Master’s Thesis

Coopetition capabilities-
managing cooperations with rivals

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Statutory declaration

I hereby declare that the thesis submitted is my own unaided work, that I have not used other than the sources indicated, and that all direct and indirect sources are acknowledged as references.

This printed thesis is identical with the electronic version submitted.

Walding, February 2019
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List of Abbreviations

BRPM ................................................. Business Relationship Process Management
CHS ........................................................ Conflict handling system
DBIS ................................................................... Datenbank-Infosystem
e.g ........................................................................ exempli gratia (for example)
EBSCO .................................................................. Elton Bryson Stephens Company
et al ........................................................................ et alia (and others)
etc ............................................................................... et cetera (and so forth)
EVB ..................................................................... Elektronische Zeitschriftenbibliothek
f .............................................................................. folio (and the following)
JKU ..................................................................... Johannes Kepler University
p ............................................................................. page
pp .......................................................................... pages
VHB ................................................................... Verband der Hochschullehrer für Betriebswirtschaft e.V.
Executive Summary

Given the increasing research interest demonstrated by different scholars, and the resulting increase in research literature concerning the concept of coopetition (Bengtsson & Kock, 2014, p. 180), the main aim of this master’s thesis is to provide the interested reader meaningful information collected by means of a secondary data analysis, also often referred to as theoretical desk research, about the concept of coopetition and especially about coopetition capabilities.

The concept of coopetition, a portmanteau of the terms cooperation and competition, was first established and popularized among management researchers by Brandenburger & Nalebuff (1996). As a result of increasingly complex and dynamic business environments, and the shift of attention from internal resources (e.g. Prahalad & Hamel, 1990; Wernerfelt, 1984) to the aggregation of external resources through business networks (e.g. Choi & Valikangas, 2001; Eisenhardt et al., 2010), cooperations with rivals have become an important strategic concept for firms nowadays (Bengtsson & Kock, 2014, p. 180). As pointed out by Bengtsson & Kock (2014, p. 182), among management researchers the phenomenon of coopetition is studied at different levels (e.g. individual, organizational and interorganizational), and examined from different perspectives (e.g. resource based view, game theory, network theory, transaction cost economics). As the concept combines competition and cooperation, two contradictory behaviours and activities, scholars characterize coopetition as paradoxical relationships (e.g. Enberg, 2012; Raza-Ullah et al., 2014). According to Bengtsson, Raza-Ullah, et al. (2016, p. 19), firms need to develop so called coopetition capabilities that enable firms to successfully manage paradoxes and resulting tensions.

Although there is still a shortage of a comprehensive investigation of capabilities firms need to develop and preserve in order to successfully manage coopetitive relationships (Bengtsson, Raza-Ullah, et al., 2016, p. 19), the primary intention of this master’s thesis is to provide the interested reader with useful information about contemporary literature concerning coopetition capabilities. On the basis of secondary data, collected from scientific literature sources (empirical research studies, scientific articles and books), capabilities at the individual, organizational and inter-firm/network level are examined and summed up in a multi-level framework.
The examination of coopetition capabilities at the individual level shows that the coopetition mindset and experience of managers, as well as internal, organization specific resources, summed up by Gnyawali & Park (2011) under the broader term coopetition capability, are essential in managing coopetition. Further, considerate and participative leadership styles of managers facilitate coopetition by enabling managers to find a trade-off between competitive and cooperative activities (Strese et al., 2016). Moreover, the ability to manage paradoxes on the basis of executional and analytical capabilities (Gnyawali et al., 2016), and the ability to regulate and manage emotional ambivalence, resulting from contradictory forces in coopetition (Raza-Ullah et al., 2018), are essential factors that facilitate the effective management of coopetitive relationships. Similarly, by drawing on Smith & Tushman (2005), Raza-Ullah et al. (2018) identified the analytical capability, that involves the development of paradoxical mental frames and templates, as instrumental capability in order to manage and balance tensions inherent in coopetition.

Further, at the organizational level, coopetition routines and processes, called by Raza-Ullah et al., (2018) the balancing capability of organizations, formal and informal knowledge sharing and protecting mechanism (Estrada et al., 2016; Fernandez & Chiambaretto, 2016) and conflict management systems (Chin et al., 2008) are identified capabilities that enable organizations to manage tensions and paradoxes in coopetitive relationships. High formalization and standardization, which are cultural features of hierarchical culture models, provide organizations the needed stability to manage coopetition (Klimas, 2016) and enables the balance of the contradictory forces of coopetition (Strese et al., 2016). Moreover, organizational learning, meaning the accumulation and utilization of knowledge in order to avoid the repetition of past mistakes (Bendig et al., 2018), and the learning, managing and integration capability of organizations concerning strategic alliances (Kohtamäki et al., 2018) enable organizations to create mutual value and benefits for the coopetition partners.

Lastly, the discussion of capabilities at the inter-firm/network level reveals the importance of central positions in networks, as they imply strong ties that facilitate an organizations performance (Sanou et al., 2016), the development and management of coopetitive relationships (Chin et al., 2008; Czakon & Czernek, 2016; Zineldin, 2004) and effective communication systems (Chin et al., 2008), that involve communication guidelines and information systems in order to avoid unintended knowledge spill overs. Figure 1 depicts the developed multilevel framework of coopetition capabilities on the basis of secondary data.
This master’s thesis further demonstrates approaches and perspectives on how to develop and preserve coopetition capabilities. As there is still scarce literature that investigates the development and preservation of coopetition capabilities that enable firms to successfully manage tensions inherent in coopetition (Bengtsson, Raza-Ullah, et al., 2016, pp. 21f.), this scientific work draws on literature about the development and preservation of general organizational capabilities. The capability lifecycle by Helfat & Peteraf (2003, p. 1000) provides a theoretical framework that demonstrates the founding, evolvement and progression of general organizational capabilities, whereby the authors emphasize that the concept is universally designed in order to depict the evolution of any kind of capability embedded in any organization or industry. As the examination of the development and preservation of every identified coopetition capability would go beyond the scope of this master’s thesis, three coopetition capabilities, one from every level, are selected and further investigated concerning the development and preservation within organizations.

At the individual level, the examination of the development and preservation of the emotional capability of individuals, on the basis of the four-branch model of emotional intelligence by Mayer & Salovey (1997, pp. 10f.), shows that individuals need to develop the ability to
perceive and express emotions, to encourage thought on the basis of emotions, to understand the impact of the own and the emotions of others and to manage and regulate these emotions in ambivalent situations. Concerning the management and regulation of emotions, the input-output model of emotion regulation by Gross (1998, p. 225) demonstrates the ability of individuals to regulate emotions by either manipulating the input or output, whereby Hochschild (2003, p. 35) demonstrates that deep and surface acting are two strategies that enable firms to manipulate emotional responses.

Concerning the organizational level, the alliance learning process by Kale & Singh (2007, p. 984) builds the basis for the development, utilization and preservation of the alliance and knowledge management capability of organizations. The articulation, codification, sharing and internalization of alliance know-how enables organizations to learn from past alliance experience through accumulating and leveraging alliance knowledge, which in turn improves alliance performance and the capability to effectively manage strategic alliances. At the inter-firm/network level, the examination of the development and preservation of the relationship management capability of organizations, on the basis of the relationship management process proposed by Mitrega et al. (2012, p. 741), reveals that in order to develop and manage relationships, organizations need to develop the capability to initiate new and profitable relationships, enhance already existing relationships and terminate existing but unprofitable relationships. Therefore, the relationship management process provides an understanding about the capabilities organizations need in order to manage relationships effectively during the different stages of the partnership lifecycle (Mitrega et al., 2012, p. 748).

Finally, it should be noted that there is still the need to close the existing research gap concerning coopetition capabilities and their development and preservation, as that there is still scarce literature about coopetition capabilities, which organizations need in order to successfully manage coopetitive relationships (Bouncken, Gast, et al., 2015, p. 592).
1. Introduction

1.1 Problem statement

The concept of coopetition, meaning that firms compete and cooperate with other firms simultaneously, has gained growing attention from management scholars for the last two decades (e.g. Bengtsson & Kock, 2000; Padula & Dagnino, 2007; Gnyawali & Park, 2011; Bengtsson & Raza-Ullah, 2016). Bouncken, Gast, et al. (2015, p. 591) define coopetition as a dynamic process between stakeholders that aims at developing a bigger business pie and mutual value through cooperation, while at the same time the actors compete for the biggest piece of the pie and the greatest share of the value. Already in the past, collaborations with other firms were an integral part of many firm’s corporate strategies in order to manage and cope with fast changing environments, high uncertainty, the globalization of the market and increasingly aggressive market competition (e.g. Bouncken, Pesch, et al., 2015; Bouncken et al., 2016). Management scholars emphasize that half of these co-operations were entered between direct competitors, implying that neither competition nor cooperation rules the other one out (e.g. Bengtsson & Kock, 2000; Tsai, 2002; Luo, 2004; Luo, 2005). Therefore, Walley (2007, p. 12) points out that both concepts are not mutually exclusive and the concept of coopetition combines these two concepts into one “hybrid” strategy, in which firms compete and cooperate with rivals simultaneously. Bengtsson & Kock (2014, p. 180) even argue that nowadays, the concept has become an essential strategy for managers and firms that operate in complex, dynamic and fast changing business environments.

According to Bengtsson, Raza-Ullah, et al. (2016, p. 20), coopetition is often pursued as strategic alliance or joint venture and is viewed by Brandenburger & Nalebuff (1996) as a win-win strategy for the parties involved. Scholars in the field of Strategic management research have identified benefits like access to diverse knowledge and resources (e.g. Bengtsson & Kock, 2000), higher efficiency and effectiveness (e.g. Chin et al., 2008), improvements in product innovation (e.g. Quintana-Garcia & Benavides-Velasco, 2004; Ritala, 2012) and achievement of economies of scope and scale (e.g. Gnyawali & Park, 2009, Gnyawali & Park, 2011; Luo, 2007). Dagnino & Padula (2002, p. 18) argue that coopetition combines both advantages from competition and cooperation, creating a “coopetitive advantage” for the participating parties. However, many scholars indicate that coopetition
can also result in a lose-lose situation, as the phenomenon combines two contradictory logics (e.g. Gnyawali & Park, 2009; Bengtsson & Kock, 2000; Bouncken & Kraus, 2013). According to Raza-Ullah et al. (2014, p. 190), cooperation on the one hand, aims at generating value and mutual benefits for the parties (positive-sum game), whereas competition on the other hand, promotes opportunistic actions and individual gains for the parties involved (zero-sum game). Therefore, scholars in management research argue that these different logics of the two underlying concepts contradict each other, meaning that coopetitive relationships and behaviours are paradoxical (e.g. Raza-Ullah et al., 2014; Fernandez et al., 2014; Tidström, 2014; Bengtsson et al., 2016).

Hence, cooperations with rivals can create tensions, which can lower the benefits and create losses for firms (e.g. Bouncken & Kraus, 2013; Ritala & Hurmelinna-Laukkanen, 2013; Zineldin, 2004). „Companies may succeed or fail based on differences in their capability to manage paradox” (Lado et al., 2006, p. 115). Klimas (2016, p. 93) points out that it is crucial for firms to anticipate and manage these tensions and paradoxes, in order to ensure a successful implementation of the cooperation strategy, and in order to create mutual benefits. Although every collaborative relationship contains tensions, according to Park (2011, p. 5), coopetitive relationships especially need effective management because of the paradoxical and dynamic characteristics and the high uncertainty. Studies from the past have demonstrated high failure rates of cooperations between rivals (e.g. Lunnan & Haugland, 2008; Park & Ungson, 2001), wherefore Bengtsson, Raza-Ullah, et al. (2016, p. 19) assume that firms lack the needed capabilities, so called coopetition capabilities, to anticipate and manage these tensions and resulting paradoxes.

1.2 Objectives of the master’s thesis

In a first step, this master’s thesis aims at providing a comprehensive insight of the key theoretical foundations of the concept of coopetition. Benefits and challenges, as well as tensions that arise from the paradox of combining two contradictory logics are going to be explained, which represents only the theoretical basis for the main objectives of the master’s thesis. Primarily, the thesis addresses the growing research interest in so called coopetition capabilities, which firms need to develop in order to anticipate and manage tensions and paradoxes involved in coopetitive relationships. By investigating these coopetition capabilities at the individual, organizational and inter-firm/network level, the thesis provides a conceptual overview of coopetition capabilities at multiple levels, and tries in a second step to
examine how selected coopetition capabilities can be developed and preserved by organizations. Furthermore, by analysing scientific literature sources in a critical way, research gaps in the field of coopetition capabilities and critical success factors of coopetitive relationships might be identified and highlighted. All in all, the master’s thesis primarily aims at providing the reader an in-depth examination of capabilities firms need to build and integrate in order to anticipate and manage paradoxes and tensions inherent in coopetitive relationships.

Figure 2 Research questions

1.3 Research method

This master’s thesis is designed as a theoretical desk research, also often referred to as secondary data analysis, where only secondary data from scientific literature sources (empirical research studies, scientific articles and books) are examined and used in order to reach the above stated objectives. According to Johnston (2014, pp. 619f.), a secondary data analysis utilizes and examines already existing data, which was collected earlier by someone else for a different intent or a different purpose. The aim of secondary data analysis is to utilize already collected theoretical knowledge and data in order to reach new objectives and in order to resolve new research questions. Johnston (2014, p. 620) points out that the analysis of secondary data is carried out in a systematic and comprehensible process that consists of three steps:
• Development and formulation of the research question
• Identification of the relevant data
• Evaluation of the data

In accordance with the steps suggested by Johnston (2014), after the formulation and development of the research questions and objectives of this master’s thesis, relevant data was identified through databases provided by JKU Digital Library. After an initial screen of fundamental literature about the definition, scope and levels of coopetition via several databases of the digital library of JKU services, keywords were defined in order to find relevant scientific papers and empirical research studies. Keywords were coopetition, coopetitive capabilities, coopetition capabilities, coopetition- critical success factors, coopetition tensions, paradox management or coopetition management. The main scientific articles were found through EZB eJournals and DBIS, which provide access to literature databases licensed for JKU. Databases like EconLit, EBSCOhost, EconPapers, Emerald Insight, SAGE Journals Online and ScienceDirect were used in order to find relevant literature for the research questions. Moreover, the academic literature service Google Scholar was applied to further investigate essential literature. As Google Scholar only provides limited access to scientific papers, again, above mentioned databases, provided by JKU services, were used in order to gain access to the articles found on Google Scholar.

The selection of the examined and discussed scientific literature sources is based on data from the peer review platform VHB, which distinguishes scientific management literature concerning their quality. The online data base of the peer review platform VHB categorizes scientific journals into A+, A, B, C, D and k. R. (meaning that there is no rating available in the scope of VHB). As the concept of coopetition was introduced in the 1990’s, literature addressing especially the topic of coopetition capabilities is still scare and the topic underresearched. Therefore, in this master’s thesis the variety of scientific literature sources is restricted, wherefore scientific literature with no rating (k.R.) is not excluded. For every chapter, the primary used scientific literature sources and the respective journal rankings are illustrated.

The evaluation of the data, consequently the last step, suggested by Johnston (2014), shall be discussed in the conclusion of this master’s thesis.
1.4 Structure and content

The first chapter represents the introduction to this master’s thesis and explores the problem statement, the objectives and research method of the thesis, and gives an overview of the structure and content. The second chapter explains the concept of coopetition in further detail. A definition of the concept, typologies and different levels of coopetition are further introduced and explained in the second chapter. Moreover, underlying theories like the network theory and the resource based view will be brought in line with the concept of coopetition. Benefits and challenges of coopetition will complete the second chapter of this thesis. The third chapter examines coopetition capabilities at the individual, organizational and inter-firm/network level, which firms need in order to manage tensions and paradoxes inherent in coopetitive relationships. The fourth chapter focuses on how selected and identified coopetition capabilities can be developed and preserved by firms. Finally, a summary and evaluation of the main findings illustrated on the basis of a multilevel framework of coopetition capabilities and a future outlook will complete this master’s thesis.
2. Concept of coopetition

The following chapter shall provide a comprehensive set of information concerning the concept of coopetition. Different definitions of the concept, two typologies, the different levels of coopetition, as well as the resource based view and the network theory, in relation and in line with the concept of coopetition, shall provide the reader with an understanding of the basic concept of coopetition. Moreover, benefits and challenges (paradoxes and tensions) of coopetitive relationships shall be illustrated in the following chapter in order to build the basis for the main research topic. The following Table 1 gives an overview of the primary scientific literature sources concerning the concept of coopetition, divided in accordance with the subchapters of this master’s thesis.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Authors, title and journal</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Rusko, R. (2011). Exploring the concept of coopetition: A typology for the strategic moves of the Finnish forest industry. Industrial Marketing Management (B)</td>
<td>The one continuum perspective classifies coopetition between strategic alliances and cartel/collusions, with varying degrees of cooperation and competition.</td>
</tr>
<tr>
<td>Typology</td>
<td>Luo, Y. (2007). A coopetition perspective of global competition. Journal of World Business (B)</td>
<td>Depending on the intensity and diversity of coopetition, organizations can find themselves in different coopetition situations with different appropriate strategic tactics and responses.</td>
</tr>
</tbody>
</table>
| **Levels of coopetition research** | Bouncken, R.B., Gast, J., Kraus, S., Bogers, M. (2015). Coopetition: A systematic review, synthesis, and future research directions. Review of Managerial Science (B) | Main levels of coopetition research are:  
- Intra-firm level  
- Inter-firm level  
- Network level. |
|-----------------------------|---------------------------------------------------------------|------------------------------------------------------------------|
|                            | Dorn, S., Schweiger, B., Albers, S. (2016). Levels, phases and themes of coopetition: A systematic literature review and research agenda. European Management Journal (B) | Four distinct levels of predominant coopetition research are:  
- Inter-firm/organizational level  
- Individual level  
- Intraorganizational level  
- Network level. |
<p>| <strong>Resource based view</strong>     | Ritala, P., Golnam, A., Wegmann, A. (2014). Coopetition-based business models: The case of Amazon.com. Industrial Marketing Management (B) | In coopetition mutual value is created by sharing and utilizing complimentary resources, while at the same time the organizations compete for the biggest share of the value by using organization specific capabilities and resources. |
|                            | Peng, T.-J., Pike, S., Yang, C.-H., Roos, G. (2012). Is cooperation with competitors a good idea? An example in practice. British Journal of Management (B) | The greater the dependency of the firms on the same resources, the higher the likelihood for cooperation in order to share resources as the firms face similar resource restrictions. |
| <strong>Network theory</strong>          | Gnyawali, D.R., Madhavan, R. (2001). Cooperative networks and competitive dynamics: A structural embeddedness perspective. Academy of Management Review (A+) | Organizations in central positions and with high structural autonomy may learn about strategic moves of network members sooner, which results in higher flexibility concerning strategic responses and enhanced opportunities to gain access to network resources. |
|                            | Gnyawali, D.R., He, J., Madhavan, R. (2006). Impact of co-opetition on | Central positions in coopetition networks involve the risk of unintended... |</p>
<table>
<thead>
<tr>
<th>Benefits of coopetition</th>
<th>Bonel, E., Rocco, E. (2007). Coopeting to survive; surviving coopetition. International Studies of Management &amp; Organization (C)</th>
<th>Coopetitive relationships enable the development of mutual gains for the parties involved by complementing the parties resources and activities. Further, the access to complimentary resources and knowledge enhances the innovation capacity of firms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenges of coopetition</td>
<td>Tsai, W. (2002). Social structure of “coopetition” within a multiunit organization: Coordination, competition, and intraorganizational knowledge sharing. Organization Science (A+)</td>
<td>The cooperation dimension of coopetition concentrates on knowledge sharing, whereas the competition dimension focuses on knowledge protection in order to decrease the risk of unintended knowledge spillovers and the possibility of being outperformed or outlearned in the future.</td>
</tr>
<tr>
<td>Tidström, A. (2014). Managing tensions in coopetition. Industrial Marketing Management (B)</td>
<td>Role tensions, tensions between sharing and protecting knowledge, power and dependence and opportunistic behavior of coopetition partners are major challenges that arise in coopetitive relationships.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 1 Primary literature sources concerning the concept of coopetition*
2.1 Definition

Coopetition, a portmanteau of the terms cooperation and competition, was first examined and introduced in management practice and management literature by Brandenburger & Nalebuff (1996), who introduced the term with their book “Co-opetition” and popularized the concept among managers and management scholars. But more than 20 years of research in the field later, scholars argue that there is still a lack of a clear and unified definition (e.g. Bengtsson & Kock, 2014; Bengtsson et al., 2010). In this context, Bengtsson & Kock (2014, p. 181) point out that many different definitions among researchers are used, and scholars still differ about the scope and nature of the phenomenon itself. The concept is either broadly explained as a value-net consisting of various stakeholders (e.g. Afuah, 2004; Brandenburger & Nalebuff, 1996), or limited to a concept that involves cooperation between two firms that are competitors (e.g. Luo, 2005; Padula & Dagnino, 2007).

According to Padula & Dagnino (2007, p. 34), in the past literature and research in the field of strategic management considered competition and collaboration as two separate paradigms. The authors explained the concept of coopetition as the unification of both paradigms into one, meaning: “the intrusion of competitive issues within a cooperative game structure” (Padula & Dagnino, 2007, p. 32). In this context, Rusko (2011, p. 312) raises the question where to position coopetition between these two paradigms. He claims that cooperative relationships can take different forms, for instance strategic alliances (e.g. joint ventures) or even collusions (cartel). Similar, Walley (2007, p. 15) argues that coopetition is “just another form of collusion”. But according to Rusko (2011, p. 312), collusion and coopetition must be differentiated, as collusion is violating legislations and laws by increasing the prices, decreasing the quantity and therefore, using the power of monopoly in order to increase the benefits for the firms involved in the collusion.

Coopetition, on the other hand, is according to Walley (2007, p. 16) “where firms cooperate not just to their mutual benefit but also to the benefit of the consumer, the relationship is not collusive. In this instance, ‘coopetitive’ collaboration has produced a ‘win-win-win’situation”. Rusko (2011, p. 313) states that firms can pursue strategic alliances and collusions simultaneously but, according to the author, the distinction to coopetition is, that in alliances the extent of cooperation, and in collusions the extent of competition is greater than in traditional coopetitive relationships.
In contrast to the one continuum perspective of Rusko (2011) illustrated in Figure 3, Bengtsson & Kock (2014, p. 181) emphasize that the concept of coopetition must be examined from two continua: namely cooperation and competition. As coopetition juxtaposes two contradictory logics, the authors argue, similar to Padula & Dagnino (2007), that separating cooperation and competition, meaning that firms either cooperate or compete with each other, does not comply with the concept of coopetition. The authors point out that coopetition is not given when both elements are seen as independent from each other, which happens when coopetition is defined by one continuum (ranging from competition to cooperation). Relationships between two or more firms that vary from time to time between either more cooperation or more competition, as a trade-off between the paradigms, cannot be called coopetition, according to Bengtsson & Kock (2014, p. 182). Therefore, they also propose that the investigation of coopetition from two continua, different to the one continua perspective of coopetition by Rusko (2011), affords the possibility to include the key characteristic of coopetition, namely the paradoxical relationship between competition and cooperation at the same time.

Figure 4 shows the differences between the one continuum and two continua approaches in defining coopetition.
As there is still a lack of a unified definition, I will refer in this master’s thesis to the definition developed by Bengtsson & Kock (2014, p. 182), which defines coopetition as “a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, regardless of whether their relationship is horizontal or vertical.” The authors emphasize that by specifying and classifying coopetition on two continua, different types of coopetition, varying in the degree of competition and cooperation can be identified. The following subchapters give an insight in different types of coopetitive relationships for a better understanding of the phenomenon and characteristics, and an overview of the levels at which the phenomenon is examined.

2.1.1 Typology of coopetition

According to Luo (2007, p. 135), coopetition is a multidimensional, contradictory and complex phenomenon that needs clear classification in order to distinguish between different coopetition situations and situational tactics, which enable firms to develop strategic initiatives and responses according to the needs of the specific coopetition situation. By examining the intensity and diversity of coopetition, the author argues that not every organization should undertake coopetition to the same extent, depending on the organizations culture, environment and strategy (Luo, 2007, p. 143). Therefore, the author distinguishes between different coopetition situations firms can find themselves in, depending on the intensity and diversity of coopetition, which will be discussed in more detail in the following.
**Intensity of coopetition:**

According to Luo (2007, p. 135) the intensity of coopetition refers to the degree to which an organization engages in competitive and cooperative interactions with an international competitor in global markets. Further, the author points out that the pairwise examination enables the analysis of the dynamics and forces inherent in coopetition and enables to distinguish between four different situations organizations can experience, as depicted in Figure 5 and further presented in the following.

![Figure 5 Intensity of coopetition (Luo, 2007, p. 136)](image)

**I) Contending situation**

A contending situation is given when firms compete with their rivals for market share, power and critical positions in important markets in an environment of high competition and low cooperation (Luo, 2007, p. 135). In the opinion of the author, this situation exists mainly in environments characterized by similar products and resources and by several oligopolistic firms that hold significant shares of the market. As a strategic response to a contending situation, with high competition and low cooperation, the author suggests *intelligence gathering, niche filling* or *position jockeying*. Intelligence gathering refers to the legitimate gathering and analysing of information concerning the competitor, in order to foretell strategic moves, strategies and initiatives. Niche-filling provides the opportunity for organizations in contending situations to utilize and exploit their capabilities in certain
geographical market, product areas or technological domains. The last strategic response proposed by the author, position jockeying, involves the defence and strengthening of the current market position. On the contrary to niche-filling, this tactic focuses on the prevailing, “old” market and does not seek new niches or markets (Luo, 2007, pp. 135f.).

(II) Adapting situation
The adapting situation described by Luo (2007, p. 138) is characterized by high competition and high cooperation, as firms are reliant on each other to accomplish their goals. In contrast to the partnering situation, this situation is not characterized by an environment of cooperation. In an adapting situation firms are required to cooperate with their competitors in certain domains, and compete simultaneously in other domains (e.g. compete in a certain product domain and compete simultaneously in other product domains). The author emphasizes that this situation is unique, as both the degree of competition and cooperation is high, which represents the classical coopetition situation. Companies facing this situation may undertake strategic initiatives like boundary analysis, loose coupling or strategic balance as a response. Luo (2007, pp. 139f.) argues that a boundary analysis that determines in which domains to compete, and in which to cooperate, is especially important for firms as it defines the following structure of the coopetitive relationship. Loose coupling is, according to the author, a strategic response to an adapting situation and contains loose partnerships as licensing, mutual service consortia or co-production with rivalling firms. On the one hand, loose partnerships foster an atmosphere of cooperation and stability, and on the other hand ensure flexibility and competitiveness. Finally, strategic balance includes the systematic structuring and balancing of cooperation and competition in order to reach the desired goals.

(III) Isolating situation
The third situation, identified by Luo (2007, p. 136), exists when companies keep a low degree of interaction with their competitors, implying a situation with low cooperation and low competition. Firms in this isolating situation act independently from other firms and can hold a stable position without strong competition or cooperation with other firms. A low intensity of competition exists, according to the author, because of high entry barriers in the market and specialized technologies and know-how, which hinder late entrants. Luo (2007, p. 137) advises firms that find themselves in isolating situations domain specialization, scale expansion and vertical integration as possible strategic responses. Domain specialization is an initiative that highlights product or market domains, where the company has specialized
knowhow and a competitive advantage. Scale expansion focuses on reaching economies of scale in order to strengthen the market position, and in order to utilize different market opportunities. Finally, vertical integration, meaning the forward and backward integration of supply chain activities, enables firms to further strengthen their market position while maintaining an environment of low cooperation and low competition.

(IV) Partnering situation
The partnering situation, identified by Luo (2007, p. 137), is given when firms set up and keep high cooperation and low competition with other firms with the aim to gain access to complementary resources, and use these commonly created synergies. High complementarity of resources, a key characteristic of partnering situations, facilitates coopetitions because an interdependence between competitors arises. The author proposes synergy extension, value sharing and attachment enhancement as possible strategic moves in partnering situations. Lado et al. (1997, p. 120) points out, that synergy extension involves the identification and exploitation of additional technological or operational advantages of cooperative interactions with other firms. In contrast, according to Luo (2007, p. 138), value sharing is the systematic combination of the cultures, strategies and philosophies of the firms that cooperate. Mutual trust, commitment and understanding are key features of coopetitions, which enable the development of joint synergies. Lastly, attachment enhancement is a strategic initiative that aims at strengthening the ties at the organizational and individual level between cooperating firms, in order to foster familiarity and trust, which again fosters knowledge sharing and the development of joint synergies.

Diversity of coopetition:
According to Luo (2007, p. 139), the diversity of coopetition refers to the amount of markets in which the organization pursues coopetition (geographic breadth), and the amount of competitors the organization cooperates and competes with at the same time (rivalrous breadth). As illustrated in Figure 6, the author distinguishes between four situations, which are further discussed in the following.
(I) Dispersing situation

As stated by Luo (2007, p. 140), a dispersing situation is given when a firm cooperates and competes with a small number of other rivals at the same time, and in a wide domain of markets. The wide domain of markets and the small number of rivals these firms coopete with, imply that firms in such situations try to widen the geographic array of coopetition and reduce the number of coopetitive relationships, in order to strengthen their position and compete for market share. And on the other hand, these firms cooperate in order to make use of complementary resources and to generate mutual benefits. In this situation, Luo (2007, p. 140) proposes either solidification or emphasis as strategic response. Solidification is a strategy that aims at strengthening the market position or power of a firm for both competitive and cooperative domains. Emphasis, on the other hand, is a strategy that aims at putting emphasis on certain product lines, in order to further develop and keep competitive advantages of certain products in a certain geographic domains.

(II) Networking situation

A networking situation is given when firms cooperate and compete at the same time with a high number of rivals in a high number of different markets or market segments. Being present in a large number of markets, including mainly highly diversified firms, enables firms
to engage in coopetitive relationships with numerous rivals. Being diversified along the product and geographic market dimension fosters complimentary of resources with rivals, and leads to a decline in similarities concerning product offerings. Luo (2007, p. 142) points out that firms exploit the advantages of this situation by forming loosely structured networks with their rivals. According to the author, firms in this networking situation should consider sponsorship or integration as possible strategic response. Sponsorship entails the development of platforms in order to combine complimentary resources and the development of favourable conditions by influencing, either global or local business environments. Integration, on the other hand, is the attempt of firms to combine their coopetition activities under one umbrella in order to better concentrate on expansion and global strategies.

(III) Concentrating situation

Companies in a concentrating situation cooperate and compete with a small number of other rivals simultaneously in small and restricted market domains. Luo (2007, pp. 140f.) points out that this situation is mainly given for firms that are new in the market or still rather small, and therefore, concentrate their business on clearly defined market segments. In this case, the author proposes turnaround or participation as possible strategic moves in order to manage coopetition with few rivals in certain market segments. Turnaround is a strategic initiative that focuses on entering new markets or market segments. This can help new or small firms to enhance flexibility and reduce fixed and transactional costs, and enables firms to coopete with a growing number of rivals. Different to turnaround, which concentrates on exploiting new opportunities in new markets, participation focuses on strengthening already prevailing coopetitive relationships in current markets, which enables firms to survive in the prevailing business environment.

(IV) Connecting situation

The last situation described by Luo (2007, p. 141), the connecting situation, is given when companies engage in coopetitive relationships with a high number of competitors, but in limited markets. Although these firms operate in few geographic markets, the number of rivals is high and enables firms to jointly create, through cooperations, a bigger business pie, and at the same time compete for the biggest share of the business pie with their rivals. The author suggests in this situation either position or differentiation as strategic moves. The strategic initiative position includes the entering and maintenance of markets or market segments that offer high economic returns because of the firms ability to take advantage of
given capabilities and resources. Differentiation on the other hand, aims at developing and offering diverse products or product features concerning quality, innovation or geographic adjustments, in order to distinguish the product offerings from rivals.

Overall, Luo (2007, p. 143) comes to the conclusion that firms need to find a “strategic balance”, meaning the appropriate structuring of coopetition activities, consistent with the overall objectives of the firm, as well as the appropriate degree of competition and cooperation with their rivals. Implied that different organizational attributes determine the extent to which firms maintain and undertake coopetitive interactions with global competitors.

Similar to the typology by Luo (2007), Bengtsson et al. (2010, p. 204) developed a coopetition typology, which is based on the combination of strong and weak cooperation and competition in coopetition interactions. The authors distinguish between four coopetition types, which are illustrated in Figure 7 and discussed in the following.

![Figure 7: Own representation of coopetition typologies (Bengtsson et al., 2010)](image)

**Weak cooperation and weak competition**

According to Bengtsson et al. (2010, pp. 204f.), in coopetitive relationships where both cooperation and competition interactions between firms are weak, suggested advantages of coopetitive relationships cannot be exploited by the firms. Weak competitive interactions provide no incentives for firms to engage in cooperations in order to improve and to develop competitive advantage. Such a situation of weak competitive and cooperative interactions can
lead to collusive behaviour and the development of cartels, as firms try to actively eschew each other on the market. Breaking up these collusive behaviours can be difficult as firms try actively to maintain the competitive situation by hindering new entrants, who would disrupt the “comfortable” situation, by offering new products or services and by raising competition. The authors compare this situation to Uzzi’s (1996) suggestions on arm length distance in relationships. Such relationships are characterized by low trust and information exchange and a distancing force between companies. This force hinders companies to develop trust and ties, which is needed in order to investigate complementarities and to exchange knowledge, information and knowhow.

(II) Strong cooperation and weak competition

Strong cooperative and weak competitive interactions in coopetitive relationships are characterized, according to Bengtsson et al. (2010, p. 206), by low tensions, low hostility, high degree of trust, strong ties and low symmetry and intensity. These strong cooperative interactions foster information and knowledge sharing and enable the development of an infrastructure which promotes transparency and exchanges between the firms. However, strong cooperation also limits the development of new ideas and innovations as there is the risk of overembeddedness (e.g. Uzzi, 1996, 1997) and too strong familiarity between the firms. Moreover, Bengtsson et al. (2010, p. 207) state, that weak competitive interactions reduce the pressure for firms to develop new, competitive products and services, which may lead to collusive behaviour. The authors conclude that the weaker the competitive interactions are, and the less the firms see each other as competitors, the less constructive the coopetitive relationship.

(III) Strong cooperation and strong competition

According to Bengtsson et al. (2010, p. 205), in this situation of strong cooperation and competition interactions, tensions between firms mainly appear because of high hostility and constant moves and countermoves among rivals. On the other hand, the authors highlight that at the same time with high trust and strong ties between firms in cooperative interactions, firms experience less tensions and opportunism. According to the authors, strong cooperative and competitive interactions in coopetition represent the optimal form of coopetition. Strong cooperative interactions in coopetition are considered by the authors as beneficial, as strong ties enables firms to share knowledge and information on the basis of trust (Granovetter, 1973, p. 1366). However, they also point out that strong ties can hinder the stimulation of new
ideas and innovations because of group-think and overembeddedness, referring to findings by Uzzi (1996, 1997). The authors demonstrate that overembedding and a lack of recombination and exploration of novel ideas can lead to strong and confrontational competition, destructing proposed coopetition benefits.

(IV) Weak cooperation and strong competition
Bengtsson et al. (2010, p. 206) argue that weak cooperative and strong competitive interactions are characterized by tensions developing from both interactions. Very low trust, weak ties and weak interactions hinder firms to exchange information and investigate complementarities. Furthermore, the authors point out that because of strong competition between the firms, high hostility, symmetry and intensity dominate the interactions. Overly strong competition can hinder transparency and can promote destructive and confrontational competition. According to the authors, the tensions arising cannot be offset by the weak cooperative interactions, leading to a short coopetitive relationship which is characterized by strong competition. Especially when passive cooperation is given, and without incentives to develop cooperative interactions, firms are not able to exploit the benefits of coopetitive relationships.

By emphasizing the core dimensions of coopetitive relationships, namely cooperation and competition undertaken at the same time, Bengtsson et al. (2010, p. 209) presented four different types of coopetition, which combine different degrees of competition and cooperation. The authors, highlight characteristics, tensions and dynamics of the respective types in order to point out conditions and situations, in which dynamic coopetition can be successful and maintained in the long run. In contrast to Luo (2007), who examines coopetition situations and respective strategic tactics, the typology by Bengtsson et al. (2010) focuses on the investigation of tensions and dynamics prevailing in different combinations of coopetitive interactions. In comparison, the coopetition typologies by Luo (2007) and Bengtsson et al. (2010) both examine the dynamics that characterize different coopetition situations and emphasize the importance of the right balance between cooperation and competition, and therefore provide a good theoretical basis for the examination of coopetition capabilities, which enable firms to manage tensions and develop the right coopetition balance.
2.1.2 Levels of coopetition research

Concerning the different levels of coopetition research, Dorn et al. (2016, p. 487) identified in a comprehensive literature review three different levels:

- Intra-firm level
- Inter-firm level
- Network level.

Based on the identified levels of analysis, the authors examined every level concerning antecedents of coopetition, and along the three coopetition phases initiation, managing and shaping, and evaluation, which shall be discussed briefly in the following (Dorn et al., 2016, p. 488).

**Intra-firm level**

In the opinion of Dorn et al. (2016, p. 491), the intra-firm level is, compared to the inter-firm level, still under-researched. Concerning the antecedents of coopetition at this level, Luo, (2005, p. 85) points out that the foundation is mainly a situation in which teams, units or groups within firms have to cooperate, and at the same time compete for resources from the parenting firm in order to reach their objectives and fulfil their functions. Although there are only few studies that focus on the initiation phase of intra-firm coopetition, in his study Tsai (2002, pp. 179f.) investigates how knowledge sharing mechanism must be designed and implemented in order to handle knowledge flows of intra-firm coopetition. Concerning the managing and shaping phase of intra-firm level coopetition, studies propose joint workshops, conflict resolution management and the development of mutual objectives (e.g. Bengtsson & Kock, 2000). Lastly, the evaluation phase deals with the influence of intra-firm coopetition on a firm’s performance, demonstrating that coopetition affects knowledge sharing and interpersonal relationships within firms (Dorn et al., 2016, p. 492). By drawing on the concept of social embeddedness (Uzzi, 1997) and the assumption of weak and strong ties (Granovetter, 1973), the balance of strong and weak ties between functions and divisions can have a positive influence on the performance of the organization (e.g. Luo et al., 2006).

**Inter-firm level**

Antecedents of coopetition at the inter-firm level can be differentiated between market conditions, dyadic and individual aspects. Studies examining market conditions refer to approaches like the transaction cost theory or game theory (e.g. Luo et al., 2006; Padula &
Dagnino, 2007), whereas dyadic aspects refer to approaches like the resource based view or resource dependence theory (e.g. Gnyawali & Park, 2009; Luo, 2004). Studies that focus on individual aspects (e.g. Gnyawali & Park, 2009) thematise firm specific factors like capabilities or resources (Dorn et al., 2016, pp. 488f.). The initiation phase of inter-firm level coopetition focuses on three main dimensions: (1) the coopetition agreement (e.g. Bonel & Rocco, 2007; Luo, 2007), (2) the structural coopetition design (e.g. Bengtsson & Kock, 2000; Faems et al., 2010) and (3) coopetition routines and mechanism that are implemented (e.g. Faems et al., 2010; Tsai, 2002). The the managing and shaping phase, concentrates on developing and maintaining a balance between cooperation and competition in coopetitive relationships (e.g. Bengtsson & Kock, 2000; Quintana-Garcia & Benavides-Velasco, 2004), the dynamics that develop in coopetitive relationships (e.g. Dahl, 2014; Peng et al., 2012) and the management of tensions and conflicts resulting from the contradictory logics inherent in coopetition (e.g. Fernandez et al., 2014; Raza-Ullah et al., 2014). Finally, studies that concentrate on the evaluation phase of coopetition at the inter-firm level (e.g. Bonel & Rocco, 2007; Bouncken & Kraus, 2013) investigate and measures the outcomes and impacts of coopetitive relationships at the firm and industry level (Dorn et al., 2016, pp. 489f.).

Network level

Studies investigating the antecedents of coopetition at the network level highlight a firm’s position in a network, resource complementarity, balance of cooperation and competition in coopetitive relationships and the compatibility of network structures as predominant antecedents (e.g. Gnyawali et al., 2006; Peng & Bourne, 2009). The initiation phase on the other hand, highlights the importance of partner selection, different forms of coopetition, as well as the separation of cooperative and competitive domains in the initiation phase of coopetition at the network level (e.g. Gnyawali & Madhavan, 2001; Peng & Bourne, 2009). The managing and shaping phase addresses the issue of managing and shaping coopetition at the network level (e.g. Gnyawali et al., 2006; Gnyawali & Madhavan, 2001; Tidström, 2014). Finally, studies (e.g. Ritala et al., 2014) that focus on the evaluation phase discuss how coopetition impacts network outcomes (Dorn et al., 2016, pp. 492f.).

In the following Table 2, the three described coopetition levels by Dorn et al. (2016, p. 488) are summed up in order to give an overview. Furthermore, the four phased presented by the authors and related to the three levels are illustrated.
<table>
<thead>
<tr>
<th>Level</th>
<th>Phase</th>
<th>Antecedents</th>
<th>Initiation phase</th>
<th>Managing &amp; shaping phase</th>
<th>Evaluation phase</th>
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</thead>
<tbody>
<tr>
<td>Intra-firm level</td>
<td>Initiation</td>
<td>Teams, units or groups cooperate and compete simultaneously.</td>
<td>Knowledge sharing mechanism</td>
<td>Mutual objectives, joint workshops, conflict resolution management</td>
<td>Influence on firm performance and inter-personal relationships.</td>
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<td></td>
<td>Managing &amp; shaping phase</td>
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<td>Evaluation</td>
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</tr>
<tr>
<td>Inter-firm level</td>
<td>Initiation</td>
<td>Market conditions, dyadic aspects, individual aspects.</td>
<td>Coopetition agreement, structural coopetition design, routines and mechanism.</td>
<td>Balancing coopetition, dynamics in coopetitive relationships, management of tensions and conflicts.</td>
<td>Outcomes and impact of coopetition at firm and industry level.</td>
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<td></td>
<td>Managing &amp; shaping phase</td>
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Table 2 Phases and levels of coopetition (Dorn et al., 2016, p. 488)

Related to that, Bouncken, Gast, et al. (2015, p. 583) presented in their systematic review four distinct levels of coopetition research:

- Inter-firm/ organization level
- Individual level
- Intraorganizational level
- Network level.

According to Bouncken, Gast, et al. (2015, p. 583), the most popular level of coopetition research among coopetition scholars is the inter-firm/ organizational level (e.g. Bengtsson & Kock, 2000; Bouncken & Kraus, 2013) meaning the investigation and analysis of coopetition between competing firms. Coopetition research on the individual level (e.g. Enberg, 2012; Geraudel & Salvetat, 2014) explores coopetitive relationships, interactions and dynamics between people in firms. The intraorganizational level of coopetition analysis (e.g. Luo et al., 2006; Tsai, 2002) focuses on coopetition within firms, meaning coopetition between business
units, departments or project teams. Coopetition research at the network level (e.g. Luo et al., 2006; Peng & Bourne, 2009) explores coopetition in ecosystems, supply chains and platforms.

Similar to the multiple-level conceptualization of tensions inherent in coopetitive relationships by Fernandez et al. (2014, p. 223), this master’s thesis identifies and examines capabilities at the individual, organizational (intra-organizational) and inter-firm/network level. For simplification the fourth level mentioned by Bouncken et al. (2015) the inter-firm level of coopetition, meaning coopetition between firms, will be united with the network level.

**2.2 Theoretical approaches to coopetition research**

The concept of coopetition has been examined from different perspectives and on the basis of different theoretical viewpoints and approaches. Prevailing theoretical approaches, which are applied when examining the phenomenon of coopetition, are:

- Game theory (e.g. Brandenburger & Nalebuff, 1996; Clarke-Hill et al., 2003)
- Resource based view (e.g. Chen, 1996; Quintana-Garcia & Benavides-Velasco, 2004; Peng et al., 2012)
- Network theory (e.g. Gnyawali & Madhavan, 2001; Sanou et al., 2016; Gnyawali et al., 2016)
- Transaction cost economics (e.g. Lado et al., 1997; Quintana-Garcia & Benavides-Velasco, 2004).

Bengtsson, Kock, et al. (2016, p. 5) suggest, that as a consequence of the simultaneous cooperative and competitive interactions, which characterize the concept of coopetition, theoretical approaches to coopetition need to combine both underlying dimensions, and need to consider and explain the contradictory roots of the concept. Therefore, the authors argue that the resource based view, concerning the investigation of the strategic element of coopetitive relationships, and the network theory, concerning the investigation of the relational element of coopetitive relationships, are important theoretical roots of coopetition as they combine both dimensions inherent in the concept.

In compliance with the argumentation by Bengtsson, Kock, et al. (2016), and because a detailed discussion of all the prevailing theoretical approaches would go beyond the scope of
this master’s thesis, in the following only the resource based view and the network theory, in line with the concept of coopetition, shall be presented further.

2.2.1 Resource based view

The resource based view suggests that a company’s competitive advantage results from valuable, unique, rare, inimitable and non-substitutable resources and capabilities that enable firms to offer their customers more value than their competitors. Two basic assumptions underlie the resource based view: (1) companies are heterogenous concerning their resources, and (2) firms heterogeneous resources are not fully moveable. This view implies that sustained competitive advantage and success can be attributed to differences in the resource profile of firms (Barney, 1991, pp. 101f.). Corresponding, Helfat & Peteraf (2003, p. 997) point out that the resource based view explains differences in competitive advantages between rivals on the basis of differences in the resource and capability endowment of close firms. Therefore, competitive heterogeneity and the diversity of capabilities, resources and assets among a group of firms represents one of the key propositions of the resource based view.

The phenomenon of coopetition has been explained and further broadened by many scholars on the basis of the resource based view (e.g. Ritala et al., 2014; Chen, 1996; Peng et al., 2012). Ritala et al. (2014, p. 238) argue, that in general, relationships and cooperations between firms aim at combining complimentary resources in order to create more value, which each firm alone would not be able to accomplish. In coopetitive relationships firms create value by collaborating and by jointly utilizing complementary resources, while each firm simultaneously competes in order to appropriate a part of the jointly created value by using firm-specific resources. Ritala et al. (2014, p. 237) point out that especially in coopetitive relationships, the process of value creation and value appropriation between competitors can lead to tensions and challenges, as resources can be utilized by firms simultaneously for both competition and cooperation (Bengtsson & Kock, 2000, p. 412).

Confronted with increasingly complex and fast changing business environments, Teece et al. (1997, pp. 509f.) argue that simply owning valuable and unique resources does not ensure sustained competitive advantage. The authors point out that companies need to develop dynamic capabilities, meaning the ability to constantly reface competences in order to adapt to the rapidly moving and changing environment. The dynamic capabilities approach, first introduced by the authors, involves the exploitation of existing internal and external
resources, as well as the exploration of new capabilities. According to Teece et al. (1997, p. 515) a sustained competitive advantage for firms in fast changing environments requires the constant adaption, reconfiguration and integration of external and international resources, competences and skills in order to adapt to the conditions of the business environment.

As stated by Quintana-Garcia & Benavides-Velasco (2004, p. 929), the dynamic capabilities approach presents the base for the investigation of the development and accumulation of resources and competences through cooperation and competition. The author emphasizes that today the competitive advantage of firms is built on collaborative and coopetitive relationships with their customers, competitors and suppliers. These relationships are important because firms gain access to different sources of knowledge, which is especially critical for innovation processes and for generating and commercializing new ideas (Afuah, 2000, pp. 388f.).

2.2.1.1 Resource similarity

In contrast to the fundamental assumptions of the resource based view, the concept of market commonality and resource similarity, introduced by Chen (1996), contradicts these assumptions of resource complementarity, but shall be mentioned because of the roots in the resource based view. According to Chen (1996, p. 100), market commonality and resource similarity, two complementary but also contrasting theoretical constructs, influence and predict how firms interact with their rivals. The concept of market commonality, derived from research on multiple-point competition, and the concept of resource similarity, derived from literature on the resource based view, examined together show that firms possess inimitably market profiles and different and unique resource endowments, which enables the author to hypothesize how firms interact with their competitors.

Chen (1996, p. 106) defines market commonality as “the degree of presence that a competitor manifests in the markets it overlaps with the focal firm”. Whereby the author points out, that a competitor’s market commonality with other firms is contingent by the relevance and importance of the common markets and by the power and strength of the competitor in the common markets. Resource similarity on the other hand, is defined as “the extent to which a given competitor possesses strategic endowments comparable, in terms of both type and amount, to those of the focal firm” (Chen, 1996, p. 107).
Based on the findings of Chen (1996), Peng et al. (2012, p. 536) developed a conceptual framework for examining the link between market commonality, resource similarity, coopetition dynamics and coopetition performance, as illustrated in Figure 8.

**Figure 8 Conceptual framework of coopetition dynamics (Peng et al., 2012, p. 536)**

Existing studies by Gnyawali et al. (2006) and Luo (2007) also referred to the competitive dynamics theory developed by Chen (1996), wherefore Peng et al. (2012, p. 535) suggest that market commonality and resource similarity may not only influence competitive dynamics but also coopetitive dynamics, and in turn the performance of the coopetitive relationship, at least for a certain period of time. The authors imply that the concepts of competition and cooperation are deeply entrenched and are fostered by each other. Cooperations with other firms enhances the market power, which in turn leads to higher competition between the firms. On the other hand, strong competition promotes cooperations between the competitors. Peng et al. (2012, pp. 547f.) reason that the more the opposing firms depend on the same resources, the higher the opportunity for cooperations in order to share resources, as the opposing firms are facing similar resource restrictions. Lastly, the authors conclude that coopetitive relationships and finding the right balance between competition and cooperation, give rise to better performance in a given period of time.

### 2.2.2 Network theory

According to Borgatti & Halgin (2011, p. 1169), „a network consists of a set of actors or nodes along with a set of ties of a specified type (such as friendship) that link them. The ties interconnect through shared end points to form paths that indirectly link nodes that are not directly tied.“ One prominent concept within the network theory is the theory of weak ties, which was introduced Granovetter (1973, pp. 1366f.). The scholar emphasizes that weak ties foster the distribution of knowledge and information within a network, rather than strong ties. He argues that although strong ties emerge from the centre of a network, weak ties, and especially the function as bridging ties, enables these weak ties to spread novel ideas and
information, because the stronger the ties between individuals and groups are, the higher is the likelihood that their contacts outside the group and within the network are overlapping. Therefore, the author argues that bridging ties are more effective in brokering and transferring new ideas and information. Therefore, the strength of weak ties as the author calls it, results not from the number of links a tie has, but in the capability of weak ties to spread, distribute and reach a broader set of different knowledge sources Granovetter (1973, p. 1366).

Gnyawali et al. (2006, p. 509) are one of the authors that examine coopetitive networks and their characteristics on the basis of the network theory. The authors reason that coopetition influences the competitive actions and behaviours of firms. Proposing that resource asymmetries among firms in the coopetitive network result in differences in structural positions within the network, and differences in the variety and amount of competitive actions performed by these firms. According to the authors, firms that are centrally positioned in coopetitive networks engage in more competitive actions. Moreover, the authors argue that firms with higher structural autonomy engage in various competitive actions. Competitive activity is defined as a firms tendency to undertake a high number of competitive actions, and is demonstrated and investigated by means of total amount of competitive actions within a certain period of time. Competitive variety on the other hand, refers to the scope to which a firm engages in diverse actions, in comparison to few, concentrated actions in certain areas (Ferrier et al., 1999, p. 373).

In this context, Gnyawali & Madhavan (2001, pp. 435f.) argue, that network resources are important determinants of the competitive behaviour of firms. Moreover, the authors point out that the ability of firms to gain access and utilize these network resources depends on the position of the firm in the network, which further emphasizes the importance of the structural position of firms in networks. Referring to findings of Burt (1992), Gnyawali et al. (2006, p. 511) observe that firms with advantageous positions in networks, meaning firms that occupy central positions and have high structural autonomy, are likely to sooner find out about the strategic initiatives and moves of firms within the network, and based on this knowledge the firms are more flexible to develop strategic actions and are able to acquire essential resources and assets from the network.
Furthermore, Gnyawali et al. (2006, p. 513) point out that firms in central positions form the “hub” of the coopetitive network and therefore are able to learn much about the strategic actions and moves, capabilities and assets of the rivals within the network. Which in turn enables such central firms to use this information to their advantage and undertake appropriate competitive actions. However, the authors highlight that in coopetitive networks it is difficult to gain access to valuable information and resources, as the other firms in the network are mainly competitors that pay close attention to protecting sensitive, strategic important information. On the other hand, central firms also face the risk of own knowledge spill overs because of the many direct ties and contacts within the coopetitive network. Nevertheless, the authors argue that the benefits of a central position in a coopetitive network counterbalances the risks involved.

Corresponding to the theoretical foundations of the concept of coopetition, in the following benefits and challenges of the phenomenon will be presented.

2.3 Benefits of coopetition

In the opinion of Czakon et al. (2014, p. 129), coopetition targets at providing advantages and benefits for all firms and individuals involved. By combining complimentary resources and knowledge, firms are able to develop a competitive advantage through coopetition (e.g. Bengtsson & Kock, 2000; Walley, 2007). According to Bonel & Rocco (2007, p. 71), “coopetition emphasizes the mixed-motive nature of relationships in which two or more parties can create value by complementing each other’s activity”. Improvements and increases in efficiency and effectiveness, achievement of economies of scale and scope, as well as the advantage of lowering overall costs represent incentives for firms to engage in collaborative relationships (Chin et al., 2008, p. 449). Moreover, cooperating with competitors enables firms to share risks and costs (Luo, 2007, p. 131) and get access to complimentary knowledge and resources (Bengtsson & Kock, 2000, p. 412), which improves the innovation capacity of firms, as pointed out in several studies (e.g. Quintana-Garcia & Benavides-Velasco, 2004; Bonel & Rocco, 2007).

According to Afuah (2000, p. 390), coopetitive relationships enable firms to develop novel products and services, which each firm on their own would not be able to develop, which in turn improves the competitive advantage of the firms involved. Walley (2007, p. 16) points out that “the interests of both the companies and the customers that they supply are best
served by coopetitive balance of both competition and cooperation”, meaning that value is generated for the involved firms and the customers. Zineldin (2004, p. 785) further points out that simultaneous cooperation and competition between firms can generate new value for both firms, as transactions costs and uncertainty can be reduced, and access to information and knowledge from the coopetition partner about customer needs, strategic initiatives or plans can be gained, which in turn enables firms to develop essential competitive advantages.

2.4 Challenges of coopetition

In contrast to the benefits of coopetition, challenges of coopetition arise because of the underlying paradoxical nature of coopetitive relationships (e.g. Chen, 2008; Enberg, 2012; Raza-Ullah et al., 2014). As the concept of coopetition juxtaposes two contradictory logics, namely cooperation and competition, companies face tensions and challenges when managing these interrelated logics (Bengtsson & Kock, 2014, p. 181). According to Smith & Lewis (2011, p. 386), “such elements seem logical when considered in isolation but irrational, inconsistent, and even absurd when juxtaposed”, implying that companies need to find a balance between both logics in order to take advantage of the coopetitive relationship. Quintana-Garcia & Benavides-Velasco (2004, p. 928) also point out that “co-opetition involves two different logics of interaction. On the one hand, there is a hostility due to conflicting interests and, on the other hand, it is necessary to develop trust and mutual commitment to achieve common aims.”

According to Tidström (2014, p. 262), four different types of tensions in coopetitive relationships can be distinguished. The first tension she highlights refer to roles in coopetitive relationships. Role tensions arise mainly between cooperative and competitive perspectives of firms or individuals. For instance, individuals may feel tensions related to their roles when it involves interactions, on the one hand within the firm, and on the other hand with competitors the organization simultaneously cooperates. Further, organizations that engage in cooperation can perceive tensions between the overall goal of the organization and the objectives of the coopetitive relationship. Moreover, the author points out that knowledge tensions can arise, as coopetition is characterized by knowledge sharing between coopetition partners in order to create mutual benefits and synergy effects, tensions can arise between sharing relevant and protecting sensitive knowledge.
Tidström (2014, p. 263) refers to a study undertaken by Tsai (2002), which concludes that the cooperation dimension of coopetitive relationships focuses on knowledge sharing in order to reach common objectives, whereas the competitive dimension concentrates on collecting knowledge in order to gain competitive advantage and sensitive knowledge and information. Therefore, firms need to find the right balance between sharing knowledge for mutual gains and keeping certain information secret from the coopetition partner in order to minimize the risk of one-sided information gains. In this context, Estrada et al. (2016, p. 57) also state that since companies work very close together in order to combine complimentary resources and knowledge, incentives for the firms are created to absorb confidential and valuable knowledge and information from the coopetition partner.

Power and dependence, the third type of tension in coopetition, arises when one coopetition partner uses for instance, emotional, financial, or technical power in order to coerce the other coopetition partner to take actions, which are not in the best interest of the latter. Tidström (2014, p. 263) emphasizes that this often goes along with differences between the size of the cooperation partners. Smaller firms are often more dependent on larger firms, which can exploit their power advantages. Firms that derive essential amounts of resources from their coopetition partner may feel the unbalance of power and dependence acutely, and may decrease their dependence in order to obtain more control again (Luo, 2005, p. 75).

Lastly, opportunistic behaviour of coopetition partners can also lead to tensions in coopetitive relationships. As Tidström (2014, p. 263) illustrates, the sharing of knowledge and complimentary resources can also lead to opportunism, meaning that one partner exploits the other partner in order to pursue self-interests by being deceitful. As already mentioned above, as sharing knowledge, resources and activities are key characteristics of the cooperative dimension of coopetitive relationships, some partners can exploit this situation and gain access to valuable information and knowledge and gain insight into business processes of the competitor, and use this information in order to copy core competences. Scholars in the field of coopetition research (e.g. Quintana-Garcia & Benavides-Velasco, 2004; Ritala & Hurmelinna-Laukkanen, 2013) emphasize that, especially in situations where competitors cooperate in order to develop new products or innovations, opportunistic behaviour from either one or both partners can arise.
Moreover, coopetition raises the challenge of managing the tension between value creation and value appropriation between firms (e.g. Brandenburger & Nalebuff, 1996; Bengtsson & Kock, 2014; Fernandez et al., 2014). Estrada et al. (2016, p. 57) point out, that pursuing a coopetition strategy entails the opportunity to mutually create value, but also the risk of one-sided value appropriation.

To sum up, this chapter provided a complete set of information regarding the different definitions and views on coopetition, as well as the introduction of selected theoretical models that build the basis for investigating the concept. Moreover, the discussion of the benefits and challenges, as well as the tensions and the paradox of coopetition allows now to further investigate the topic of capabilities that enable firms to successfully balance cooperation and competition with other firms.
3. Coopetition capabilities

The previous chapter provided the theoretical basis of the concept of coopetition, which allows the further study of the main research topic of this master’s thesis, namely coopetition capabilities. In a first step, the term “capability” shall be explained in order to provide a basis for the main research objective of coopetition capabilities. By examining factors at the individual, organizational and inter-firm/network level through scientific articles, capabilities at multiple levels shall be identified that firms need to develop and preserve in order to achieve success in their coopetition strategy. Table 3 gives an overview of the primary literature sources and the respective key findings concerning the coopetition capabilities and the definition of capabilities.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Author, title and journal</th>
<th>Key findings</th>
</tr>
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<tbody>
<tr>
<td>Coopetition capabilities</td>
<td>Bengtsson, M., Raza-Ullah, T., Vanyushyn, V. (2016). The coopetition paradox and tension: The moderating role of coopetition capability. Industrial Marketing Management (B)</td>
<td>Coopetition capability decreases internal tensions and plays a moderating role between experienced external tensions and the coopetition paradox.</td>
</tr>
</tbody>
</table>
(1) Routines that facilitate the execution of certain tasks.  
(2) Routines that coordinate and organize the actions of organizational members to perform the specific task. |
According to Bengtsson, Raza-Ullah, et al. (2016, p. 21), high failure rates of cooperations between competitors show that the topic of how to manage tensions arising from these paradoxical, coopetitive relationships is still neglected, and research among scholars scarce. The authors point out that predominant literature and research on the management of tensions in coopetitive relationships focus on 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).

Wilhelm & Sydow (2018, p. 24) illustrate that the temporal, spatial or functional detachment of both dimensions harbours the risk of neglecting the synergies that can develop out of paradoxes and tensions. Therefore, Wilhelm & Sydow (2018, pp. 24f.) emphasize that the integration of cooperation and competition requires organizations to accept uncertainty and tensions, and highlight the need for organizations to look for synergies between these dimensions, in order to successfully manage such coopetitive relationships.

Similar, Bengtsson, Raza-Ullah, et al., (2016, p. 21) state that paradoxes and tensions, to a certain extent, are not inherently bad for companies, but can encourage companies to improve and facilitate coopetition performance and effectiveness. Therefore, organizations and managers need to develop specific capabilities that enable firms to manage these contradictory logics and the resulting tensions. Moreover, the authors point out that general organizational capabilities, that enable firms to manage relationships with other firms are necessary, but must be complemented by specific, so called coopetition capabilities. According to the authors, these coopetition capabilities must be distinguished from general organizational capabilities, as they need to address the specific tensions and challenges that managers and organizations experience out of coopetitive relationships. In order to demonstrate the importance and moderating role of coopetition capabilities to manage paradoxes and tensions resulting from coopetitive relationships, Bengtsson, Raza-Ullah, et al.
(2016, p. 19) developed and tested a theoretical model (Figure 9), which confirmed the instrumental role of coopetition capabilities.

![Theoretical model of coopetition capability](image)

*Figure 9 Theoretical model of coopetition capability (Bengtsson, Raza-Ullah, et al., 2016, p. 23)*

By confirming that the extent of coopetitive tensions (external tensions) perceived by managers is reliant on the intensity of coopetitive interactions (competitive and cooperative intensity), Bengtsson, Raza-Ullah, et al. (2016, p. 28) imply, that strong paradoxes lead to higher perceived tensions, and weak paradoxes to weak perceived tensions. Whereby the authors emphasize that tensions also stem from inside the company (internal tensions), not only from the external environment. Related to this, the authors conclude that the higher the experience of managers with external tensions is, the better the perception of internal tensions. Furthermore, the authors highlight that coopetition capabilities play an instrumental role for firms in order to keep the level of external tensions at a moderate level and to decrease internal tensions. Moreover, the authors point out that coopetition capabilities need to be developed and maintained by firms as it is today a must-have for companies in order to balance competition and cooperation in coopetitive relationships (Bengtsson, Raza-Ullah, et al., 2016, p. 28). However, Bengtsson, Raza-Ullah, et al. (2016, p. 22) point out, that despite of growing literature on coopetition capabilities, there is still a lack of common, empirically
validated definition, wherefore many scholars develop insights on coopetition capabilities based on alliance, networking and ambidexterity literature.
In the following subchapter, capabilities and the associated characteristics shall be defined and explained as a basis for the examination of coopetition capabilities.

3.1 Definition capabilities

According to Schreyögg & Kliesch-Eberl (2007, p. 914), the term “capability” gained increasingly attention from scholars in the field of strategic management mainly in the context of dynamic and changing environments. However, as they point out, there is still a lack of consensus among scholars about the labelling. Some scholars use the term “capability” as common, colloquial term, others refer to capabilities as (core) competences, skills of the collective, routines or even best practices. Nevertheless, Schreyögg & Kliesch-Eberl (2007, pp. 914f.) state that there is agreement among managers and scholars that capabilities refer and imply complex processes within an organization, and do not illustrate a single resource of a firm, like technologies or tangible and intangible assets, but rather a complex and unique process of resource allocation. Amit & Schoemaker (1993, p. 35) also highlight the need to differentiate resources and capabilities and define the terms as following:

“Capabilities, in contrast, refer to a firm’s capacity to deploy Resources, usually in combination, using organizational processes, to effect a desired end. They are information-based, tangible or intangible processes that are firm-specific and are developed over time through complex interactions among the firm’s Resources. They can abstractly be thought of as ‘intermediate goods’ generated by the firm to provide enhanced productivity of its Resources, as well as strategic flexibility and protection for its final product or service.”

According to Makadok (2001, pp. 388f.), this definition presented by Amit & Schoemaker, (1993) includes two important aspects of capabilities, which enables to draw a distinction to the term resource. Firstly, capabilities are unique and firm-specific, meaning that capabilities are integrated and embedded in organizational processes and the organization itself. Therefore, the transfer of these capabilities is difficult and complex and does not work without transferring also some part of the ownership of the firm. Moreover, the author argues that when a firm is dissolved, resources still exist and can be passed over, but capabilities would no longer exist as they are linked and integrated in the organization itself. Secondly,
the improvement of the productivity and effectiveness of the other resources of the organization is a main purpose of organizational capabilities.

Helfat & Peteraf (2003, p. 999) define an organizational capability as “the ability of an organization to perform a coordinated set of tasks, utilizing organizational resources, for the purpose of achieving a particular end result.” Further, the authors argue that the concept of capabilities on the theoretical basis of routines, assumes that capabilities need to attain a certain level of routine activity or repetitive practice. Moreover, the authors propose that capabilities consist of two types of routines. On the one hand, routines that are needed in order to conduct the tasks, and on the other hand those routines that coordinate and organize these tasks. Based on the proposition that capabilities include the need to coordinate tasks from organizational members and teams, the authors present the capability lifecycle, which illustrates the development and preservation of organizational capabilities through three stages, as explained in more detail in Chapter 4.1 of this master’s thesis.

Schreyögg & Kliesch-Eberl (2007, pp. 915f.) point out, that capabilities can be developed at different levels and in different fields and are characterized by three features:

(1) **Problem-solving and complexity**
Concerning the first characteristic problem-solving, Schreyögg & Kliesch-Eberl (2007, p. 915) refer to the finding by Levinthal (2000), that imply that firms need to resolve upcoming problems effectively and efficient. Therefore, capabilities are put, according to the authors, into the context of collective problem solving within firms. However, the authors point out, that capabilities usually are not ascribed to problem-solving, unless extraordinary capabilities have contributed to the solving of exceptional problems. Furthermore, complexity relates to uncertainty in decision making processes and different dimensions and features of problematic situations (Duncan, 1972, p. 313). Therefore, the complexity of capabilities implies firm-specific, internal abilities and requirements in order to manage and conquer problems (Schreyögg & Kliesch-Eberl, 2007, p. 915).

(2) **Practicing and success**
According to Schreyögg & Kliesch-Eberl (2007, p. 915), capabilities are closely linked and cannot be isolated from actions and practices. Therefore, embedding capabilities in actions and practices implies that capabilities contain explicit, but also tacit elements. Moreover,
Capabilities are closely linked with the performance of a firm. Especially in times of success, capabilities are ascribed to an organization’s good performance. But managing one problem effective and efficiently does not mean a new capability was developed, rather routines and habitual actions and patterns are the base of capabilities (Winter, 2000, p. 983).

(3) Reliability and time

According to Helfat & Peteraf (2003, p. 999), firms can say that they developed and own capabilities when they achieved a certain level of functionality that allows the firms to repeatedly and effectively perform a certain activity, implying the development of routines. The authors further point out that “at a minimum, in order for something to qualify as a capability, it must work in a reliable manner” (Helfat & Peteraf, 2003, p. 999). Implying that problem-solving skills are not capabilities, unless these skills show over a period of time and across different situations efficiency and effectiveness in solving problems. According to Schreyögg & Kliesch-Eberl (2007, p. 915), one successful event can facilitate the development of a capability, but it is not called a capability until a reliable routine or practice has formed over the time. Concerning the feature time, the authors state that the evolvement and development of capabilities takes time and the specific intensity, frequency and duration of organizational interactions significantly influence the characteristics and design of organizational capabilities.

Schreyögg & Kliesch-Eberl (2007, p. 916) conclude that capabilities develop out of internal learning processes and specific forms of selecting and linking resources. Even tough capabilities can be applied to different problems and situations, every capability is firm specific and is bound to certain problem situations, meaning that capabilities cannot be applied for every problem. Confronted with rapidly changing and complex business environments, nowadays firms increasingly value the development of firm-specific, unique problem-solving capabilities. Therefore firms invest in the development of new, and the maintenance of already existing organizational capabilities in order to adjust to fast changing demands of the business environment.

As the discussion of the basic concept of capabilities provided the foundation of the examination of capabilities needed for the management of coopetitive relationships, in the following coopetition capabilities, identified from different scientific papers and at different levels, will be examined and presented.
3.2 Individual level

Coopetition capabilities at the individual level refer to capabilities that employees, managers and individuals need to develop in order to manage tensions inherent in coopetitive relationships. As Fernandez et al. (2014, p. 224) point out, organizational members may find it difficult, and therefore experience tensions, when a former competitor becomes a cooperation partner and vice versa. Organizational members that were used to cooperative interactions with the partnering firm may have to change and adjust their mindset, approaches and techniques in order to deal with the new paradox of cooperative relationships with competitors. Moreover, the authors state that organizational members that were formerly only competitors tend to defend the own parenting firm. Implying that the competitive behaviour is embedded within the mindset of the individuals, which results in the felt tensions as organizational members need to put aside their incorporated competitive behaviour toward each other. The authors emphasize that these tensions experienced and felt by the organizational members can negatively affect coopetition performance, and therefore can result in ineffective coopetition.

In order to manage coopetition paradoxes, organizational members need to develop coopetition capabilities, which are depicted in the following Table 4, which gives an overview of the primary and most relevant scientific sources, the identified and examined coopetition capabilities and the key findings.

<table>
<thead>
<tr>
<th>Coopetition capability</th>
<th>Authors, title and journal</th>
<th>Key findings</th>
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<tr>
<td>Co-opetition mindset</td>
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<td>Co-opetition experience</td>
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<tr>
<td>Resources &amp; capabilities</td>
<td></td>
<td></td>
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<tr>
<td>Leadership style</td>
<td>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 (B)</td>
<td>Both, participative and considerate leadership styles of managers, promote conflict management skills, mutual trust and communication, which enables effective coopetition.</td>
</tr>
<tr>
<td>Participative</td>
<td></td>
<td></td>
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<tr>
<td>Considerate</td>
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</table>
### Paradox management capability

- **Analytical capability**
- **Executional capability**


Paradox management capabilities, which include analytical capabilities and executional capabilities, are necessary for firms in order to manage tensions and the coopetition paradox.

### Analytical capability

- **Paradoxical thinking**
- **Cognitive mental frames**


A coopetition mindset of senior managers and the ability of managers to think paradoxically are crucial for making decisions when, how and why to engage in coopetitive relationships.

### Emotional capability

- **Emotional ambivalence**
- **Sensemaking**
- **Sensegiving**


Lundgren-Henriksson, E.-L., Kock, S. (2016). Coopetition in a headwind- The interplay of sensemaking, sensegiving, and middle managerial emotional response in coopetitive strategic change development. Industrial Marketing Management (B)

The management and acceptance of emotional ambivalence and strategies like deep and surface acting enable managers to keep tension inherent in coopetition at moderate levels.

Sensemaking processes and the cognitive frames of managers and organizational members influence the management of tensions and the implementation of coopetition strategies.

| Table 4 Primary literature concerning coopetition capabilities at the individual level |

### 3.2.1 Co-opetition capability

In their case-based exploratory study *“Coopetition between giants: Collaboration with competitors for technological innovation”*, Gnyawali & Park (2011) examine the occurrence, development and evolvement, and impact of coopetition on the involved firms and the associated industries, based on an exemplar case study about Samsung Electronics and Sony Corporation. As discussing all the findings of the study would go beyond the scope of this master’s thesis, Figure 10 gives an overview of the main arguments by Gnyawali & Park.
(2011), but in the following only the assumptions and findings related to coopetition capabilities will be discussed in further detail.

Gnyawali & Park (2011, p. 657) highlight that both Samsung and Sony generated and captured benefits resulting from the coopetitive relationship, despite the risk of unintended knowledge spillovers and the risk of future out-performance or out-learning on the basis of the access to sensitive knowledge from the competitor. The authors point out that this ability of the firms to manage tensions and challenges and reap benefits from the coopetitive relationship results from the specific coopetition capability of Samsung and Sony. Further the authors state that coopetitive relationships enable firms to combine complementary resources, but also to gain access to resources from the partnering firm, which are drivers of coopetition. Similar to Bengtsson, Raza-Ullah, et al. (2016, p. 21), who argue that in order to successfully manage coopetition, organizations need to use their own specific capabilities that are complemented by specific coopetition capabilities that focus in the management of tensions and paradoxes in coopetition, Gnyawali & Park (2011, p. 658) state that especially internal resources and capabilities of both firms were crucial for generating mutual benefits and capturing a higher share of the benefits. In the process of comparing the benefits of the coopetitive relationship between Samsung and Sony, the authors observe that Samsung profited more from the relationship than Sony. The authors attribute this difference in private

![Diagram: Conceptual framework of coopetition (Gnyawali & Park, 2011, p. 656)]
gains, due to the internal capabilities and strengths concerning market power and leadership of Samsung.

The authors point out that already in the past Samsung cooperated with other firms and tried to learn from them, in order to evolve from manufacturing key parts to a leading producer of electronics. Cooperations with customers, which were competitors for the final products, enabled Samsung to gather cooperation experience. Furthermore, the authors suggest that the internal structure and design of Samsung significantly contributed to the success of the coopetitive relationship, as Samsung’s different businesses are in competition with one another. Moreover, Gnyawali & Park (2011, p. 657) demonstrate that the coopetitive relationship between Samsung and Sony was characterized by open-minded executives and a win-win mindset of both firms, which contributed significantly to the coopetition success.

Especially the findings concerning coopetition capabilities are relevant for this master’s thesis, as the authors emphasize the importance of such capabilities for managing tensions and conflicts arising of the contradictory relationship. On the basis of the coopetitive relationship between Samsung and Sony, Gnyawali & Park (2011, p. 658) highlight that a coopetition mindset and coopetition experience of executives are important for the successful management of coopetitive relationships and in order to generate mutual benefits. Moreover, the authors conclude that superiority and complementarity of resources, as well as the sharing of these resources and strengths between the coopetition partners are identified as instrumental for coopetition success. This balance of resources further retains interdependence between the partners, which in turn facilitates successful coopetition between rivals.

### 3.2.2 Leadership style

In their paper “Organizational antecedents of cross-functional coopetition: The impact of leadership and organizational structures on cross-functional coopetition”, Strese et al. (2016) investigate how different leadership styles and organizational structures influence the adoption of cross-functional coopetition. However, in this section of the thesis only the parts relevant for the individual level are explained, as organizational structures will be explained in more detail in chapter 3.3.3, which discusses capabilities at the organizational level.
Referring to Lado et al. (1997, p. 125), who reason, based on the upper echelon theory by Hambrick & Mason (1984), that intra and interfirm cooperation and competition is facilitated and encouraged by a culture, which is characterized by the beliefs, norms and values of the top managers, Strese et al. (2016, p. 45) assume that the beliefs, values and actions of top managers and leaders have an impact on intrafirm competition and cooperation. Therefore, the authors propose 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 concerns, ideas and feelings of the team members (e.g. Sarin & O’Connor, 2009, p. 190; Politis, 2001, p. 357). The second leadership style examined, participation, refers to the extent to which a leader encourages team members to participate in the decision-making process (Sarin & Mcdermott, 2003, p. 712).

Analysing data from an online survey from 234 department leaders from 234 German companies, Strese et al. (2016, p. 50) discover that both leadership styles positively impact cross-functional cooperation, implying that leadership styles present managerial capabilities, that facilitate the effective balance of competitive and cooperative activities. Considerate leaders create a stimulating and inspiring environment, which on the one hand foster cooperation capabilities of division in order to realize, recombine and transfer knowledge between divisions. On the other hand, leaders displaying considerate behaviours also foster competition between divisions, as the authors demonstrate a strong, positive influence of considerate behaviours of leaders on coopetition between departments. An even stronger, positive effect on cross-functional coopetition observe Strese et al. (2016, p. 51) with participative activities and behaviours of division leaders. As this leadership styles encourages open discussions and debates, the authors conclude that both cooperation and competition between divisions are promoted.

Finally, the authors conclude that in order to balance cooperative and competitive activities and in order to encourage cross-functional coopetition, leaders might adopt considerate and participate behaviours.

3.2.3 Paradox management capability

Gnyawali et al. (2016) examine in the empirical study “The competition–cooperation paradox in inter-firm relationships: A conceptual framework” how the paradox management
capability, consisting of the analytical and executional capability, enables firms to understand and successfully manage the paradox and conflicting forces inherent in coopetitive relationships. The authors point out that paradoxes are unavoidable linked with coopetition as, on the one hand paradoxes arise because of simultaneous cooperative and competitive activities, two contradictory activities, and on the other hand because of different beliefs or understandings of the coopetition partners. These contradicting forces lead to tensions among managers and employees, which may result in decreasing effectiveness, which in turn can affect the coopetitive relationship (Gnyawali et al., 2016, p. 7).

In Figure 11 the authors develop a conceptual model which proposes that paradoxical situations in coopetition arise because of dualities and contradictions, which are perceived by managers and employees as felt tensions. According to Gnyawali et al. (2016, p. 9), felt tension contains strain, meaning unease concerning the paradoxical, conflicting situation, and conflict, meaning appearing dissension or disagreement between coopetition partners. Moreover, the authors argue that with the help of the paradox management capability, firms are able to hold the felt tension through the analytical capability at a moderate level and through the executive capability generate positive outcomes and a positive impact on the firms performance.

![Figure 11 Conceptual model of paradox management in coopetition (Gnyawali et al., 2016, p. 9)](image-url)
Gnyawali et al. (2016, p. 13) define analytical capability, a dimension of the overall paradox management capability, as the ability of firms and especially managers to develop a precise and comprehensive understanding of the paradoxical situation, containing an understanding about the influence of different dualities and contradictions on the coopetitive relationship. Referring to findings by Smith & Tushman (2005, p. 526f.), the authors emphasize, that paradoxical frames and templates enable managers to anticipate and evaluate conflicts and contradictions, and comprehend the complexity of coopetitive interactions, implying that managers are capable of accepting paradoxes and contradictions, rather than shying away from them. Gnyawali et al. (2016, p. 13f.) propose that firms, and especially managers that possess strong analytical capability, are able to better assess the challenges and develop counteractions in order to master the contradicting forces.

Executional capability, the second dimension of the overall paradox management capability, relates to the capability of firms to effectively and productively manage tension inherent in coopetitive relationships (Gnyawali et al., 2016, p. 14). Drawing on Eggers & Kaplan (2013), the authors propound that the basis for executional capability is the ability of managers to generate and create routines, to establish procedures and processes that turn routines into capabilities, and the implementation and application of these routines and capabilities. Furthermore, the authors assume that firms and especially managers that have high levels of executive capabilities, enable firms to manage coopetitive relationships through the help of routines that support the assessment of coopetition partners, develop mutual commitment and improve the general collaborative capability of firms in order to manage current and potential tensions (Gnyawali et al., 2016, p. 14). Implying that executional capability promotes the reduction of negative tensions and conflicts and the enhancement of positive stress both within the firm and within the coopetitive relationship, which in turn positively affects coopetition performance.

In summary, Gnyawali et al. (2016, p. 16) demonstrated that the creation of the paradox management capability enables managers and organizational members to understand the coopetition paradox (analytical capability), and face and manage these tensions and conflicts (executive capability), supports firms to improve coopetition performance and results, by keeping tensions and conflicts at moderate levels.
3.2.4 Analytical capability

In the book chapter “Coopetition capability: What is it?” the authors Raza-Ullah et al. (2018, p. 202) introduce a model of coopetition capability, consisting of the analytical, emotional (chapter 3.2.5) and balancing capability (chapter 3.3.1). Overall the authors suggest that the coopetition capability is one aspect of the overall alliance capability. The authors assume that the link between paradoxes and tensions arising from coopetition is moderated by the coopetition capability in a manner, that firms that possess a high degree of coopetition capability will experience less external tensions regardless of the intensity of the coopetition paradox. The authors point out that although such coopetition capability refers to several aspects from alliance capabilities, like communication and knowledge management, it is different as it addresses the capability of firms to balance and handle paradoxical forces and emotional ambivalence of managers involved in coopetitive relationships (Raza-Ullah et al., 2018, p. 198).

The first dimension, namely the analytical capability, highlights the importance of the managers mindset and the ability of managers to think paradoxical, in order to recognise and embrace the possible potential of contradicting logics and forces (Smith & Tushman, 2005, p. 527), stemming from the paradoxical nature of coopetition. Furthermore, this fosters “exploring the tension in a creative way that captures both extremes” (Eisenhardt, 2000, p. 703), implying that neither competition nor cooperation should be considered separately (Raza-Ullah et al., 2018, p. 200). According to Raza-Ullah et al. (2018, p. 200), managers that possess the ability for paradoxical thinking are able to create a comprehensive, explicit and coherent understanding of the paradoxical forces and demands.

Furthermore, in the opinion of Smith & Tushman (2005, p. 526), balancing and managing contradictory logics and inherent tensions is often linked with paradoxical mental frames. Which includes mental frames and templates that enable and support managers in perceiving, understanding and embracing the presence of contradictor logics and forces at the same time. As stated by Raza-Ullah et al. (2018, p. 200), these paradoxical mental frames provide lenses for managers to examine and evaluate the business environment, evaluate and assess possible opportunities and threats in the future and recognize the need to engage in coopetition. The authors suggest that the capability to recognize and assess the need to engage in cooperative relations with competitors is important, as sometimes coopetition is not appropriate and firms
would benefit more if they engaged in pure cooperative interactions with partnering companies.

Moreover, Raza-Ullah et al. (2018, p. 200) claim that managers that possess the analytical capability are able to perceive appropriate areas within the firms, where the firms can engage in collaborative interactions with their competitors. Concluding, the authors suggest that the analytical dimension of the coopetition capability helps firms to develop an understanding about how, when and why to engage in coopetition in order to benefit from the paradoxical relationship.

3.2.5 Emotional capability

The second capability proposed by Raza-Ullah et al. (2018, p. 201) 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, p. 62) defines “emotional capability as the ability to accept, understand, and regulate ambivalent emotions and their effects.” Acceptance relates to understanding and embracing positive and negative feelings and emotions in order to develop an understanding about different situations, which in turn is essential in order to evaluate and interpret the important characteristics of the situation. Understanding means the accomplishment of firms, and especially managers, to recognize why positive as well as negative emotions and feelings such as trust and distrust appear at the same time, and which results would follow if either one or even both emotions were prevented (Mayer et al., 2004, p. 199). Implying that emotions enable managers to understand different managerial situations and environments, which enables them to interpret and react accordingly in order to achieve favourable results (Raza-Ullah et al., 2018, p. 201).

According to van Harreveld et al. (2009, p. 57), people perceive emotional ambivalence as disagreeable and uncomfortable, which prompts people to either avoid the situation and the emotion entirely, or focussing only on one preferred emotion in order to avoid the conflicting ambivalence. 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 enhances creativity and leads to increased performance (Raza-Ullah et al., 2018, p. 201). 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).

According to Grandey (2000, p. 96), surface acting refers to the ability of people to express emotions, which they do not actually feel in the particular situation. Rothman (2011, p. 67) points out that people that suffer extreme emotional ambivalence tend to feel powerless, paralysed and take more time in order to make decision, which in turn increases the likelihood that the partnering firm interprets the actions as submissiveness, which can lead the partner to dominate the other firm in order to pursue their own objectives. Therefore, surface acting is an important instrument for managers in coopetitive relationships in order to reach long-term performance objectives and maintain high profits (Raza-Ullah, 2017, p. 65). 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, p. 99).

As Raza-Ullah (2017, p. 65) suggests, emotional and analytical capability support each other as the main dimensions of emotional capability, acceptance and understanding are closely linked with paradoxical thinking and mindset of managers. Summing up, Raza-Ullah et al. (2018, p. 202) assume that the analytical and emotional capability of managers have an positive impact on the felt intensity of external tensions in coopetitive relationships, and therefore strengthen the positive impact of tensions, and reduce the negative effect of tensions in coopetition performance.

Similarly, the exploratory study “Coopetition in a headwind: The interplay of sensemaking, sensegiving, and middle managerial emotional response in coopetitive strategic change development” by Lundgren-Henriksson & Kock (2016) examines how middle managers manage emotional tensions by adopting a sensemaking perspective on coopetitive relationships. By drawing on findings by Floyd & Wooldridge (1992), the authors argue that because of the position of middle managers in the hierarchy of organizations, middle managers directly partake in the implementation of coopetition strategies and indirectly participate in the process of coopetition strategy formulation by affecting the sensemaking of the top management with their activities and actions. Implying that top managers sensemaking and sensegiving affects and is affected by the middle managers and lower levels
sensemaking and sensegiving, as illustrated in Figure 12 (Lundgren-Henriksson & Kock, 2016, p. 23).

Based on a case study analysis of a coopetitive relationship between three firms in the Finnish media industry, Lundgren-Henriksson & Kock (2016, p. 30) demonstrate that top level managers developed the coopetition strategy and by means of sensegiving initiated the implementation. Hence, managers at the middle level were receivers of the oftentimes equivocal sensegiving of top managers, and were responsible for the implementation of the coopetition strategy within the organization and across the lower levels. Because of different implementation challenges and problems and resulting stagnation of lower levels, middle managers faced ambivalent emotional tensions, with which the middle managers dealt differently. This resulted in differing approaches concerning the implementation of the coopetition strategy within the organization, meaning that middle managers that experienced mainly positive emotions and emotional tensions to a lesser extent implemented the coopetition strategy in practice as developed by the top managers. Whereas middle managers that experienced negative emotions and emotional tensions to a higher degree, had problems in implementing the intended coopetition strategy, because they engaged in ambiguous
sensegiving towards lower levels. During the process of strategy development and through the process of sensemaking, middle managers created their own understanding of the coopetition strategy, which contradicted the view of the top managers (Lundgren-Henriksson & Kock, 2016, pp. 30f.).

As Lundgren-Henriksson & Kock (2016, p. 32) point out, the results of the investigation reveal the importance of sensemaking processes in the development and implementation of coopetition strategies, indicating that sensemaking is an important cornerstone of coopetition strategy development and implementation, as it influences how managers deal with tensions and emotional ambivalence. Moreover, the findings of the case study emphasize the importance of framing coopetition in the organization and across the different levels. The results indicate that sensegiving processes promote the deliberate implementation of coopetition strategies and activities at lower levels within the organization, implying that the framing of coopetition and the communication about the coopetitive relationships influences how organizational members of lower levels perceive coopetition.

Finally, Lundgren-Henriksson & Kock (2016, p. 31) emphasize that both top and middle managers play an instrumental role in initiating and implementing coopetition strategies, whereby the authors attribute coopetition success to the middle managers ability to make sense of the coopetition strategy and deal with emotional and coopetitive tensions and contradictory forces.
3.3 Organizational level

Coopetition capabilities at the organizational level refer to capabilities that firms need to develop and maintain in order to successfully manage tensions inherent in coopetitive relationships. According to Fernandez et al. (2014, pp. 223f.), different collective identities and cultures can lead to felt and experienced tensions. The authors point out that in pure collaborative relationships a collective identity is developed over time and jointly. However, in coopetitive relationships two different identities and cultures clash and have to coexist until the coopetitive relationship is terminated, implying that in coopetition, cultures and identities do not conflate, but different norms, values and cultures are mixed, which can result in cognitive discrepancies felt by the organizational members.

As another source of organizational tensions the authors mention the risk of sharing strategic important and valuable information and knowledge, as coopetition partners can plan to imitate specific technologies in order to outlearn the competitor. On the one hand, in order to achieve common objectives of the coopetitive relationships, organizations need to share knowledge and pool resources (Gnyawali & Park, 2009, p. 318), but on the other hand organizations also need to defend and protect core capabilities, competences and technologies, as the coopetition partners are still competitors. Therefore, knowledge sharing and organizational learning are tensions that arise at the organizational levels, that can influence the performance and effectiveness of coopetition (e.g. Fernandez & Chiambaretto, 2016; Walley, 2007).

Hence, organizations need to develop coopetition capabilities as presented in Table 5, which gives an overview of the primary scientific literature sources, the identified and examined coopetition capabilities and the key findings of the scientific articles.

<table>
<thead>
<tr>
<th>Coopetition capability</th>
<th>Authors, title and journal</th>
<th>Key findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture</td>
<td>Klimas, P. (2016). Organizational culture and coopetition: An exploratory study of the features, models and role in the Polish Aviation Industry. Industrial Marketing Management (B).</td>
<td>Firms that engage in coopetitive relations feature culture characteristics close to hierarchy, meaning more internally than externally focused and more stable than flexible. The authors imply differences in cultures between coopetitors and non-coopetitors.</td>
</tr>
<tr>
<td>Organizational structure</td>
<td>Strese, S., Meuer, M.W., Flattén, 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 (B).</td>
<td>Centralization of organizational structures negatively affect coopetition, as it hinders effective knowledge sharing and promotes hostility. Formalization of organizational structures has a positive effect on coopetition, as clearly defined roles and procedures facilitate communication and reduce conflict potential.</td>
</tr>
<tr>
<td>Organizational structure • Centralization • Formalization</td>
<td>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 (B).</td>
<td>Internal knowledge sharing mechanism and formal knowledge protection mechanism combined enable firms to overcome the tension between value creation and value appropriation.</td>
</tr>
<tr>
<td>Alliance capabilities</td>
<td>Sluyts, K., Matthyssens, P., Martens, R., Streukens, S. (2011). Building capabilities to manage strategic alliances. Industrial Marketing Management (B)</td>
<td>Knowledge sharing mechanism and codification directives have an impact on alliance performance. Commitment of top management team is a driver for alliance success.</td>
</tr>
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<td>-----------------------</td>
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</table>
| Conflict Management   | - Conflict resolution process  
- Conflict monitoring and improvement | Chin, K.-S., Chan, B.L., Lam, P.-K. (2008). Identifying and prioritizing critical success factors for coopetition strategy. Industrial Management & Data Systems (k.R.) | Companies need to develop a conflict management system in order to develop capacities to resolve conflicts before they escalate and in order to monitor and improve conflict management on a continual basis. |

Table 5 Primary literature concerning coopetition capabilities at the organizational level

### 3.3.1 Balancing capability

The balancing capability, a subcomponent of the overall coopetition capability introduced by Raza-Ullah et al. (2018), 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, p. 697), 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, p. 224) 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, p. 63) argues that the balancing capability of organizations 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 coopetitive relationships.
Raza-Ullah (2017, pp. 53f.) 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. As an example for coopetition routines Raza-Ullah et al. (2018, p. 200) mention knowledge sharing. As knowledge sharing is essential in coopetitive relationships in order to create mutual benefits, the risk of unintended knowledge spill over and opportunism increases. Coopetition routines related to knowledge sharing would enable firms to screen important information, in order to avoid the unintended sharing of sensitive and valuable information.

Furthermore, coopetitive relationships are not rigid or stable, rather dynamic in nature, and therefore developed coopetition routines need to be flexible and changeable (Raza-Ullah et al., 2018, p. 201), combining both performative and ostensive aspects of routines (Feldman & Pentland, 2003, p. 94). The ostensive aspect of organizational routines refers to the abstract idea or form of the routine, characterizing how people perceive the meaning of the routine. On the other hand, the performative aspect of organizational routines includes certain actions undertaken by certain individuals in certain situations, times and places, meaning the execution of routines (Feldman & Pentland, 2003, pp. 101f.).

Raza-Ullah et al. (2018, p. 201) propose that the ostensive aspect of routines support managers to transfer contradictory tasks to separate departments at lower levels of the firm. Meaning that one department is responsible for coopetitive actions with the rival and the other department for competitive actions. This structural separation reduces felt tensions and emotional ambivalence, especially among lower levels as these employees normally do not possess high levels of analytical and emotional capability, which would facilitate paradoxical thinking (Bengtsson et al., 2016, p. 28). Further, Raza-Ullah et al. (2018, p. 201) suggest that the performative aspect of organizational routines enables managers to effectively manage the differing strengths of competitive and cooperative activities, implying that managers gain flexibility in order to adjust routines according to the different circumstances and situations. Furthermore, the authors assume that the performative aspect of routines enables managers to alter the extent and contents of the cooperative relationship with the rival in order to effectively manage the paradox of coopetition without compromising mutual goals. As Gibson & Birkinshaw (2004, p. 209) point out, this flexibility and adaptability provides the
capacity of firms to adjust to changing demands and needs of the environment, recombine strategic activities and generate alternative tactics and strategic moves.

Finally, Raza-Ullah et al. (2018, p. 201) come to the conclusion that the ostensive and performative aspect of organizational routines of coopetition capabilities build the basis for managers to balance and handle their own and interfirm emotional ambivalence and tensions emerging from coopetitive relationships. Consequently, firms develop the capability to manage and balance paradoxical, conflicting forces at the same time. Overall, the model of coopetition capability, consisting of the analytical (chapter 3.2.4), emotional (chapter 3.2.5) and balancing capability, enables organizations to manage tensions and paradoxes that characterize coopetitive relationships, and enables organizations to keep tensions at a low level regardless of the intensity of the coopetition paradox (Raza-Ullah et al., 2018, p. 202).

Table 6 gives an overview of the model of coopetition capability by Raza-Ullah et al. (2018) and the content and outcome of the coopetition capability dimensions discussed in the previous chapters.

<table>
<thead>
<tr>
<th>Coopetition capability dimension</th>
<th>Content</th>
<th>Outcome</th>
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| Analytical capability           | Paradoxical thinking  
                                 | Coopetition mindset of managers | Managers develop a better understanding about when, how and why to engage in coopetitive relationships. |
| Emotional capability            | Accepting and embracing emotional ambivalence  
                                 | Regulating emotions and expression with the help of deep and surface acting | Deep and surface acting enables managers to regulate emotions and manage emotional ambivalence, which in turn leads to an increase in performance, creativity and superior gains. |
| Balancing capability            | Development of performative and ostensive routines and processes | Routines and processes, with both ostensive and performative aspects, foster the recombination of activities and the development of alternative tactics, which in turn enables firms to adapt to changing demands and forces in coopetitive relationships. |

Table 6 Model of coopetition capability (Raza-Ullah, et al., 2018, p. 200)
3.3.2 Organizational culture

In the exploratory study “Organizational culture and coopetition: An exploratory study of the features, models and role in the Polish Aviation Industry”, Klimas (2016) examines the role of organizational cultures in coopetitive relationships, and further defines cultural features and characteristics of coopetitors acting in innovation networks. Furthermore, the author explores organizational culture models of firms engaged in coopetition on the basis of the Competing Values Framework by Cameron & Quinn (2006).

By analysing 51 structured interviews, 14 semi-structured interviews and 2 non-participative observations, Klimas 2016 (p. 95) demonstrates that although the findings of the semi-structured interviews imply that organizational cultures are important, they are not instrumental or triggering reasons for the adoption of coopetition strategies. Klimas (2016, p. 96) points out that the interviewees do not see cultural differences as discouraging for coopetition in networks. If anything, organizational cultures have an indirect effect on the coopetition partner selection process and the evaluation of the coopetition partner, which in turn may affect the length of the coopetitive relationship.

Furthermore, author reasons that coopetitors in the aviation industry in Poland are dominated by higher stability rather than flexibility concerning structural features of the organizational culture, and by higher internal rather than external focus concerning orientation toward the business environment. The author argues that organizational stability and control are instrumental cultural features, as firms need to follow and meet certain quality and management standards, need to supervise and control everyday business activities and need to fulfil certain obligatory safety and technology standards. Implying that mandatory standards and regulations facilitate organizational stability and control. Furthermore, the author notes that firms in the aviation industry are characterized by high technological specialization, which further facilitates stability as there are no incentives and no need to differentiate their business fields. According to Klimas (2016, p. 99), this high degree of stability can also arise from industry-specific circumstances which foster stability and control but not dynamism of the firm’s business activities.

Moreover, Klimas (2016, p. 97) states that coopetitors in the aviation industry in Poland are rather internally focused than externally. This internal strategic orientation implies, according to the author, that coopetitors want to maintain their independent strategic development rather
than collaborative strategic development with the copetition partner, which may be fostered by the high degree of rivalry within the aviation industry and a focus on protecting values rather than co-creating value. Based on the findings of the cultural features of coopetitors Klimas (2016, p. 97) comes to the conclusion that coopetitors and their cultural characteristics can be assigned to the hierarchy culture model, as coopetitors in the aviation industry in Poland are represented by high degrees of formalization and standardization and high internal orientation. Contrary to the initial assumption by the author and past research, clan and especially adhocracy cultures are not typical for coopetitors. Implying that firms with hierarchical culture models are able to manage tensions inherent in coopetition in the basis of organizational and cultural advantages like high formalization and standardization (Klimas, 2016, p. 100).

3.3.3 Organizational structure

The empirical research study “Organizational antecedents of cross-functional coopetition: The impact of leadership and organizational structure on cross-functional coopetition” by Strese et al. (2016), investigates how far organizational structures (formalization and centralization) and leadership styles (consideration and participation) encourage coopetition between departments. As the findings concerning leadership styles are discussed in chapter 3.2.2 this subchapter of the master’s thesis concentrates on organizational structures. Referring to data from an online survey from 234 department leaders from 234 German companies, Strese et al. (2016, p. 51) point out that organizational structures might be managerial aptitudes that effect coopetitive relations between divisions. The authors demonstrate that organizational structures should not prevent cross-functional coopetition, but rather firms need to develop an environment of organizational factors that encourage coopetition. Further, the exploratory study disclosed a strong negative impact of centralization and a positive impact of formalization on cross-functional coopetition.

These results also confirm the assumptions by Luo (2005, p. 84), that organizational structures play an integral part in the adoption and management of interfirm coopetition. As shown by Tsai (2002, p. 187), high centralization includes the focus of decision making power and authority at the top, which in turn emphasizes vertical exchange and decreases horizontal communication. Due to this fact, centralization is seen as barrier to knowledge exchange between departments and reduces the intensity of coopetitive relationships and cooperation capabilities. The results by Strese et al. (2016, p. 51) suggest that as centralization
negatively influences both cooperation and competition at the same time, and coopetition is defined as competing and cooperating simultaneously, centralization can be used in order to balance the opposing dimensions of coopetition. Implying that when either competition or coopetition is too intense, firms can either centralize or decentralize in order to increase or decrease the respective dimensions, and thus balance the paradox inherent in coopetition.

As the findings concerning the effect of formalization on cross-functional coopetition, show a moderate, but positive correlation, Strese et al. (2016, p. 51) propose that governing rules, processes and procedures may be suitable organizational factors, which facilitates cooperation and a certain degree of competition between divisions. On the one hand, formalization raises communication and interactions between departments, and on the other hand can suppress potential conflicts because of an environment characterized by harmony (Song & Thieme, 2006, p. 311). Therefore, Strese et al. (2016, p. 51) conclude that the results provide evidence for the necessity to develop an “organizational infrastructure that bolsters efficiency and synergy arising from coopetition”, similar to the assumption by Luo (2005, p. 84).

### 3.3.4 Knowledge management

In their research study “Coopetition and product innovation performance: The role of internal knowledge sharing mechanism and formal knowledge protection mechanism”, Estrada et al. (2016) analyse how internal knowledge sharing mechanism and formal knowledge protection mechanism impact product innovation performance of firms engaged in coopetitive relationships.

Figure 13 illustrates the basic theoretical assumptions of the authors in a conceptual framework. Estrada et al. (2016, p. 62) indicate that coopetition can be a prosperous new product development strategy that positively impacts the innovation performance of firms, when both internal knowledge sharing mechanism and formal knowledge protection mechanism are established and implemented. These firms are able to reap benefits from the recombination of internal knowledge and knowledge from the coopetition partner, while simultaneously reducing the risk of unintentional knowledge spillovers to the coopetition partner.
Based on a sample of 627 innovative manufacturing firms which participated in the fifth wave of the Flemish Community Innovation Survey in 2007, Estrada et al. (2016, pp. 60f.) conducted a Tobit analysis and come to the conclusion that coopetitive relationships only have a significant effect on the product innovation performance, when both formal knowledge protection mechanism and internal knowledge sharing mechanism are established in the firm. Concerning the importance of this study for coopetition literature, the authors highlight that internal knowledge sharing mechanism and formal knowledge protection mechanism enable firms to balance the tension of value creation and value appropriation in coopetition. Furthermore, Estrada et al. (2016, p. 63) emphasize that the internal design and internal organisation of firms engaged in coopetitive relationships significantly impact the management and balance of tensions inherent in coopetition. In order to reap benefits, especially knowledge recombination benefits, of cooperative relationships with competitors, the authors point out that firms need to invest in the distribution of knowledge within the firm, and the integration of knowledge from the coopetition partner, while simultaneously investing in mechanism that protect the core knowledge from unintentionally spilling over to the competitor.
Related to this, the qualitative study “Managing tensions related to information in coopetition” by Fernandez & Chiambaretto (2016) explores how firms implement different information control mechanism in order to manage tensions that are related to creating and appropriating information in coopetitive relationships. Firms engaged in coopetition need to share information and knowledge with the competitor when it is essential, in order to ensure the success of the coopetitive relationship, and protect information which is not critical (Fernandez & Chiambaretto, 2016, p. 68). Building on Miller & Shamsie (1996), the authors (2016, p. 68) further note that firms need to keep in mind the appropriability of information, meaning that some information is less useful and appropriable for the competitor.

In order to identify and differentiate between critical and non-critical information, Fernandez & Chiambaretto (2016, p. 68) mention that formal (rules, routines, procedures) and informal (trust, reputation) control mechanism can be used, guaranteeing that non-critical information is secured from the competitor and critical information for the coopetition success is disclosed. Furthermore, critical information can be additionally distinguished between appropriable and non-appropriable, whereby formal and informal control mechanism can help firms to distinguish the degrees.

In Figure 14, Fernandez & Chiambaretto (2016, p. 69) visualize their two research questions, which examine what control mechanisms firms engaged in coopetition utilized, in order to overcome information tensions. Further, the authors investigate whether these control mechanisms deployed by the firms, enable firms to protect or share information, based on the two above explained dimensions of information.
On the basis of primary data and secondary data the authors undertook a case study analysis of a coopetition project between two competing firms that produce satellites for the telecommunication, with the focus on the European space industry (Fernandez & Chiambaretto, 2016, p. 70). The authors point out that for both companies information tensions presented key challenges in the coopetition project. Especially tensions related to financial information, for instance the disclosing of the firms cost structures were critical in ensuring the project’s success, but involved also high risks as the firms gained knowledge about the competitive position of the respective competitor. Furthermore, tensions related to technical information were noted by the authors. As both partners lacked the technical know-
how to undertake the project alone, the complimentary technical information and knowledge, but mainly the sharing of these information, were critical for the projects success. On the other hand, disclosing technical information also provided a chance for the firms to learn about the strengths and weakness of the other firm, and to use this information for strategic initiatives in the future (Fernandez & Chiambaretto, 2016, p. 70).

Fernandez & Chiambaretto (2016, p. 72) concluded that a combination of the separation and integration principle enables firms to manage the dilemma of sharing and protecting information in coopetition projects. The development and implementation of formal control mechanism, in this case the specific information system separated from the parent firms, enables firms to manage critical information. Moreover, the authors emphasize the importance of separating competitive and cooperative operations, by using formal control mechanism that enable the separation of critical from non-critical information. Therefore, the authors propose that firms implement formal control mechanism in order to transfer and share information which is critical, and at the same time protect non-critical, confidential information. Furthermore, Fernandez & Chiambaretto (2016, p. 73) conclude that informal control mechanism enable firms to decide about the degree of appropriability of information and to convert appropriable and critical to non-appropriable, critical information. For instance, the project managers of the examined case study provided only solutions to technological problems without clear descriptions of the steps that led to the solution, in order to protect confidential knowledge, without risking the failure of the coopetition project. The authors point out that this corresponds with the integration principle of coopetition, as the project managers developed the skills and a coopetition mindset, which enabled the managers to share and protect information at the same time, and act according to the demands of the coopetition environment.

Similar to the argumentation of Estrada et al. (2016) and Fernandez & Chiambaretto (2016), the exploratory study “Identifying and prioritizing critical success factors for coopetition strategy” by Chin et al. (2008) highlights knowledge sharing, and in general knowledge management as critical success factor for coopetitive relationships. Chin et al. (2008) examine and identify factors that are critical for the successful management of coopetitive relationships. Referring to findings from a literature review, the authors develop a multilevel framework of coopetition management, which they further enhance to a hierarchical model with prioritized factors, which is based and validated on the findings of an exploratory survey,
undertaken by the authors in 2006, in order to examine mainly the coopetition strategies and activities of firms in the manufacturing industries in Hong Kong.

As the authors identify several import factors for coopetition success, as illustrated in Figure 15, factors relevant for this master’s thesis will be discussed in the respective chapters.

**Figure 15 Hierarchical model of coopetition strategy management (Chin et al., 2006, p. 442)**

Returning to the success factor knowledge management, Chin et al. (2008, p. 444) point out that knowledge identification and effective knowledge sharing mechanism within the firm and with the coopetitor enables firms to reap value from the coopetitive relationship and fosters synergy effects. Concerning knowledge identification, the authors mention that firms need to identify relevant and useful knowledge in order to prevent time-wasting, which can lead to
the failure of the coopetitive relationship. The authors draw on Chua (2003, p. 118), who emphasizes that knowledge sharing is important in coopetition in order to achieve mutual goals and to sustain the coopetitive relationship. Further, the author argues that knowledge sharing between partners enables firms to develop and sustain a competitive advantage and creates mutual value for the involved partners. Therefore, Chin et al. (2008, p. 444) conclude that effective knowledge sharing between the coopetition partners can create synergy effects, from which the partnering firms can take advantage of.

3.3.5 Alliance capabilities

As Bengtsson, Raza-Ullah, et al. (2016, p. 24) point out, coopetition is a paradox and contradictory relationship, which implies that general interfirm, alliance and networking capabilities might not be efficient and suitable for the successful management. On the other hand, the authors reason that coopetitive relationships can also be seen as a subgroup of general interfirm relationships and alliances, which provides the counterargument that general and alliance capabilities are part of coopetition capabilities that enable the successful management of tensions and paradoxes inherent in coopetition. Therefore, in the following alliance capabilities will be, on the basis of the systematic literature review “Alliance capabilities: A systematic review and future directions” by Kohtamäki et al. (2018), discussed.

Kohtamäki et al. (2018, p. 191) define, based on findings and themes of past studies, alliance capability as “a firm’s ability to manage, integrate and learn in strategic relationships to achieve mutual benefits.” This definition by the authors includes three main dimensions of alliance capabilities, that the authors derived from a systematic literature review of 94 scientific articles from high ranking journals. Figure 16 illustrates the comprehensive construct of alliance capabilities, which consists of first-order categories, that include factors and theories of past studies, and second-order themes that organize the categories in broader themes. Further, the authors developed three broad dimensions of alliance capabilities on the basis of the second order themes, which will be explained in the following.
Alliance management capability

Kohtamäki et al. (2018, p. 191) argue that alliance management is an essential dimension of alliance capability. The authors (2018, pp. 192f.) describe “alliance management capability as a firm’s ability to manage strategic alliances by utilizing appropriate processes of alliance target setting, task implementation and evaluation”. The authors further point out that predominant studies emphasize the importance of alliance specialists and an alliance function in the management of alliances (e.g. Draulans et al., 2003; Kale et al., 2002). Concerning the
activities and processes of alliance functions, prior research highlights the
importance of setting alliance targets (e.g. Niesten & Jolink, 2015), defining task
implementation processes (e.g. Ritter & Gemünden, 2004), developing conflict resolution and
trust building activities (e.g. Draulans et al., 2003; Kale et al., 2002) and evaluating the
outcomes and performance of alliances (e.g. Kale et al., 2002). All in all, Kohtamäki et al.
(2018, p. 193) note that previous studies have recognized different processes and activities of
alliance functions, but there is still a lack of literature concerning the application and
utilization of identified tools and processes.

Alliance integration capability
The second dimension of the generic alliance capability refers to the necessity for alliance
partners to adapt and integrate objectives, structures and processes in order to foster alliance
success (Kohtamäki et al., 2018, p. 193). Niesten & Jolink (2015, p. 76) argue that this
integration process includes the creation and implementation of special alliance structures,
like alliance IT systems or alliance working procedures, and social structures that foster trust,
respect, understanding and open exchange. Building on these insights, Kohtamäki et al.
(2018, p. 194) define alliance integration capability as a “firm’s ability to integrate strategic
alliances by developing both structural and social ties between alliance partners”.

Alliance learning capability
The alliance learning capability relates to the ability of firms to integrate and internalize
knowledge gained from strategic alliances. Therefore, Kohtamäki et al. (2018, p. 194)
characterize the third dimension as “a firm’s ability to create, assimilate and internalize
knowledge from alliance relationships.” Previous studies have highlighted alliance
experience as a representative of alliance learning capability (e.g. Draulans et al., 2003; Kale
et al., 2002), implying that firms that engage repeatedly in strategic alliances develop
experience, which fosters the ability of firms to benefit and learn from strategic alliances.
Kale & Singh (2007, p. 984) point out that an alliance learning process includes the sharing,
exchange, codification, integration and internationalization of knowledge within the firm.

Finally, Kohtamäki et al. (2018, p. 198) argue that the combination of the three dimensions of
alliance capability foster organizational learning, competitive advantage, the innovation
performance and the status of firms.
3.3.6 Organizational learning

In their study “Performance implications of cross-functional coopetition in new product development: The moderating role of organizational learning.” Bendig et al. (2018) investigate the impact of organizational learning on cross-functional coopetition and firm performance. Moreover, the authors examine the role of power sharing in coopetitive relationships between functions and the effect on the firm’s performance.

According to Fiol & Lyles (1985, p. 803), organizational learning can be explained as “the process of improving actions through better knowledge and understanding”. Organizational learning is the process of translating the knowledge gained and collected from individuals into parts of the organizations knowledge system (García-Morales et al., 2012, p. 1041), in order to prevent the repetition of past mistakes (Dibella et al., 1996, p. 369). Therefore, García-Morales et al. (2012, p. 1041) emphasize, that organizational learning is an essential factor for firms that intend to enhance the firms performance and competitive advantage. Bendig et al. (2018, p. 142) argue that organizational learning serves as mediator between cross-functional coopetition and a firms performance as, according to Liao et al. (2017, p. 1446), new knowledge needs to be transformed and recombined by means of learning mechanism in order to create mutual benefits.

Further, Lado et al. (1997, p. 123) point out that a combination of both cooperative and competitive interactions stimulates knowledge sharing between the departments, and the mutual learning about best practices concerning knowledge exploitation, which in turn positively affects cross-functional coopetition outcomes. Moreover, Bendig et al. (2018, p. 143) suggest that power sharing has a positive impact on the relationship between a firms performance and coopetition between departments, which is mediated by organizational learning, as firms characterized by high levels of power sharing are more open to sharing and exchanging new and valuable knowledge with other functions. In Figure 17 the assumptions by the authors are visualized in a comprehensive research model.
By means of an online survey and data from German companies operating in various industries, Bendig et al. (2018, p. 143) tested and validated their hypotheses empirically. The authors find out that coopetition between departments positively affects organizational learning in the setting of new product development. Further, the authors validate the moderating role of power sharing in the relationship between coopetition and organizational learning. However, essential for this master’s thesis is the confirmation of the hypothesis that organizational learning acts as mediator that connects cross-functional coopetition and the performance of firms, as it highlights the importance of organizational learning for coopetition success and the firms performance (Bendig et al., 2018, p. 149).

Finally, Bendig et al. (2018, p. 150) conclude that internal coopetition between departments provides an alternative for firms that avoid inter-firm coopetition for new product development, because of potential risks of unintended spill overs of sensitive knowledge to competitors (Ritala & Hurmelinna-Laukkanen, 2013, p. 166).

### 3.3.7 Conflict management

Another critical success factor for coopetition success, identified and prioritized by Chin et al. (2008, p. 445) in their exploratory study “Identifying and prioritizing critical success factors for coopetition strategy”, refers to the management and resolution of arising conflicts in coopetition. In this context, Bengtsson & Kock (2000, p. 412) point out that coopetition is complex and characterized by two contradictory logics that lead to tensions and conflicts within the firm and between the coopetition partners. Further, the authors state that on the one hand the relationships contains hostility because of self-interests and divergent interests of the firms, and on the other hand includes friendliness because the firms need develop mutual
objectives and share knowledge and information for coopetition success. Therefore, Chin et al. (2008, p. 445) emphasize the importance of conflict management systems for coopetition success. As Zineldin (2004, p. 784) states, effective conflict and dispute resolution mechanism and processes are essential in order to develop and maintain an atmosphere of trust and commitment. The resolution of these conflicts between the coopetition partners should include several phases and communication methods between different employees of the coopetition partners.

In a previous work Lam & Chin (2005, p. 764) highlight that firms need to develop and implement a conflict handling systems (CHS), which “refers to a system that enables effective and efficient handling of conflict.” Although the authors examine success factors for cooperative new product development, the findings and suggestions by the authors can also be applied to coopetitive relationships. According to the authors, this conflict handling system involves a conflict management culture, conflict handling skills, conflict handling processes and conflict monitoring and improvement.

A mutual conflict management culture promotes the idea that specific conflicts, to a limited degree and effectively managed, can enhance the performance of the cooperative relationship. By keeping in mind that specific conflicts are advantageous, the coopetition partners facilitate the open expression of opinions, which in turn enhances decision making (Lam & Chin, 2005, p. 764). Concerning conflict handling skills, Conbere (2001, pp. 232f.) notes that employees need to develop an understanding about the conflict handling system and the specific conflict resolution mechanism. Further, the author emphasizes that trainings enable employees on the one hand to develop conflict handling skills, and on the other hand enables individuals to avoid conflicts or recognize conflicts before they escalate.

Moreover, Lam & Chin (2005, p. 764) point out, that a mutual developed conflict handling process is essential in order to resolve complex conflicts. Especially, the development of specific guidelines ensure the immediate handling of the conflicting situation and prevent discussions about how to manage and resolve conflicts. This conflict handling process can involve several phases, with the presence of different members of the partnering firms. Finally, the authors highlight that the conflict management system of firms must be monitored continuously in order to ensure constant improvement of the conflict handling system. Firms need to supervise and monitor the intensity of the conflicts, the effectiveness of the conflict
resolution process and the ability of employees to handle conflicts in order to take corrective actions that enhance the performance of the cooperative relationship.
3.4 Inter-firm/ network level

Coopetition capabilities at the inter-firm/network level deal with capabilities firms need to develop in order to manage inter-organizational tensions and coopetitive relationships in networks. Sources for inter-organizational tensions are, according to Gnyawali et al. (2016, p. 11), due to the coopetition paradox of value creation and value appropriation. Cooperative relationships provide the opportunity for organizations to create mutual value like new innovative products or technologies (e.g. Oliver, 2004; Quintana-Garcia & Benavides-Velasco, 2004), but as Fernandez et al. (2014, p. 223) point out, the higher the degree of competition within the coopetitive relationship, the higher the felt tension as each organization wants to appropriate the highest share of the mutually created value. Therefore, the authors assume that although the partners collaborate, they remain strong competitors on the market, and hence the allocation of the mutual created value is essential, as an unequal distribution can lead to the development of a competitive advantage of one firm on the competition market.

Moreover, Fernandez et al. (2014, p. 223) point out, that tensions at the inter-organizational level can arise due to differences in the objectives and strategies of the organizations concerning the coopetitive relationship. Divergent objectives and priorities of the coopetition partners, as well as missing commitment, can result in tensions and can strain the relationship, which in turn can affect the effectiveness and the outcome of the coopetitive relationship.

Therefore, the following Table 7 provides a summary of the presented and primary scientific research literature, the key findings and the identified and examined coopetition capabilities at the inter-firm/network level, needed to manage paradoxes inherent in coopetitive relationships.

<table>
<thead>
<tr>
<th>Coopetition capability</th>
<th>Authors, title and journal</th>
<th>Key findings</th>
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</thead>
<tbody>
<tr>
<td>----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Czakon, W., Czernek, K. (2016). The role of trust building mechanism in entering into network coopetition: The case of tourism networks in Poland. Industrial Marketing Management (B).</td>
<td>The legitimization by third parties and the reputation of the firm play an important role for the formation and maintenance of coopetitive relationships.</td>
<td></td>
</tr>
<tr>
<td>Communication Management</td>
<td>Chin, K.-S., Chan, B.L., Lam, P.-K. (2008). Identifying and prioritizing critical success factors for coopetition strategy. Industrial Management &amp; Data Systems (k.R.)</td>
<td>Establishing corporate communication strategies, designing internal and external communication as well as developing communication directives fosters internal communication and communication with the coopetition partner.</td>
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</table>

Table 7 Primary literature concerning coopetition capabilities at the network level

### 3.4.1 Network centrality

The explorative study “How does centrality in coopetition networks matter? An empirical investigation in the mobile telephone industry” by Sanou et al. (2016, p. 143) investigates how the position of a firm in a coopetition network affects the performance and competitive aggressiveness of firms. The authors point out that companies which are part of coopetitive networks are confronted with unique and contradictory conditions: namely on the one hand cooperative ties between the firms in the coopetition network, which enables the access to complimentary resources and knowledge sharing between the partners, and on the other hand
these cooperative ties are limited and constricted as cooperations with competitors involves risks concerning value creation, value appropriation and knowledge protection (Sanou et al., 2016, p. 144).

By combining theoretical insights from previous studies on competitive dynamics, implying that resources are important drivers of competitive aggressiveness (e.g. Chen, 1996; Gnyawali & Madhavan, 2001), on networks, implying that firms that are centrally positioned possess resource advantages (e.g. Wasserman & Faust, 1994) and by consulting literature on coopetition (e.g. Bengtsson & Kock, 2000; Gnyawali et al., 2006), the authors deduce several assumptions, summed up in a research model, as shown in Figure 18.

![Figure 18 Research model of centrality in coopetition networks (Sanou et al., 2016, p. 150)](image)

The authors collected and analysed data from 193 firms from 70 countries operating in the mobile telephone industry from 2000 to 2006. The data, obtained from news reports, was analysed by means of a structured content analysis. Based on the data analysis, Sanou et al. (2016, pp. 153f.) come to the conclusion that the first hypothesis supports a positive relation between the centrality of firms in coopetitive networks and the competitive activities of the firm. Implying that the more central the position of a firm is in the network, the higher the amount of competitive activities the firm undertakes. Moreover, the authors reveal a positive relationship between the centrality of firms and the variety of the competitive actions of the firms. The findings of the analysis confirm the hypothesis, that firms which occupy a central position in a coopetitive network undertake a broad set of different competitive actions.

Furthermore, Sanou et al. (2016, pp. 155f.) demonstrate a positive link between the occupation of central position in networks and the market performance of firms, implying that the more central the firm is positioned in the coopetitive network the better and greater the
performance. Concerning hypothesis 4, the results of the analysis also confirm a positive relation between the competitive activities of firms and the market performance, meaning the higher the number of competitive activities of focal firms, the higher also the respective market performance. Lastly, Sanou et al. (2016, p. 156) illustrate on the basis of the analysed data, that there is also a positive relationship between the variety of competitive actions and the market performance of firms in coopetitive networks. Sanou et al., 2016 (p. 157) conclude that having strong cooperative ties and a highly centralized position in a coopetitive network clearly influences the market performance and competitive behaviour of firms engaged in coopetition.

3.4.2 Relationship management

In the exploratory study “Identifying and prioritizing critical success factors”, Chin et al., (2008, p. 441) examine and identify factors that are critical for the successful management of coopetitive relationships. Referring to findings from a literature review, the authors develop a multilevel framework of coopetition management, which they further enhance to a hierarchical model, which is based and validated on the findings of an exploratory survey, undertaken by the authors in 2006, in order to examine mainly the coopetition strategies and activities of firms in the manufacturing industries in Hong Kong.

Relationship development is one of the critical success factors identified and prioritized by Chin et al. (2008, pp. 443f.). The authors point out, that relationship development relates to the establishment of a trusting and open relationship with the coopetition partner. The authors further highlight, that the establishment of a good and strong relationship that is characterized by mutual trust and commitment is essential for coopetition success. According to the authors, especially the development of trust and knowledge and risk sharing are important factors for the establishment of strong relationships with the competitor. Corresponding, Anderson & Narus (1990, p. 45) emphasize that trust is an essential factor for developing and sustaining a cooperative relationship with other firms, as mutual trust facilitates and increases satisfaction of the cooperative partners and decreases conflicts and tensions.

Chin et al. (2008, p. 444) further state that the adoption of a common organizational culture as well as common goals and objectives facilitate the development of a good relationship based on trust. As every firm has a different organizational culture, the development and establishment of mutual cultural aspects like respect, integrity, honesty, toleration,
understanding and acceptance provide the basis for a successful and good relationship between the coopetition partners.

Similar to the propositions by Chin et al., (2008), Zineldin (2004, p. 780) argues in the scientific article “Co-opetition: the organisation of the future” that an inadequate management of coopetitive relationships inhibits the development of synergies and benefits. The author points out, that firms that are able to develop and preserve strong coopetitive relationships are able to strengthen their competitive advantage in the long term. Nevertheless, Zineldin (2004, p. 783) highlights that merely developing a coopetitive relationship with the rival does not ensure the preservation of the competitive advantage and the survival of the firm in the long run. The creation of a coopetitive relationship based on trust and mutual commitment is, according to the author, one essential factor for coopetition success.

On the other hand, Zineldin (2004, p. 783) highlights that the development and preservation of a long term relationship takes time and is linked with both benefits and losses. Therefore, the author demonstrates that coopetition partners need to create a mutual strategy and philosophy concerning how the relationship is managed, and realize and accept the interrelation of the partners within the relationship. Imlying that weak relationships between coopetitors are predisposed for conflicts and tensions, which may result in the failure of the coopetitive relationship. Therefore, the author refers to criteria identified by Zineldin (1998, p. 1148), which facilitate successful coopetitive relationships:

- **Willingness, motivation and strategic fit**: The author points out, that both partners need to be highly motivated and willing to enter a paradoxical relationship, as the partners possess valuable, complimentary resources and knowledge. Therefore, interdependence between the partners develops and mutual objectives are determined, which further motivates the coopetition partners to reach them.

- **Interdependence**: Firms need to understand and accept that they own complimentary resources and skills and therefore depend on each other in order to reach the mutual objectives and reap benefits of the coopetitive relationship.

- **Cultural fit**: According to the author, the coopetition partners need to foster a mutual culture that supports knowledge and information on the basis of mutual trust and commitment.
- **Organisational arrangements and institutionalisation:** The author further argues that in order to develop a strong relationship, firms need to attribute the relationship a formal status, determine responsibilities and tasks and define effective conflict resolution mechanism, in order to ensure that arising conflicts and tensions do not negatively influence the motivation and the only just developed atmosphere of trust.

- **Integration and integrity:** By establishing a comprehensive, reliable communication system between the firms and the different departments, the coopetition partners are able to share valuable data and knowledge without risking the spillover of sensitive data.

Zineldin (2004, p. 784) further states that a successful coopetitive relationship depends on the ability of the firms to preserve an atmosphere of trust and loyalty not only during the early stage of the relationship development, but during the whole coopetition process. Implying that the main challenge of coopetition is to maintain a trusting relationship during the whole coopetition lifecycle. Corresponding, Sherman & Sookedo (1992, p. 78) argue, that the main reason for unsuccessful relationship development and maintenance, and consequently coopetition failure, is the lack of trust between the partners. Zineldin (2004, p. 784) concludes that developing and preserving trust in the coopetition partner depends on the confidence of the firm that the partner is trustworthy and reliable and acts with integrity and respect. Firms engaged in coopetition must consider factors like ethical views and differences in organizational cultures in order to develop mutual benefits and trust, and in order to manage, sustain and improve the relationship over the coopetition lifecycle.

Another exploratory study, “The role of trust building mechanisms in entering into network coopetition. The case of tourism networks in Poland” by Czakon & Czernek (2016) explores by means of five trust-building mechanism on the case of 66 stakeholders in the Polish tourism network, how third-party legitimization and reputation of firms influence the entering into coopetition networks. Referring to Brandenburger & Nalebuff (1996), the authors argue that the existence of trust between competitors can facilitate the formation of coopetitive relationships, which can result in mutual benefits and enhanced organizational performance (Czakon & Czernek, 2016, p. 64). Similar to the arguments by Zineldin (2004), the authors relate to Wang (2008, p. 163), who highlights that the development and preservation of trust in relationships is essential in order to facilitate open communication and the sharing of
resources and knowledge. The author further points out that leaders and managers that facilitate an environment of trust and commitment are able to informally resolve arising conflicts and tensions, as the partners develop more tolerance and understanding about the behaviours of the partners, which in turn decreases the potential for conflicts.

However, the findings by Wang (2008) focus only on the importance of trust in the developmental stages of coopetition, wherefore Czakon & Czernek (2016, p. 65) examine the role of trust in the formation stage of coopetition. By adopting the five cognitive processes of Doney & Cannon (1997), which describe the processes of trust building between buyers and suppliers, Czakon & Czernek (2016, p. 69f.) find out that that the first trust-building mechanism, namely calculative, contains mainly challenges and difficulties. Firms were not able to develop calculative trust because of unclear benefits or concern about the equal sharing of the benefits. Concerning the second trust-building mechanism, capability assessment, the authors state that the findings indicate that the development of trust on the basis of the capabilities was inhibited because of lack of knowledge about the competitors and their capabilities.

Similar, concerning the third trust-building mechanism, the assessment of the partners intentions, Czakon & Czernek (2016, p. 70) argue that firms are concerned about the real motives of the other firms for entering the coopetition network. Implying that firms expect that competitors engage in coopetition because of hidden and insincere motives, which leads to the lack of trust building on the basis of the intentions of the partner. Whereas, the findings of the fourth trust building mechanism prediction point out, that the strong reputation of firms and the developed trust on the basis of good predictions, because of a favourable reputation, is important for firms entering coopetition networks. Furthermore, Czakon & Czernek (2016, p. 71) find out that third-party legitimization enhances the credibility, which in turn encourages trust-building and the joining of coopetition networks based on the fifth trust-building mechanism transference.

Figure 19 illustrates the conceptual model of the five-trust building mechanism and the corresponding outcomes for coopetition.
Finally, the authors highlight that some trust-building mechanism (calculative, assessment of capabilities and assessment of intentions) discourage coopetition and are not able to foster the development of trust between the coopetition partners, needed in order to join network coopetition. In fact, the assessment of the partners intentions fosters distrust among the partners because of expected insincere and unfaithful motives of the competitors. On the other hand, two mechanism (prediction and transference) foster the development of trust on the basis of third-party legitimization and reputation, which in turn encourages network coopetition.
3.4.3 Communication management

Another critical factor for coopetition success, identified by Chin et al. (2008) in the exploratory study “Identifying and prioritizing critical success factors”, refers to the effective communication management within and between the coopetition partners. Chin et al. (2008, p. 444) define communication management as the “systematic planning, implementing, monitoring, and revision of all channels of communication within an organization, and between coopetitors”. Moreover, the authors point out that communication management involves the creation and implementation of internal and external communication guidelines and strategies, as well as the management of information and knowledge flows between the coopetition partners. Corresponding, the authors argue that information system support plays an integral part in communication management between coopetitors.

Referring to Birnberg (1998, p. 428), who highlights that information systems significantly affect strategic alliances and partnerships, Chin et al. (2008, pp. 444f.) emphasize the importance of information systems in order to coordinate and control coopetitive relationships. Further, the authors argue that information systems can create and reap additional, mutual value, which is instrumental for a positive coopetition outcome, by coordinating and controlling customer communication, production and the rationalizing of supplies. Concerning the factor information systems, the authors further distinguish between data interchange and effective coordination.

According to Chin et al. (2008, p. 445), data interchanges enable firms to react to fast changing business environments and demands and decreases potential misunderstandings between the coopetition partners. Further, effective coordination is essential for successful coopetitive relationships, as it enables the enhancement of communication between the coopetition partners, but also within the firm. Moreover, effective coordination provides firms with the ability to recombine vital, internal information into shared knowledge for the achievement of mutual goals at lower ownership costs (Friedman & Barnes, 1992, p. 38).

In this context, Fernandez & Chiambaretto (2016, p. 71) highlight in their qualitative study “Managing tensions related to information in coopetition”, which was already presented and discussed in chapter 3.3.4, the significance of information systems in order to protect and share knowledge, and in order to communicate with the coopetition partner. Based on a case study analysis of two coopeting firms, the authors show that the examined coopetition
partners developed jointly an information system which functions as formal control mechanism in order to balance the tension of information sharing and protecting.

According to Fernandez & Chiambaretto (2016, p. 71), this information system stores information from both partners, who also have both access to it, in order to generate a complete set of information necessary for the project’s success. As the firms communicate only information, critical for the specific projects, the risk of information appropriation and loss of future competitiveness is reduced. Concerning tensions related to technical information, the firms additionally implemented an information system for technical information in order to protect sensitive data. Furthermore, this restricted information system was only accessible for selected members of the project (employees not involved in the coopetition project had no access) and the direct forwarding and communication of information between team members was forbidden. Furthermore, in order to communicate between the firms and in order to demonstrate a separation of the competing parent firms and the coopetition project, a special network was developed where employers with usernames got access to the internal databases.

Moreover, Fernandez & Chiambaretto (2016, pp. 71f.) point out that the two examined firms also developed informal control mechanism that protected the communication of sensitive information and provided support for the formal information system. As project managers from both companies were responsible for developing and enforcing informal control mechanism, these managers had the task of making the other team members clear which information, when and how to share with the team members of the competing firm. As there were many informal meetings between the team members, for example during lunch or coffee breaks, were the project managers had no control over the unintended communication of confidential information, the project managers formed an informal agreement which contained the promise of not using or appropriating confidential or strategic information.

In summary, this chapter provided the interested reader a complete set of information concerning coopetition capabilities at multiple levels, organizations need to develop and preserve in order to manage tensions and paradoxes inherent in coopetitive relationships.
4. Development and preservation of coopetition capabilities

As the previous chapter identified and presented coopetition capabilities at multiple levels, this chapter deals with the development and preservation of capabilities, and especially coopetition capabilities. In a first step, the process of developing and preserving general organizational capabilities will be explained by means of the capability lifecycle, in order to examine in a second step how specific coopetition capabilities identified in this master’s thesis can be developed and preserved in order to manage coopetitive relationships successfully.

Table 8 provides an overview of the selected capabilities and most relevant research literature that was referred to in order to illustrate the development and preservation of the respective capability within organizations.

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Authors, title and journal</th>
<th>Key findings</th>
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<tr>
<td>- Capability lifecycle</td>
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<td></td>
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<tr>
<td><strong>Emotional capability</strong></td>
<td>Mayer, J. D., Salovey, P. (1997). What is emotional intelligence? In: P. Salovey &amp; D. J. Sluyter (Eds.) <em>Emotional development and emotional intelligence. Educational implications.</em></td>
<td>The four-branch model includes the perception and expression of emotions, the encouragement of thought on the basis of emotions, the understanding of emotions and the regulation and management of emotions.</td>
</tr>
<tr>
<td>- Four-branch model of emotional intelligence</td>
<td></td>
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<tr>
<td>- Alliance learning process</td>
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<tr>
<td><strong>Relationship management</strong></td>
<td>Mitrega, M., Forkmann, S., Ramos, C., Henneberg, S. C. (2012). Networking capability in business relationships- Concept and</td>
<td>A successful relationship management process, consisting of the formation and building of relationships, the development of existing</td>
</tr>
</tbody>
</table>
Industrial Marketing Management (B).

relationships and the termination of unprofitable relationships, enables organizations to develop and preserve their skills in managing relationships with stakeholders.

**Table 8 Overview of selected capabilities and primary literature**

### 4.1 Capability lifecycle

The capability lifecycle, introduced by Helfat & Peteraf (2003, p. 1000), is a theoretical framework that explains the evolvement of general organizational capabilities by suggesting different potential paths and patterns that depict organizational capability development and preservation. According to the authors, the capability lifecycle is a concept that explains the formation, development and the progress of any organizational capability, implying that the concept is universally designed, and can be applied for different organizational capabilities, in different organizational settings and also for alliance or supply chain capabilities. Therefore, the authors point out that the framework does not provide an explanation for the evolvement of specific organizational capabilities within specific settings, but rather provides a general framework that depicts the main stages of capability development and progression. The authors developed the framework on the basis of a newly founded organization that does not possess any history that could affect the development and evolvement of organizational capabilities, but further emphasize that the concept also provides explanation for the evolution of capabilities within already established organizations or teams (Helfat & Peteraf, 2003, p. 1000).

The capability lifecycle, similar to the product life cycle, consists of three stages. According to the authors, the emergence of an organizational capability starts with the founding stage, which provides the basis for the following development and evolvement. The development, and thus second stage, entails the continual building of the capability, which eventual stops and leads to the maturity stage of capability evolvement (Helfat & Peteraf, 2003, p. 1000). Figure 20 illustrates the three stages of the capability lifecycle from the foundation until the maturity of organizational capabilities. The vertical axes depicts the level of capability per unit of activity, implying the general skills of the organization members to utilize the specific capability, whereby a unit of activity represents a specific range of activities, corresponding with the organizations characteristics. The horizontal axes on the other hand, demonstrates the
cumulative amount of activities to which the capability is oriented (Helfat & Peteraf, 2003, p. 1003).

![Figure 20 Stages of the capability lifecycle (Helfat & Peteraf, 2003, p. 1003)](image)

In the following, the three stages of the capability lifecycle will be explained in more detail.

**1) Founding stage**

The founding stage of the capability lifecycle begins with the accumulation of members of an organization in order to generate a new capability. According to Helfat & Peteraf (2003, p. 1000), the founding stage necessitates

- a group of individuals or a team linked through mutual activities and some sort of leadership;
- a common goal, through which the realisation leads to the generation of a new organizational capability.

However, the authors emphasize that although the capability is new to the organization, the capability must not be novel or unknown to other firms. Further, the authors point out that organizations and teams need resources in order to create and develop capabilities. Here, organization members can play essential roles because of their individual resource and skill endowment. Therefore, the authors suggest that the building of capabilities depends on the resource endowment of the organization and their members, which further provides a precondition of capability heterogeneity, resulting from different individual skills, team attributes, leadership styles and disposable resources (Helfat & Peteraf, 2003, pp. 1000f.).
(2) Development stage

The second stage of the capability lifecycle starts after the members of a team or an organization align themselves around the goal of building a new capability. Helfat & Peteraf (2003, p. 1001) state that the development of new organizational capabilities occurs because members of the organization look for feasible alternatives in order to develop a new capability, linked with the growing experience of the members as time goes by. Further, the authors note that the content of the alternatives is different, according to different resources and inputs available or the characteristics of the tasks required, in order to execute the activities. The decision about which alternative to follow is influenced by the characteristics of the team and the organization, implying that risk-averse organizations will choose alternatives that follow an established path, whereas innovative and proactive organizations will pursue alternatives that lead to the development of unique and novel capabilities.

As already mentioned by Helfat & Peteraf (2003, p. 1002), organizations can either develop new to the world capabilities or mimic capabilities that are already established in other organizations. In either way, according to the scholars, organizational learning is a precondition for the development and building of capabilities, as the organization has never engaged in the specific activity underlying the capability. Further, the authors argue that learning by doing, meaning the regular performing of the activities from the members of the organization, and intentional efforts of problem solving and process improvement, foster the development and building of organizational capabilities.

Nevertheless, after a certain time, the development of the organizational capability stops and the capability evolves to the third stage of the capability lifecycle. Helfat & Peteraf (2003, p. 1002) point out, that the reason for an end of capability development, is organization and team specific. For instance, because of limited available resources, inputs and technologies there is a specific limit to capability development, or because managers decided that the level of learned skills through the new capability corresponds with the initial objectives.

(3) Maturity stage

According to Helfat & Peteraf (2003, p. 1003), the third stage of the lifecycle framework comprises the maintenance and preservation of capabilities. The authors point out, that in order to preserve capabilities, organizations need to regularly utilize and apply the developed
capabilities to renew the memory of organizations and their members. Further, the regular utilization results in the embeddedness of the capabilities within the organization, and routines develop that may get more and more habitual. As time goes by, organizational members need fewer conscious thoughts when utilizing the capabilities, which in turn increases the tacitness of the capability’s nature. Therefore, the authors conclude that the successful maintenance of capabilities within organizations is reliant on the regular utilization of the capabilities within organizations in order to foster the development of routines, and in order to increase the level of embeddedness in the memory of the organization members.

However, Helfat & Peteraf (2003, p. 1004) emphasize that selection events can prevent the entering of capabilities into the maturity stage of the capability lifecycle. Therefore, these selection events can result in the branching of the lifecycle into different paths (six R’s), as illustrated in Figure 21. Further, during the lifecycle and evolvement, capabilities can experience different selection events and different branching’s. Moreover, authors differentiate between selection events that lead to the obsolescence of the capability (retirement, retrenchment) or to those that offer possibilities for further growth or renewal (redeployment, recombination, renewal).

![Figure 21 Branching of the capability lifecycle (Helfat & Peteraf, 2003, p. 1005)](image)

The authors state that some selection events lead to the retirement of the capability, involving the ceasing of the capability. Similar, the retrenchment of capabilities leads to the slow decrease of the level of capability per unit and the gradual decline in the capability utilization. According to the authors, the renewal of capabilities entails the improvement or modification of capabilities, whereas the replication of capabilities means the relocation of the capability to
another market. Related to this, the authors state that the *redeployment* of capabilities comprises the transfer of a capability to another market with slightly different products and services that require small modifications, in contrast to the replication of capabilities into geographic markets with the same services and products. Finally, in the case of relocating a capability to another market, the authors state that firms can also *recombine* the existing capability with other capabilities, which provides an opportunity for capability improvement and modification (Helfat & Peteraf, 2003, pp. 1005f.).

Lastly, Helfat & Peteraf (2003, p. 1009) argue that the three stages of capability evolution and the six stages of possible branching paths demonstrate that capabilities can expand beyond the initial boundaries concerning products, markets and organizations.

### 4.2 Coopetition capabilities

As the capability lifecycle by Helfat & Peteraf (2003) provided a theoretical framework in order to examine the formation, development and maturity of general organizational capabilities, in the following, selected coopetition capabilities, identified in Chapter 3, will be presented and discussed. As the examination of the development and preservation of all the identified coopetition capabilities would go beyond the scope of this master’s thesis, only selected coopetition capabilities from the different identified levels will be presented. Figure 22 gives an overview of the identified and selected coopetition capabilities.
4.2.1 Emotional capability

According to Raza-Ullah (2017, p. 51), tensions inherent in coopetitive relationships are visualized as the challenges and problems experienced by managers and employees as they face the contradictory demands of cooperation and competition at the same time. Corresponding, the author points out, that managers experience emotional and cognitive ambivalence because they are torn between two paradoxical forces, implying that these forces trigger ambivalent cognition (what individuals imagine and think) and emotional (what individuals experience and feel) processes. According to the author, cognition relates to the assessment, judgement and evaluation of situations and contexts, whereas emotional processes refer to the experience of both negative and positive emotions individuals deal with tensions inherent in coopetition. Therefore, Raza-Ullah (2017) and Raza-Ullah et al. (2018)
propose the necessity of emotional capability in order to deal with emotional and cognitive ambivalence in coopetitive relationships.

Both authors build their arguments on findings and literature on emotional intelligence (e.g. Mayer & Salovey, 1997; Salovey & Mayer, 1990), hence the development and preservation of emotional capability is going to be illustrated and discussed in the following by drawing on emotional intelligence literature. Salovey & Mayer (1990, p. 189) refer to emotional intelligence as the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions.” Further, the authors highlight that emotional intelligence is a subgroup of social intelligence, which is a dimension of personal intelligence introduced by Gardner (1983).

Moreover, as Mattingly & Kraiger (2018, p. 2) point out, the concept of emotional intelligence is explained and defined either on the foundation of the ability-based model or on the mixed-model. The four-branch model of emotional intelligence, introduced by Mayer & Salovey (1997, pp. 10f.), is one of the ability-based models, that assumes that emotional intelligence is the process of accumulating skills, abilities and behaviours that foster the enhancement of the individuals understanding and recognition about the own emotions and the emotions of others. Further, Mayer & Salovey (1997, p. 10) revised their earlier definition from 1990, which states now that emotional intelligence includes “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth.”

This definition also includes the four branches of the model, which will be demonstrated in more detail:

(1) Perception, appraisal, and expression of emotion

According to Mayer & Salovey (1997, pp. 10f.), this branch includes the ability of individuals to perceive, identify and express emotions on the basis of their feelings, physical and mental conditions and thoughts. Further, Mayer et al. (2016, p. 294) point out, that within this stage of development of emotional intelligence, individuals develop the ability to perceive the emotions of others and express the own emotions adjusted to the required contexts and
situations. This also includes the development of a better understanding about accurate and inaccurate emotional displays concerning specific cultures and situations.

(2) Emotion’s facilitation of thought
The second branch of the model refers to the ability of individuals to develop and generate emotions in order to facilitate a better understanding of the emotions and experiences of others (Mayer et al., 2016, p. 294). Further, Mayer & Salovey (1997, p. 11) point out that this branch refers to emotional events that stimulate and initiate cognitive processes. According to the authors, emotionality enhances the ability of individuals to contemplate different cognitive perspectives, which can in turn affect judgement and stimulate personal memory. Moreover, the authors highlight that the facilitation of thought by emotions can support individuals in prioritizing thoughts by turning the attention to problems on the basis of current feelings and emotions.

(3) Understanding and analysing emotions
As stated by Mayer & Salovey (1997, p. 13), the third dimension of emotional intelligence entails the ability of individuals to understand and comprehend the own mixed and diverse emotions and to use this knowledge accordingly. Further, the authors mention that the third stage of development of emotional intelligence includes the ability of individuals to understand the link between different emotions, and the ability to recognize and understand the triggers, the substance and the effects of complex emotions. Mayer et al. (2016, p. 294) further extend the assertions by Mayer & Salovey (1997) by suggesting that the third branch enables individuals to predict the emotions of others in the future in certain situations, based on their enhanced ability to comprehend the own, and the emotions of others. Moreover, the authors highlight that during the third stage, individuals develop the ability to assess situations and contexts that initiate certain emotions and feelings, which in turn fosters a better understanding of antecedents and meanings of emotions.

(4) Regulation and management of emotions to promote intellectual and emotional growth
Lastly, Mayer & Salovey (1997, p. 14) note that the fourth and highest branch of the emotional intelligence model refers to the development of the ability to effectively regulate emotions in order to foster personal and emotional growth. Further, the authors point out that
this branch includes the effective management of the own complex and diverse emotions and the emotions of others in order to reach a required result or certain outcome. Moreover, the authors highlight that in the last stage, individuals develop the ability to supervise and assess emotions and emotional reactions in certain contexts concerning their appropriateness, which involves also the ability to determine in which emotions to engage when they are reasonable, and in which not. Additionally, the last branch of the model depicts the ability of individuals to develop and review strategies that intend to manage and regulate and emotional responses.

Concerning the ability to regulate emotional responses, Gross (1998, p. 225) suggests a process-based model that assumes that individuals are able to regulate their emotional responses on two specific points. According to the author, emotions develop on the basis of the appraisal of internal and external emotion signals. Further, Gross (1998, p. 225) states that different evaluations “trigger a coordinated set of behavioural, experiential, and physiological emotional response tendencies that together facilitate adaptive responding to perceived challenges and opportunities.” However, the author highlights that these emotional response tendencies can be adjusted and regulated, and this regulation shapes the expression of the individual’s emotions.

As illustrated in Figure 23, the process-based input-output model by Gross (1998, pp. 225f.) assumes that emotional regulation is either antecedent-focused or response-focused, implying that individuals can either regulate and adjust emotions by influencing the input or the output.
The author mentions that antecedent-focused emotion regulation involves the possibility of individuals to avoid specific situations or individuals because of their influence on the emotional response (situation selection). Further, situation modification, implying that individuals adjust their environment and the situations in order to regulate the influence on the emotional response, and attention deployment, meaning directing attention to or away from certain situations or individuals in order to regulate the emotional impact are examples of antecedent-focused emotion regulation (Gross, 1998, p. 225). Response-focused emotion regulation refers to a situation in which the individual develops the tendency for a specific emotional response, but is able to influence the expression of the emotion. Implying that in contrast to antecedent-focused emotion regulation, that aims at avoiding or manipulating situations, the individual manipulates the output, meaning the emotional response to an emotion cue (Grandey, 2000, p. 99). Another form of response-focused emotion regulation is suppression, which includes the intentional prohibition of emotional behaviours and emotion expression or responses.

Corresponding, Hochschild (2003, p. 35) proposes deep and surface acting as strategies in order to regulate and manage emotions. According to the author, deep acting (response-focused emotion regulation) refers to the ability of individuals to adjust feelings and emotional responses in order to present the expected and requested emotions. Surface acting (antecedent-focused emotion regulation) on the other hand, involves the conscious regulation...
and management of emotional responses and expressions. But as Grandey (2000, p. 108) points out, both strategies of emotion management can lead to emotional exhaustion, burnout, decreased job satisfaction and negative attitudes of the individuals toward the workplace.

According to Mattingly & Kraiger (2018, p. 2), many researchers in the field examine how and whether emotional intelligence and the management and regulation of emotions can be developed and enhanced through trainings or workplace interventions. Further, the authors point out that studies that examine the effectiveness of workplace trainings and interventions focus mainly on jobs and tasks that are characterized with high levels of stress and emotional labour, like clinical personnel, managers or police officers. For example, Slaski & Cartwright (2003, p. 235) examined how an emotional intelligence training program for managers, that took place once a week for a period of four weeks, affect the emotional intelligence of the individuals. The emotional intelligence development program focused on the development of the ability of the participants to regulate and manage their own and the emotions of others, the development of a better understanding of the emotions of others, and the development of ability to recognize and comprehend the influence of emotions and behaviours on others. In comparison with the control group, that did not attend the training program, the authors discover that the participation in the emotional intelligence development program lead to a significant enhancement of the emotional intelligence of the participants (Slaski & Cartwright, 2003, pp. 237f.).

In contrast to the findings by Slaski & Cartwright (2003), Muyia & Kacirek (2009, p. 712) find no significant improvement of emotional intelligence of leaders after the training program. According to the authors, the emerging leaders training program (ELTP) included three-day sessions over a period of nine months that focused on case studies, critical reflections and feedback concerning the emotional competencies of the participants. Both studies show, that there are still mixed findings concerning the effectiveness of emotional intelligence development programs and workplace interventions. Therefore, Mattingly & Kraiger (2018, p. 13) highlight the importance and need to offer individual training programs, that provide individual and specific feedback on the emotional competence and intelligence of the participants. Further, the authors point out, that there is the need to examine specific training programs concerning how and for whom these trainings are effective, and not only if they are effective, implying that there is still a lack of explicit evidence.
4.2.2 Alliance capability and knowledge management

According to Kale & Singh (2007, p. 981), organizations that are more successful in their strategic alliances are assumed to possess the capability to manage alliances efficiently and effectively. However, as Schreiner et al., (2009, p. 1396) emphasize the emergence and evolution of the alliance capability is not plainly conceptualized or measured, rather the existence of alliance capability is attributed to the development of factors and aspects that contribute to alliance success.

In the opinion of Kale et al. (2002, p. 752), an alliance function, that manages, coordinates and monitors the alliance activities and actions of organizations, positively influences organizational performance and alliance success. An alliance function can be explained as a structural mechanism, that is beneficial for firms engaged in strategic alliances, as is entails the establishment of a separate department of organizational members or managers that coordinate and manage the alliance activities (Dyer et al., 2001, p. 38). In the opinion of Kale & Singh (2007, p. 983), prevailing literature about the alliance function and the alliance capability focused on structural mechanism within organizations that contribute to alliance success, but have neglected organizational processes that may contribute to alliance success and the development of alliance capability. Therefore, the authors draw on literature and theoretical concepts on dynamic capabilities (e.g. Teece et al., 1997; Zollo & Winter, 2002; Winter, 2003) organizational learning (e.g. Argyris & Schon, 1978; Huber, 1991) and the knowledge based view of the firm (e.g. Kogut & Zander, 1992; Grant, 1996; Nonaka, 1994) in order to demonstrate that organizational learning and knowledge management processes are essential in developing and utilizing alliance capability.

Consequently, Kale & Singh (2007, p. 984) introduce the concept of the alliance learning process, which means that “firms undertake deliberate efforts to learn, accumulate, and leverage alliance management know-how.” In the opinion of the authors, the activities included in the alliance learning process enable firms to evolve and enhance their skills to engage in cooperative relationships, which in turn improves the overall alliance performance. Furthermore, the authors point out that these developed routines and practices enable firms to manage and coordinate various stages of the life cycle of alliances, for instance formation and selection of the alliance partner, negotiation and specification of the design of the alliance,
etc., implying that the alliance learning process is a concept that provides an explanation for the development of the alliance capability of organizations.

The alliance learning process includes four dimensions, which will be discussed in the following in more detail.

(1) Articulation of alliance know-how

According to Senge (1997, p. 17), relevant knowledge and skills that enable the coordination and management of challenging tasks is stored in individuals and members of the organization. As the nature of skills and knowledge is mainly tacit (e.g. Badaracco, 1991; Polanyi, 1966), in order to learn about how to manage critical tasks, organizations need to foster the externalization of tacit or personal knowledge from their managers and employees (Kale & Singh, 2007, p. 984). The process of externalizing and disclosing tacit knowledge is called articulation, whereby the articulation of skills and knowledge can occur in written or spoken words through models, frameworks or even metaphors. Referring to the development of alliance capability and the management of strategic alliances, the authors highlight that the articulation of tacit knowledge and skills can provide benefits for organizations as it fosters the establishment of a record of previous alliance management experience, which would otherwise get lost because of employee turnover. Moreover, the articulation of knowledge fosters subsequent reflection and sense-making of prior alliance activities and relationships. As a result, the process of articulating knowledge, essential for the management of challenging tasks, encourages the identification of effective and non-effective management activities in the foundation and management stages of alliances (Kale & Singh, 2007, p. 984).

Based on findings of their field research, Kale & Singh (2007, p. 984) demonstrate that organizations adopt different methods in order to articulate alliance knowledge. Some firms implement the practice of regular presentations and reports concerning their alliances, whereas other firms establish regular, internal debriefing sessions where alliance managers reflect about the implementation of certain methods and tasks. Further, the authors reveal that some firms establish so-called logbooks, where alliance managers put down in writing activities, events, actions and results regarding their alliances. Finally, the authors conclude, that the articulation of alliance know-how enables the externalization of tacit knowledge embedded in individual members of the organization, which in turn facilitates the learning on the basis of prior experience. As a consequence, the first dimension of the alliance learning
process is beneficial for alliance success, as the articulation of know-how results in the effective management of critical tasks in alliances.

(2) Codification of alliance know-how

In previous studies, scholars have proposed that the codification of knowledge related to the management of critical tasks, which is embedded within organizations and their managers and employees, enables organizations to develop their skills and capabilities (e.g. Hansen et al., 1999; Zollo & Singh, 2004). However, Zollo & Winter (2002, p. 349) argue that the codification of know-how does not merely involve the documentation of relevant knowledge, but is rather an intended attempt of organizations to develop and utilize codified knowledge on the basis of the analysis and reflection of past experience concerning the management of critical tasks.

Kale & Singh (2007, p. 985) state that the process of codifying task-related knowledge “involves creating and using knowledge objects or resources such as alliance guidelines, checklists, or manuals to assist action or decision making in future alliance situations.” Further, the authors point out that in contrast to the articulation of knowledge, which entails the accessing of knowledge possessed by individuals, the codification of know-how concentrates on the externalization of the knowledge (know-what), the application of appropriate techniques (know-how) and the reasons (know-why) for dealing with critical tasks related to strategic alliances.

Hansen et al. (1999, p. 108) highlight that the “people-to-documents” technique of codification focuses on the reuse of alliance-related knowledge embedded in the organization and their members in order to manage and coordinate prospective alliances. Similar, Kale & Singh (2007, p. 985) argue that firms that codify knowledge are able to develop an improved understanding of how to manage and deal with critical tasks in alliances. Therefore, the authors emphasize that the process of codifying, on the one hand promotes the identification and selection of best practices concerning strategic alliances, and on the other hand fosters the adoption and reproduction of these identified best practices.

On the basis of findings from their field research, Kale & Singh (2007, p. 985) emphasize that in practice organizations engage in different codification mechanism of alliance knowledge. Further, Dyer et al. (2001, p. 39) mention that Hewlett and Packard established 60 different
practices and tools in order to provide decision-making guidelines for managers in different alliance situations and for the different phases of the alliance lifecycle. Moreover, the organization created a manual which contains several templates and tools, that for instance, describe the different responsibilities and roles of divisions and their employees, or provide guidelines and checklists for the resolution of strategic alliances. Similar, Lotus Corp. developed, so called “35 rules of thumb” in order to manage and deal with challenging tasks from the formation till the resolution of the alliance. Finally, Kale & Singh (2007, p. 985) point out that codification of relevant alliance knowledge improves the decision-making skills of organizations, which in turn leads to higher alliance performance and success.

(3) Sharing of alliance know how
As Grant (1996, p. 117) points out, the knowledge based view assumes that the ability of organizations to build skills and capabilities needed in order to manage and coordinate critical tasks, depends also on the organizations efforts to share task-related knowledge. Kale & Singh (2007, p. 985) state that with regard to the alliance learning process, “knowledge sharing involves exchanging and disseminating individually and organizationally held alliance management knowledge, which is both tacit and/or codified, through interpersonal interaction within the organization.” Further, personal interactions within communities are instrumental factors for disseminating know-how and knowledge in organizations (e.g. Brown & Duguid, 1991; March et al., 1991).

As Kale & Singh (2007, p. 985) point out, these communities enable organizations to constantly and methodically share and disseminate already articulated and/or codified knowledge concerning the management of alliances. But most important, communities with personal interactions provide an instrument for the sharing of personally embedded, tacit knowledge, as knowledge that is tacit nature is easier to disseminate and share via personal interactions rather than via knowledge objects, as Hansen et al. (1999, p. 108) highlight. Moreover, communities of personal interaction play an integral role in the conceptualization of the knowledge of alliances, hence person-to-person communication and interactions between managers provide the opportunity for organizations to develop a better and common understanding of alliance knowledge that is shared within the organization.

Kale & Singh (2007, p. 986) point out that findings of their field research have shown that organizations use informal knowledge sharing mechanism, like dialogues and discussions of
alliance managers and formal knowledge sharing mechanism, like special alliance
task forces and committees, which gather regularly, in order to share and evaluate best
practices and alliances. Further, some organizations appoint alliance managers to alternate
between different alliances of the organization in order to share their knowledge with other
members of the organization through personal interactions. Overall, the authors propose that
the sharing of alliance know-how enables organizations to develop their alliance capability
and skills in order to effectively manage critical tasks and alliances.

(4) Internalization of alliance know-how
Lastly, Kale & Singh (2007, p. 986) propose that organizations need to foster knowledge
internalization, meaning that individuals that are accountable for performing specific tasks
also own the relevant know-how and skills in order to effectively manage critical tasks.
According to the authors, organizational members can own this knowledge of how to perform
certain tasks on the basis of mental or cognitive models, heuristics or skills and capabilities.
According to the concept of organizational knowledge creation, introduced by Nonaka (1994,
p. 34), the internalization of knowledge, which includes the accumulation of existing
knowledge held by organizations and individuals, and the absorption of new and valuable
knowledge through the spiral of knowledge, plays an instrumental role for firms that want to
enhance the organizations success.

In opposition to knowledge sharing, which concentrates on the exchange of relevant
knowledge between the source of the know-how and the receiver, the process of
internalizations focuses on the ability of the receivers to absorb the shared knowledge.
Further, internalization emphasises that the receivers of the shared knowledge should not only
understand why performing a certain task is effective or successful, but rather develop an
understanding about how to perform the certain task (Kale & Singh, 2007, p. 986). According
to Cohen & Levinthal (1990, p. 129), the accumulation and absorption of knowledge
improves, on the one hand the ability of individuals to memorize newly acquired knowledge,
referred to as knowledge acquisition, and on the other hand enhances the ability of individuals
to recollect and effectively apply relevant knowledge, implying that internalization
encourages the absorptive capacity of managers and employees concerning strategic alliance
knowledge. Similarly, Kale & Singh (2007, p. 986) argue that the internalization of alliance
knowledge fosters the development of a comprehensive knowledge foundation of managers.
that enables them to constantly absorb new knowledge that enhances the management of alliances and inherent critical tasks.

Hence, Draulans et al. (2003, p. 159) highlight that internal alliance trainings, undertaken by organizational members with alliance experience, or external alliance trainings, undertaken by consulting firms or academics, foster the ability of managers and employees to absorb new knowledge and best practices. Corresponding, Kale & Singh (2007, p. 986) state that alliance training programs provide organizational managers with a comprehensive knowledge foundation of the management of alliances, which further enables managers and employees to develop the ability to constantly absorb new and relevant alliance knowledge or best practices and memorize and apply the knowledge in suitable situations in the alliance lifecycle. Hence, the authors conclude that the internalization of alliance knowledge promotes the development and enhancement of the absorptive capacity of organizational members concerning alliance know-how, which in turn leads to the effective management of alliances and the underlying critical tasks.

Collectively, Kale & Singh, (2007, pp. 986f.) emphasize that the alliance learning process builds the basis for the development of the alliance capability of an organization by facilitating learning, accumulation and leveraging of alliance knowledge. Moreover, according to the authors, every dimension is different concerning the way how alliance knowledge is accumulated and leveraged within the firm. The first dimension, articulation, facilitates the externalization of tacit, personally held knowledge of organizational members. Codification on the other hand, involves the development and application of codified templates and tools that provide guidelines for managers in specific alliance situations. Sharing, the third dimension of the alliance learning process, facilitates the diffusion of tacit and explicit alliance management knowledge within the organization. Lastly, the fourth dimension internalization facilitates the absorption and maintenance of alliance management knowledge received from organizational members or from external stakeholders. Finally, Kale & Singh (2007, p. 994) reveal that the alliance learning process, and hence alliance capability is positively linked with alliance success.

Similar, Sluyts et al. (2011, p. 877) argue that in sum, the four dimensions of the alliance learning process, introduced by Kale & Singh (2007), reinforce and build the basis for the alliance capability of organizations. Further, the authors point out that by continuously
learning about how to manage alliances, on the basis of past experiences, organizations develop and enhance their alliance capability and become more successful in undertaking strategic alliances.

4.2.3 Relationship management

For the development and preservation of the capability to manage business relationships this master’s thesis draws on literature about network capabilities (e.g. Mitrega et al., 2012; Ritter & Gemünden, 2003; Ritter et al., 2002; Walter et al., 2006).

In the opinion of Mitrega et al. (2012, p. 739) the concept of network capabilities comprises the capability of organizations to successfully manage different types of business relationships during the main stages of the relationship lifecycle. Walter et al. (2006, p. 546) define network capabilities as the organizations “abilities to initiate, maintain, and utilize relationships with various external partners”. As Mitrega et al. (2012, p. 793) point out, previous research has already demonstrated that relationship capabilities, involving the initiation, development and termination of business relationships, positively affect a firm’s performance (e.g. Reinartz et al., 2004). However, the authors highlight that the findings by Reinartz et al. (2004) refer to relationship capabilities needed in order to successfully manage customer relationships. Although the study by Mitrega et al. (2012, p. 794) concentrates on supplier relationships, the authors emphasize that the proposed concept of networking capability can be applied and used for all types of business relationships and alliances. Therefore, the findings of the study can be also used in order to explain the development and preservation of the relationship management capability of coopetition partners.

Referring to the conceptualization of Reinartz et al. (2004), Mitrega et al. (2012, p. 741) suggest that the network capability of organizations consists of three components:

- Relationship initiation capability
- Relationship development capability
- Relationship termination capability.

Similar, Mitrega & Pfajfar (2015, p. 194) propose that a successful relationship management process consists of two elements:

- Enhancing existing, but difficult relationships
• Forming and building relationships with new stakeholders.

Further, the authors argue that these two components of the relationship management process need to be supplemented by the capability of organizations to end unsuccessful and not advantageous alliances. In the following, the three components will be discussed in more detail.

(1) Relationship initiation capability

According to Mitrega et al. (2012, p. 741), the relationship initiation capability refers to a “set of activities and organizational routines which are implemented at the organizational level of the focal company to initiate business relationships for the benefit of the company.” Further, the authors mention that the selection and attraction of appropriate partners characterizes the relationship initiation capability. In the opinion of the authors, the selection of valuable partners includes the assessment of the potential value of the partners. Valuable characteristics of potential partners include image, reputation and prestige of the potential partner (e.g. Gulati & Higgins, 2003) and the innovativeness and prominence of the firm (e.g. Stuart, 2000). Further, Dwyer et al. (1987, p. 16) assume that firms select business and alliance partners on the basis of similar cultural aspects and resources that complement each other. Similar, Hitt et al. (2000, p. 461) argue that organizations assess the value of potential partners in the context of gaining access to complimentary resources and the opportunity to learn from other organizations. Therefore, Mitrega et al. (2012, p. 741) note that organizations consider financial, technological and intangible assets and resources when selecting alliance partners.

According to Mitrega & Pfajfar (2015, p. 195), the process of selecting promising alliance partners involves the constant screening of the industry and the environment, and different actions like the examination of the cultural fit or the calculation of the involved costs of the relationship formation. Referring to Lavie (2007, p. 1993), the authors propose that systematic actions that involve the screening, selecting and monitoring of alliance partners are not only essential during the formation phase of the relationship but during the whole relationship management lifecycle. Mitrega & Pfajfar (2015, p. 195) highlight that the partners that lack the expected strategic fit and potential can be identified during the formation or early stage of the relationship. However, falsely selected firms that pass the initiation phase can strain business relationships and alliances because of their high bargaining power and opportunistische behaviour which they use in order to exploit the partner
without the intention of forming a long lasting relationship (e.g. Lavie, 2007; Mesquita et al., 2008).

The attraction of partnering firms refers to the appropriability of the respective firms (e.g. Mitrega et al., 2012; Tóth et al., 2015). Harris et al. (2003, p. 12) define attraction as “the extent to which relational partners perceive past, current, future or potential partners as professionally appealing in terms of their ability to provide superior economic benefits, access to important resources and social compatibility.” Further, the authors argue that the assessment about the attraction of the partner is an ongoing and continuous process that decides about the development, maintenance or the termination of the relationship. Based on this argument, Forkmann et al. (2016, p. 188) point out that attractiveness can be differentiated between ex-post and ex-ante attractiveness, whereby ex-ante relates to the attractiveness perceived before the alliance is formed, and ex-post attractiveness refers to the perceived attractiveness during the current partnership. Moreover, Morgan (2000, pp. 484f.) states that the elements of attraction, namely economic benefits, access to resources and social compatibility, provide the basis for commitment and trust within the relationship. The author emphasizes that when the access and exchange of valuable and complimentary resources is reciprocal, the development of commitment and trust is promoted. But further the social and cultural compatibility and the creation of economic benefits facilitate the development of trust and commitment between the partners.

Overall, Forkmann et al. (2016, p. 188) point out that the relationship initiation capability is instrumental for the formation of business relationships in order to gain access to resources, technologies and knowledge, whereby the leveraging necessitates the continuous development of the relationship.

(2) Relationship development capability
Mitrega et al. (2012, p. 741) developed a definition that explains relationship development capability as a “set of activities and organizational routines which are implemented at the organizational level of the focal company to develop, manage and strengthen, business relationships for the benefit of the company.” The authors further distinguish between the development of inter-organizational and inter-personal relationship development capability, whereby the authors consider the subcomponents as interrelated but different concepts. A third component of relationship development capability thematises the negative aspects of
relationship development like opportunistic behaviour of partnering firms (e.g. Das & Rahman, 2010) and the resolution of conflicts (e.g. Duarte & Davies, 2003), referred to as conflict management capability.

The development of trust, commitment, activities that foster mutual adaptation and understanding and the development of effective coordination between the partnering companies refer to activities entailed in the inter-organizational relationship development capability (Blomqvist & Levy, 2006, p. 38). Johnsen et al. (2000, p. 179) mention that the sharing of risks, benefits, information and knowledge and mutual decision making, coordination and communication are essential activities that foster the development of inter-company relationship development capability. Corresponding, Walter et al. (2006, p. 547) mention coordination as essential element of the network capability.

In the opinion of Mitrega et al. (2012, p. 741), the development of personal ties within relationships is interrelated with the development of inter-organizational ties. Hutt et al., (2000, p. 51) argue that “many alliances fail to meet expectations because little attention is given to nurturing the close working relationships and interpersonal connections that unite the partnering organizations.” Nevertheless, Ma et al. (2009, p. 1093) point out, that organizations need to find a balance between the development of personal and inter-organizational ties, in order to foster the development and preservation of the relationship development capability. Cousins et al. (2006, p. 854) emphasize that relational capital, an output of formal and informal socialization, contribute to the development of relationships, whereby formal socialization processes refer to “specific structural formats for engagement, such as cross-functional teams, co-location, regulary scheduled meetings and conferences, or matrix-style reporting”, in contrast to informal socialization processes like “social events, workshops, off-site meetings, communication guidelines, joint improvement projects on-site involving line staff and engineers, or even casual meals at a local restaurant (Cousins et al., 2006, p. 855). Therefore, Forkmann et al. (2016, p. 189) argue that both informal and formal socialization processes are needed in order develop personal and inter-organizational ties that foster relationship development.

(3) Relationship termination capability
In their study, Mitrega et al. (2012, p. 742) define the relationship termination capability of firms as a “set of activities and organizational routines which are implemented at the
organizational level of the focal company aimed at terminating undesired business relationships.” In accordance with Reinartz et al. (2004), the authors distinguish between the organizations capability to recognize unprofitable alliances and the capability of organizations to end partnerships with disadvantageous partners. According to the authors, both elements of the overall relationship termination capability supplement each other, as organizations can possess routines needed in order to successfully terminate unprofitable partnerships but may not possess the routines in order to analyse and recognize not favourable relationships. Therefore, the authors highlight, both elements of the overall relationship termination capability must be given in order to successfully end non-profitable business relationships.

Similarly, Mitrega & Pfajfar (2015, p. 195) argue that monitoring and improving routines of the relationship development capability enable firms to be more effective in terminating relationships. In particular, the authors point out that monitoring routines are needed for the development of a systematic dissolution of relationships, as constant monitoring provides the basis for the recognition of problematic and not favourable alliances and enhances the understanding of which relationships lack the prospect of future improvement, and consequently should be terminated.

Apart from that, Forkmann et al. (2016, p. 190) argue, that the capability of firms to recognize non-profitable relationships or obsolete resources acquired through the alliance with the business partner, enables the firms to end the partnership in a timely manner, which in turn positively influences the enhancement of the performance of the firm in the long term. The authors further reason that the relationship termination capability is essential for firms engaged in various relationships, as it promotes the continuous review and evaluation of partnerships and enables firms to either engage in efforts to improve the relationship or terminate the relationship prematurely.

In the opinion of Alajoutsijärvi et al. (2000, p. 1285), poorly-handled terminations of relationships can result in the loss of the favourable image and the reputation of the firm within the industry and the network, and therefore might influence the formation of future alliances. Hence, Forkmann et al. (2016, p. 189) argue that an inappropriate dissolution of an unprofitable business relationship can entail far-reaching implications, which highlights the importance of the relationship termination capability. Giller & Matear (2001, p. 106) further emphasize that with growing experience in the dissolution of relationships with stakeholders,
firms also enhance the process and management of relationship terminations, which in turn positively affects how the partnering firms perceives the ending of the relationship.

Overall, the networking capability model provides a capability model for the management of business relationships during different stages of the relationship lifecycle (Mitrega et al., 2012, p. 748). Mitrega & Pfajfar (2015, p. 199) refer to the three components of the networking capability as Business Relationship Process Management (BRPM), which includes capabilities that enable firms to develop routines that foster the termination of unprofitable relationships, the enhancement and development partnerships and attraction and selection of valuable new partners.

To sum up, this chapter provided a comprehensive set of information concerning the development and preservation of the emotional capability, alliance capability and relationship management capability of organizations. By drawing on the four-branch model of emotional intelligence (Mayer & Salovey, 1997), the alliance learning process (Kale & Singh, 2007) and the relationship management process based on the concept of networking capabilities (Mitrega et al., 2012), the development and the preservation of the identified and selected coopetition capabilities was examined and discussed.
5. Conclusion

The final chapter of this master’s thesis provides the interested reader a summary of the main findings. Furthermore, a multilevel framework that depicts coopetition capabilities at different levels gives an overview of the identified and discussed capabilities. Lastly, a future outlook identifies research gaps within the field of coopetition and points out possible future directions of research.

5.1 Summary of main findings

The concept of coopetition, popularized and brought into business practice by Brandenburger & Nalebuff (1996), refers to the simultaneous competitive and cooperative interactions between two or more parties (Bengtsson & Kock, 2014, p. 182). Although the concept was introduced in the 1990’s, scholars in the field of coopetition research emphasize that there still does not exist an unified and accepted definition of coopetition (e.g. Bengtsson et al., 2010; Bengtsson & Kock, 2014). Therefore, there is still a lack of acceptance concerning the scope and the nature of the concept (Bengtsson & Kock, 2014, p. 181). As demonstrated by Dorn et al. (2016, p. 487), on the basis of a comprehensive literature review, current literature focuses on coopetition at the intra-firm, inter-firm and network level, whereby the majority of the research literature examines coopetition at inter-firm and network level.

Further, the concept of coopetition has been examined on the basis of various theoretical approaches. Predominant theoretical perspectives underlying the concept of coopetition are

- Game theory
- Resource based view
- Network theory
- Transaction cost economics.

In accordance with Bengtsson, Kock et al. (2016, p. 5), who state that the resource based view and the network theory are important theoretical roots of the concept of coopetition, as the theories explain strategic, as well as relational aspects of the coopetitive relationship, in this master’s thesis only the resource based view and the network theory are examined in the context of the concept of coopetition.
The examination of the resource based view in the context of coopetitive relationships has revealed that firms engage in coopetitive relationships with their rivals to get access and combine complimentary resources in order to create shared value and benefits, whereby on the basis of organization-specific resources and capabilities, the firms compete for the greater share of the jointly created value (Ritala & Hurmelinna-Laukkanen, 2009, pp. 821f.). As Teece et al. (1997, p. 515) point out, in complex and fast changing business environments, organizations need to utilize external and internal resources, as well as explore new capabilities in order to develop a sustained competitive advantage. Hence, Quintana-Garcia & Benavides-Velasco (2004, p. 929) point out that the competitive advantage of organizations is based on cooperative relationships with competitors, and the resulting access to complimentary resources and knowledge. In contrast, Peng et al., (2012, pp. 547f.) have shown that the higher the dependence on similar resources of the competing firms is, the higher the possibility for these firms to engage in cooperation in order to share resources.

The investigation of the network theory in the context of coopetition has shown that firms in central positions in coopetitive networks are able to enhance their competitive advantage and capabilities because of access to various ties. Further, firms that occupy central positions in coopetitive networks engage in more competitive actions (Gnyawali et al., 2006, p. 509). Similarly, Gnyawali & Madhavan (2001, p. 435) show that actors with central positions in networks have better access to resources, technologies and financial assets through other actors. On the other hand, Gnyawali et al. (2006, p. 513) reveal that a central position of firms in coopetitive networks involve the risk of unintentional knowledge spillovers, because of the various ties with competitors within the network.

The presentation and discussion of the underlying theories of the concept of coopetition provided the basis for the investigation of coopetition capabilities, that enable firms to manage tensions and coopetitive relationships. Bengtsson, Raza-Ullah, et al. (2016, p. 21) state that high failure rates of coopetitive relationships demonstrate that organizations lack the knowledge and capabilities to manage tensions and paradoxes inherent in coopetition. Further, the authors have revealed that in order to manage coopetitive relationships, organizations need to utilize general organizational capabilities that need to be complemented by coopetition capabilities, that focus on the management of tensions and paradoxes inherent in coopetition. In this master’s thesis, coopetition capabilities at the individual, organizational and inter-firm/network level are identified and examined. Figure 24 provides an overview of
the capabilities discussed within this master’s thesis and a multilevel framework of coopetition capabilities based on the main findings.

Concerning coopetition capabilities at the individual level, Gnyawali & Park (2011, p. 657) reveal the importance of coopetition experience and coopetition mindset of managers, and internal, organization specific resources and capabilities in order to profit from the coopetitive relationship. By referring to an example of a coopetitive relationship between Samsung and Sony, the authors emphasize that especially internal resources and the experience of Samsung in the management of past strategic alliances enabled the firm to appropriate a greater share of the jointly created value. Further, Strese et al. (2016, p. 50) found out that participative and considerate leadership styles enable leaders to find a balance between competitive and cooperative activities, which reduces tensions and fosters cross-functional coopetition.

Another coopetition capability identified at the individual level refers to the management of paradoxes in coopetition. Gnyawali et al. (2016, p. 13) have demonstrated that one dimension of the overall paradox management capability, the analytical capability, enables firms to keep the felt and experienced tensions at a moderate level, by fostering the development of an
enhanced understanding of the paradoxical situation, meaning the comprehensive understanding about the impact of dualities and contradictions on the coopetitive relationship. Additionally, the executional capability, the second dimension of the overall suggested paradox management capability, enables firms to create favourable results and reduce negative tensions by developing routines and procedures that effectively manage tension inherent in coopetition (Gnyawali et al., 2016, p. 14). Therefore, the authors reveal that both capabilities, combined as paradox management capability, enable firms to develop an enhanced and comprehensive understanding about the coopetition paradox (analytical capability) and manage these paradoxes through routines (executive capability).

Similarly, Smith & Tushman (2005, p. 527) have revealed that the analytical capability including the mindset of managers and the ability to think paradoxical, enables organizations to accept and embrace the contradictory forces of coopetition. As Raza-Ullah et al. (2018, p. 200) found out, paradoxical mental frames and the mindset of managers are the basis for determining how, when and why to engage in cooperative relationships with the competitor. Another coopetition capability at the individual level identified in this master’s thesis refers to the ability of managers and organization members to manage emotional ambivalence resulting from contradictory forces and tensions in coopetitive relationships. The emotional capability in the context of coopetitive relationships facilitates the acceptance, embracement, understanding and regulation of ambiguous emotions in order to deal with contradictory demands (Raza-Ullah, 2017, p. 62).

At the organizational level, Raza-Ullah (2017, p. 63) has demonstrated that the balancing capability of organizations, that entails the creation and utilization of coopetition routines and processes, facilitates the ability of the organization to effectively separate, integrate and balance ambivalent and paradoxical demands in coopetition. Further, Klimas (2016, p. 97) has revealed that coopetitors with hierarchical cultures, that are characterized by high formalization, standardization and internal orientation, show the stability to manage and deal tensions inherent in coopetitive relationships on the basis of the advantages resulting from their hierarchical culture features. However, contrary to the former assumption by the author, the findings reveal that cultural features only have an indirect influence on the formation and duration of coopetitive relationships and are therefore no crucial factors. The examination of the impact of centralization and formalization on cross-functional coopetition has shown a positive link between formalization and coopetition, that implies that governing rules and
procedures are factors that promote coopetition between divisions. On the other hand, centrality of decision making has a negative impact on competition and cooperation and is therefore determined by Strese et al. (2016, p. 51) as an organizational factor that enables the balance of the contradictory forces inherent in coopetition.

Another capability identified at the organizational levels refers to the ability of organizations to manage knowledge flows between the coopetition partners. Estrada et al. (2016, p. 63) reveal that internal knowledge sharing mechanism and formal knowledge protection mechanism enable organizations to share relevant knowledge with the coopetition partner, and simultaneously protect sensitive knowledge and avoid unintentional knowledge spillovers. Corresponding, research by Fernandez & Chiambaretto (2016, p. 69) has shown that formal and informal control mechanism enable organizations to distinguish between critical and non-critical information, which is the basis for the decision which knowledge to share and which to protect.

By drawing on Bengtsson, Raza-Ullah et al. (2016, p. 24), that argue that coopetitive relationships are a subgroup of strategic alliances, in this master’s thesis alliances capabilities are seen as part of coopetition capabilities. Kohtamäki et al. (2018, p. 191) have revealed that the alliance capability of organizations refers to the management, integration and learning ability of organizations engaged in relationships with stakeholders, in order to create mutual value and benefits. Further, the examination of the capability of organizations to translate and enhance accumulated knowledge within the organization into knowledge systems (García-Morales et al., 2012, p. 1014) in order to avoid the recurrence of previous mistakes (Dibella et al., 1996, p. 369) in the context of cross-functional coopetition, has revealed a mediating role of organizational learning that links cross-functional coopetition and performance (Bendig et al., 2018, p. 149). Further, Lam & Chin (2005, p. 764) have shown that the development and implementation of conflict handling systems, that entails a conflict management culture, conflict handling skills, conflict handling processes and constant conflict monitoring, fosters the ability of organizations to avoid tensions and conflicts before they arise, and the ability to settle arising or current conflicts between the coopetition partners.

At the inter-firm/network level, the examination of network centrality has revealed that firms that occupy central positions in coopetitive networks and that hold strong cooperative ties within the network have a greater market performance, implying that network centrality
fosters the performance of firms engaged in coopetitive networks (Sanou et al., 2016, p. 156). Further, Chin et al. (2008, p. 444) identified relationship development and management, that entails the development of trust and commitment, as essential capability that fosters coopetition success. Corresponding, Anderson & Narus (1990, p. 45) observed that the ability of firms to develop a cooperative relationships, based on trust, enhances relationship satisfaction and decreases the potential for conflicts and tensions. Finally, Chin et al. (2008, p. 444) have revealed that communication management, which includes internal and external communication guidelines and strategies, as well as information systems, play an integral part for the effective and successful coordination of coopetitive relationships with competitors. Similarly, Fernandez & Chiambaretto (2016, p. 71f.) have demonstrated, on the basis of a case study, that organizations need to adopt formal and informal information systems in order to protect sensitive data and knowledge and develop guidelines that foster the exchange of information, crucial and relevant for the coopetitive relationship.

On the basis of the identified and examined coopetition capabilities, the development and preservation of three coopetition capabilities from the different levels was examined. The investigation of the development and preservation of the emotional capability of managers and organizational members, on the basis of the four-branch model of emotional intelligence, has revealed the importance of emotional capability in order to enhance the understanding of the own and the feelings of others and regulate these emotions (Mayer & Salovey, 1997, pp. 10f.). Mayer & Salovey (1997, p. 11) have shown that the development of emotional intelligence entails the perception of emotions, the encouragement of thought on the basis of emotions and the understanding, regulation and management of emotions. Further, Gross (1998, p. 225) has introduced a input-output model of emotion regulation that has demonstrated antecedent- and response-focused emotion regulation, which reveals that emotions can be regulated by either influencing the input or output. In this context, Hochschild (2003, p. 35) has proposed deep and surface acting as strategies in order to regulate the own emotions. Mattingly & Kraiger (2018, p. 13) have revealed the importance of individual emotional intelligence training programs in order to assess and develop emotional competence individually on the basis of workshops and workplace interventions.

Concerning the development and preservation of the alliance capability, Kale & Singh (2007, p. 984) have introduced the concept of the alliance learning process that builds the basis for the development and utilization of the capability of organizations to manage strategic
relationships. The alliance learning process includes the articulation, codification, sharing and internalization of alliance know-how and fosters the development of skills and routines that enable organizations to effectively manage strategic relationships during several stages of the relationship, which in turn enhances alliance and firm performance. Further, the alliance learning process also comprises the development and preservation of the capability of organizations to share, accumulate and leverage knowledge. However, Sluyts et al. (2011, p. 877) have revealed that the alliance learning process is ongoing and involves the permanent learning of past experiences in order to enhance the alliance capability and alliance performance of organizations.

Furthermore, the examination of the development and preservation of the relationship management capability of organizations, on the basis of the concept of networking capabilities, has shown that a successful relationship management capability consists of the firms capability to initiate, enhance, develop and terminate strategic relationships with stakeholders (Mitrega & Pfajfar, 2015, p. 194). Further, Mitrega et al. (2012, p. 741) have revealed that firms need to establish selection processes that focus on the assessment of the potential value of the relationship partner, which involves the permanent screening of the business environment and the assessment of the cultural fit between the potential partners (Mitrega & Pfajfar, 2015, p. 195). Cousins et al. (2006, p. 984) have pointed out that informal (casual meals, off-site meetings, etc.) and formal (conferences, regular meetings, etc.) socialization processes, the basis of relational capital, play an integral part for the development and enhancement of existing relationships. Whereas, the relationship termination capability refers to the development of routines that enable firms to recognize and end unprofitable business relationships (Mitrega et al., 2012, p. 742). Lastly, Mitrega et al., (2012, p. 748) point out, that the networking capability model provides a theoretical foundation for the development, preservation and management of relationships during different stages of the relationship lifecycle.
5.2 Future outlook

Although the concept of coopetition has increasingly received attention from scholars and managers, the field of research is still incomplete and encompasses gaps and limits (Bouncken, Gast, et al., 2015, p. 591). Many scholars in the field of coopetition research argue, that there is still a lack of an unified definition and conceptual basis, or a coherent understanding of the adoption of the concept (e.g. Bengtsson et al., 2010; Bengtsson & Kock, 2014; Walley, 2007). In the opinion of Bengtsson, Kock et al. (2016, p. 6), by linking prevailing theoretical approaches of the macro level with concepts and theories that focus on the micro level, coopetition research and literature could be extended. According to findings from different strategic management streams, theoretical constructs of the macro level, for instance capabilities and strategies and their development, should be combined with micro-level approaches in order to develop a comprehensive understanding (e.g. Regnér, 2008).

Therefore, many scholars highlight the need to examine micro level constructs, such as cognitions at the individual levels, and how these constructs can be accumulated at macro levels (e.g. Eisenhardt et al., 2010; Raza-Ullah et al., 2014). Microfoundations are explained by Eisenhardt et al. (2010, p. 1263) as “underlying individual-level and group-level actions that shape strategy, organization, and, more broadly, dynamic capabilities, and lead to the emergence of superior organization-level performance”. Similarly, the strategy-as-practice concept describes micro-level processes and actions as factors that build the basis for strategies and their development processes and consequences at the macro level (e.g. Johnson et al., 2003; Whittington, 2006). Both streams are seen as possible extension of the resource based view as they present valuable views and explanations about the influence of micro-level processes on the creation of value, by building on social interactions among different levels (e.g. Johnson et al., 2003; Regnér, 2008).

Based on this context, Bengtsson, Kock et al. (2016, p. 6) argue, that that the examination of coopetition on the micro-level could enhance on the one hand the understanding of concept itself, and on the other hand extend the knowledge about the individual and collective utilization of resources gained from coopetitive relationships, and the accumulation to coopetition in the context of networks, which in turn affects coopetition performance. Corresponding, Bouncken, Gast, et al. (2015, p. 593) emphasize the need of examining and
developing the concept of coopetition from multiple levels, meaning the combination of examining coopetition at the micro level (individual level) and the macro level (regional systems, networks, industries). Hence, the authors argue that a comprehensive multi-level framework of coopetition is needed in order to depict coopetition activities and actions at different levels and the linkages between the levels. This integrative model could help to provide a better understanding of the logics, linkages and aggregation from the different levels. The authors illustrate this argument on the example of coopetitive interactions between individuals, and how these activities can influence the coopetitive actions of the involved firms, and in turn the influence on the firms performances and their overall relationship.

Bengtsson, Kock, et al. (2016, p. 6) further point out, that current coopetition literature scarcely examines coopetition at the individual level, and even less on coopetition linked with organizational behaviour theories or socio-psychological approaches. Due to this, there is limited understanding about different mechanism that form the basis of coopetitive relationships and interactions, and how they are consolidated and influence organizational and relational output. Hence, Bengtsson, Kock et al. (2016, p. 6) suggest that by drawing on insights from anthropology, sociology and psychology theories, coopetition research could benefit and be extended.

Moreover, Bengtsson, Kock et al. (2016, p. 6) propose that research in the field of coopetition could be further advanced by building on stakeholders theories (e.g. Akpinar & Vincze, 2016; Volschenk et al., 2016), in order to gain insights on the impact of multiple actors on the creation of coopetitive dynamics and the internal and external consequences of coopetition. As the authors point out, other stakeholders, besides the competitors, might have motives and interests in order to influence the formation and development of coopetitive relationships. Hence, the expansion of examined stakeholders, leads to an expansion of the main objectives and motives from coopetitive relationships, including not only economic but also social motives (e.g. Chen & Miller, 2015).

According to Bengtsson, Raza-Ullah et al. (2016, p. 21), literature about how to manage coopetitive relationships and the inherent tensions and paradoxes, is despite of a growing number of coopetition failures, scarce. Predominant literature on coopetition capabilities and the management of coopetitive relationships provide structural solutions that propose the
separate management of cooperative and competitive interactions between levels, functions or in time or space (e.g. Bengtsson & Kock, 2000; Oliver, 2004). The basic assumption of these viewpoints is, that tensions and paradoxes are harmful and involve risks that should be prevented or even removed. One of the main limitations of structural separation of coopetition and competition between functions or levels is, that at higher levels there is still the need for managers to integrate and coordinate the contradictory logics and forces (Eisenhardt et al., 2010, p. 1264), therefore there is the need to develop integration strategies and approaches to the management of paradoxes (Gibson & Jane, 2004, p. 211). However, Bengtsson, Raza-Ullah, et al. (2016, p. 21) argue that an integration approach to coopetition leads to higher tensions, as the juxtaposition of the contradictory forces brings the ambivalence of coopetition to the fore. Corresponding, Gnyawali et al. (2016, p. 17) point out, that existing research models and studies measure competition and cooperation individually, hence the authors argue new measures and scales need to be introduced in order to cover the paradoxical nature of the concept of coopetition, especially in the context of coopetition capabilities, coopetition performance and coopetitive tensions.

Similar, Bouncken, Gast, et al. (2015, p. 592) argue that there is still scarce literature about coopetition capabilities, which organizations need in order to successfully manage coopetitive relationships. Further, the concept of coopetition capabilities developed by Gnyawali et al. (2016, p. 17) focuses on the organizational level, but the authors point out that tensions can be felt and experienced at different levels. Hence, the authors highlight the need for further research concerning the experience and management of tensions at the individual, group, division or organizational level by developing a multi-level framework that examines the manifestation of tensions across the different levels, beginning with the individual level and thus developing an understanding about how tensions are shared.

Finally, this master’s thesis has tried to develop a multi-level framework of coopetition capabilities, whereas a strict separation of the levels is not possible, as some capabilities are overlapping and linked.
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