interested. Still, I think any company will have this trade of exploring versus kind of exploiting their resources too much, so you have this; you're investing resources into something. Still, it's uncertain whether you will get some back, so I think everyone has this in the back of their mind, that they would like to analyze, but still, we don't want to spend too many resources on it due to this uncertainty it might not end up being implemented, so we will see.

Phase 2: Aware of exploiting risk thus becoming more reluctant

During this process, in phase 2, the leadership of firm B experienced ambivalence feelings associated with coopetition. They were eager to work and excited to see improvements, however they were also aware that they did not want to share everything. This made them suddenly more conservative and reluctant. The leaders inside company B were excusing their actions and feelings pointing to legal regulations, however it appears very clear that it was the risk of contributing too much to value creation compared to capturing value in the coopetition project that made them reluctant and disengaged from the project. However, they still expected a positive outcome.

I've seen a lot of excitement, so people are really eager to see how this goes, so yes, of course, you have this uncertainty regard when you're doing something new nobody's done this before, so you don't have a path to follow you need to build it yourself so cause it's a kind of a mix of this things, so eagerness and uncertainty and I guess people are different. Different people need maybe having different needs when it comes to how certain do you have to be in order to be comfortable doing something, but in the end, we have a legal department to have quite clear recommendations and we, of course, will follow those.

Phase 3: Skeptical regarding outcome but never losing hope in innovation

In the final phase, the leaders are somewhat pessimistic about the future outcome and they stated that the chances of achieving a successful solution together with their coopetition partners are low. However, since this is an innovative project and no one has done it before it is a good way to learn.

The probability for succeeding is kind of low, they (other parties) will think the cost of manpower and time-use is high, so then I will just try to explain that I think it's interesting to explore a territory that no one has done it before and for all this has been a really hard problem to understand. Therefore, I think we should proceed within that umbrella or say no to all the parties involved. I don't try to convince anybody; I'm also open to stop the project.

On the other hand, Firm B's leaders hope that this project can work and provide great results that will influence their strategy in the future. It could provide competitive advantages for all firms over other companies that are not part of the project.

Yeah, so hopefully, if we succeed in this data pool will be containing data from all Norwegian companies and not only for car insurance, but I guess for most lines of business [...] I think this could be a real game-changer actually in the industry.

In Summary:

Firm B was the one that initiated the coopetition project with the aim to get access to a larger scale of data and create a platform against fraud detection. After finding the partners, the leadership of Firm B started to feel ambivalent feelings regarding value creation and future competition. These mixed feelings made them feel "stuck" and pursued a conservative behavior towards coopetition. Although overall leaders tend to be pessimistic about the project, they also would hope that this could lead to successful innovation that could be an industry game-changer.

4.1.3 Firm C: Unambivalent (Positive)

The state development trajectory of emotional ambivalence in Firm C is shown in Figure 3 and can be characterized as unambivalent (positive). During the project's journey, the leaders and team members within the coopetition project have demonstrated a positive approach and appeared as they were feeling content with the other teams' cooperative activities. In the first phase, there were some doubts about the value creation due to the project's slow evolution, but when these doubts were resolved, their collaboration and involvement arose significantly.

Phase 1: Happy to be part of the cooperation however a bit skeptical about the feasibility of the project.

In the beginning firm C was excited to be part of this project as the smallest company. Despite the fact that they were the smallest and that they were collaborating with their competitors, the leadership inside the company saw this as a great opportunity to have access to a larger pool of data and reduce the cost of fraud. The firm C leaders believed that they would get more value than their contribution.

Firm C is a fairly small company; we have a market share from sort of 5% in the PNC space in Norway, so we don't have access to as much data as some of the largest companies do, and from what I gather even larger companies think they need more data within the space to create good models. One of the issues with fraud is that it's a very rare occurrence in the data; it's this sort of; if you have 10,000 claim cases there still won't be that many sorts of positives to train your models on, so we hope to perceive that by sharing data. All companies somehow get a bigger data universe to train models. This should be beneficial to all companies.

Although they wanted to capture the golden opportunity, at first they were also skeptical as to whether the project was feasible. They linked this to the fact that there were many participants including life and car insurance, and this created a lack of coordination. However, after a while the project narrowed to focus only on car insurance. This was the right way for them to focus and make progress.

Initially, I think the whole project wasn't really working, not well after the start, but I think that it got fixed by sort of narrowing down the scope to only focusing on the car insurance, down the whole effort to become more focused.

Phase 2: Satisfied with the project's progress

Although progress has been slow over time, Firm C leadership has stated that collaboration between teams has been efficient and productive for them. They showed considerable satisfaction and appreciation for the cooperation made so far.

I think that the cooperation in this product project has been very good so far. I think it's been very constructive and every time we've faced a challenge, we have arranged to have an extra meeting or something to clarify what we're doing or how we are going to, but it's always been very constructive meetings, and there's always been a willingness to find solutions.

When I asked the primary leader of the firm engaged in the project if he during this period, has experienced fear or similar emotions because of cooptation he stated:

Yeah, not really, but maybe someone else in my position would have, but no. I have a tendency of trusting people fast, which I think maybe you've noticed this one of the weaknesses of regional culture, it's so extremely rare how we trust each other. So when there is a good feeling in the project group and everyone is working towards the same goal, it creates a sort of environment of trust, and I think that sort of takes away quite a bit of that fear element.

This shows that during this phase a friendly environment was created, and the executives within the company were in a comfortable state. Building trust among participants and having the same goal made them reduce the risk of exploitation and foster collaboration towards innovation.

Phase 3: Excited and very hopeful to innovation achievement

In the outcome phase the leaders are optimistic and calm. They believe that they will reach the objective to create the first MVP (Minimum Variable Product). In addition, they see this not only as fraud detection but also as a learning perspective where all firms are getting from each other. Moreover, the society will benefit if the outcome is successful. It's a win-win-win situation.

I think there's been some situations where there have been good emotions like excitement or happiness because we're reaching the goals we've set. [...] I would describe it (the outcome) so far as a success within the context of innovation because we've done something that hasn't really been done in sort of this kind of scale in the Norwegian insurance market or maybe not all the sort of financially heavy regulated areas. I think, that in the future, it's fairly obvious that sharing data will be a major sort of factor going forward but maybe not within just one industry or maybe between industries or something but sort of being able to create a platform where you securely and safely can share data and at the same time make sure that sort of your own data doesn't get exposed at the most granular level. It can reach the level where everyone can go inside, but nobody can get the details. This is maybe the biggest achievement.

On the other hand, if this project fails to achieve innovation, it is not considered a huge problem by the leaders. They indicated that despite the outcome they think that the project has its importance as an experience, and it was a good opportunity for them to try.

I mean, this is an innovation project, so right from the outset, the mindset is to fail fast if it's going to fail. You expect that there's a probability of failure when you do something like but however is not the end of the world. Definitely, it is something that was worth giving a try and I'm still trying to make it work.

In Summary:

Firm C joined the project as the smallest company in terms of data sharing. At first, the leadership was not convinced if the project would work due to a lack of coordination between all interested firms. However, as the project focused solely on car insurance, they turned very optimistic. Then, throughout the project, they become very positive with the collaborative part of the project and hope for the outcome. They believe that this project will lead to a successful solution for fraud detection, thus achieving innovation.

4.2 Functional Behaviors of Coopetitive Leadership

During data collection and analysis, it became clear that the leaders' emotional management of the coopetition paradox and the potential ambivalence stemming from it, went through two stages. Initially, leaders activate emotional mindfulness, including recognizing and accepting emotions, then regulate them, using numerous leadership sub-functions.

4.2.1 Emotional Mindfulness

The first concept, I have named emotional mindfulness, and this is one of the main functions of leadership that plays an important role in coopetitive relationships. It serves as an "emotional radar," identifying the leader's feelings produced by the coopetition paradox and then accepting them as they are. Below I have described the behavioral sub-functions that I have identified through the interviews with firm leaders.

1) Recognizing ambivalence arising from tensions

The analysis empirically documents that cooperating with a competitor is challenging and a contradictory activity that requires simultaneous competitive and cooperative leadership

behaviors. Therefore, this relationship generates paradoxical tensions that the leaders perceive and try to manage in order to overcome them and achieve success. The leaders perceive this cooperative paradox and display a high level of emotional situational awareness that involves developing an understanding of how both they and their coworkers feel about the competition and how their sentiments caused by the paradoxical tension affect their responsiveness.

I think they were very positive and interested (stakeholders). Still, I think any company will have this trade of exploring versus kind of exploiting their resources too much, so you have this; you're investing resources into something.

In order to acknowledge and comprehend this, firstly, leaders identify emotions and their potential effects, both in themselves and their coworkers. Then they embrace both positive and negative emotions to gain a sensitized overview of the ongoing situations that evoke paradoxical tensions. This ability of analyzing and apprehending appears to help the leaders understand what steps are necessary to enable the executive team to process information thoroughly and critically while keeping an eye on the bigger picture. As one of the leader state:

I will highlight the importance of understanding who are the people sitting on the side of the table, their emotional states, their strategy and always trying to get as many inputs as you can in those meetings and then you should know to be really clear in your communication.

2) Accepting ambivalence arising from tensions

After recognizing and embracing their emotions, the leaders report that they find it helpful to reflect on how their feelings, both individually and collectively, might be affecting how they perceive and approach particular situations, as either threats – or opportunities to be taken

advantage of. Since coopetition includes two opposite processes, it was difficult for them to decide whether they were involved in a beneficial cooperation or a disadvantageous one.

I think there's been some situations where there have been good emotions like excitement or happiness because we're towards reaching the goal set. On the other hand there have been moments of doubt as well, regarding is the project feasible; will this work; are we going to be able to reach our goals; but none of the various sort of negative things you said like fear or sort of anxiety or doubt to the intentions of the other companies.

However, all the leaders understood that transitions between emotions such as from anger to satisfaction and vice versa were related to the coopetitive tension. From their perspective coopetition is a complex relationship that invokes mixed feelings that sometimes are difficult to understand and work through. Therefore, comprehending and accepting their emotions helps them have an in-depth understanding of the situation. In this case of coopetition the key to encouraging a refocusing of strategic thought lies in leaders gaining an understanding of their feelings and their colleague's feelings. As one respondent says:

So, I wouldn't say that I have felt a lot of tension in the meetings. I think everyone has just accepted that it is; it takes time. It is harder to just establish such a cooperation and be innovating when doing so within the competition. We have a common goal, but we also compete. But internally the project, I think everyone has been aimed at sharing as much as we can and doing as much as we can.

4.2.2 Emotional Regulation

Second, the functional analysis of leader behaviors reveals that the leader's experience regulating emotions is fundamental to their engagement in the project and to their cooperative strategy. This leadership function serves as an "emotional traffic tower," which helps stabilize the firm's leaders' emotional state to a moderate level. Also, it seems to sustain the inter-firm relationships by encouraging all firm leaders to continue contributing to the project and pursuing innovation. Based on the interviews with the respondents, I have identified four essential leadership sub-functions that the teams' leaders have used during this project to maintain an ongoing process and get through any possible inconveniences that might have happened during their cooperation with the other teams.

1) Communicating emotions to others

Due to its paradoxical nature, coopetition is associated with negative feelings such as stress, anxiety, and most importantly, uncertainty. Therefore, in many situations, it is necessary to manage and regulate these emotions as an antidote to managers' all-too-common tendency to dismiss potentially viable opportunities due to a misplaced feeling of pessimism. Such strong feelings orientate executives to interpret evidence and determine which lines of evidence they need to attend in the first place. When negative emotions are prevailing in extreme situations, it may be appropriate and necessary for executives to concede to their colleagues, have a thorough understanding of the presented condition, and decide the way in which these conditions should be overcome in order to get through these negative feelings.

When I get frustrated, usually what I do is to contact the other internal resources that work on the matter, usually managing roles. Then we take maybe a status meeting or talk about where we are, what needs to be done, and then we kind of like all turnaround and this, get things done, and then maybe we're waiting three more weeks to get other people to react on our emails and then we do the same again. So that's kind of how we work. Mainly because this is something that's on the side and is not on the top of everything else, we're doing. It's kind of like a side project that's been that way ever since we started, I think.

In doing so, they recognize the importance of taking time out to precede their emotions, taking over their judgments, an effective form of emotion regulation.

2) Reappraising emotions regarding coopetition

Findings showed me that decision makers during coopetition frequently don't avoid confronting issues that they find emotionally painful; however they down-regulate negative feelings created mostly from competition thoughts via emotional reappraisal. Reframing an issue to change its meaning and so alter its emotional impact mitigate the negative feelings. In this case the leaders consider the project in a nonthreatening manner as it is an industry problem. They consider working together as beneficial due to the fact that they can cut the costs of fraud.

CEO-s and the management of the companies are very outspoken about the project. This is an area where we are not competing because it is an industry problem. Overall, from a visionary perspective, I think it's unproblematic to cooperate even though we are competing.

Likewise, encouraging people to find their own ways of thinking about an issue or event that leaves them feeling comfortable can also dampen down potential negativity. Additionally, facing all the challenges and staying in the game without giving up requires the leaders to have a positive attitude for building openness to new prospects. This makes them install the “cooperation mode” during value creation. One quality I have observed among forward-looking leaders is the ability to take control of the emotional trajectory of the situation before it becomes obstructive. Often, such action involves reappraising events in constructive ways. For instance, executives conceive the project to be a pure learning experience rather than a fight between competitors.

And I think anyways, even though we don't, let's say that the model doesn't get better; still, I think we in Firm A will continue to evolve and develop our fraud models. I think firm C and firm B will do the same, and I hope that at least I will propose that even though we don't go through the project as a tech sharing data project, at least we can

have some arenas to share experiences and make sure that also the tech departments can cooperate on making models better by sharing knowledge so. That result is good anyway, I guess.

Throughout the coopetition project effective leaders seem to grasp two important aspects of emotional management. First, they understand the need to ingrain positivity up-lifts in the firm's strategy-making processes, getting used to framing and reframing promising prospects over time. Second, they understand that effective timing is vital. It is much easier to encourage enthusiasm for a promising issue by intervening actively at the point that the executive team is first looking at that issue than to allow naysayers to poison the idea and have to rebuild enthusiasm later.

3) Evaluating emotions regarding project perspective

In coopetition projects high-stakes decisions are often made based on powerful emotions and such emotions typically arise from the mental imagery associated with the chosen prospect. Carefully managing mental imagery can be an effective way to build positive emotional commitment to new prospects. Scenario planning techniques can be adapted for this purpose. In this context leaders, when seeking to build emotional commitment to a particular potentially valuable prospect, it can be useful to develop vivid accounts of how the firm's future would blossom if it made that investment. Such accounts need to capture not only the financial benefits of the investment but also depict in rich terms the personal and social benefits for the key individuals concerned and the enterprise as a whole.

I think that the sea is big enough for all of us, at least when it comes to fraud. I think that for instance, we hold back 0.01% of the claims and I think we operate with about 5% is what we think is fraudulent. I think if there's too little cake to go around, then the competition will get stronger. However, within the fraud and the money laundry the cake is so large that we are only like eating on its sides. So, I think that's maybe like a common perspective from at least the fraud departments in the different companies that there are, there is such a large fraudulent pond to fish in that we should cooperate.

Thus, the leaders look beyond emotions associated with fear of opportunism to think of this challenge of fraud detection reduction in a more long-term and holistic manner, to activate other, more positive emotions. Moreover, despite the challenges, leaders need to modify or maintain emotions during their involvement with the coopetition project by comparing important aspects of firm activity (e.g., benefits, risks, actions) with future prospects. As one leader says:

I think for the future it's fairly obvious that sharing data will be a major factor going forward but maybe not within just one industry or maybe between industries.

Finally, leaders seek to elicit positive or reduce negative emotions about their involvement in coopetition by aiming for various rewards from the pursuit of business opportunities, e.g., the financial and noneconomic personal rewards.

Internally we have seen that buying a fraud detection system is probably not the best thing to do. We want to build something, maybe by components, but that's part of our mitigating risk system. And we have tried to reduce the risk of fraud models using machine learning before. I mean, you know that we don't have enough data to support it. So for us, the problem and the aim were pretty clear, and from our point of view, being a part of this cooperation and at least testing out, will this actually fly, or will it not? Will it make our models better, which we don't know yet. That was the main purpose, and I think that didn't; I think that was enough for us to like that. Then we have the aims and visions, at least from a business perspective.

4) Showing consideration and self-restraint

Since coopetition is associated with high risks it is important for leaders to maintain open and frequent communication with other stakeholders in order to manage their emotions and get a positive outcome of their communication. As one respondent says:

Yeah. Well, I'd say that we are a large company, and maybe the hardest part was convincing internally that this was something to use time, effort, and money on. I think that also, from the technical point of view or the artificial intelligence point of view, that there have been discussions on whether it is possible to do this, like proof of concepts, will it help us in making models that are fit to fight fraud? That might be challenging because I am the one that has the resulting responsibility internally for making it fly, that did actually make some models stronger and better and that we can reduce fraud and also save money on behalf of the customers doing so.

Furthermore, during coopetition, leadership is required to demonstrate consideration and support for the employee by listening and empathizing with them. Employees are the ones who suffer the most from the paradoxical tension, and it is the job of the leader to understand and help them balance these feelings.

Yeah, it's important to encourage them and also to make the rest of the corporation aware of those risks. I always try to give them a clear voice on the meetings and discussions [...] I talk to them and say this is going to be fine, be patient. We will get there.

Additionally, it's substantial how the leaders manage and pursue their common goals and how they cope with possible risks that arise during the project. Throughout this process the leaders are responsible to demonstrate and contend that their ability to regulate their emotions is efficient and that they are capable of continuing the process by providing different perspectives and seizing new opportunities.

I think he (the leader of firm C) is a very good example and a rational leader that it's not angry or upset or stressed. If things are not going exactly how we want them to go, he just sits down and discusses things right rational how to proceed with a situation where we are in.

In Summary:

The functions above illustrate and serve as the “ideal” functions performed by leaders in a best-case situation (the most functional behaviors) to achieve coopetition. These leadership functions help executives to understand the emotional ambivalence and the source of it. Further, these leader functions appear to stabilize the leader's emotional states of firms at a tolerable level and consequently helping to sustain the relationships between firms. Therefore, the application of them will help managers to drive the project at an efficient speed towards innovation. However, as the trajectories above have illustrated, this was not always the case.

4.3 The Interplay between Trajectories, Leadership and Outcome

The findings reveal that the perception of the outcome, considered to be the “final destination”, plays an important role in influencing firms’ leaders’ emotional states which in turn influenced how effective, or functional, the leaders' behaviors were. Based on the interviews conducted I find that the perception of the innovation outcome potential could play a dual role in how leaders engage in leadership functions.

First, such perceptions appear to influence the emotional state of firm leaders directly. This was ascertained in each phase of the coopetition project. For example, firm A leaders' perception of a successful outcome was diminished since the beginning (phase 1) due to the thought that they were following the wrong path to solving the problem, turning them negatively. In contrast, Firm C leaders' perception regarding the outcome success in the phase 3 is relatively high, making them hopeful. When I asked one of firm C executives if by this phase their firm has achieved what they expected from this coopetition project, he stated:

Yes. As far as it is. But I mean, the next phase is sort of building a solution for production, because now we are in a pilot viable product phase, so it still remains to be seen if this is going to end up as a viable product. But we definitely think we are at a point where I think we will succeed. What we've done so far is very promising.

Second, it appears that the perception of outcome could also provide emotional signals to the leader's emotional regulation. This perception may help them stabilize their emotional state to a moderate level and sustain the interfirm relationships, thereby achieving innovation. For instance, the leaders inside firm A, which is considered to be unambivalent (negative), think that the outcome will be delayed, however they regulate and stabilize their emotional states by using various leadership sub-functions in different critical situations. In this case one of them is the evaluating outcomes in a more long-term project perspective, attempting to stay positive:

Yeah, so I think sort of the novel thing here is data sharing for machine learning. And in my opinion, we haven't come that far on that task yet, but we are, to my knowledge, one of the first, especially in the insurance industry that is doing something like that, so naturally it gets a good score just from that. I still think that we have the most interesting conversations ahead of us and also the most interesting decisions ahead of us.

Overall, the findings show that the “final destination” perceptions can affect the emotional states of firm leaders differently at each phase of the project. Likewise, such perceptions could also help leaders to stabilize their emotional state by providing cognitive interpretation of mixed signals to their emotional regulation. They achieve stability by engaging several leadership sub-functions, which also play an important role in maintaining the coopetition project. Furthermore, the perception of outcome may evoke expectations and solid emotional connections and that could enable executives directly or indirectly to sustain the interfirm relationships and drive all firms to achieve innovation.

5. DISCUSSION

This section presents an analytical discussion of the findings in light of the literature reviewed in the theory section, beginning with a summary of the findings. This study presents an in-depth exploratory research study on how leadership influences the interfirm relations in a coopetition strategy for innovation, where the primary research was conducted using exploratory interviews to gather a database of in-depth first-hand information, which was thereafter analyzed and coded systematically to derive findings based on a structured inductive model. The most relevant and interesting insights from the research are also highlighted, as well as theoretical and practical implications of contributions, limitations and future research.

5.1 Contribution

Overall the findings in this paper contribute to a relational, functional, and contextual understanding of leadership in coopetitive innovation strategy projects. It particularly reveals that the paradoxical tension that can occur in coopetitive relationships among leaders is felt as interpersonal tensions and emotional ambivalence. This is illustrated in the three trajectories and treated separately for each firm presented in the study.

While prior works extensively report that coopetition is a double-edged sword (e.g., Bouncken & Kraus, 2013; Ritala & Sainio, 2014), and the paradoxical tensions that arise from coopetitive relationships are challenging and difficult to manage (Raza-Ullah et al., 2014, 2020), they do not explicitly explain why this is so. Therefore I addressed this enigma by highlighting the critical but still ignored role of leadership in the emotional management of coopetition. I explained how multiple, simultaneous, and often conflicting emotions, in the form of emotional ambivalence, manifested in leaders, influencing their behaviors and performance, and consequently, the outcome of the coopetition project.

More specifically, I suggested that certain emotional states in leaders (negative, ambivalent, positive states) produce certain types of firm behaviors and strategic actions, some of which could drive innovation while others may slow or impair it. The findings show that the unambivalent (negative) emotional state trajectory, due to the change in expectations, would cause strategic responses that tend to undervalue collaborative benefits and overvalue

competitive concerns. This would make leaders skeptical of cooperation and paranoid about their competitors. In contrast, in an unambivalent (positive) emotional state trajectory, the leadership tends to overlook competitive concerns like potential opportunism and overly trust the partner. This increases the risks of potential exploitation by partners but at the same time contributes to the creation of a friendly environment that fosters collaboration and innovation. Moreover, decision-makers do not feel the pressure to be proactive in mitigating potential competitive risks, making them relieved of stress and satisfied with cooperation. Finally, the ambivalent (shifting between positive and negative) emotional state trajectory is likely to cause delays in decision-making, increase the chances of unintended knowledge leakage, and trigger defensive responses such as avoidance or tipping behavior. This ambivalence stimulates leaders to consider multiple contradictory perspectives by making them feel "stuck." Also, it is likely that leader behaviours tend to limit knowledge sharing with partners, thereby increasing instability in the relationship and eventually diminishing the chances of having an innovative project.

A second contribution lies in explaining how leaders manage the paradoxical tension by engaging in specific leadership functions. This includes the emotional mindfulness related to the ability of leaders to recognize, analyze and then accept the source of emotional ambivalence as well as the consequences of different states of ambivalence on the outcome. Furthermore, this leadership function influences the emotional state of firms and provides insights for leaders to control their emotions in order to increase performance. On the other hand, the emotional regulation, the other leadership function serves as an "emotional traffic tower" where leaders get signals from two sides. First, they gain processed emotional signals from their emotional mindfulness, and second, they gain emotional signals from the perception of outcome, which can constitute an innovation. Afterward, they regulate the emotional states by using several leadership sub-functions. The aim is to stabilize emotional ambivalence at a moderate level and sustain interfirm relationships by helping to achieve innovation. I have to emphasize that the management of paradoxical tension and emotional ambivalence by leadership is not only related to the emotional part. Further cognitive behaviors are needed to handle these situations and facilitate the cooperative relationships, yet this aspect appears to matter more than previous research has been able to document.

A third contribution consists of the interplay between the leaders' perception of the innovation outcome potential, the emotional states of the firm leaders in different phases, and the leadership functions. This interaction is dynamic, and from the responses received from the

interviewees, it turns out that it produces an extraordinary effect on the coopetition project. First, it has been found that the perception of outcome, which can be finalized with an innovation, evokes positive feelings in leaders in the form of hope and long-term perspective. Second, it appears that leaders use their functional behaviors to be mindful and then regulate their emotional state. This helps stabilize paradoxical tension and emotions ambivalence to a moderate level. Lastly, this stability helps leadership to sustain the interfirm relationships and stimulate firms to achieve innovation.

Based on this, a final contribution is a model presented below that describes how the complex emotions stemming from the paradoxical tension affect the emotional states of firm leaders. Importantly, the findings point to that functional leadership behaviors aimed towards managing emotional ambivalence by facilitating coopetitive relationships may help in fostering innovation.

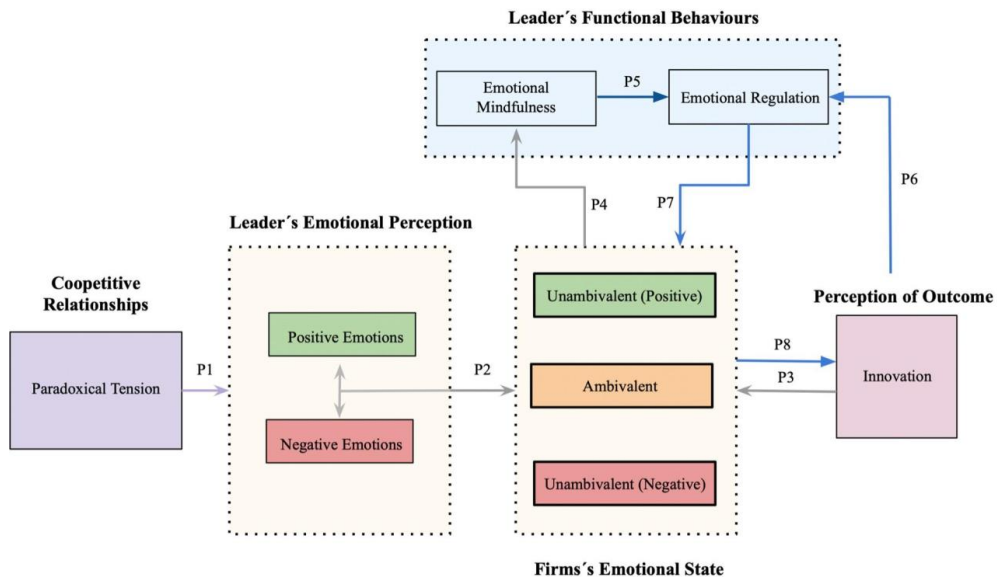


Figure 7. A conceptual model of emotions in interfirm paradoxical relationships.

The model suggests that the paradox of coopetition creates experienced tension for leaders when they pursue multiple and simultaneous contradictory demands. Examples of such competing demands include both sharing knowledge and protecting knowledge as well as

creating value and appropriating value. This paradoxical experience in coopetitive relationships makes leaders perceive positive and negative emotions. Positive emotions are mostly related to the cooperation part and negative ones with the competition part of the coopetition project. However, negative emotions can also be experienced during cooperation, especially when leaders judge that they are not making progress to achieve innovation. In addition, some leaders experience such conflicting impulses at the same time, making them ambivalent.

Proposition 1. *Interfirm coopetitive relationships are likely to trigger multiple emotions in leaders.*

Further, the emotional perception of leaders characterizes the emotional state of themselves and their co-workers throughout the coopetition project. More specifically, the findings reveal that there are three different emotional state trajectories: (1) the unambivalent (negative) emotional state trajectory, when the negative emotions override the positive ones; (2) the unambivalent (positive) emotional state trajectory when leaders experience conflicting impulses to only a small extent; and positive emotions are largely more intense than negative ones and (3) the ambivalent emotional state trajectory when leaders are shifting between positive and negative.

Proposition 2. *Leaders' emotional perception of the paradox would likely influence their emotional states as well as their behaviors and performance toward coopetition projects.*

In addition, it should be noted that the perception of the outcome also affects the emotional state of the firms, and this is related to the leadership's judgment as to whether or not the final outcome will meet their expectations. Examining the emotional trajectories of leaders, we can say that the perception of the outcome could influence the firms' leadership differently at each phase.

Proposition 3. *The perception of outcome is likely to affect leaders' emotional states based on their expectations regarding the project's success at each phase.*

Further, to manage the emotional states that prevail in firms, it is necessary to engage the leadership's functional behaviours. Firstly, leaders activate their emotional mindfulness. This function serves as an "Emotional Radar," related to recognition and acceptance of emotional ambivalence. Moreover, participating in such complicated coopetitive relationships creates

uncertainty; therefore, leaders attempt to develop a clear understanding of how they and their coworkers feel about the coopetition and how their responsiveness could affect interfirm relationships and project outcomes.

Proposition 4. *To manage the emotional states that prevail in firms, leaders need first recognize, analyze, and then accept the source of emotional ambivalence as well as the consequences it brings.*

Second, once there is a full awareness of coopetitive situations, leadership would strive to control and regulate such complex feelings.

Proposition 5. *Being mindful of the emotional ambivalence helps leaders regulate the emotional state that prevails in firms.*

In this process, the perception of outcome also interacts with the emotional regulation of leaders as it often helps them to think positively about coopetition and innovation. This has to do with the fact that working on a coopetitive project that aims to achieve innovation takes time to complete; however, a potential success could significantly impact firm strategies and leaders' careers.

Proposition 6. *The perception of outcome could also evoke positive feelings in leaders in the form of hope and long-term perspective, helping them in emotional regulation.*

Regulating emotions takes time, and leadership tends to incorporate various sub-functional behaviours to manage multiple, simultaneous, and often conflicting emotions that stream from the paradox of coopetition. Primarily, executives attempt to reduce negative emotions and to incite positive ones. In doing so, they could contribute to stabilizing the emotional state of firms to a moderate level.

Proposition 7. *Emotional regulation is likely to stabilize the emotional states of firm leaders to a moderate level.*

Lastly, the interplay between leaders' emotional state, leadership functions, and perception of outcome could play a significant role in sustaining the interfirm coopetitive relationships by encouraging all firm leaders to continue contributing to the project and pursuing innovation despite experiencing tensions and ambivalence.

Proposition 8. *The interplay between leaders' emotional state, leadership functions, and perception of outcome would likely contribute to sustaining coopetitive relationships, allowing firms and their leaders to continue working together towards innovation.*

5.2 Theoretical implications

Overall, the findings make an empirical contribution to and extend the research on organizational paradox and paradoxical tensions (Smith & Lewis, 2011) as well as the research on coopetition as an innovation strategy (Raza-Ullah, 2020), particularly by leveraging a functional leadership perspective in managing emotions stemming from this tension. The findings empirically support the arguments made by Faems, Janssens & Van Looy (2010) that in coopetition leaders tend to evaluate cooperation positively as it potentially creates value for their firm, and to evaluate competition negatively as it could lead to opportunistic behavior and competitive attack by the other firms.

Additionally, this research empirically shows that during the coopetition projects, the appraisal of obtained benefits or the promising perception of outcome would likely elicit positive emotions like happiness, excitement, and content for the firm's leaders. For instance, positive feelings arose in all leaders when they evaluated that they were likely to achieve their goals. Nevertheless, it is important to note that cooperation can also lead to negative emotions, and this happens when firms' perceptions indicate that the project will not produce the desired firms' mutual benefits and is likely to end in unsatisfactory outcomes. Because such cooperative activities are with a fierce competitor, feelings of unease, distrust, and discomfort would be present as well. This thesis illustrates this empirically.

Further, coopetition often entails strong competition, and such relationships would also trigger negative feelings. Private gains achieved either at the expense of other firms or through opportunistic behavior such as efforts to mislead or confuse "coopetitive partners" will likely generate negative emotions of anger, frustration, sadness, disappointment. Overall, coopetition stands as a unique and versatile source of multiple and conflicting emotions such that "each positive emotion results from an evaluation of a particular type of benefit, and each negative emotion results from an evaluation of a particular type of harm" (Smith, Haynes, Lazarus, & Pope, 1993, p. 916). This study can exemplify this with extensive empirical evidence beyond past research.

The findings in this thesis further show that the interplay between positive and negative emotions in coopetition creates not only hypothetical but felt tension, as managers feel torn between contradicting demands and conflicting emotions. Such an emotional state is named emotional ambivalence (Fong, 2006; Pratt & Doucet, 2000) and indicates the degree of tornness between the conflicting impulses (Newby-Clark, McGregor, & Zanna, 2002; Priester & Petty, 2001). Further, this research shows how the emotional ambivalence perceived by leaders characterizes the nature of emotions in firms participating in coopetition relationships as it could be unambivalent (negative), ambivalent and unambivalent (positive).

I specifically explain in the context of this case study how the emotional states of firm leaders, illustrated in the form of trajectories, differ in each phase of the project and how they appear to matter in influencing the outcome. For instance, firm A, which represents the unambivalent (negative) state trajectory, started the project with high expectations, and the leadership was excited to be part of the project. However, during the project, especially in the second phase of the project, they experienced negative emotions regarding the conservative behaviors of other firms and the risk of not getting what they deserved. Moreover, they feared new entrants, bigger players that could ruin their value creation. This made them be more negative and engaged less in the project.

In addition, previous work has overlooked how complex emotions can be managed in interfirm relationships. Although formal contracts, control mechanisms, and governance structures are important contributors toward coopetition success (Bouncken, Clauss, & Fredrich, 2016; Fernandez & Chiambaretto, 2016; Hung & Chang, 2012), they may not be appropriate to manage complex emotions such as the ambivalence feelings. However, the findings complement these approaches by providing insights into how leadership functional behaviors (Morgeson et al., 2010) are useful in managing the potential effects of emotional ambivalence on performance and outcome. The empirically derived leadership functional behaviors comprise two critical aspects: emotional mindfulness, relating to recognition and acceptance of mixed feelings arising from coopetition paradox, and emotional regulation referring to the management of firms states by using numerous leadership sub-function, with the aim to reduce tension within and between firms, and most importantly foster innovation. The study indicates that implementation of all of these leadership functions and sub-functions could help firms to sustain the relationships and perform better.

Finally, studying the role of leadership in a coopetitive interfirm strategy for innovation (Barney et al., 2016; Bouncken et al., 2015), the findings also reveal that the interplay between outcome perception, emotional states of firm leaders, and leadership functions is extremely important as it could stabilize the emotional ambivalence of firms at a moderate level. As a result, this helps firms' leadership to sustain the interfirm relationships and facilitates the coopetition process to achieve innovation. This extends findings in recent literature, emphasizing that moderate emotional ambivalence would likely enhance coopetition performance (Raza-Ullah, Bengtsson, Gnyawali, 2020); however, there is no current literature illustrating such an important interaction. Thus further research is recommended to shed light on this aspect of coopetition.

5.3 Practical implications

Emotion has become a key topic in management research (Elfenbein, 2007), as it has the potential to explain the underlying psychological conditions that strongly influence behaviors and outcomes (Douglas et al., 2008; Staw, Sutton, & Pelled, 1994). Thus this paper clearly emphasizes the need for leaders to consider emotions in managing coopetition so that they could stabilize the ambivalence arising from paradoxical relations, thereby fostering innovation. Because emotions influence human cognition, communication, and behaviors (Izard, 2009; Niedenthal & Brauer, 2012), they can influence the strategy-making process (Fan & Zietsma, 2017; Hodgkinson & Healey, 2011; Liu & Maitlis, 2014). Therefore this study suggests leaders to develop leadership functional behaviours, more precisely to develop emotional mindfulness in order to clearly recognize and accept the feelings appearing to them and their co-worker. It also suggests that senior executives need to regulate these emotions by using several leadership sub-functions that include: communicating emotions to others, reappraising emotions regarding coopetition; evaluating emotions regarding project perspective, and showing consideration and self-restraint. In a related manner, findings regarding the interplay between the perception of the result, the emotional states of the firm leaders, and the leadership functions suggest that firms' leadership need to encourage their key managers to see the outcome with an appropriate lens in order to facilitate and sustain the relations among firms participating and also stabilize complex emotions arising from coopetition.

5.4 Limitations and Future Research

This section outlines the research limitations of this study and provides further recommendations for future research on this topic. Although the research question that guides the content of this paper is addressed to some extent, the outcome of this thesis might be affected by possible limitations. For the most part, the limitations come into existence due to the nature of the underlying qualitative nature of this paper.

First, as the empirical data was gathered by conducting interviews, the results might be subject to socially construed narratives due to the fact that the interviewees might have been biased in their opinions and views on the topic or very passionate about this topic, which could have implications on their perceptions and thus, the findings. Further, some of the interview questions were asked about past events, which might have influenced the interviewee's capacity to remember the exact occurrences. Therefore, important information might not have been reported, and hence, the results might not show the complete picture. However, this socially constructed picture is vital to understand, as relationships are both real and construed and become the grounds for enactment and thus, the construed also represents a form of reality.

Second, I built a conceptual model to explore emotions in paradoxical interfirm relationships. The dynamism in the model calls for more longitudinal studies, which this study points to but does not fully capture. Examining how events over time shape discrete emotions and emotional ambivalence and how the perception of the outcome, in turn, shapes future emotions would provide intriguing insights. Future empirical research could also identify various measures for the constructs depicted in the model. More in-depth interviews and observations will help develop a richer understanding of emotions and dynamism and develop questions and measurements to empirically test this model.

Relatedly, future research should further develop the leadership functional behaviors dimensions and especially how they interact with each other to stabilize their firms' emotional states. Moreover, since both coopetition paradox and ambivalence have dual elements, great care is needed in developing the measures so that both elements and the duality are captured. As coopetition engagements become even more popular and stakes from such engagements increase, emotions would be more prevalent and need to be examined to enrich our understanding of the nature and implications of coopetition. Although this research reveals findings that did not exist prior and builds a model of how leaders manage complex emotions

in a coopetition project, future research needs to be more accurate, supporting and testing current findings.

Finally, given its exploratory design, the study is based on a low N. Therefore, it is recommended to carry out a multiple case study where engaging more informants over multiple years may contribute to gaining an even richer understanding and receive even deeper insights. Further, because the scope of this thesis is limited, for instance, by a low N, I can not say I have tested the whole model proposed, yet this was not the purpose. A higher N would perhaps mainly have provided better theoretical sampling and saturation (Saunders et al. 2016). More empirical studies are needed to support or falsify the theory (or parts of it) presented in this thesis. I encourage future researchers to build on my foundation to dig into the emotional context of coopetition in order to get a deeper understanding of such complex relationships.

Overall, the findings and theorizing of this study, supported by carefully conducted data gathering and analysis, makes some valuable contributions to the management literature and using a qualitative and emotion-sensitive approach that may serve as a benchmark to expand future research into the emotional aspects of managerial paradoxes, perhaps also beyond coopetition project contexts, as paradoxes are a key issue in many fields of management research.

6. CONCLUSION

To conclude, this thesis develops a theoretical framework that explicates how paradoxical tension plays out in coopetitive interfirm relations, manifested as emotional ambivalence, and how leaders manage it to sustain the relationship and achieve innovation. In this context, I examined how multiple and conflicting emotions emerge in coopetition relationships that influence firms' emotional states and how executives stabilize the emotional ambivalence by engaging several leadership functions in order to foster innovation. In addition, I suggest that the perception of outcome has a versatile potential to evoke various impactful ambivalent emotions to leaders, thus changing their firm leaders emotional states which can be managed through engaging in specific leadership functions. By conceptualizing emotions in a new and unique strategic context (i.e., interfirm coopetition), this study opens up interesting avenues for future research.

7. REFERENCES

- Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization science*, 20(4), 696-717.
- Ashforth, B. E., Rogers, K. M., Pratt, M. G., & Pradies, C. (2014). Ambivalence in organizations: A multilevel approach. *Organization Science*, 25(5), 1453-1478.
- Beal, D. J. (2005). Attentional and regulatory mechanisms of momentary work motivation and performance. *Social motivation: Conscious and unconscious processes*, 5, 314.
- Bengtsson, M., & Kock, S. (2000). "Coopetition" in business Networks—to cooperate and compete simultaneously. *Industrial marketing management*, 29(5), 411-426.
- Bengtsson, M., & Raza-Ullah, T. (2016). A systematic review of research on coopetition: Toward a multilevel understanding. *Industrial Marketing Management*, 57, 23-39.
- Bengtsson, M., & Raza-Ullah, T. (2016). A systematic review of research on coopetition: Toward a multilevel understanding. *Industrial Marketing Management*, 57, 23-39.
- Bengtsson, M., & Raza-Ullah, T. (2017). Paradox at an inter-firm level: A coopetition lens
- Bengtsson, M., Raza-Ullah, T., & Vanyushyn, V. (2016). The coopetition paradox and tension: The moderating role of coopetition capability. *Industrial Marketing Management*, 53, 19-30.
- Bonel, E., & Rocco, E. (2007). Coopeting to survive; surviving coopetition. *International Studies of Management & Organization*, 37(2), 70-96.
- Bougrain, F., & Haudeville, B. (2002). Innovation, collaboration and SMEs internal research capacities. *Research policy*, 31(5), 735-747.

- Bouncken, R. B., & Fredrich, V. (2012). Coopetition: performance implications and management antecedents. *International Journal of Innovation Management*, 16(05), 1250028.
- Bouncken, R. B., & Kraus, S. (2013). Innovation in knowledge-intensive industries: The double-edged sword of coopetition. *Journal of Business research*, 66(10), 2060-2070.
- Bouncken, R. B., Clauß, T., & Fredrich, V. (2016). Product innovation through coopetition in alliances: Singular or plural governance?. *Industrial Marketing Management*, 53, 77-90.
- Bouncken, R. B., Gast, J., Kraus, S., & Bogers, M. (2015). Coopetition: a systematic review, synthesis, and future research directions. *Review of Managerial Science*, 9(3), 577-601.
- Bouncken, R. B., Plüschke, B. D., Pesch, R., & Kraus, S. (2016). Entrepreneurial orientation in vertical alliances: joint product innovation and learning from allies. *Review of Managerial Science*, 10(2), 381-409.
- Bourgeois III, L. J., & Eisenhardt, K. M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. *Management science*, 34(7), 816-835.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brolos, A. (2009). Innovative coopetition: the strength of strong ties. *International Journal of Entrepreneurship and Small Business*, 8(1), 110-134.
- Cairo, R. (2006). Co-opetition and strategic business alliances in telecommunications: The cases of BT, Deutsche Telekom and Telefonica de Espana (*Doctoral dissertation, London School of Economics and Political Science (United Kingdom)*).

- Camisón-Zornoza, C., Lapiedra-Alcamí, R., Segarra-Ciprés, M., & Boronat-Navarro, M. (2004). A meta-analysis of innovation and organizational size. *Organization studies*, 25(3), 331-361.
- Carayannis, E. G., & Alexander, J. (1999). Winning by co-opeting in strategic government-university-industry R&D partnerships: the power of complex, dynamic knowledge networks. *The Journal of Technology Transfer*, 24(2), 197-210.
- Charmaz, K. (2011). Grounded theory methods in social justice research. *Strategies of qualitative inquiry*, 4.
- Charmaz, K. (2014). *Constructing Grounded Theory*. Sage.
- Chen, M. J. (2008). Reconceptualizing the competition—cooperation relationship: A transparadox perspective. *Journal of Management Inquiry*, 17(4), 288-304.
- conceptual framework of alliance failure. *Organization Science*, 12(1), 37–53.
- Denzin, N. K. (1994). Introduction: Entering the field of qualitative research. *Handbook of qualitative research*.
- Devece, C., Ribeiro-Soriano, D. E., & Palacios-Marqués, D. (2019). Coopetition as the new trend in inter-firm alliances: literature review and research patterns. *Review of Managerial Science*, 13(2), 207-226.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.
- Eisenhardt, K. M. (2000). Paradox, spirals, ambivalence: The new language of change and pluralism. *Academy of Management Review*, 25(4), 703-705.
- Elfenbein, H. A. (2007). *Emotion in Organizations*. *Academy of Management Annals*, 1: 315-386.

- Enberg, C. (2012). Enabling knowledge integration in coopetitive R&D projects—The management of conflicting logics. *International Journal of Project Management*, 30(7), 771-780.
- Estrada, I., Faems, D., & de Faria, P. (2016). Coopetition and product innovation performance: The role of internal knowledge sharing mechanisms and formal knowledge protection mechanisms. *Industrial Marketing Management*, 53, 56-65.
- Fan, G. H., & Zietsma, C. (2017). Constructing a shared governance logic: The role of emotions in enabling dually embedded agency. *Academy of Management Journal*, 60(6), 2321-2351
- Fernandez, A. S., & Chiambaretto, P. (2016). Managing tensions related to information in coopetition. *Industrial Marketing Management*, 53, 66-76.
- Fernandez, A. S., Le Roy, F., & Gnyawali, D. R. (2014). Sources and management of tension in co-opetition case evidence from telecommunications satellites manufacturing in Europe. *Industrial Marketing Management*, 43(2), 222-235.
- Festinger, L. (1957). *A theory of cognitive dissonance* (Vol. 2). Stanford university press.
- Fleishman, E. A., Mumford, M. D., Zaccaro, S. J., Levin, K. Y., Korotkin, A. L., & Hein, M. B. (1991). Taxonomic efforts in the description of leader behavior: A synthesis and functional interpretation. *The leadership quarterly*, 2(4), 245-287.
- Fong, C. T. (2006). The effects of emotional ambivalence on creativity. *Academy of Management Journal*, 49(5), 1016-1030.
- Forgas, J. P. (2002). Feeling and doing: Affective influences on interpersonal behavior. *Psychological inquiry*, 13(1), 1-28.

- Freel, M. S. (2003). Sectoral patterns of small firm innovation, networking and proximity. *Research policy*, 32(5), 751-770.
- Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2018). Finding theory–method fit: A comparison of three qualitative approaches to theory building. *Journal of Management Inquiry*, 27(3), 284-300.
- Ghauri, P. N., & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. Harlow, England: Pearson.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15-31.
- Glaser, B., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Mill Valley, CA: Sociology Press.
- Gnyawali, D. R., & Park, B. J. (2009). Co-opetition and technological innovation in small and medium-sized enterprises: A multilevel conceptual model. *Journal of small business management*, 47(3), 308-330.
- Gnyawali, D. R., & Park, B. J. R. (2011). Co-opetition between giants: Collaboration with competitors for technological innovation. *Research policy*, 40(5), 650-663.
- Gnyawali, D. R., & Ryan Charleton, T. (2018). Nuances in the interplay of competition and cooperation: Towards a theory of coopetition.
- Gnyawali, D. R., He, J. I. N. Y. U., & Madhavan, R. A. V. I. N. D. R. A. N. A. T. H. (2008). Co-opetition: Promises and challenges. *21st century management: A reference handbook*, 386-398.

- Gnyawali, D. R., Madhavan, R., He, J., & Bengtsson, M. (2016). The competition–cooperation paradox in inter-firm relationships: A conceptual framework. *Industrial Marketing Management*, 53, 7-18.
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of occupational health psychology*, 5(1), 95.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Ectj*, 29(2), 75-91.
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study.
- Hamel, G. (1989). Collaborate with your competitors and win. *Harvard business review*, 67, 133-139.
- Harrist, S. (2006). A phenomenological investigation of the experience of ambivalence. *Journal of Phenomenological Psychology*, 37(1), 85-114.
- Herr, R. M., Barrech, A., Riedel, N., Gündel, H., Angerer, P., & Li, J. (2018). Long-term effectiveness of stress management at work: Effects of the changes in perceived stress reactivity on mental health and sleep problems seven years later. *International journal of environmental research and public health*, 15(2), 255.
- Hochschild, A. (2003). *The Managed Heart: Commercialization of Human Feeling*. Berkley: Univer.
- Hodgkinson, G. P., & Healey, M. P. (2011). Psychological foundations of dynamic capabilities: Reflexion and reflection in strategic management. *Strategic management journal*, 32(13), 1500-1516.

- Hora, W., Gast, J., Kailer, N., Rey-Marti, A., & Mas-Tur, A. (2018). David and Goliath: causes and effects of coopetition between start-ups and corporates. *Review of Managerial Science*, 12(2), 411-439.
- Huy, Q. N. (2012). Emotions in strategic organization: Opportunities for impactful research. *Strategic Organization*, 10(3), 240-247.
- Hyde, K. F. (2000). Recognising deductive processes in qualitative research. *Qualitative market research: An international journal*.
- Izard, C. E. (2009). Emotion theory and research: Highlights, unanswered questions, and emerging issues. *Annual review of psychology*, 60, 1-25.
- Jarvenpaa, S. L., & Majchrzak, A. (2016). Interactive self-regulatory theory for sharing and protecting in interorganizational collaborations. *Academy of Management Review*, 41(1), 9-27.
- Johannessen, Christoffersen & Tufte. (2011). *Introduction to social science methodology*. Heftet.
- Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. *Strategic management journal*, 19(3), 193-210.
- Lado, A. A., Boyd, N. G., & Hanlon, S. C. (1997). Competition, cooperation, and the search for economic rents: A syncretic model. *Academy of management review*, 22(1), 110-141.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management review*, 24(4), 691-710.
- Lasagni, A. (2012). How can external relationships enhance innovation in SMEs? New evidence for Europe. *Journal of small business management*, 50(2), 310-339.
- Le Roy, F., & Czakon, W. (2016). *Managing coopetition: the missing link between strategy and performance*. *Industrial Marketing Management* 53 (1), 3-6.

- Le Roy, F., & Fernandez, A. S. (2015). Managing coopetitive tensions at the working-group level: The rise of the coopetitive project team. *British Journal of Management*, 26(4), 671-688.
- Lewis, M. W. (2000). Exploring paradox: Toward a more comprehensive guide. *Academy of Management review*, 25(4), 760-776.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75). Sage.
- Liu, F., & Maitlis, S. (2014). *Emotional dynamics and strategizing processes: a study of strategic conversations in top team meetings*. *Journal of Management Studies*, 51(2), 202-234.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). TARGET ARTICLES:" Emotional intelligence: Theory, findings, and implications". *Psychological inquiry*, 15(3), 197-215.
- Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in teams: A functional approach to understanding leadership structures and processes. *Journal of management*, 36(1), 5-39.
- Nalebuff, B. J., Brandenburger, A., & Maulana, A. (1996). *Co-opetition*. London: HarperCollinsBusiness.
- Nesse, S. (2018). How to achieve innovation by collaborating with a competitor? A leadership perspective. *Magma*, 5, 61-70.
- Newby-Clark, I. R., McGregor, I., & Zanna, M. P. (2002). Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable?. *Journal of personality and social psychology*, 82(2), 157.
- Niedenthal, P. M., & Brauer, M. (2012). Social functionality of human emotion. *Annual review of psychology*, 63, 259-285.

- Oliver, A. L. (2004). On the duality of competition and collaboration: network-based knowledge relations in the biotechnology industry. *Scandinavian Journal of Management*, 20(1-2), 151-171.
- Padula, G., & Dagnino, G. B. (2007). Untangling the rise of coopetition: the intrusion of competition in a cooperative game structure. *International Studies of Management & Organization*, 37(2), 32-52.
- Padula, G., & Dagnino, G. B. (2007). Untangling the rise of coopetition: the intrusion of competition in a cooperative game structure. *International Studies of Management & Organization*, 37(2), 32-52.
- Park, S. H., & Ungson, G. R. (2001). *Interfirm rivalry and managerial complexity: A*
- Park, S. H., & Zhou, D. (2005). Firm heterogeneity and competitive dynamics in alliance formation. *Academy of Management Review*, 30(3), 531-554.
- Pellegrin-Boucher, E., Le Roy, F., & Gurău, C. (2013). Coopetitive strategies in the ICT sector: typology and stability. *Technology Analysis & Strategic Management*, 25(1), 71-89.
- Pereira, D., & Leitão, J. (2016). Absorptive capacity, coopetition and generation of product innovation: Contrasting Italian and Portuguese manufacturing firms. *International Journal of Technology Management*, 71(1-2), 10-37.
- Pesch, R., & Bouncken, R. B. (2017). The double-edged sword of cultural distance in international alliances. *Cross Cultural & Strategic Management*.
- Pesch, R., & Bouncken, R. B. (2018). How to achieve benefits from diversity in international alliances: Mechanisms and cultural intelligence. *Global Strategy Journal*, 8(2), 275-300.

- Pesch, R., & Bouncken, R. B. (2018). How to achieve benefits from diversity in international alliances: Mechanisms and cultural intelligence. *Global Strategy Journal*, 8(2), 275-300.
- Pratt, M. G., & Doucet, L. (2000). 11 AMBIVALENT FEELINGS IN ORGANIZATIONAL RELATIONSHIPS. *Emotion in organizations*, 204.
- Priester, J. R., & Petty, R. E. (2001). Extending the bases of subjective attitudinal ambivalence: Interpersonal and intrapersonal antecedents of evaluative tension. *Journal of personality and social psychology*, 80(1), 19.
- Quintana-Garcia, C., & Benavides-Velasco, C. A. (2004). Cooperation, competition, and innovative capability: a panel data of European dedicated biotechnology firms. *Technovation*, 24(12), 927-938.
- Raza-Ullah, T., & Bengtsson, M. (2013). Tension in paradoxical relationships between firms. In *29th EGOS Colloquium, sub theme 34, Montréal, Canada, July 4-6, 2013*.
- Raza-Ullah, T., & Bengtsson, M. (2013). Tension in paradoxical relationships between firms. In *29th EGOS Colloquium, sub theme 34, Montréal, Canada, July 4-6, 2013*.
- Raza-Ullah, T., & Eriksson, J. (2017). Knowledge sharing and knowledge leakage in dyadic coopetitive alliances involving SMEs. In *Global Opportunities for Entrepreneurial Growth: Coopetition and Knowledge Dynamics within and across Firms*. Emerald Publishing Limited.
- Raza-Ullah, T., Bengtsson, M., & Gnyawali, D. R. (2020). The nature, consequences, and management of emotions in interfirm paradoxical relationships—A conceptual framework. *Scandinavian Journal of Management*, 36(4), 101127.
- Raza-Ullah, T., Bengtsson, M., & Gnyawali, D. R. (2020). The nature, consequences, and management of emotions in interfirm paradoxical relationships—A conceptual framework. *Scandinavian Journal of Management*, 36(4), 101127.

- Raza-Ullah, T. (2017). *A theory of experienced paradoxical tension in co-opetitive alliances* (Doctoral dissertation, Umeå University).
- Ritala, P., & Hurmelinna-Laukkanen, P. (2009). What's in it for me? Creating and appropriating value in innovation-related coopetition. *Technovation*, 29(12), 819-828.
- Ritala, P., & Hurmelinna-Laukkanen, P. (2013). Incremental and radical innovation in coopetition—The role of absorptive capacity and appropriability. *Journal of Product Innovation Management*, 30(1), 154-169.
- Ritala, P., & Sainio, L. M. (2014). Coopetition for radical innovation: technology, market and business-model perspectives. *Technology Analysis & Strategic Management*, 26(2), 155-169.
- Ritala, P., & Tidström, A. (2014). Untangling the value-creation and value-appropriation elements of coopetition strategy: A longitudinal analysis on the firm and relational levels. *Scandinavian Journal of Management*, 30(4), 498-515.
- Ritala, P., Olander, H., Michailova, S., & Husted, K. (2015). Knowledge sharing, knowledge leaking and relative innovation performance: An empirical study. *Technovation*, 35, 22-31.
- Rowley, J. (2002). Using case studies in research. *Management research news*.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3), 185-211.
- Salovey, P. E., & Sluyter, D. J. (1997). *Emotional development and emotional intelligence: Educational implications*. Basic Books.
- Sammarra, A., & Biggiero, L. (2008). Heterogeneity and specificity of Inter-Firm knowledge flows in innovation networks. *Journal of management studies*, 45(4), 800-829.

- Sarin, S., & McDermott, C. (2003). The effect of team leader characteristics on learning, knowledge application, and performance of cross-functional new product development teams. *Decision sciences*, 34(4), 707-739.
- Sarin, S., & O'Connor, G. C. (2009). First among equals: The effect of team leader characteristics on the internal dynamics of cross-functional product development teams. *Journal of product innovation management*, 26(2), 188-205.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students*. Pearson education.
- Sinkovics, R. R., Penz, E., & Ghauri, P. N. (2008). Enhancing the trustworthiness of qualitative research in international business. *Management International Review*, 48(6), 689-714.
- Smith, C. A., Haynes, K. N., Lazarus, R. S., & Pope, L. K. (1993). In search of the "hot" cognitions: Attributions, appraisals, and their relation to emotion. *Journal of personality and social psychology*, 65(5), 916.
- Smith, C. A., Haynes, K. N., Lazarus, R. S., & Pope, L. K. (1993). In search of the "hot" cognitions: Attributions, appraisals, and their relation to emotion. *Journal of personality and social psychology*, 65(5), 916.
- Smith, J. A. (2003). *Qualitative psychology: A practical guide to research methods*. Sage Publications, Inc.
- Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of management Review*, 36(2), 381-403.
- Smith, W. K., & Tushman, M. L. (2005). Managing strategic contradictions: A top management model for managing innovation streams. *Organization science*, 16(5), 522-536.

- Smith, W. K. (2014). Dynamic decision making: A model of senior leaders managing strategic paradoxes. *Academy of management Journal*, 57(6), 1592-1623.
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat rigidity effects in organizational behavior: A multilevel analysis. *Administrative science quarterly*, 501-524.
- Strauss, A., & Corbin, J. M. (1990). *Basics of Qualitative Research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage Publications.
- Strese, S., Meuer, M. W., Flatten, T. C., & Brettel, M. (2016). Organizational antecedents of cross-functional coopetition: The impact of leadership and organizational structure on cross-functional coopetition. *Industrial Marketing Management*, 53, 42-55.
- Tidström, A., & Rajala, A. (2016). Coopetition strategy as interrelated praxis and practices on multiple levels. *Industrial Marketing Management*, 58, 35-44.
- Tidström, A. (2014). Managing tensions in coopetition. *Industrial Marketing Management*, 43(2), 261-271.
- Tomlinson, P. R., & Fai, F. M. (2013). The nature of SME co-operation and innovation: A multi-scalar and multi-dimensional analysis. *International Journal of Production Economics*, 141(1), 316-326.
- Van Harreveld, F., Van der Pligt, J., & de Liver, Y. N. (2009). The agony of ambivalence and ways to resolve it: Introducing the MAID model. *Personality and Social Psychology Review*, 13(1), 45-61.
- Walley, K. (2007). Coopetition: an introduction to the subject and an agenda for research. *International Studies of Management & Organization*, 37(2), 11-31
- Yami, S., & Nemeh, A. (2014). Organizing coopetition for innovation: The case of wireless telecommunication sector in Europe. *Industrial Marketing Management*, 43(2), 250-260.

- Yami, S., Castaldo, S., Dagnino, B., & Le Roy, F. (Eds.). (2010). *Coopetition: winning strategies for the 21st century*. Edward Elgar Publishing.
- Yin, R. K. (1984). *Case Study Research. Design and Methods*. Beverly Hills, CA: Sage Publications.
- Y Luo. (2007). *A coopetition perspective of global competition*. Journal of world business 42 (2), 129-144.

8. APPENDIX

8.1 Appendix A – Consent Form

Background and purpose

This research project is part of the RaCE program at SNF and NHH. The purpose is to investigate the role of leadership in managing interpersonal tension that arises during coopetition (occurs when companies cooperate and compete at the same time, which may lead to innovation). We're looking into the NCE Finance Innovation and our main focus is to understand how managers handle paradoxical tensions in practice during coopetitive collaborations, and to do that we address people with key information about this.

Research Question

How do leaders manage the paradoxical tension in a coopetition strategy for innovation?

What does participation in the study involve?

The interview will take roughly 1 hour. If you approve, we will record the interview on audio file and transcribe it afterwards. The audio file will be deleted after transcription, and the transcribed version of the interview will be anonymized.

What happens to the information about you?

All personal information will be treated confidentially, and the information stored with the transcribed version of the interview will not contain a name - but a dedicated code. Names and

any contact information, as well as this form, will be kept separate from interview data. Only the project group at NHH / SNF will be able to access the anonymised interviews.

Your business will be anonymized.

The project is scheduled to end in June 2021.

Voluntary participation

It is voluntary to participate in the research project, and you can withdraw your consent at any time without giving any reason. If you withdraw, all information about you, and your interview, will be deleted. If you have any questions about the project, you may contact Endri Aličkaj (Endri.Alickaj@student.nhh.no) for any questions regarding this research.

On behalf of SFN / NHH, NSD - Norwegian Center for Research Data AS has assessed that the processing of personal data in this project is in accordance with the privacy regulations.

Your rights

As long as you can be identified in the data material, you have the right to:

- access which personal information is registered about you
- to have personal information about you corrected
- to have personal information about you deleted
- to receive a copy of your personal information (data portability), and
- to send a complaint about the processing of your personal data.

What entitles us to process personal information about you?

We process information about you based on your consent.

Consent to participate in the study

I have received information about the study, and am willing to participate in interviews

(Signed by informant, date)

8.2 Appendix B – Interview Guide

This is the original first interview guide. As explained in the methodology section, the interview guides were expanded and focused further after subsequent interviews, so that comparisons of key themes and questions could be made across participants' responses. The questions were largely open-ended, and the participants were allowed to speak freely and to take the dialogue in the directions that they felt were the most relevant.

Introduction

1. What is your name and what is your background? Can you describe yourself, role and company?
2. What does/did coopetition look like in your case?

Drivers

1. Why did your company decide to participate in this project?

Coopetition Paradox

1. Can you explain the timeline of the project from initiation to completion?
2. Did you encounter any challenges when entering this relationship?
3. When looking at the different phases of this cooperative project, which phase was the most challenging?
4. Do you have any examples of challenging or tense situations?
5. In your opinion, how did the other parties handle these tensions?
6. What are the impacts of these emotions on the project and relationship between firms?
7. How do you deal with your own emotions?
8. How do your colleagues, collaborators or partners' feel about coopetition, How do you deal with your team members' emotions?

Leadership

1. How did you structure the relationship in order to ensure coopetition was possible?
2. Did you have a clear understanding of the coopetition situation since the beginning?
3. How did you integrate and balance the paradoxical tension that arose from coopetition?
4. How do you assess your role as a leader in the coopetition project?
5. What capabilities are useful to sustain coopetition relationship?
6. How did you have to adapt your leadership style during the course of project execution?
7. What qualities, according to you, are required to successfully manage the paradoxical tension that arise during the coopetition?
8. Was there any moment when you thought that the project was off-track and how did you manage this?
9. Is there someone else in this project that has played a leadership role and contributed to the tasks?

Abandonment (If applicable)

1. Did any parties decide to leave the project?
2. Why do you think that some parties chose to abandon the project?
3. What do you wish you had done differently, or other parties did differently?

Innovation

- 1) How will you describe the result of this project in terms of innovation?
- 2) Do you consider this project to be a case of coopetition success or failure?
- 3) Has your company achieved what you wanted from the project?
- 4) Were the results of the project's innovation quick and drastic (radical) or were they slow and occurring over time (incremental)?
- 5) Which factors do you believe led to coopetition success?
- 6) Which factors do you believe led to coopetition failure?

In today's dynamic, competitive, and complex business world, cooperating with your competitor is increasingly used as a firm-strategy to achieve innovation. However, such a relationship, known as coopetition, is paradoxical, as it involves firms cooperating and competing at the same time, creating paradoxical tensions. While prior literature has proposed different approaches to manage coopetitive relationships, such as juridical and structural solutions, a framework that explains the role of leadership in managing these tensions in interfirm coopetitive relationships is missing. To bridge this gap, I carry out an inductive study interviewing leaders in three firms in the Fintech industry, participating in an insurance industry coopetitive project. Drawing on grounded theory and temporal mapping, I examine how leaders manage the tension present in coopetitive relationships and the emotional ambivalence arising from it. The findings demonstrate the tensions and ambivalence experienced by leaders, represented by different and dynamic emotional trajectories in each firm. Further, the findings show how leaders throughout these trajectories manage tensions by engaging in specific leadership functions. This in turn appears to influence how the leaders perceive the coopetitive relationships as well as innovation outcome potential. Based on these findings, I propose that leadership plays a significant role in achieving the desired outcomes of inter-firm competitive relationships. I develop a model that explains how emotional ambivalence caused by paradoxical tension affects the emotional state of leaders, and how leaders engage in specific functions aimed at managing such states, which in turn influences sustaining inter-firm relationships, and ultimately innovation potential. The findings have theoretical implications for research on organization paradoxes arising from coopetition, and practical implications for leaders responsible for the success of coopetition projects.

Keywords: coopetition; paradoxical tension; emotional ambivalence; leadership; innovation

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