

# Strategic implications of coopetition for buying firms in a shared supply market

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## ABSTRACT

Coopetition, which indicates the simultaneous cooperation and competition between firms, is a concept that is applicable to buying firms in a shared supply market. However, the literature in the field of supply management is mainly operational. Therefore, the current literature fails to address the implications of coopetition for buying firms in a shared supply market on a strategic level. This paper attempts to address this gap by linking the coopetition literature stream to the competitive dynamics literature stream. Concerning the latter stream, this paper will especially focus on competitive actions in a supply market. On the basis of the AMC framework, this paper develops propositions about strategic implications of coopetition for buying firms in a shared supply market.

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## Keywords

Coopetition, Competitive Dynamics, Competitive Interaction, Supply Management, AMC framework, Supply Markets

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# 1. INTRODUCTION

Although more than 20 years of research in the field of cooptation were conducted, it is still an elaboration-required area (Bengtsson & Kock, 2014) and the application of it to the field of supply management is even scarcer. Cooptation indicates the simultaneous cooperation and competition between firms (Brandenburger & Nalebuff, 1996; Bengtsson & Kock, 2000; Gnyawali, He & Madhavan, 2006). The research interest on cooptation is rising since the former industrial logic focusing on internal resources (Prahalad & Hamel, 1990; Wernerfelt, 1984) has shifted towards the integration of external resources through networking. For that reason, firms apply different forms of interfirm partnerships in order to acquire and to have access to external valuable resources (Das & Teng, 2000; Ireland, Hitt & Vaidyanath, 2002). Luo (2007) states that 50% of new cooperative agreements are made between competitors, which shows that cooptation is currently a very common and popular strategy among firms. There is extensive literature and a gradient number of publications, however, it is necessary to advance the research on cooptation since it is stuck in the development stage (Gnyawali & Park, 2009; Morris, Kocak, & Özer, 2007; Ritala, 2012).

Therefore, the field of cooptation is underexplored, as its definition even remained unclear (Bengtsson, Ericsson & Wincent, 2010; Ketchen, Snow & Hoover, 2004) until Bengtsson and Kock (2014, p.182) concluded that 'cooptation is a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, regardless whether their relationship is horizontal or vertical'. This definition is also the adopted definition in this thesis.

By now, the literature in the field of cooptation mainly outlines it as a concept consisting of positive aspects. Cooptation is regarded as a unique strategy which capitalizes on the provided benefits of collaboration and competition (Brandenburger & Nalebuff, 1996; Bengtsson & Kock, 2000).

As a consequence, the current literature in this field of research is riddled with benefits and advantages for cooptation. Bengtsson and Kock (2000, p.411) even argue that cooptation is 'the most advantageous relationship between competitors'. In addition to that, Bengtsson and Kock (2000) also outline that the competitive side of cooptation gives rise to a pressure to develop new products and services. The contrasting cooperative side complements the beneficial aspects by having access to the partners' resources in terms of knowledge, technologies and competencies.

As opposed to this, the disadvantages or costs of cooptation are a largely neglected area. However, scholars were able to expose those disadvantages and found out that most of them emerged from opportunistic behavior and trust abuse.

As mentioned before, the application of the concept of cooptation to the field of supply management is scarce. However, all aspects of cooptation are also applicable to buying firms in a shared supply market. One specific example of a cooptative relationship between buying firms in a shared supply market is the development of a financial distressed supplier. Since both firms share the same supply market, it is usual that both have the same supplier, who is critical to them. If this supplier gets in financial difficulties, this will also affect both firms negatively. Due to the cooptative relationship, it will become more feasible to help this financial distressed supplier by merging the forces and resources of both firms. However, if both firms are not in a cooptative relationship, the development of this critical supplier would be at stake. First of all, the development of this supplier could not be manageable with the

resources of only one firm. Furthermore, by developing this supplier, which is also critical to the rival, the evolving firm also strengthens the rival at the same time. As a result, it can be concluded that the concept of cooptation can be helpful and beneficial for buying firms in a shared supply market.

Nevertheless, the supply management literature is mainly operational. That means that the supply management activities mostly occur within a firm. Therefore, the current literature in this field fails to address the strategic level. Due to this, the question arises which strategic implications could occur in cooptation for those buying firms in a shared supply market. In order to work out these strategic implications, I am going to build propositions by linking the cooptation literature stream to the competitive dynamics literature stream. Competitive dynamics will assist to build these propositions on a strategic level, since competitive dynamics addresses the interactions between firms and therefore is strategic.

In general, competitive dynamics is defined as 'the study of interfirm rivalry based on specific competitive actions and reactions, their strategic and organizational contexts, and their drivers and consequences' (Chen & Miller, 2012, p.4). In the competitive dynamics stream (e.g. Chen & Miller, 2012), I will focus more on the literature on interfirm rivalry based on specific competitive actions and reactions (e.g. Dyer & Hatch, 2006; Smith et al., 2001), especially on competitive actions within a supply market.

Based on this, my thesis will focus on the following research question:

*What are strategic implications of cooptation for buying firms in a shared supply market?*

In order to approach these strategic implications of cooptation, from now on, I will organize my paper as the following:

In the second section, the literature on cooptation will be discussed. First of all, the concept of cooptation is explained and afterwards, the advantages of cooptation will be outlined in order to show why the scholars regard it as such a beneficial and unique strategy. In 2.3, the disadvantages of cooptation provided by literature will be identified and discussed.

In the next part, the focus is on the competitive dynamics literature. Again, this section will begin with the discussion of what competitive dynamics is with a focus on competitive actions and reactions. Next, competitive actions in a supply market will be identified. In 3.4, this paper takes a closer look at the AMC framework.

In the fourth section, propositions on the basis of the three components of the AMC framework will be developed. The propositions are about strategic implications of cooptation for buying firms in a shared supply market. In order to build these propositions, the advantages and disadvantages of cooptation will be linked to the competitive actions in a supply market.

The last section will contain the discussion as well as managerial implications and suggestions for future research.

## 2. COOPTATION

### 2.1 What is cooptation?

By combining the two juxtaposing logics of competition and cooperation, the concept of cooptation was born and has been used for more than two decades up to the present.

However, in order to get a better idea of what coopeitition is, competition and cooperation has to be explained as separate concepts.

On the one hand, cooperation is a process based on mutuality and voluntariness in which the firms exchange and share their knowledge, experience, ideas as well as other resources in order to reach their goals (Khanna, Gulati & Nohria, 1998). Due to this, the boundaries between these collaborating firms are blurred and so the free flow of information, for example of research findings and scientific exchanges, is encouraged (Oliver, 2004). This will lead to improvements such as fast acquisitions of necessary resources (Chan et al., 1997) or reduced asset commitment and increased flexibility (Schilling & Phelps, 2007). Shortly, firms are cooperating for value creation (e.g. Lado, Boyd & Hanlon, 1997; Gnyawali & Madhavan, 2001; Quintana-Garcia & Benavides-Velasco, 2004). These cooperations are built on trust and close personal relations between members of the collaborating parties (Oliver, 2004).

Competition, on the other hand, is a dynamic situation where rival firms strive for competitive advantage. These opposing firms operate within the same specific market or area and they are in a constant struggle for scarce resources. Furthermore, they are also producing and marketing similar products or services (Bengtsson & Kock, 2000; Hunt, 2007). In contrast to cooperation, the boundaries between opposing firms are sharp and distinct (Oliver, 2004). They do not either exchange information or work on a joint project with the opposing firms. Through the exploitation of internal resources, capabilities and knowledge, the firms try to excel the competitors and to become the leader in their product domain or market segment (Oliver, 2004). The close and constant threat by the opposing firms also triggers firms to constantly upgrade and improve their own resources and capabilities. Therefore, competition is regarded as one crucial source of innovation and as upgrading organizations' competitive advantage (Bengtsson & Kock, 2000; Porter, 2001; Hunt, 2007). Moreover, Bengtsson and Kock (2000) come up with psychological factors such as prestige or pride. Those factors encourage firms to excel internally and so to outperform their opponents. Additionally, it is the norm that manipulative activities are performed in order to increase the firms' competitiveness (Oliver, 2004). Shortly, firms compete to gain strategic advantages and to improve their own operations as well as to keep or gain a position in the market. They are competing for value possession and utilization (e.g. Bengtsson & Kock, 2000; Hunt, 2007; Ketchen, Snow & Hoover, 2004; Luo, 2005).

Hence, coopeitition gives the coopeiting firms the opportunity to distract value and to benefit from the features of competition and cooperation in their relationship by merging these two forces (Luo, 2007).

### 2.1.1 The definition of coopeitition

In order to define the concept of coopeitition, scholars provide varieties of definitions to explain this phenomenon.

In 1993, Raymond Noorda was the first person who employed the term coopeitition in order to describe Novell's business strategy. Many scholars agree that he was the one who came up with this new concept originally (e.g. Bengtsson & Kock, 2014; Ketchen, Snow & Hoover, 2004), but Brandenburger and Nalebuff (1996) brought this new concept to business with their book 'Co-opetition' (Bengtsson & Kock, 2014). They define coopeitition as a value-creating synergy between the firm and its stakeholders consisting of customers, suppliers, competitors and

complementors. Bengtsson and Kock (2000) narrow the definition down to 'the dyadic and paradoxical relationship that emerges when two firms cooperate in some activities, such as in a strategic alliance, and at the same time compete with each other in other activities' (p.412). Here, coopeitition is displayed as a dynamic process between two actors that simultaneously cooperate and compete. Moreover, they emphasize coopeitition as a paradoxical relationship. This is due to the fact that the concept is built on two different logics of interaction, namely cooperation and competition. Additionally, they outline that it is impossible to cooperate and compete with the same activity. One unit within the firm can cooperate with the opposing party and another unit can compete with them, however, one unit is not able to do both interactions at the same time. Furthermore, Bengtsson and Kock (2000) also illustrate the degree of closeness to customers. Cooperation occurs in activities far from the customer and competition arises in activities close to the customer.

Nevertheless, the aforementioned definition is more than a decade old and between then and now the business environment has changed drastically. Nowadays, coopeitive relationships can consist of more than two firms involved simultaneously and coopeitition can also develop both in horizontal and vertical relationships (Bengtsson & Kock, 2014). Due to this, the following definition of Bengtsson and Kock (2014, p. 182) is adopted in this thesis:

*'Coopeitition is a paradoxical relationship between two or more actors simultaneously involved in cooperative and competitive interactions, regardless of whether their relationship is horizontal or vertical.'*

In this section, I shed light on the concept of coopeitition. The next two parts will outline the advantages and disadvantages provided by this phenomenon. Both advantages and disadvantages of coopeitition show what implications could be there for firms participating in a coopeitive relationship. Therefore, these will assist with the building of the propositions about strategic implications of coopeitition for buying firms in a shared supply market.

## 2.2 The advantages of coopeitition

As mentioned before, scholars regard coopeitition as a concept mainly consisting of positive features. Thus, the literature on coopeitition provides various advantages for firms. Due to the combination of both interactions of cooperation and competition, it reveals a lot of opportunities. For example, cooperation on the one hand, opens access to supplementary and scarce resources (e.g. Ritala, Golnam & Wegmann, 2014) since resources are limited for any firm. Competition, on the other hand, provides firms with the constant pressure of continuous development (Bengtsson & Kock, 2000; Quintana-Garcia & Benavides-Velasco, 2004).

The following Table 1 summarizes the advantages of coopeitition found in the literature.

Author	Advantages of coopeitition
Bengtsson & Kock (2000;2014)	<ul style="list-style-type: none"> <li>• Access to needed resources, developing new unique resources</li> <li>• Pressure to develop</li> <li>• Reduction of risks &amp; uncertainty</li> <li>• Cost- and time efficiency in new product development</li> <li>• Bundling of knowledge &amp; core</li> </ul>

	<ul style="list-style-type: none"> <li>competencies</li> <li>• Innovation</li> <li>• Organizational learning</li> <li>• Exploration of new opportunities e.g. new markets</li> </ul>
Dennis (2000)	<ul style="list-style-type: none"> <li>• Having control over market uncertainties</li> </ul>
Gnyawali & Park (2009; 2011)	<ul style="list-style-type: none"> <li>• Leveraging resources for cost sharing &amp; better products</li> <li>• Economies of scale</li> <li>• Increasing technological diversity</li> <li>• Reduction of risks</li> <li>• Reduction of duplication of effort</li> <li>• Promotion of innovation</li> <li>• Increased speed in product development</li> </ul>
Quintana-Garcia & Benavides-Velasco (2004)	<ul style="list-style-type: none"> <li>• Acquiring new technological knowledge &amp; skills</li> <li>• Creating &amp; assessing other capabilities based on an intensive exploitation of existing ones</li> <li>• Creating incremental or radical innovation</li> </ul>
Ritala, Golnam & Wegmann (2014)	<ul style="list-style-type: none"> <li>• Leverage of resource complementarities</li> <li>• Bundling sufficient quantities of similar supplementary resources</li> <li>• Increase of the size of market</li> <li>• Creating new markets by reducing risks &amp; cost sharing</li> <li>• Creating radical innovations and</li> <li>• Efficient resource utilization; leads to cost reduction &amp; quality assurance</li> </ul>

The aforementioned advantages in Table 1 are a rough summary of those advantages which are contained in the literature. The focus was set on advantages which are most important and relevant in the literature.

The examination of advantages in the coepetition literature shows that coepetition provides benefits in various areas. However, there are three benefits of coepetition that are found most frequent: Leverage of unique resources, innovation and reduction of uncertainties and risks. These benefits will be explained in detail, since these three beneficial implications of coepetition will be relevant later on in the proposition development stage for buying firms in a shared supply market.

### 2.2.1 Leverage of unique resources

The resource-based view states that firms have heterogeneous assets. Thus, the collaboration with the competitor enables these firms to increase their opportunities by using the competitor's resources. The most important advantage of coepetition is that both firms can grow and evolve because of the collaboration features or assets such as knowledge or technologies of the other firm in order to create value (Morris, Kozak & Özer, 2007).

The alliance between Apple Computer Inc. and Sony Corporation to manufacture Powerbook computers is one example of leveraging unique resources of two firms (Garaffo, 2002). These two global computer manufacturers did cooperative research and development activities together since

neither firm had the capability to develop the Powerbook individually. The combination of Apple's strength of having the capability to design easy-to-use computer products coupled with Sony's miniaturization capability including the manufacturing know-how, which is necessary to make valuable products, they created more powerful desktops and notebooks.

Another good example is the joint venture between Sony and Samsung for the development and production of LCD panels for flat screen TVs (Gnyawali & Park, 2011). Both firms were rivals in the LCD market and they even represent the traditional rivalry between their countries of origin, Japan and South Korea. The combination of the unique capabilities of both firms and the establishment of joint manufacturing facilities in South Korea, helped those firms to become market leaders in the LCD TV markets during the last decade. On the one hand, Sony provided the superior technological know-how while Samsung contributed by providing superior marketing abilities. In addition to that, this coepetitive relationship shared costs and risks by establishing joint manufacturing facilities.

### 2.2.2 Innovation

The concept of coepetition provides various opportunities of innovation for the participating firms. Both features of coepetition essentially contribute that innovation is regarded as an important advantage. In general, competition pressures firms to develop and upgrade their competitive advantage constantly. The collaboration between competitors provides both actors with their unique resources and capabilities in order to innovate (Bengtsson & Kock, 2000).

The aforementioned example of the coepetitive relationship between Sony and Samsung for manufacturing LCD panels shows exemplary how complementary resources can lead to innovations. The bundling of Samsung's technological strength in LCD technology and Sony's technological strength in television as well as the shared costs for the high investment led both firms to the innovation and development of an LCD. As a result, this specific LDC helped them to increase their competitive advantage and to become market leaders (Gnyawali & Park, 2011).

### 2.2.3 Reduction of risks and uncertainties

Another benefit of coepetition is the reduction of uncertainty and risks. As it is illustrated in the case of the coepetitive relationship between Samsung and Sony, they can reduce risks in the process of innovation by distributing costs. Thus, they can increase the possibility of succeeding. Furthermore, the case shows how firms can combine their complementary technologies in order to have a large set of capabilities. In other words, they are well-equipped for the defense against competing products and technologies (Gnyawali & Park, 2009). In addition to that, the duplication of efforts can be reduced in contrast to developing products on their own. Consequently, the risk of product failure is reduced as well (Gnyawali & Park, 2011).

One example of the reduction of risks can be found in the Finnish dairy industry, which consists of only a few actors (Bengtsson & Kock, 2000). Those few have founded a pool to share the transport containers needed for the distribution of the products. Every firm has provided resources to this pool, for example a certain number of transport containers. Due to unification measures, these are not labeled by marketing or other promotional advertisement. The advantage of this is that if

one firm in the pool is short of those transport containers, it can get in touch with another actor and borrow a container.

All these advantages and beneficial aspects explain why firms adopt the concept of coopetition. Ritala (2012) outlines four motives for coopetition which evolve from these beneficial aspects. The increase in the size of the current market and the creation of new markets are two main reasons for firms to take part in such a specific collaboration. Furthermore, the efficiency in resource utilization as well as the improvement of a firm's competitive position are also rationales to collaborate with a competitor.

### 2.3 The disadvantages of coopetition

In this part, I will shed light on the disadvantages coopetition in general provides. As mentioned before, the literature on coopetition highlights this concept as one mainly consisting of beneficial aspects. However, a very few scholars did also research on this topic, but not as intensively as on the contrasting side of it. Nevertheless, they have outlined five downsides of coopetition. All of these five are relevant for the proposition development, since they show negative implications that could occur in a cooperative relationship. Thus, these five downsides will be explained in detail in this chapter.

Gnyawali and Park (2011) assert that cooperating firms are confronted with a dilemma. On the one hand, there is the existence of attractive opportunities and on the other hand, there is the risk of misappropriation by the partner. Scholars use the term 'tension' to describe the harmful actions coopetition provides for participating firms (e.g. Gnyawali & Park, 2011; Fernandez, Le Roy & Gnyawali, 2014).

#### 2.3.1 Loss of knowledge and information

The first disadvantage is the risk of loss of knowledge and information for cooperating firms.

In their cooperative interaction, both firms provide a pool with a certain amount of knowledge, information or competencies in order to create value. However, these assets can be their secret and proprietary ones. Therefore, they need protection since the firm's collaborator also remains a strong competitor. If the other firm is indeed an opportunistic partner, the firm could lose its assets such as its proprietary knowledge and information (Gnyawali & Park, 2009; Hakansson & Ford, 2002). Especially in the horizontal coopetition, higher levels of overlapping knowledge and information as well as lower levels of trust are found, which is proven to be harmful for innovative actions (Rindfleisch & Moorman, 2003).

#### 2.3.2 Knowledge appropriation

The knowledge appropriation is in close contact with the first disadvantage.

This type of disadvantage takes place after both firms have used their pool of assets in order to create value. In this stage, tension over the distributive and integrative elements of knowledge appropriation could arise (Oliver, 2004). To put it simply, tensions arise since each firm wants to capture more of the value created than the other firm. This is highly critical for those firms because both have the same competitive goals on the markets (Fernandez, Le Roy & Gnyawali, 2014).

#### 2.3.3 Abuse of information

Another disadvantage occurs by the abuse of information.

By cooperating with their competitor, the information flow between both parties is immense. Unlike the first disadvantage, the abuse of information regards the distribution of false information to their cooperative partner. For example, this could harm their partner in the marketing stage, in which the relationship is transformed back to pure competition. Based on that, there can also be distrust in received information, which in turn can even lead to the unwillingness of receiving information from their partner (Luo et al., 2006). Hence, the cooperative relationship suffers from distrust and so the best possible results cannot be achieved.

#### 2.3.4 Loss of control

The loss of control over the partnership and its operation is another downside.

Particularly small and medium-sized enterprises (SME's) are likely to face this kind of disadvantage since their partner is well provided with resources, especially financial resources. Due to this, the larger partner will gain more control and power, which forces the smaller ones to take more risks (Gnyawali & Park, 2009).

#### 2.3.5 Management difficulties

By summarizing the aforementioned downsides, one can also assume that the management of coopetition in general is a very difficult and challenging task (Gnyawali & Park, 2009). For instance, it is very challenging to find the right amount of collaboration and competition in order to create value without losing proprietary knowledge at the same time.

As indicated by Gnyawali and Park (2009), firms should not just recognize the benefits of coopetition, but also the costs of it. In addition to that, Park and Russo (1996) also outline that tensions explain why alliances between competitors are more unstable than those between non-competitors.

In this section, several disadvantages of coopetition were outlined. In its essence, most of these advantages emerged from opportunistic behavior or trust abuse.

## 3. COMPETITIVE DYNAMICS

As mentioned before, the supply management literature is mainly operational, meaning that its activities occur within a firm. In order to build the propositions on a strategic level, I will link the coopetition literature stream to this competitive dynamics literature stream. Competitive dynamics is a literature stream which focuses on the strategic level, since it describes the interactions between firms. Therefore, this literature stream will assist to build propositions about those implications on a strategic level.

### 3.1 What is competitive dynamics?

In the beginnings of the competitive dynamics research, many terms were used interchangeably to describe this concept. Terms such as 'interfirm rivalry', 'competitive engagement' or 'competitive interaction' were used to refer to this line of research. However, the scholars adopted the term 'competitive dynamics' as the most common by now (Chen & Miller, 2012).

The roots of the concept of competitive dynamics can be traced back to Schumpeter's (1950) theory of 'creative destruction'. The process of creative destruction explains the dynamic market processes in which firms act and react in the pursuit of market opportunities in order to gain advantage over their competitors and hence to survive in the long term (Smith,

Ferrier & Ndofo, 2001). Furthermore, the research on competitive dynamics extends the Schumpeterian perspective by integrating the Austrian economies (Young, Smith & Grimm, 1996; Ferrier, Smith & Grimm, 1999). According to the Austrian economies, the market is rarely, if ever, in a state of equilibrium since firms engage in the aforementioned process of creative destruction. Thus, firms are constantly committed by initiating competitive activities and therefore, the market process is changing continually. The work of MacMillan, McCaffrey and Van Wijk (1985) about competitors' response times to easily imitate new products in the banking industry marked the beginning of the competitive dynamics research.

Competitive dynamics is a stream of literature within strategic management, which addresses the way in which firms interact when they compete with their rivals. Its main focus is on the interaction between competitors. This concept, however, does not only consider the actions taken by the competitors, but also their responses to the competitive actions (Chen & Miller, 2012). Furthermore, the competitive dynamics literature shows why those firms act in particular ways and also takes into account how competitive as well as organizational behavior influence each other (Ketchen, Snow & Hoover, 2004; Smith, Ferrier & Ndofo, 2001). Thus, Chen and Miller (2012, p.4) define competitive dynamics as the following:

*'Competitive dynamics is the study of interfirm rivalry based on specific competitive actions and reactions, their strategic and organizational contexts, and their drivers and consequences.'*

### 3.1.1 Three defining features of competitive dynamics

Moreover, Chen and Miller (2012) outline three defining features of competitive dynamics, which characterize this body of work.

First of all, competition is regarded as dynamic and interactive. It is characterized by competitive actions and reactions. Sometimes even streams of those actions and reactions are possible.

Secondly, these actual actions and responses carried out by firms are the central part of competitive dynamics. Examples of such actions or responses are the following: Advertising campaigns, new product introduction, capacity and scale related actions, the entry of the firm into new markets, changes in the price policy or maybe the relocation or redesigning of a facility for more efficiency.

Thirdly, the comparison of those acting firms or rivals is one essential element of the competitor analysis and therefore also an important part of competitive dynamics. The pairwise comparison of rivals includes their positions, intentions, perceptions as well as their resources.

## 3.2 Competitive actions and reactions

In order to clarify the definition of competitive dynamics, a closer look needs to be taken at what competitive actions and reactions are. In general, there are two definitions of these competitive moves which are relevant in this literature stream.

Chen and Miller (2012, p.10) define a competitive action as 'a specific competitive move initiated by a firm, such as introducing a new product or entering a new market; such actions may erode a rival's market share or reduce its anticipated returns.'

Moreover, they also define a competitive response or reaction as 'a specific and datable countermove, prompted by an initial

action that a firm takes to defend or improve its share or profit position in its industry'.

Competitive action and response can also be regarded as an 'externally directed, specific, and observable competitive move initiated by a firm to enhance its relative competitive position' (Smith, Ferrier & Ndofo, 2001, p.12).

It can be concluded that the definitions of competitive actions and reactions have one central goal in common for the competing firms: They try to erode the rival's market share and to reduce the rival's return as well as to improve their own share or profit position. As a result, these competitive actions and reactions try to enhance a firm's relative competitive positions, its profits, its competitive advantage as well as its overall performance (Pulles, Vos & Veldman, 2014; Smith, Ferrier & Ndofo, 2001).

In addition to that, Chen and Miller (2012) took a closer look at competitive responses and they came to the conclusion that these responses were functions of three different characteristics. The first characteristic is the attributes of the attack. These include, for example the difficulty in implementation, the time and effort needed for the execution, visibility and industry attention (Young, Smith & Grimm, 1996).

Secondly, the characteristics of the attacker are important such as their commitment to these actions (Chen, Smith & Grimm, 1992).

Thirdly, the characteristics of the defender or rival are important. Examples of this are the competitor's dependence or whether the defender's market stake is at risk (Baum & Korn, 1999).

Studies on these interactions between competitors have also revealed some interesting insight.

Competitive actions, which are strategic, require long execution time and such which are less visible are more likely to reduce the number (Chen & Miller, 1994) and the speed of the rival's reaction (Smith, Grimm, Gannon & Chen, 1991). Likewise, Chen and Hambrick (1995) found out that small firms execute more attacks and they are also faster in executing those, compared to large firms. Nevertheless, when small firms are attacked, they are less likely to respond as well slower in the execution of their reaction. Furthermore, Chen and MacMillan (1992) argue that if a firm is attacked in their key market, it will most likely react. Therefore, competitor dependence and action irreversibility is positively related to the likelihood of response (Chen & MacMillan, 1992). Smith, Ferrier and Ndofo (2001) conclude in their competitive dynamics studies that there is a positive relationship between the action/reaction aggressiveness and performance as well as between a focal firm's performance and the length of time taken by a rival to respond. The latter positive relationship means, for example, that the more time it takes for the rival to respond to a competitive action, the better it is for the attacking focal firm. In addition to that, they found a negative relationship between action/reaction timing and firm performance.

To conclude the beneficial aspects of competitive interactions, Young, Smith and Grimm (1996) found a positive relationship between competitive interactions and the gain of market share for the attacking firm.

Apart from the positive aspects, research has also found that if a firm executes too many competitive actions, it can negatively affect a firm's performance. A large number of competitive actions can harm a firm by enormous expenditures and increasing risks. Additionally, the market will become more aware and rivalry increases, which will cause more competitive interaction in the market (Chen & Miller, 1994).

### 3.3 Competitive actions in a supply market

In this section, potential strategies or competitive actions, which affect a firm's position in the supply market positively, will be outlined. In general, a supply market can be regarded as the market where firms buy their input.

Narasimhan and Schoenherr (2012) state that the integration of competitive actions in a firm's supply management is necessary in order to retain or even improve its competitive position. In addition to that, Pulles, Vos and Veldman (2014) assert that firms, which execute competitive actions in their supply markets, will perform better than those who do not.

Some common examples of these actions are 'contracting, supplier development, relation specific investments and shared patents to protect first-mover advantages' (Pulles, Vos & Veldman, 2014, p.6). However, I will focus on the following four competitive actions in a supply market, since these four are also relevant for my proposition development. All of these four competitive actions in a supply market will be used later on in order to build my propositions.

Before the competitive supply management actions will be outlined, a definition of these actions has to be provided.

Pulles, Vos and Veldman (2014, p.6) give a definition for these actions in the following:

*'A competitive action in a supply market can be seen as an externally directed, specific, and observable competitive move initiated by a firm to enhance its relative position in a supply market'.*

#### 3.3.1 Supplier development

Supplier development is a strategy or action which is commonly used to gain competitive advantage as a buyer. In this action, the buyer and a supplier develop a special relationship. The buyer tries to develop the supplier for example by setting goals, providing the supplier with training and equipment, the exchange of personnel or the evaluation of the supplier's performance. As a result, the supplier improves his performance for instance by working more efficient due to reduced costs or improved quality. At the same time, these benefits will also affect the buyer who supported the supplier. This relationship could result in reduced costs through logistical improvements or it also could reduce risks through better forecasting (Li et al., 2012). Nevertheless, the development of a supplier by a buying firm requires a large amount of corporate resources such as knowledge and financial resources as well as time (Krause & Ellram, 1997).

#### 3.3.2 Preferred customer strategy

The preferred customer strategy (Hüttinger, Schiele & Veldman, 2012) is also a competitive action in which the buying firms try to obtain preferential resource allocation by their important suppliers against rivals. Usually, the suppliers are trying to gain attention from their buying firms, however, this strategy reverses this logic. Due to this strategy, the preferred customers for example could avoid supply risks or get access to supplier innovations before their rivals do.

#### 3.3.3 Contracting

Contracting is also a competitive supply action which secures the supply for the buying firm against its rivals. By contracting the supplier, the buying firm ensures that there is enough and steady supply. This allows the buying firm to secure its supply

as well as their production capacity and so the contracting firm remains competitive (Cachon & Lariviere, 2001).

#### 3.3.4 Lock-in situation

The creation of a lock-in situation makes the supplier highly dependent on the buying firm (Narasimhan et al., 2009). Due to this, the firms who source from the same supplier are at a disadvantage and face great risks in their supply.

### 3.4 The AMC framework

In the final part of the third chapter, a closer look will be taken on the AMC framework. This framework is a strategic tool within competitive dynamics, which predicts the level of competitive tension between firms (Chen, Su & Tsai, 2007). This tool will assist me in the building of the propositions.

The awareness-motivation-capability framework (Chen & Miller, 1994; Chen, Su & Tsai, 2007), in short AMC, has its historical roots in the expectancy-valence framework by Vroom (1964). By using this framework, Chen and Miller (1994) developed a model for predicting the features of a competitive action, which would decrease the chance of retaliation by a rival. The expectancy-valence framework asserts that the likelihood of a response to an attack would depend on the rival's 'valence' for initiating a successful response (Motivation component of AMC), coupled with the rival's perceived likelihood that it would have enough capabilities to respond (Capability component of AMC). In addition to that, the visibility or awareness (Awareness component of AMC) of the competitive attack is the third component of this framework (Chen & Miller, 2012).

The AMC framework provides a model with three key drivers of competitive behavior (Chen, 1996), which predict, analyze and facilitate competitive actions and responses. The three key drivers are the *awareness* of an action, the *motivation* to respond to that action and the *capability* to react to that action. Awareness represents the firm's perception of its rivals, markets and competitive environment as well as the competitive moves of its rivals. Motivation refers to the firm's encouragement to react and to respond to a competitive attack by a rival. Capability represents the extent to which the firm can react and respond, based on their resources and endowments (Chen, Su & Tsai, 2007; Pulles, Vos & Veldman, 2014).

The attacking firm is able to predict the behavior and reaction of their rivals (e.g. likelihood and speed of response) by using these three components. Furthermore, for the attacker each of its rivals differs according to the three components (Chen & Miller, 2012).

Chen and Miller (2012, p.7) put it in other words and explain the AMC framework by stating that 'a competitor will not be able to respond to an action unless it is *aware* of the action, *motivated* to react, and *capable* of responding.'

As a consequence, Pulles, Vos and Veldman (2014) recommend that a firm should take the AMC of the rival into account when it is planning to execute competitive actions since the rival's AMC determines the effectiveness of its planned actions.

The AMC framework was recently applied by Pulles, Vos and Veldman (2014) in their paper 'Competitor oriented supply management strategies'. They have connected the AMC framework to strategic supply management.

As a result, they assert that 'competitive actions of the focal firm in a supply market where rival firms are aware, motivated and capable of responding to these actions, have a greater likelihood of inflicting competitive responses of the rival firms'

(p.8). As a direct consequence of this, the authors assert that 'competitive actions of the focal firm in a supply market where rival firms are not aware, motivated and capable of responding to these actions, will be more successful than competitive actions in a supply market where rival firms are aware, motivated and capable of responding' (p.8).

Therefore, these authors propose, as it is mentioned before, that the attacking firm should take its rival's AMC into account since his AMC provides a prediction of the rival's commitment towards a response.

#### **4. PROPOSITION DEVELOPMENT**

After I have already examined and discussed the relevant literature on cooperation and competitive dynamics, I am going to develop propositions about strategic implications of cooperation in a shared supply market.

The basis for these proposition developments is the AMC framework, which can be used to analyze and predict competitive actions and reactions between rivals. More precisely, each of the three components will contribute individually. The propositions are based on the influence of awareness, motivation and capability. In the next three sections, I will outline one positive and one negative effect of each of the three components of the AMC framework for the focal firm.

##### **4.1 Influence of awareness**

As indicated before, awareness represents the firm's perception of its rivals, markets and competitive environment as well as the competitive moves of its rivals.

In general, the influence of the awareness-factor in the AMC framework is high. Since the AMC framework predicts and analyzes competitive actions and reactions, the awareness-factor is the basis for this analysis. Chen and Miller (2012, p.7) assert that 'a competitor will not be able to respond to an action, unless it is aware of the action, motivated to react and capable of responding'. Thus, in order to be motivated and capable to react to a competitive action, the focal firm has to be aware of this action in the first instance. If the firm is not aware of that, motivation and capability play no role and therefore the firm could suffer from the consequences of this unawareness.

The literature on the AMC framework provides several drivers of awareness. The most relevant and important drivers are the market commonality, resource similarity and the size disparity. Market commonality is defined as 'the degree of presence that a competitor manifests in the markets it overlaps with the focal firm' (Chen, 1996, p.106) and it is positively related to awareness. Hence, when firms operate in common markets, there will be a higher likelihood that they have higher levels of awareness of their environment. On the contrasting side, firms that operate in markets with little or no overlap have a smaller chance of having a higher awareness level about each other's environment.

The positive relationship also applies for firms that possess similar resources. Chen (1996, p.107) defines resource similarity as 'the extent to which a given competitor possesses strategic endowments comparable, in both type and amount, to those of the focal firm'. Thus, firms, which have higher levels of resource similarity, are more aware of each other. On the other hand, if the resources are not or just a little similar, the probability of awareness of each other is lower.

Another important driver of awareness is the relative size of a firm. Baum and Korn (1999) assert that these relative sizes of firms within competitor dyads reflect differentials in competitive strength and salience of the firms comprising the dyad. In fact, large firms in the market are recognized easier

than small ones. Larger firms are more visible in the market due to attributes such as propensity for actions or their execution speed (Chen & Hambrick, 1995). Because of their largeness, smaller firms are often intimidated by their market and resource power, so that they regard them as a major competitive threat. Consequently, the greater the size disparity, the more likely the focal firm will be aware of its competitor's actions and its potential threat.

Furthermore, Chen and Miller (2012) also outline the breadth of experience and the position of a firm within a network of stakeholders as drivers of awareness.

The breadth of experience of firms is an important aspect concerning the awareness of the competitive environment. If a firm is relatively young, they are more cautious in their actions and due to this, they have higher levels of awareness. In contrast to that are firms with long job tenure. Those firms could get the tunnel vision and so have lower levels of awareness.

Another important driver of awareness is the position of a firm within a network of stakeholders. This position can determine the kind of information the firm is able to get about their competitive environment. So, if a firm is in a relative good position, it will be more aware of its competitive environment as well as their actions.

The influence of awareness on competing firms in a shared supply market is highly dependent on the market commonality and the resource similarity. Both are relevant since the competing firms share the same supply market.

One example of a positive effect of awareness for these firms is the provision of false information. In order to harm the rival, the focal firm can claim that it has contracted various suppliers for a segment of the market which does not affect the rival. As a consequence, the rival concludes that the focal firm has its focus on this new action and so the rival loses sight on it. However, this provision of false information was just a distraction tactic from the focal firm in order to attack its unaware rival.

##### **Proposition 1:**

If a firm cooperates with its competitor, it has the possibility to provide its partner with false information. By claiming that it has contracted various suppliers for a segment of the market, which does not affect the rival, the rival concludes that his partner has its focus on new actions. As a result, the rival loses sight on the focal firm. By setting him on the wrong track, the rival is not aware of the focal firm's future actions.

On the other hand, cooperation enables the rival firm to be more likely aware of the focal firm's future actions. If both firms share one critical supplier, but only the rival firm is aware of that, it can take advantage of that situation. By creating a lock-in situation, the rival makes the supplier highly dependent on him and so the focal firm could face great risks in its supply.

##### **Proposition 2:**

If a firm cooperates with its competitor, its rival is more likely to be aware of the partner's critical suppliers. As a result, this rival can take advantage of that knowledge by creating lock-in situations. Due to this, the focal firm could face great risks in its supply.



## 4.2 Influence of motivation

Motivation is the second component of the AMC framework and it refers to the firm's encouragement to react and response to a competitive attack by a rival.

As indicated before, the awareness-factor in the AMC framework is the most important one. If a rival is not aware of a competitive action, the firm has no reason to be motivated to react. However, Chen and Miller (1994) state that motivation is a prerequisite of behavior and therefore a stronger and more direct predictor of these competitive actions than the awareness-factor and the capability-factor.

In the literature, the most important driver of motivation is market commonality.

A competitive attack by a rival on the focal firm's markets, especially those valued by the firm, causes the greatest tension for a firm (Chen, Su & Tsai, 2007). This in turn, leads them to higher levels of motivation to retaliate. As Chen, Su and Tsai (2007) indicate, firms will be most motivated if they compete in similar markets and develop comparable market forces. Thus, the more important and the more common the market is, the more motivated the competitor will be to retaliate.

Furthermore, Chen and Miller (2012) outline several other drivers of motivation. The reporting structures and accountability systems within a firm have a high impact on the motivation of its employees. Both systems can encourage individuals in these firms to work as best as they can or they can lead them to a more conservative and passive role. Reward systems within a firm and the corporate culture in general, could also have a high influence on the motivation.

The influence of motivation for competing firms in a shared supply market is highly dependent on the market commonality. Thus, firms who share the same supply market also often share suppliers. As mentioned in the introduction, one specific example of a cooperative relationship between buying firms in a shared supply market is the development of a financial distressed supplier, who is critical to both. Since the supplier is critical to both firms, they will be highly motivated to combine their resources in order to develop this supplier.

### Proposition 3:

If a firm cooperates with its competitor, both firms will be highly motivated to develop a financial distressed supplier, who is critical to them.

In contrast to that, the rival could also use the motivation-factor in order to harm the focal firm. For example, the rival is interested in developing a financial distressed supplier who is important for him. Nevertheless, the rival firm's resources are not sufficient to cope with it on their own. Therefore, it could provide the focal firm with the false information that the financial distressed supplier is of high value for the focal firm's future action. As a result, the focal firm is highly motivated to help this supplier and so it also invests resources. However, at a later stage the focal firm recognizes that the rival firm has provided false information and so it lost its resources without obtaining benefits.

### Proposition 4:

If a firm cooperates with its competitor, the rival has the possibility to provide the focal firm with false information. In order to develop a financially distressed supplier, who is of value for the rival, but not for the focal firm, the rival can provide his partner

with false information. Due to this, the rival firm obtains sufficient resources by the partner in order to develop this supplier. The false information motivates the focal firm to execute actions which benefits the rival and harms themselves.

## 4.3 Influence of capability

The capability-factor represents the extent to which the firm can react and respond to a competitive action, based on its resources and endowments. In other words, capability provides a firm with the capacity to compete (Chen, Su & Tsai, 2007). Capability is the last component of the AMC framework and the awareness-factor as well as the motivation-factor are requirements for this last factor. If a competitor is aware, but not motivated to react to a competitive action, the capabilities needed to respond become unnecessary. And if a competitor is even unaware of a competitive action, it will not address motivation and capability. Therefore, in order to predict or analyze competitive actions, the sequence of steps has to be complete. The capability-factor comes in last place and it determines with finality if the reaction will take place.

The most important of the drivers of capability is the resource similarity, which is defined as the extent to which a given competitor possesses strategic endowments comparable to those of the focal firm (Chen, 1996). There is a positive relationship to capability meaning that the greater a competitor's resource similarity, the greater its capability to respond to an attack (Chen, 1996).

In addition to resource similarity, Chen and Miller (2012) outline various other drivers of capability. First of all, the skill of the actor is very important. For example, the understanding of the competitive environment, the competency to formulate plans for an effective attack or using a firm's resources effectively can be vital to the success. Like the awareness-factor, the firm's interpersonal network is also important in order to receive valuable information or advice as well as political support. Furthermore, the resource-based view also highlights the importance of valuable, rare, inimitable and non-substitutable resources. If the attacking firm possesses such resources, the chances of retaliation by a rival are smaller. Moreover, there are also drivers that lie beyond the boundaries of an organization. There might be certain conditions such as barriers to enter or exit an industry and development in the legal, social and political infrastructure. All these factors might constrain or enhance the capabilities of a firm to take competitive actions.

The influence of capability on competing firms in a shared supply market is highly dependent on resource similarity. If the firms share the same supply market, the resource similarity is very high. Thus, the following example illustrates this case. Both firms are interested in a supplier, which can be of high strategic value for both firms in the future. However, the performance of this supplier still needs to be improved in order to be valuable for the firms' future actions. In order to improve this supplier, it is more likely that the resources of both firms can develop this supplier contrary to the fact that only one firm cannot provide these. Due to their cooperative relationship, both firms can leverage their resources and so act more efficiently and successfully in the development of this supplier.

### Proposition 5:

If a firm cooperates with its competitor, it is more likely that both firms have the

capability to develop a supplier, which can be of high strategic value for both firms in the future. In contrast to this, it is unlikely that one firm possesses enough resources to develop this supplier on its own.

However, the influence of capability also reveals a negative effect. As mentioned in 2.3.1, the loss of knowledge and information is a disadvantage of cooptition. If coopting firms share a supply market, proprietary information and knowledge with high strategic value could spillover. For instance, the rival could spy out that the focal firm is interested in a supplier, which determines valuable future actions for it. Due to the information spillover, the rival firm can act opportunistically and initiates a preferred customer strategy on this supplier. As a consequence, the rival firm steals both the supplier and the partly competitive advantage of the other firm. This type of opportunistic behavior could either benefit or harm the focal firm depending on the perspective.

**Proposition 6:**

If a firm cooperates with its competitor, it is more likely that the rival firm has the capability to get access to the focal firm's knowledge and information. Due to this, the rival could spy out that the focal firm is interested in a supplier, who determines valuable future actions for it. Therefore, the rival firm can act opportunistically and initiate a preferred customer strategy on this supplier. Hence, the rival firm steals both the supplier and the partly competitive advantage of the other firm.

## 5. DISCUSSION, MANAGERIAL IMPLICATIONS & FUTURE RESEARCH

Various scholars regard the concept of cooptition, which is also applicable to buying firms in a shared supply market, as one mainly consisting of beneficial and positive aspects. Bengtsson and Kock (2000, p.411) even argue that 'cooptition is the most advantageous relationship between competitors.' By juxtaposing the advantages and disadvantages cooptition in general provides, my paper confirmed this perception of cooptition. The current literature on cooptition does provide a large amount of advantages as it is shown in Table 1. On the other hand, the current literature on the disadvantages of cooptition is comparatively small.

By linking these advantages and disadvantages of cooptition to the competitive actions in a supply market, six propositions about strategic implications for buying firms in a shared supply market have been developed. However, if a closer look is taken at all propositions, only two of these propositions show that cooptition is beneficial to both buying firms in a shared supply market on a strategic level (propositions 3 and 5). On the other hand, four of these propositions assume that one of the both actors will benefit by harming the other actor. In other words, the competitive relationship will be abused by the features of cooptition. For example, proposition 2 and 6 show that both firms abuse the features of cooptition in order to get the rival's proprietary knowledge and information. By means of this, both firms are able to behave opportunistically and thus harm their rival.

Therefore, the strategic implications of cooptition for buying firms in a shared supply market show us that the concept of cooptition cannot be regarded as one of the most advantageous relationships between competitors. The market commonality as

well as the resource similarity between both cooperative firms, which are due to the shared supply market, offer many beneficial opportunities for both firms, however, they also offer too many opportunities to act opportunistically and so to harm their competitor. In this case, just one firm obtains the benefits of cooptition by harming the other firm in their cooperative relationship. However, the actual purpose of the concept of cooptition is aiming to benefit both firms in this specific relationship and not just one firm (Luo, 2007).

As a result, this paper concludes that the concept of cooptition in a shared supply market is not only beneficial on the strategic level. Indeed, both firms have various opportunities to benefit from this concept, but there are also several downsides to it.

### 5.1 Managerial implications

My literature review and the developed propositions open up several managerial implications, as they provide new insight into strategic implications of cooptition for buying firms in a shared supply market.

First of all, it is important for managers in general to note that if they initiate a cooperative relationship with another firm, the other actor is still their competitor. The literature on cooptition praises this new concept as such a beneficial relationship and thus managers could be easily distracted by these positive aspects (propositions 3 and 5). Nevertheless, as my propositions (1, 2, 4, 6) suggest, there are also several opportunities to abuse the concept of cooptition.

Before the manager initiates a cooperative relationship, he should take a closer look into the past of their potential cooptition partner. Since the downsides of cooptition arise from opportunistic behavior (propositions 1, 2, 4, 6), the manager can investigate if the partner has already been opportunistic in any way. By doing this, he can minimize the chances of being abused and tricked by their rival.

As my propositions (2, 6) suggest, managers should pay attention to their proprietary knowledge and information when they are in a cooperative relationship with another firm. However, in order to prevent that the rival is going to take advantage of their proprietary knowledge and information, it is advisable for the managers to make contracts with their cooperative partner, which protect their assets in a legal way.

Nevertheless, if they are coopting in a shared supply market and information spills over, managers should always be prepared for a competitive action. For example, due to information the rival obtained, they can try by the creation of a lock-in situation or the preferred customer strategy to restrict the manager's firm of access to this supply. Therefore, managers should always be prepared in order to avoid supply risks.

### 5.2 Future research

This paper is completely based on theory and therefore the validity of the propositions cannot be confirmed since there is no empirical evidence. Hence, a possible idea for the future research would be to do an empirical study of all these strategic implications of cooptition in a shared supply market and then to test my 6 propositions. It would be very interesting to see if the focal firm or the rival is truly opportunistic enough, for example, to abuse proprietary information and so to create a lock-in situation in order to endanger the supply flow of the other actor.

Furthermore, in order to develop the propositions, this paper took into account only four competitive actions in a supply market. Thus, it would be valuable to see what would happen if, for example, relation specific investments or shared patents to protect first-mover advantages were considered (Pulles, Vos & Veldman, 2014).

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