

Master thesis
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COOPETITION WITHIN SME'S

Development of a conceptual framework for
successful coopetition

SME's are limited by their size and must therefore be open to alternative strategies to ensure successful innovation, despite its paradoxical premise coopetition can help SME's do better NPD

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Contents

Contents	1
Abstract	3
Acknowledgements	4
Table of figures.....	5
List of Abbreviations	5
Introduction	6
Problem formulation	7
Research outline.....	7
Limitations of research.....	8
Philosophy of science	9
Definition of Paradigm	9
Ontology.....	11
Epistemology.....	12
Human nature	12
Method of data collection	14
Literature review	14
Scientific validity and reliability	15
Theoretical background.....	16
Transaction cost theory.....	16
Social exchange theory (SET).....	17
History of SET	17
The premises for SET	18
Literature Analysis.....	22
Definitions of coopetition.....	22

General trends in the research field.....	23
Motivation.....	24
Success factors.....	25
Results.....	28
Conceptual framework.....	29
Literature.....	29
Framework development.....	30
Theoretical understanding of success factors.....	33
Discussion.....	35
Discussion of the conclusions.....	35
Discussion of the method.....	36
Conclusion.....	37
Future research.....	39
Bibliography.....	40
Appendix.....	43

Abstract

This thesis is a conceptual study of cooptition in small and medium sized entities (SME's). The focus of the study is the success factors of cooptitive relationships with focus on innovation. The aim is to give managers an overview of what factors are most important to consider to ensure a sustained successful cooptitive relationship.

The research is based on a systematic literature review. The articles were sorted to focus mainly on SME, cooptition and innovation. The articles found in this review, were compared and grouped to determine what factors scholars agree, to be the most significant for success. These factors were used in a framework, which provides a good overview of how the scientific literature is divided. The factors were examined in relation to social exchange theory, in order to explain why these factors are important, as well as how managers can utilize this knowledge, to increase the chance of success in their cooptitive relationships.

The literature review revealed four main success factors for cooperative relationships: the balance between and extent of cooperation and competition (cooperation/competition matrix), trust, activity/commitment and social capital. These factors are compared to the social exchange theory, which explains that any interaction is an exchange, and that people/companies compare these transactions to alternatives. The theory states that interactions are based on reciprocal commitment, and that positive interactions increase trust and willingness to commit. The theory helps understand the factors of cooptition, as well as what can be done by managers to increase their chance of success in cooptition.

The topic was chosen, because there is a high focus on innovation in today's business research, and SME's as well are in high focus. However, these companies often have limited financial resources, but will still seek to innovate. This leads SME managers to seek alternative strategies to increase their innovation. Among those strategies are cooptition, which has proved to increase innovation, but cooptition still lacks a general investigation of the success factors.

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That being said, I take full responsibility for and mistakes made in this thesis.

Table of figures

Figure 1 Assumptions about the nature of science (Burrell & Morgan, 1979, s. 3)	10
Figure 2 Ultimate Presumptions (Arbnor & Bjerke, 2009, s. 19)	11
Figure 3 Core Ontological Assumptions (Morgan & Smircich, 1980, s. 492)	11
Figure 4 Assumptions about human nature (Morgan & Smircich, 1980, s. 492)	13
Figure 5 Articles written about Coopetition (Bengtsson & Kock, 2014)	23
Figure 6: coopetition matrix based on (Park, Srivastava, & Gnyawali, 2014) (Own design)	26
Figure 7 Division of Literature from Literature review (Motivation, Success Factors and Result)	29
Figure 8 Conceptual framework for Coopetition	31
Figure 9 Literature used for the conceptual framework	32

List of Abbreviations

CL: Comparison Level

CLalt: Comparison level of alternative options

NPD: New product development

SET: Social exchange theory

SME: Small and medium sized entities

TCT: Transaction cost theory

Introduction

The field of coopetition, that is simultaneous cooperation and competition, has been gaining more and more attention by researchers in the last 20 years, however research is still rather limited (Bengtsson & Kock, 2014). Essentially, coopetition is a paradoxical concept. From one angle, working with a competitor gives an added risk of opportunism and does therefore not feel natural for managers. However, from the other (Park, Srivastava, & Gnyawali, 2014) proves that coopetition increases the innovative output, (Bouncken & Kraus, 2013) also proves that coopetition in SME's can increase radical innovation and with the right measures taken also revolutionary innovation.

Studies prove that innovation can be increased by applying a cooperative innovation strategy, and naturally many studies then focus on how to conduct successful coopetition, however the study is still not yet fully defined and therefore the studies conducted are very specific and focusing on very specific factors, rather than the general concept.

The choice of partner will influence the success, and when considering a coopetition (Bengtsson & Kock, 2014) states that there is a need for further investigation into what factors gives successful coopetition as well as what companies should do to develop a successful relationship.

Companies can generally attain new knowledge by developing it themselves or acquire it outside the company. When it comes to getting it from outside companies the company can chose between a buy or an ally strategy (Tingting & Azadegan, 2017), however SME's often have limited financial resources and therefore the buy strategy is not always viable, leaving the ally strategy as the only option.

SME's often have limited financial resources but are rich in knowledge and can therefore utilize that knowledge by sharing it with other SME's in similar situations. However, coopetition comes with a high risk of opportunism since the companies are sharing potentially key knowledge of their company with a competitor who might use it against them (Levy, Loebbecke, & Powell, 2003). Therefore, it is highly important especially for regarding SME's to investigate how to ensure a successful relation between the cooperative partners.

The research in the field of coopetition is very specific and lacks a general overview to help guide managers to which factors are generally accepted as important and therefore most important to consider. Therefore, one of the aims of this study will be to evaluate the literature to establish which factors are generally accepted as important. When these factors are determined a theoretically examine how these factors can

be explained, and lastly it will be investigated how companies can use this information to increase the likelihood of successfully establishing a cooperative relationship.

Problem formulation

What factors affect the success/failure of cooperation in SME's in regard to innovation?

How can those factors be explained?

How can managers increase the chance of successful cooperation?

Research outline

This chapter will give a brief overview of each of the chapters in this thesis, it will be done to give the reader a good overview of what each chapter will contain. The aim is that this will outline how the research questions will be answered.

After the problem has been identified this paper goes on with the *philosophy of science chapter*, here the main philosophy of the author will be discussed. The reason for this chapter is to give the reader an understanding of the author's ultimate presumptions about reality as well as how these presumptions might influence the research conducted.

Based on the previous chapter the *Methodology chapter* will provide the reader with a concrete understanding of the methods used in the project, it will outline both how the knowledge for the field of cooperation will be gained as well as how the theories used later will be investigated.

The *theoretical background* chapter will outline the theories used to explain the results of the literature review as well as to prove the framework that will later be developed. The main theory will be described historically as well as the premises of it will be investigated, lastly the theory chapter will go through some of the criticism of the theories.

In the *literature analysis* the understanding of cooperation will be outlined, then the literature in the field will be investigated, trends and common understandings will be outlined in order to determine which

factors the scientific community are agreeing upon as well as to divide the literature into smaller groups which focus on different aspects of coopetition.

Using the findings from the literature review a conceptual framework will be developed, this framework will give an easier understanding of the success factors of coopetition as well as the agreed upon parts of the literature review.

These findings will be evaluated in the discussion chapter where some of the advantages and disadvantages of the framework will be examined as well as what could have been done differently and how that might affect the outcome of the research.

Lastly a conclusion on the thesis will be outlined, the research questions will be answered and suggestions for what research should be conducted to further improve on the findings from this thesis.

Limitations of research

Coopetition among competitors have existed a long time, but the term itself was first introduced in business studies in the 1990's (Bengtsson & Kock, 2014). Although there exists a debate regarding how to define coopetition, this paper chooses to work with that specific term, by having a very broad definition of coopetition. Furthermore, will the research in this paper mainly consider literature focused on cooperation with competitors; and will thus not focus on general inter organizational cooperation, but be limited to situations where an SME is cooperating with a competitor. The narrow amount of research conducted in the field, limits the possibility for generalization in the field. To counteract this, there will be used articles which does not include direct cooperation, but where the topic is considered relevant and can be utilized to get a clearer view of the field of both cooperation and competition.

Despite the limited amount of existing research, further limitations have been drawn, since cooperation – and their reasons to cooperate – within SME's varies a lot. To limit the major differences, only articles from western developed countries have been used, to ensure some degree of cultural and economic generalizability.

Philosophy of science

In this chapter, the philosophical assumptions of the research are conducted; as well and the assumptions of the researcher. This will be done in a structured manor, in order to ensure a logical understanding of the philosophy. The goal of this chapter is to clarify the chosen paradigm, and the reasons for choosing this. This will be done by considering general tendencies of philosophy of science, starting with the definition of paradigm itself. That chapter will develop into a discussion about ontology, epistemology, human nature, and methodology. Finally, will different paradigms be presented, including the one chosen for this research.

This chapter will be based upon (Burell & Morgan, 1979) (Morgan & Smircich, 1980) (Kuada, 2012) and (Arbnor & Bjerke, 2009). These have been chosen for two reasons; they are among the most heavily cited and distinguished authors in the field, and they are recognized at Aalborg University as fitting to the way research is conducted.

Definition of Paradigm

The definition of *paradigm* is generally discussed, and as such a few different definitions will be presented and considered in this chapter.

(Burell & Morgan, 1979, s. 23) consider the term Paradigm as “*very basic meta-theoretical assumptions which underwrite the frame of reference, mode of theorizing and modus operandi.*” This does not mean individuals who shares a paradigm is in perfect agreement; each researcher can have different opinions and ideas, but researchers within the same paradigm, does share the same underlying basic assumptions, which differentiates them from other researchers in other paradigms.

(Burell & Morgan, 1979) and (Morgan & Smircich, 1980) considers paradigms as a set force; there is only one correct way of describing a theory. (Arbnor & Bjerke, 2009) however, views paradigms as an evolutionary development, where new paradigms emerge without an older paradigm necessarily disappears.

(Burell & Morgan, 1979, s. 3) and (Morgan & Smircich, 1980) states that the paradigm is determined by four assumptions, which together constitutes the basic ideas of the researcher - and thus his paradigm.

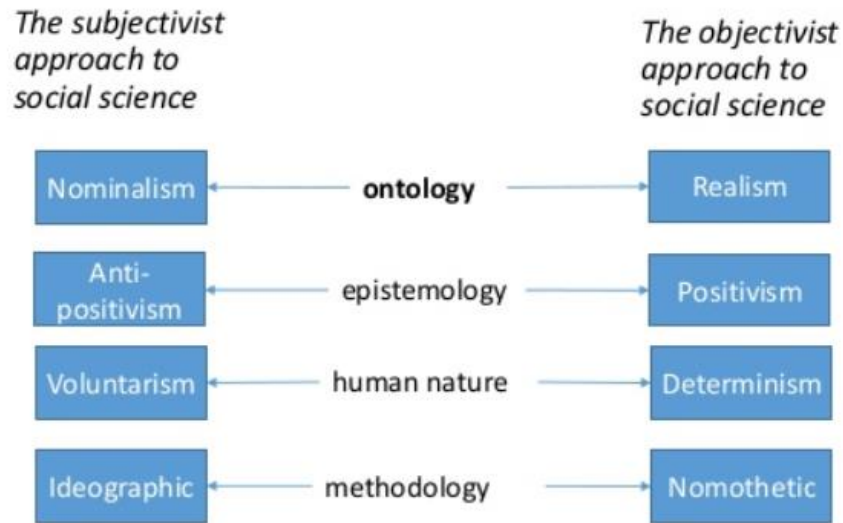


Figure 1 Assumptions about the nature of science (Burrell & Morgan, 1979, s. 3)

(Arbnor & Bjerke, 2009) also believes that paradigms are based on four assumptions. These assumptions are: Conception of reality, conception of science, scientific ideal and ethics/aesthetic. These assumptions are in their meaning very similar to (Burrell & Morgan, 1979) and therefore the four assumptions from (Burrell & Morgan, 1979) will be used as a framework further in the *philosophy of science* chapter.

(Arbnor & Bjerke, 2009) distinguish between *paradigm* and *operative paradigm* as seen below. They believe the paradigm in itself to be rather static, since it is based on the authors philosophical view, which will rarely change. However, the operative paradigm can be adjusted to fit the research specific situation.

This is also the paradigm view used in this text.

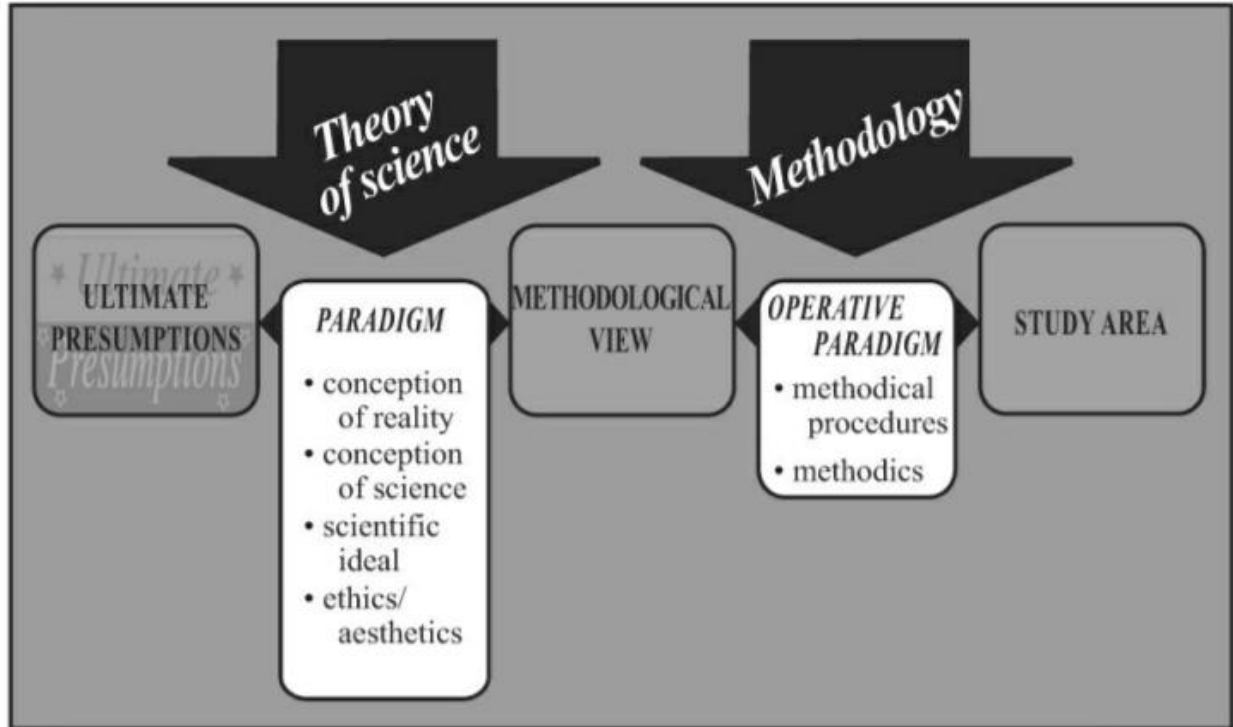


Figure 2 Ultimate Presumptions (Arbnor & Bjerke, 2009, s. 19)

Ontology

(Burrell & Morgan, 1979) describes ontology as "assumptions which concern the very essence of the phenomena under investigation". (Kuada, 2012, s. 58) states ontology describes that which is knowable. He further state that ontology is divided in two perspectives; very similar to the two perspectives presented by (Morgan & Smircich, 1980, s. 492).

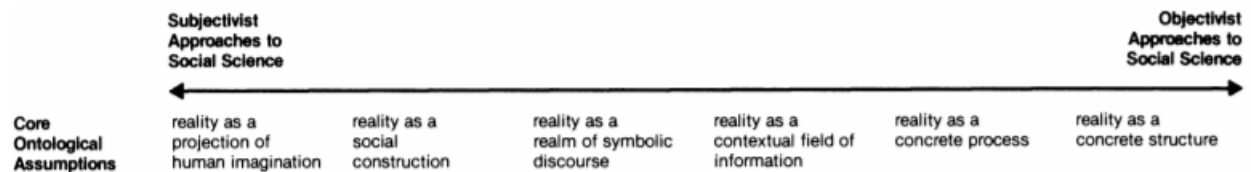


Figure 3 Core Ontological Assumptions (Morgan & Smircich, 1980, s. 492)

(Kuada, 2012) have also created a model (based on (Arbnor & Bjerke, 2009)), which again have similarities with (Morgan & Smircich, 1980). This suggests a certain consistency in the field.

(Burrell & Morgan, 1979) defines the two opposites:

- “[Subjectivists] does not admit to there being any ‘real’ structure in the world which these concepts are used to describe” (Burrell & Morgan, 1979, s. 4)
- “The world is made up of hard tangible and relatively immutable structures [...] for the [objectivist] the social world exists independently of an individual's appreciation of it.” (Burrell & Morgan, 1979, s. 4)

The ontological believes in this paper, tends toward the objectivistic believe; by generalizing its conclusions and drawing a general assumption that the world is somewhat generalizable. It is however believed that scientific observations can vary due to differences among the researchers (which also clarify some of the differences in the analyzed literature), and thus is the ontological view of this paper based on moderate objectivism.

Epistemology

Epistemology is defined by (Kuada, 2012, s. 59) as “*the nature of knowledge and the means of knowledge*”. Epistemology is closely related to ontology. One of the major areas dividing scientists, is whether knowledge can be shared - as believed by the objectivists - or if knowledge solely can be gained from the point of view of the individuals directly involved in the activity that is investigated – as believed by subjectivists (Burrell & Morgan, 1979, s. 5).

The author of this research identifies with the objectivistic believe, since the research conducted will be based on secondary data and thus inherently will only make sense if knowledge is believed to be transferable. However, it is worth mentioning, that the author believes that tacit knowledge has low transferability without personal involvement.

Human nature

Human nature defines how the researcher views the relationship between the human being and their environment (Kuada, 2012, s. 59). As seen in the considerations regarding ontology and epistemology, human nature is described as two extreme poles. According to (Burrell & Morgan, 1979, s. 6) these poles are voluntarism - where the environment does not affect the human being, and determinism - which

believes that human actions are determined by their environment, and that is by that logic should be possible to make 'laws' regarding how humans reacts in a certain situation.

(Morgan & Smircich, 1980, s. 492) have developed upon the polarization by considering the steps between the two opposites;

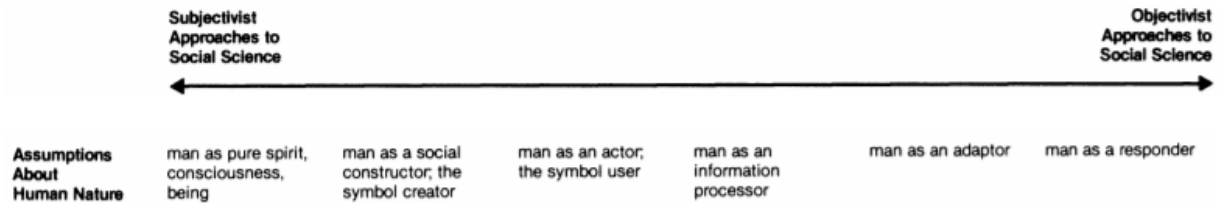


Figure 4 Assumptions about human nature (Morgan & Smircich, 1980, s. 492)

As views on human nature, is closely related to ontological and epistemological views, it stands to reason that the view represented in this will lean towards the deterministic view, and that - like the previous cases - the extreme position is not the one held by the author, but rather *man as an adaptor* in the scale of (Morgan & Smircich, 1980).

Method of data collection

Literature review

To identify what is already known in this field - as well as what remains to be investigated - a literature review will be conducted. To lessen bias from the author a systematic review will be conducted first.

(Bryman & Bell, 2011, s. 96) defines a systematic review as *"a repeatable, scientific and transparent process"*. This process aims to increase the amount of literature available, and to give the best overview of what has previously been written in this field.

This study will be based on secondary and tertiary data; all data used in the study has been collected from other studies, to analyze the research questions of this project. In order to get as much valid data as possible and to ensure input from different journals, several databases will be used. The following databases were used: Aalborg university library, SCOPUS, ABI/INFORM, Ebscohost, Sciencedirect, Ebrary and Google Scholar.

The inspiration for this project is based in previously read articles as well as previous studies. To further understand the area of study, the previously known literature has been used to develop an idea of important phrases and words used in relevant studies as advised by (Bryman & Bell, 2011, s. 106).

The phrases which were found relevant, were used in the search of articles. They were used in various combinations, to ensure as much relevant material as possible and to avoid accidentally excluding any useful information.

The relevant words and phrases were (in alphabetical order):

- Ally
- Cooperation
- Coopetition
- Innovation
- Small and medium sized entities (SME's)

Due to a very high number of articles outside the research area, Boolean terms have been used, to limit the search results, to a more manageable and precise selection of articles. To keep the review consistent, further limitations were applied; to make sure that the companies investigated in the literature were somewhat similar, only articles from developed countries were used, and as the focus of the project were

on product/technological innovation, articles regarding different kinds of innovation were also disregarded in the search.

The results were filtered so only peer reviewed full texts were used, to ensure the data collected was reliable. To ensure transparency, all articles used is in English. Lastly, to ensure that all research was relevant today, were all articles before 1997 excluded, meaning only articles from the last twenty years were used to provide knowledge of coopetition.

The articles for the theoretical understanding and developing, were not restricted.

Scientific validity and reliability

This study is based on a literature review. The used articles are fully presented as an appendix, and in a table to support the developed framework. This ensures, that the reader, can evaluate which articles have been used for the development of the framework.

To further help the reader determine the value of the study, the author's view of the world has been presented in the chapter "Philosophy of science". This is done to ensure that the reader have the opportunity to understand the world-view of the author, when reading the thesis.

The validity of the research, is ensured by using articles concerning coopetition and cooperation in general. The chapter "Method of data collection", describes how the articles used for this thesis, is selected to fit specific criteria, as well as being peer-reviewed. This is done to ensure that the research conducted is valid. Articles used are focused around coopetition, and thus it is concluded that that the grouping made for the conceptual framework is scientifically valid.

Theoretical background

This chapter examines the theories that will be applied to the literature review: transaction cost theory (TCT) and social exchange theory (SET). To ensure the validity of the theories – and to give the reader a basic understanding of the theories – the history and premises for the theories will be examined. The transaction cost theory will be presented to clarify some of the issues related to competition. These issues will be further explored through the social exchange theory. SET will further be used to understand the results from the literature review, and to evaluate and explain the validity of the conceptual framework (see chapter 'Conceptual framework').

Transaction cost theory

Research on transaction costs has a long history. The first descriptions of TCT were in the 1930's, however the term itself was first used in the 1950's. The theory was a result of a change in the perception of companies, as the understanding of *governance structures* developed.

The purpose of transaction cost theory is to determine whether the best step for a company, is to produce a product internally, or to acquire the product externally. (Rindfleisch & Heide, 1997). Transaction costs are defined as the extra costs that occur when a company decides to buy a product, and (Rindfleisch & Heide, 1997) argues the importance of considering this cost,

Although transaction costs can exist in many versions, (Rindfleisch & Heide, 1997) defines the costs in three main categories:

1. Search and information costs
2. Bargaining and decision costs
3. Policing and safeguarding costs

The TCT theory is based on an assumption that companies are opportunistic, and will always take the action with the most benefits for the company. Thus, these costs are relevant to include in calculations, to ensure that the company is taking the most beneficial action (Rindfleisch & Heide, 1997).

Transaction cost theory has been used for many years to understand BTB relations, but the single-mindedness of the initial assumptions of the theory might not always match with the complexity of reality;

sometimes there are other factors which influence company decision making, other than an opportunistic mentality.

A more complex understanding of these factors can be gained by understanding the social exchange theory.

Social exchange theory (SET)

History of SET

The social exchange theory is a very broad theory, which has been applied in several fields, with the purpose of better understanding the actions of humans.

This chapter will describe SET thoroughly, since the theory is the basis for the analysis of the literature review. Thus, a thorough theory introduction is required, to ensure the validity and the readers understanding of the analysis

The idea of understanding interactions among people or companies, as an exchange, is not new; in 300 BC Aristotle distinguished between social exchange and economic exchange. The research on SET as we know it today, has been under development since the 1950's with the main core of the theory development being done around that time. SET has several acknowledged contributors, and therefore this chapter will initially describe some of the basis in the development of SET, from some of the sources considered most contributing.

The ideas forming the basis for SET as we know it, was developed in a studies of social groups, made by sociologist and social psychologists. The knowledge was later found useful in understanding BTB transactions.

(Homans, 1958) defines social exchange as *"an exchange of activity, tangible or intangible, more or less rewarding or costly between at least 2 people"* and thus can social exchanges be found in almost all interactions. The social psychologist (Blau, A theory of social integration, 1960) adopts that idea and further develops it. He states that that *"an individual that supplies rewarding services to another obligates him. To discharge this obligation, the second must furnish benefits to the first in turn"* and further defines that if all actors in the exchange are satisfied with the exchange, then they will continue to provide as long as they still need what is delivered. This is the basic idea of SET, and further researchers have developed on the theory specifically in regard to BTB transactions.

The premises for SET

As described earlier SET has been developed by several researchers in several fields over many years, which means that there is a lack of general rules governing the theory. To counteract this, (Lambe, Wittmann, & Spekman, 2001) made an extensive literature review and isolated four premises which captures SET in BTB quite accurately and align with the authors understanding of SET.

These four premises are as follows:

1. Exchange interactions result in economic and/or social outcomes.
2. These outcomes are compared over time to other exchange alternatives, to determine dependence on the exchange relationship.
3. Positive outcomes over times increase firms' trust of their trading partner(s) and their commitment to the exchange relationship.
4. Positive exchange interactions over time produce relational exchange norms that govern the exchange relationship.

These premises are fundamental for SET in this context, and will therefore be elaborated in further detail in the coming chapters. This is considered important, not only to fully convey understanding of the theory, but also since these premises will be used to understand the knowledge gathered in the literature review and to help answer the problem statement.

Exchange interactions result in economic and/or social outcomes

The researchers who has contributed to SET, all consider that interactions between people, results in an outcome. Whether it is (Homans, 1958), who consider interaction as an exchange of good or non-goods, or if it is (Blau, 1964) who argues that people make exchanges it order to gain something in return.

Consciously or unconsciously from the actors; the idea is the same: any interaction, results in economic and/or social outcomes. As (Blau, 1964) exemplifies, exchange interactions are seen everywhere from kids on the playground, to colleagues exchanging favors, and all of them results in some form of outcome.

Outcomes are compared over time to other exchange alternatives to determine dependence on the exchange relationship.

An exchange can happen once, not be satisfactory and therefore never happen again; however, in most situations, the actors will be interested of ensuring future transactions, and consequentially this is an area covered in the literature.

As described earlier, (Homans, 1958) argues that people will continue providing for the exchange, as long as they are happy with the return they get from the exchange. Thus, for the interaction to continue, both parties must continue to provide value. (Blau, 1964) states similarly, that declining marginal utility, can lower the value of an exchange, and therefore the exchange will land at a level where the exchange is considered even, or cease to exist.

One of the most important contribution to this subchapter is (Thibaut & Kelley, 1959), who conceptualized the idea of comparing alternatives. They did so by introducing *comparison levels* (CL) and *comparison levels of alternative options* (CLalt), to explain how the comparison of the exchange relationship was considered. The idea is, that all exchanges are valued against a comparison level, of what the receiver believes to be reasonable, to gain for his contributions.

A simple example is, if a company needs to buy some item for their production, and the company purchasing it, values that good at 100 DKK (their CL). If the price is 90 DKK then the company will be satisfied with the exchange. However, were the price 110 DKK, then the company would be somewhat dissatisfied with the transaction. This then leads to the understanding of their dependence on the exchange relationship, if they are dissatisfied with the exchange, then they will compare it to alternative relationships. The best alternative relationship is then CLalt, and (Thibaut & Kelley, 1959) argue that if CLalt is lower than in the current relationship, then a company will change to the alternative. However, if CLalt is higher than in the current relationship, then the company will become somewhat dependent on the relationship, since that relationship is still the optimal alternative, to satisfy their need for the specific good.

This concept gives a good description, of how reoccurring interactions are, compared over time, and shows that for a relationship to continue, both parties must provide a value, which the other party considers

valuable enough to continue the relation. The example given is a very simplified version of it, and later research on the theory, expands that companies might have different goals or be willing to accept short term loss in the hopes of long term gains.

Positive outcomes over times increase firms' trust of their trading partner(s) and their commitment to the exchange relationship.

In the social exchange theory, trust in reciprocation is a key factor; when one party delivers his part of the exchange, he must trust that the other fulfills his promise. This is especially important in exchanges without a contract, which most social exchanges will lack. (Blau, 1964) explains, that since the provider does not have any possible repercussions over the receiver, if he does not reciprocate, the initial transactions are often small, so that the risk and cost is small. However, if the receiver does reciprocate, then the exchanges can grow, since trust has warranted the increased exchange.

Trust and commitment follows each other, as a trusted partner will be given bigger exchanges. Further, as earlier concluded, exchanges only continue as long as both parties consider the received part worthy of their investment in the relationship. This results in a natural grow of the commitment, as the trust can be considered a value, that a person or company would have to rebuild with another party, should they decide to find a new partner.

Positive exchange interactions over time produce relational exchange norms that govern the exchange relationship.

In the social exchange situation, the rules of conduct are often implicit, or at most agreed upon. These rules are called norms, and they govern the interaction, to ensure that all parties act according to the expectations of the group/partner. (Blau, 1964) states that: *"Eventually, group norms to regulate and limit the exchange transactions emerge, including the fundamental and ubiquitous norm of reciprocity"*. Over time, the transactions set the standard for what can be expected, both in term of what to be delivered, but also in terms of how fast, and other matters. (Homans, 1958) describe a norm as *"a verbal description of behavior that many members find it valuable for the actual behavior of themselves and others to conform to."*

(Thibaut & Kelley, 1959) describes norms as a sort of agreement that is either implicitly or explicitly agreed upon, and which, if disrupted, will cause the injured part to plead, and thus the disrupter would be likely to feel obliged to adhere to the agreement.

This leaves a small difference in understanding of norms between (Homans, 1958) and (Thibaut & Kelley, 1959), since one states that norms are required to be verbal, and the other that norms can be implicit. This author agrees with the conclusion that norms can be implicit, but also agrees with (Homans, 1958) when he states that norms are developed from the actions that the actors find valuable.

Literature Analysis

This chapter aims to account for the existing literature on coopetition. The purpose is to show the tendencies in the literature, and analyze these, with the purpose of creating an understanding of the field. The result will be an overview, of how the studies agree and disagree, and an understanding of which factors that are currently believed important for a successful coopetition.

Definitions of coopetition

In this chapter the aim is to describe and define the different definitions of coopetition in the literature. The studies conducted in the field, is limited, and there are not too many published each year.

(Gnyawali & Park, 2009) describes coopetition as a partnership between two companies, and focus on which factors that drives cooperation, more than how much they cooperate or compete before or during the coopetition.

(Bengtsson & Kock, 2000) describes coopetition as a dyadic relationship, which contains simultaneous competition and cooperation, and focuses on where the cooperation takes place internally in the company, with less regard to their competition.

All studies agree that the term coopetition entails cooperation between competitors, but when we analyze the definitions further, different ideas come up. In their paper (Bengtsson & Kock, 2014) aims to create a definition, with the hope of creating clarity in the field. They focus on the paradox of the individual actors' relationship in coopetition (that they are simultaneously competing and cooperating), and conclude that this paradox requires us to interpret coopetition as two continua. This means that the coopetition can be measured on two scales; the level of cooperation and the level of competition. (An example of this would be if a company is in slight competition, but cooperate a lot; their relation would then be described as *low-high*). (Bengtsson & Kock, 2014) also states that coopetition is not necessarily dyadic, and thus they have changed their opinion on this, since 2010.

This is some examples of the liquidity of the term coopetition. (Bengtsson & Kock, 2014) have, however, successfully created an understanding, which encompasses most other variations, and thus this is the understanding used in this paper.

General trends in the research field

As mentioned in "Definitions of coopetition", the research conducted directly regarding coopetition is limited. The term itself were introduced in the early 1990's and the number of articles written about coopetition have increased exponentially (as can be seen in Figure 5).

The graph also shows that the number of articles written is limited, and as mentioned in the chapter "Limitations of research", the amounts of articles used in this research have been limited further.

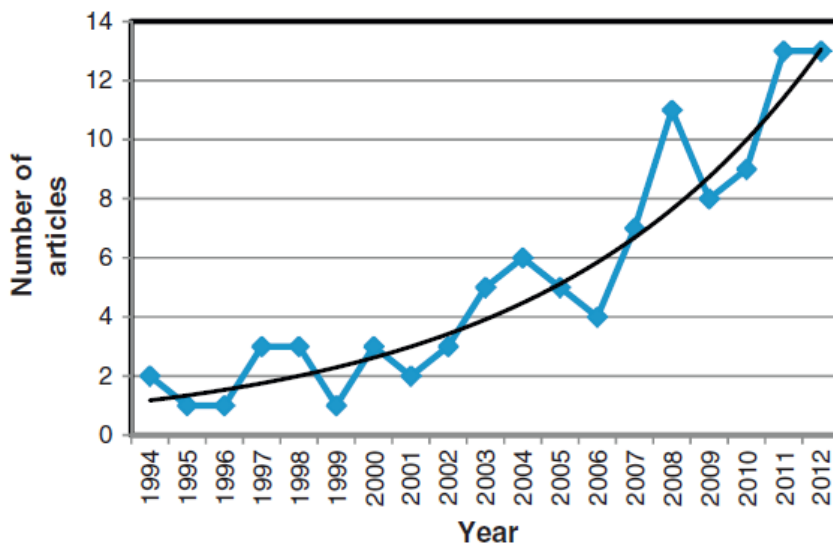


Figure 5 Articles written about Coopetition (Bengtsson & Kock, 2014)

The figure above shows that the field of coopetition is increasingly researched, but show that the number of articles still are rather limited, many of the articles are focused on areas outside the limitations of this study, and therefore these numbers does not fully represent the available amount for this thesis. The aim of the following is to give an understanding of where the literature agrees and disagrees, this information will lead to the development of a conceptual framework, which can be used by managers to understand the key factors when considering coopetition as a strategy.

The field of coopetition is still developing and therefore many of the studies are very specific and thus aims to investigate very specific areas, this can make it hard to compare the studies however 3 general trends were found which will be explored further in the next chapter

Motivation

According to the literature review, there are three main reasons for companies to consider coopetition;

- Risk sharing and resource pooling
- Reaching new markets
- Increased innovation

In this chapter, each of these areas will be described.

Risk sharing and resource pooling

SME's are often financially strained; instead of having a capital, they have knowledge and technology. The result of this is that big investment might be risky. If the investment is unsuccessful, the costs might represent a bigger part of the company – especially if compared to big companies with many projects. Coopetition can be a good solution for SME's as they will be able to share their resources - and the potential risks. This way a company might invest a smaller portion in one project, and the cost of failing will then be smaller, yet the project will still get the necessary investment needed, due to more investors. (Kock, Nisuls, & Söderqvist, 2010) (Bouncken & Kraus, 2013).

Reaching new markets

Reaching a new market is costly and requires knowledge of the new market. Coopetition can give the advantage of utilizing partners knowledge of new markets, as well sharing connections through the partner company. *“The companies have been able to access ready established international distribution networks as well as new international contacts”* (Kock, Nisuls, & Söderqvist, 2010) By doing this, the companies vouch for each other and opens for channels into the new markets.

Increased innovation

SME's limited resources, can make it hard to purchase new knowledge if they need it. This is again a situation where cooperation can be a solution, utilize their own knowledge as leverage to get new knowledge. Competitors will often have the understanding needed to develop new products in the field and at the same time have the different knowledge or technology needed for an innovation (Park,

Srivastava, & Gnyawali, 2014). Further the combination of resources will give the project economy of scale. This is especially true for high-tech SME's who tend to have a lot of technology and knowledge to "trade" but a limited capital to purchase knowledge with (Bouncken & Kraus, 2013).

When considering why to engage in coopetition the articles of the review are consistent: The reasons for coopetition is very similar to the reasons for cooperation in general, with the added effect that competitors have similar knowledge, as well as knowledge of the market. The aims are generally to achieve a synergy effect and/or share the risk.

Success factors

Considering why to do engage in coopetition is agreed upon, however research on how to do it is very divided, it is not contradictory, but due to the limited research in the field each researcher is investigating different factors influencing the success and results of coopetition, in the next section the different factors considered to influence the success of coopetition will be investigated, this should give an overview for researchers as well as managers of what factors to examine when considering coopetition.

Cooperation/competition matrix

The cooperation/competition matrix relates to the paradox described by (Bengtsson & Kock, 2014), and explain in the chapter "Definitions of coopetition". This is a topic, which have been discussed in several of the topic related articles, especially with the focus of which of a company's possible competition partners, they should use. The articles have been trying to answer questions such as: is the main, direct competitor the best partner; is it better with an indirect competitor; how much should be invested in the cooperation, to achieve your goals.

One example of this, is seen in (Kock, Nisuls, & Söderqvist, 2010). They use a one-axis system to (from *weak* to *strong*), to define the strength of the relationship between corporations. They conclude that a stronger relation results in more continuous results, where weak relations seems to result in a somewhat more sporadic result.

Other scholars, like (Lindström, & Polsa, 2015) utilize cooperation/competition matrix from (Bengtsson & Kock, 2014) in their study. They investigate how companies, in a network, perceive their own relations, with the purpose of understanding its influence. The study was based on network relations, and not a dyadic

relation, and as such was the findings of a more general character, compared to the other studies. They do, however, conclude that companies define themselves as cooperation focused over competition focused – and that they tend to compete in local markets and cooperate in an overall market.

(Park, Srivastava, & Gnyawali, 2014) conducts the deepest investigation into the relation between cooperation and competition. Unlike the other articles they conclude further on the matrix. As can be seen in Figure 6, they conclude that although high cooperation and competition can increase the results, will too much cooperation not continually yield increasing results. They also find, that cooperation yields better results if the relationship is more cooperative than competitive. Lastly, it is worth noting that too little cooperation does not give a good result either. Thus does the articles conclude that cooperation yields the best results, if the companies have a certain minimum of investment in the relationship with a partner, that they are in some competition with, but which is not their fiercest competitor.

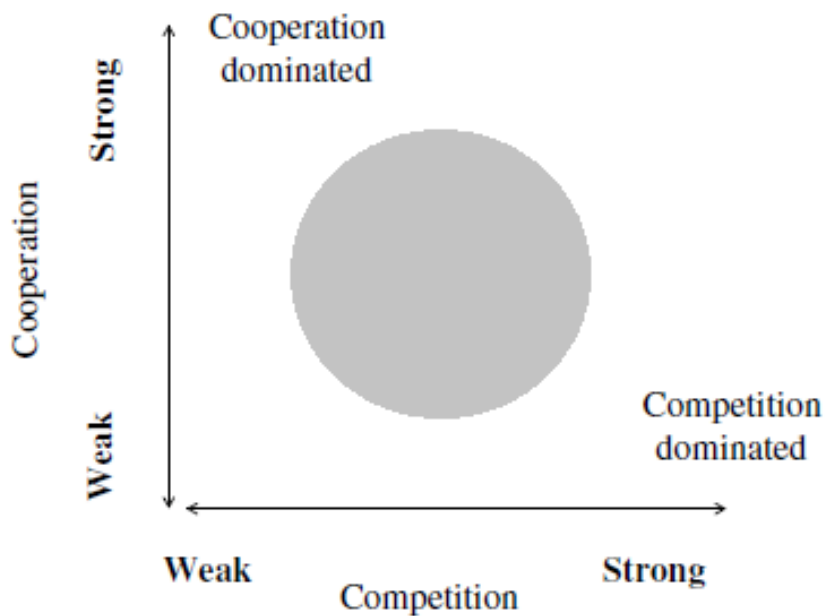


Figure 6: cooperation matrix based on (Park, Srivastava, & Gnyawali, 2014) (Own design)

Trust

Trust is another factor considered important. (Pullen, 2012) argues that trust is an important factor, and consider trust to be divided in two areas; *fairness trust* (will the partner negotiate fairly) and *reliability trust* (will the partner uphold the agreement). These two factors both prove important, especially since it is argued that cooperation would likely not exist without trusting your partner.

Especially when it comes to SME's trust can be important, as the transaction costs for safeguarding and further enforcing of contracts, can simply be too high for them to make sense (Pullen, 2012). Therefore, especially reliability trust is important for cooperation to develop.

(Iturrioz, Aragón, & Narvaiza, 2014) explains the value of trust, though they argue that too much trust can hinder innovation. They still argue that *"trust in particular is critical for the development of social structures, providing a remarkably efficient lubricant to economic exchange and cooperation"*. Also (Chin, Chan, & Lam, 2008) notes that trust is very important in cooperation, since cooperation involves, not just sharing knowledge and technology, but sharing it with a competitor. Thus, a business risks to not only weaken the focal company, but also to improve their competitor. The result is that the cost of trusting the wrong partner can cost double.

Activity and commitment

(Lindström, & Polska, 2015) found, during interviews with CEO's from companies engaging in cooperative networks, that the managers consider activeness and commitment one of the key factors of cooperation. (Lindström, & Polska, 2015) mentions that the lack of these factors might be the reason behind the network they investigated did not reach its full potential.

Also (Park, Srivastava, & Gnyawali, 2014) theorizes that high intensity of cooperation can increase the innovation output from the cooperation.

Both researches argue that cooperation might feel somewhat unnatural for many companies, due to the paradox of cooperating and competing simultaneously. Therefore, it requires a certain level of activity and commitment to maintain the benefits that can be reaped from cooperation.

Social capital

(Iturrioz, Aragón, & Narvaiza, 2014) also argues the value of social capital. They argue, that social capital in shared innovation is a lubricant in the transaction, since the investment ensures that network has some norms and trust build up, which makes each company more invested in the process.

(Granata & al, 2016) argues that the social capital of managers in SME's, can be utilized to improve the strength of the cooperative network, in the same way a manager would normally use his social capital regarding the company; they can use their social capital to increase the possibilities in the network, rather

than solely in their own company. This way, the network will theoretically appear to the outside world as one company rather than many small ones.

Contrary to this however (Pullen, 2012) uses *configuration theory* (in every set of network characteristics there is an optimal setup), to figure out how the top performing innovative companies' network profile is, in the hope of uncovering which factors are important. They use the term network position strength which relates to social capital, and theorizes it as one of the important factors. They find that the top performing companies has a more businesslike approach and that the other factors investigated has a higher importance. However, it is worth mentioning that they have trust as a different factor which is proven important in the study, which in other studies fall under social capital.

Results

Increased innovation

(Park, Srivastava, & Gnyawali, 2014) analyses and separates the innovation in a company. The purpose is to find the innovation, which is derived solely from cooperation, and especially to find innovation in regard to the cooperation/competition matrix.

(Park, Srivastava, & Gnyawali, 2014) also argues that the learning potential in cooperation only can outweigh the potential downsides of cooperation to a certain degree. So, although increased innovation is achievable through cooperation, but it is not infinite, and companies should be careful not to overinvest, even if previous results warrant further investment. (It stands to reason that a company will invest more into strategies that work, so if a cooperative relationship yields better results than the in-house innovation then the company would be interested in investing heavily in that relationship to increase results).

However, (Park, Srivastava, & Gnyawali, 2014) argues further that cooperation follows the law of diminishing marginal return; at some point the additional invested dollar will not yield a better result than alternative investments, or might not even return its own value.

Also (Bouncken & Kraus, 2013) draws conclusions regarding cooperation's influence on innovation. They conclude that cooperation can increase radical innovation, however the companies risk hindering revolutionary innovation, if they do not put focus on inlearning from their partner.

Conceptual framework

Literature

In reviewing the literature regarding cooperation in SME's (see appendix), it became clear the different researchers were investigating different aspects of cooperation. Generally, it could be divided into three categories as depicted in figure 7. To understand the distribution of these three, the groups will be presented and analyzed, especially as they seem to draw on many of the same aspects in regard to why cooperation succeeds or fails.

Motivation	(Gnyawali & Park, 2009) (Konsti-Laakso, Pihkala, & Kraus, 2012) (Akdoğan & Cingöz, 2012) (Bengtsson & Kock, 2000)
Success factors	(Iturrioz, Aragón, & Narvaiza, 2014) (Pullen, 2012) (Bouncken & Friedrich, 2016) (Granata & al, 2016) (Levy, Loebbecke, & Powell, 2003) (Lindström, & Polsa, 2015) (Bengtsson & Kock, 2010) (Chin, Chan, & Lam, 2008)
Result	(Kock, Nisuls, & Söderqvist, 2010) (Bouncken & Kraus, 2013) (Park, Srivastava, & Gnyawali, 2014)

Figure 7 Division of Literature from Literature review (Motivation, Success Factors and Result)

The research conducted in cooperation, is distributed in the three main groups, as seen in the graph above. About a quarter of the literature texts, investigates why companies start a cooperative relationship. Half of the papers consider the factors of success, and a quarter considers the actual results of the cooperative relationship.

It is relevant to mention that this distribution is very rough, as some articles do consider several factors. To create a simple overview, they are distributed regarding what is considered their main focus.

The framework further clarifies, how there is a great deal of interest in the literature, about what makes competition succeed. This interest is mirrored in this research, which aims to determine how to ensure success in cooperative relationships. This does include that the articles regarding *success factors* becomes very relevant. Articles focusing on results might be equally interesting as they might clarify why the result came to be.

Framework development

The division of articles, as shown in the chapter "Literature" creates an overview of the articles focus, but it does not create any insight regarding how to use this information. Therefore, will the information gathered from these articles, be used as the basis of a similar designed conceptual framework. This framework will be an easy overview for managers, which will help them to understand which actions to focus on when considering cooperation. Should more information be needed, there are options to gather more information; the articles used can then be identified for further investigation in the table above, and a comparison of the literature can be found in the literature review. This division of the knowledge aims to give the reader the best overview of the results.

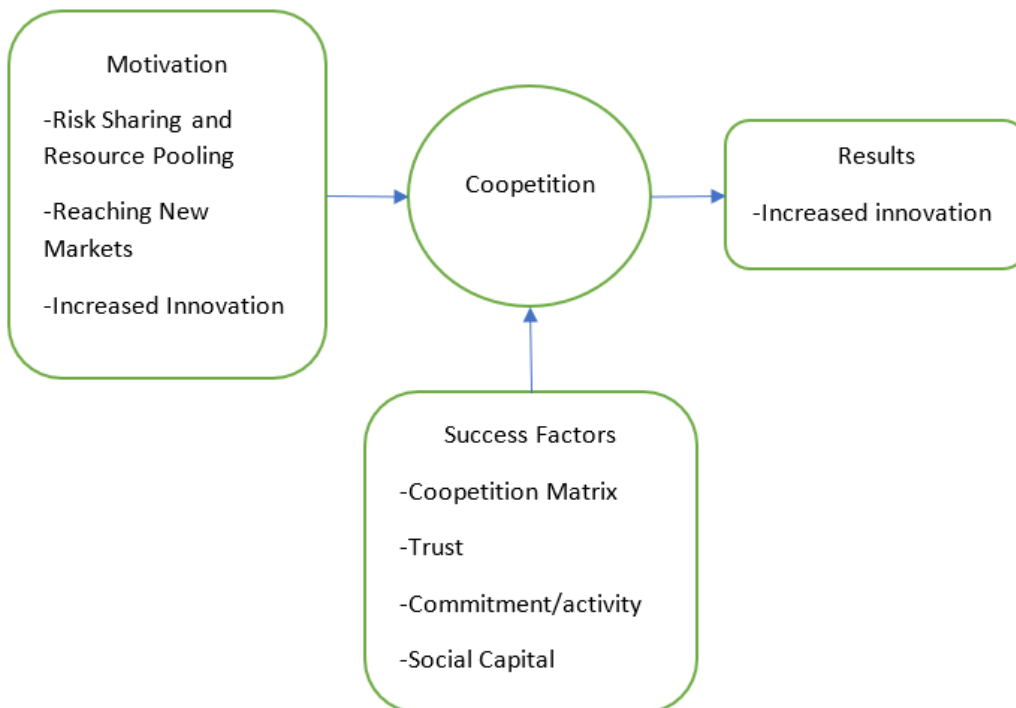


Figure 8 Conceptual framework for Coopetition

One aim for this project, is to take a complicated field and simplify it into an understandable framework that can determine certain important factors and thus guide managers into which action can help predict a desired outcome. If the desired outcome is increased innovation, and the common motivations is also determined, then this framework can provide managers with an overview, of what factors they need to focus on, to increase their chances of the desired outcome. In conclusion, if the managers have the right motivation and make sure that the success factors are present, then they should get the predicted outcome of increased innovation through successful coopetition.

Table 9 shows the articles that proves the individual factors in the conceptual framework, this is done, to help managers get access to the underlying knowledge, and to underline the reliability of the framework.

Motivation	Risk sharing and resource pooling	(Kock, Nisuls, & Söderqvist, 2010) (Bouncken & Kraus, 2013)
	Reaching new markets	(Kock, Nisuls, & Söderqvist, 2010) (Akdoğan & Cingöz, 2012) (Bengtsson & Kock, 2000)
	Increased innovation	(Gnyawali & Park, 2009)
Success factors	Cooperation/competition matrix	(Lindström, & Polska, 2015) (Bengtsson & Kock, 2010) (Park, Srivastava, & Gnyawali, 2014) (Bouncken & Kraus, 2013)
	Trust	(Pullen, 2012) (Chin, Chan, & Lam, 2008) (Iturrioz, Aragón, & Narvaiza, 2014)
	Activity/commitment	(Park, Srivastava, & Gnyawali, 2014) (Lindström, & Polska, 2015)
	Social capital	(Iturrioz, Aragón, & Narvaiza, 2014) (Granata & al, 2016)
Results	Increased innovation	(Bouncken & Kraus, 2013) (Kock, Nisuls, & Söderqvist, 2010)

Figure 9 Literature used for the conceptual framework

This framework outlines the three areas, which companies should consider, when engaging in coopetition. The focus of this thesis, is on the success of coopetition in regard to innovation, and that focus is mirrored in the shown framework; *Increased innovation* is the only shown *Result*. Increased framework might not be the only possible outcome of coopetition, but as this project - and hence the literature review - has been mainly focused on innovation in SME's and coopetition, other possible results have been deemed irrelevant.

Theoretical understanding of success factors

Since this research aims to increase SME managers' knowledge of cooperation. To ensure that the research is continuously relevant, this focus will be considered in the further work, and the analysis will be done with focus on the *Success factors*. This analysis will be conducted by relating the factors to the social exchange theory. This should underline the connection with the framework, provide further proof for the validity of the project, and create further detailed suggestions regarding how companies can improve their cooperative relationships.

When looking at the findings of the literature review, it becomes obvious that there is a relation between the findings of the review and the social exchange theory. A clear example of this, is seen when considering the third premise for SET: *"positive outcomes over times increase firms' trust of their trading partner(s) and their commitment to the exchange relationship."* This proves that the third success factor: *activity/commitment* is leading to the second success factor: *trust*. If a business wants to have success in a relationship, then a focus on continued successful interactions, might result in the achievement of the trust, which is described as vital for success. As (Lambe, Wittmann, & Spekman, 2001) states *"trust-building between two parties may start with relatively small or minor transactions"* so the start of the relationship should be emphasized, and prioritizing small success's, might be more important for the future of the relationship, rather than focus on the end goal.

SME's often lack resources, and to counteract this they will often seek alternative strategies. Cooperation have, as clarified in this research, a series of possible benefits – but also a series of possible risks. This risk might in the case of cooperation, be even higher than with other strategies, since companies are working in a close relation with their competitors. Furthermore, will most SME's lack the resources necessary to invest in insurances, in forms of contracts and enforcements, and will as such enter a cooperation with none or minimum security. To counteract this, SME's will rely heavily on trust through positive interactions. These will be created due to an assumption of reliability between companies, and a wish or need for an expected outcome. This outcome is further described as the first principle of SET (see chapter "The premises for SET" for more information.)

SET also builds on the concept that companies will act opportunistic. This might result in a situation where a company will not uphold a deal, since the transaction cost is deemed too high. However, the costs and benefits created during cooperation is not solely economical. Social capital can work as a glue, forcing companies to keep their deals; not because the economic costs will be unbearable, but because the social

cost of breaking a deal will be too high. If a manager creates a partnership with his brother's company, he will be enticed to be fairer in his interactions; he might be able to create profit, by delivered on a promise, but his social costs will prevent him from doing so. This way can social relation work as well as an enforcer as a contract might.

When considering the cooperation/competition matrix, the social exchange theory does not fully explain its importance. SET established that increased cooperation, can result in an increase in innovation; but, the matrix also establishes that too much competition is not good, which is not considered by SET. One explanation could be, that as the competition increases, the benefits companies gets from acting opportunistic increases, which is thus skewing the cost/benefit for the company, in the direction of opportunism.

Discussion

Discussion of the conclusions

This study started with an aim of assessing the success factors for cooperation in SME's, with a focus on innovation. One of the interesting findings, was that the literature on the field is still somewhat undeveloped. The articles used for this study, did have some things in common, but there would be a tendency for the articles to be very specific regarding which topics to address. A possible explanation for this, could be that the research field is still not fully understood yet, and therefore researchers still aim to investigate exactly the concept in depth.

The most interesting finding in this thesis was the four main success factors of SME cooperation: cooperation/competition matrix, trust, commitment/activity and social capital. Trust and social capital seems like expected outcomes; networking is increasingly focused upon in business; and trust seems like a solid foundation for cooperation. However, commitment and activity might be disputed. (Kock, Nisuls, & Söderqvist, 2010) concludes that low activity - or a weak cooperation - can yield positive results, but of a more sporadic nature.

The cooperation/competition matrix argues, that a minimum amount of cooperation is required for the cooperation to be successful. It also states that there is a max to the positive output for cooperation, a conclusion which does not match the article from (Kock, Nisuls, & Söderqvist, 2010), nor the results gained from applying SET to cooperation; a positive transaction should result in further trust and commitment, which in turn should result in further positive transactions. These discrepancies can be the result of several sources; the law of diminishing margins, an increase in costs, or other.

The aim of this thesis was to examine the success factors for cooperation in regard to innovation, and this might have resulted in a single-minded focus in the research – and thus a risk of overlooking possible relevant areas. (Levy, Loebbecke, & Powell, 2003), also aimed to understand cooperation; they used a game theoretic approach of analyzing cooperation, with a focus on the risk of losing knowledge vs. attaining important new knowledge, from competitors. Their results are focused on the individual company and this creates an example of the differences in this topic, dependent on the focus of the researcher. The conclusion is that when entering a risky cooperative relationship the company need to focus on utilizing the knowledge acquired. These two approaches to success are very different and managers considering

coopetition and utilizing this framework need to consider whether gained knowledge or sustained relationship is most important.

The purpose of the framework, is to give managers attempting coopetition, an overview of which factors they should consider, before attempting a cooperative relationship. This framework is developed with the aim of guiding for long term sustainable coopetition, which has some advantages. However, not all relationships are meant for the long term, and this framework might not be considered valid in cases of short term interactions. If a company has a short-term goal ahead, then slowly building trust through small exchanges might not be the optimal action - especially if the coopetition is a measure to ensure the immediate survival of the company.

Discussion of the method

The choice of using SET creates a good understanding of why a company will react in a specific way. The choice might, however, also create a specific mindset, which will enforce some assumptions that might not be true. The first thing worth mentioning is that the idea of trust and norms to govern a relationship can substitute contractual agreement, as mentioned earlier a social connection to another company might give the idea of trust, and thus change the cost/benefit of neglecting a deal. However, it does not prevent opportunism from the partner, one could argue that it simply rises the cost, and therefore lowers the chance, but it might not prevent opportunistic behavior.

There are many factors influencing the success of a relationship, the findings of this thesis can be summarized as picking the right partner, and taking the right steps to ensure there is trust and commitment and utilizing social capital to create more or less contactless bonds, these arguments seems to be well proven, however many more factors were considered by single studies which were not implemented in this study, these studies need to be repeated by other to ensure their validity, but it stands to reason that there are some potential overlooked factors in those studies, which could alter the conceptual framework developed in this thesis.

Conclusion

This study set out to investigate, which factors influence the success and failures of cooperation in SME's. It also aimed to understand how these factors could be explained. Finally, there was an aim was to understand and define, how this new knowledge could be utilized by managers in SME's, to increase their chance of success. It was found that the field of cooperation are still not fully investigated. The result of this is that not many studies have focused on the same area, which resulted in generalization troubles, and problems with comparing the literature. However, some general trends were found in the studies, which led to the development of a conceptual framework, meant to help managers understand which factors are important, when considering cooperation as a strategy.

The literature review and subsequent framework revealed that companies should focus on the mix between cooperation and cooperation, since too little or too much of each were not optimal regarding innovation output. The study also found that commitment and trust were important for successful cooperation. This were explained with the use of social exchange theory, which states that repeated successful interactions lead to more trust and thus a better relationship. That way the commitment factor proved to lead to trust.

As could be expected trust was an important factor, and SET were therefore used to explain how companies could develop trust in cooperative relationship. The theory deemed that many small positive interactions would increase trust and willingness to invest. This led the study to suggest that managers should focus on making smaller transactions, to stabilize the relationship, rather than going for major initial investments.

It was also found, that social capital proved important for cooperation. This seems sensible, since cooperation is a paradox of cooperating with someone you would not normally consider as a partner, and might not trust. Thus, having a social connection with them beforehand, could ease the minds of the managers. SET also argues that using social capital can work as a safeguard, to make partners keep their deals instead of acting opportunistic.

Based on current data, this study gives managers an understanding of what they should be considering before applying a cooperative strategy. The study is not only significant for managers, but is also fills a gap described by (Bengtsson & Kock, 2014), who states that more research needs to be conducted in what activities and choices influence the cooperative relationship. This study reduces the gap, as it explains which actions managers should take in order to get the best chance of a successful relationship

These findings may be somewhat limited by the amount of literature in the field, the success factors are found by several sources posing the same results. However, the total amount of sources are not high enough to conclude any results without some doubt. A Few studies more in one area could have made the difference between what has been considered important and what has been sorted out, therefore further research into the field is important to support or alter the findings in this thesis.

Future research

This study has been based solely on secondary research, and therefore the next logical step could be to test the framework on companies, who is considering engaging in cooperation, and see if the results of these relationships would last in the long term and yield positive results.

The research conducted in the thesis is based upon SET, which has its advantages and disadvantages, so it could be worth considering other theories, to compare the outcomes, to get a more diverse view of the result.

The basis of knowledge utilized, have been limited, and naturally these limitations have influenced the outcome of the thesis. The low number of useful articles, after the limitations, could influence the results, and therefore a more open literature review, could be worth considering. Any results from such a study would be more general, but might also reveal some concepts missed in this thesis.

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Appendix

#	Year	Author	Title	Source	Type of study	Purpose of study	Main outcome
1	2016	Yan and Azadegan	Comparing inter-organizational new product development strategies: Buy or ally; Supply-chain or non-supply-chain partners?	Int. J. Production Economics 183 (2017) 21–38	Theoretical and empirical	To find the relation between the method used to acquire npd to test the novelty and financial performance of the products gained from innovation	Buy strategy is most effective in regards to product novelty, regardless of being in supply chain or not All form of interorganizational product development leads to financial performance, but only buy leads to novelty
2	2003	Menon and Pfeffer	Valuing Internal vs. External Knowledge: Explaining the Preference for Outsiders	Management Science, Vol. 49, No. 4, Special Issue on Managing Knowledge in Organizations: Creating, Retaining, and Transferring Knowledge (Apr., 2003), pp. 497-513	Empirical	To study cases and test the "Not Invented Here" syndrome, to see if the opposite also happens	The cases show that some companies are valuing ideas from outside companies higher than their own developed ideas. Potential explanations are: higher scrutiny of own ideas, scarcity of outside knowledge makes it seem more valuable
3	2001	Kleinschmidt and Daneels	Product innovativeness from the firm's perspective: its dimensions and their relation with project selection and performance	The Journal of product innovation management 18 (2001) 357-373	Empirical	Distinguish further into the meaning of newness as well as to evaluate how market and technological fit and familiarity affects the new product performance	The result is that having resources that fit for developing the new product is positively related to the performance whereas being familiar with the market or the technology does not help the performance.

4	2009	Gnyawali and Park	Co-opetition and technological innovation in Small and medium-sized enterprises: a multilevel conceptual model	Journal of small business management volume 47. issue p 308-330	Theoretical and empirical	To develop a model over reasons for Co-opetition for SME's	They conclude the coopetition is a good way for business's where the R&D is expensive or for companies who are facing a big competitor in order to gain strength in numbers. They argue that competitors have an understanding of the market that is hard to match from other companies.
5	2011	Tomlinson and Fai	The nature of SME co-operation and innovation: A multi-scalar and multi-dimensional analysis	Int. J. Production Economics 141 (2013) 316–326	Empirical	To give a more varied understanding of cooperation among companies, both in the value chain and competitors	They conclude that stronger ties along the Value chain gives the companies better innovation. They also find that coopetition does not influence innovation thus value chain cooperation is better
6	2014	Iturrioz Et al	How to foster shared innovation within SMEs' networks: Social capital and the role of intermediaries	European Management Journal 33 (2015) 104–115	Empirical	With focus on innovation networks they aim to understand how corporation dynamics can be fostered.	They conclude that shared innovation is improved by social capital, if companies share values they have better innovation, but in order to avoid opportunistic behavior intermediaries should be a part of the process to bridge differences among the actors

7	2012	Konsti-Laakso et al	Facilitating SME innovation capabilities through business networking	creativity and innovation management volume 21 issue 1, page 93-105 2001	Empirical	to study a company joining a innovation network as well as facilitators roles in the matter.	They investigated how to get business' to join innovation networks as well as their motivation for doing so, as a low cost way of enabling SME's to do innovate. Facilitators seems to be important in taking the initiative and in aligning expectations
8	2012	Pullen et al	Open Innovation in Practice: Goal Complementarity and Closed NPD Networks to Explain Differences in Innovation Performance for SMEs in the Medical Devices Sector	J PROD INNOV MANAG 2012;29(6):917-934	Empirical	how to organize the interaction between SMEs and their external NPD network partners, in order to achieve high innovation performance	Business' with a high goal complementarity gets the best result of the network and are the best fit, these findings are however in a highly regulated medical supply sector. Further they register that a business relation with trust gives the best results.
9	2010	Kock et al	Co-opetition: a source of international opportunities in Finnish SMEs	Competitiveness Review: An International Business Journal, Vol. 20 Issue: 2, pp.111-125	Empirical	which internationalization opportunities are gained through co-opetition and to what degree the levels of co-opetition has on the internationalization.	Co-opetition helps companies get better internationalization strong ties gives more lasting opportunities whereas weak ones give shorter sporadic opportunities

10	2012	Akdogan and cingöz	An empirical study on determining the attitudes of small and medium sized businesses (SMEs) related to coopetition	Procedia - Social and Behavioral Sciences 58 (2012) 252 – 258	Empirical	Trying to determine companies attitude towards Co-opetition and what is most important	Companies are generally positive towards Co-opetition, trust is the most important factor and secondly is commitment, mutual beneficial is not as important, the study is however conducted in specific area in turkey so the conclusions are based on a narrow amount.
11	2015	bounchken and fredrich	Learning in coopetition: Alliance orientation, network size, and firm types	Journal of Business Research 69 (2016) 1753–1758	Empirical	Aiming to measure the effects of alliance orientation and network size on inlearning	The result is that inlearning is affected by both and that companies with a lot of partners gets more inlearning, one explanation is experience with utilizing the knowledge gained from outside, however this is a study based on both big and small companies so the results might not be fixed
12	2013	bounchken and Kraus	Innovation in knowledge-intensive industries: The double-edged sword of coopetition	Journal of Business Research 66 (2013) 2060–2070	theoretical and empirical	To investigate how Coopetition affects radical and revolutionary innovations in Knowledge intensive SME's in clusters.	Co-opetition is useful for radical innovations and have a positive correlation, however revolutionary innovations are decreased by co-opetition, this article is based on a large study and interviews, and several quotes are used in the study

13	2014	Park et al	Walking the tight rope of coopetition: Impact of competition and cooperation intensities and balance on firm innovation performance	Industrial Marketing Management 43 (2014) 210–221	Empirical and conceptual	To investigate to what extent coopetition affects innovation performance , who to pick and how engaged should you be	Firms can gain high innovative performance by picking partners where the competition is moderate and engagement is high, both high and low competition lowers the yield.
14	2016	Granata et al	Organizational innovation and coopetition between SMEs: a tertius strategies approach	Int. J. Technology Management , Vol. 71, Nos. 1/2, 2016	Empirical and theoretical	To find the phases of development of coopetition as well as the influence of stakeholders	Strategic orientations match. (fit at matching) influence power of stakeholders (fit moderation) potential synergistic effects three key things for managers to consider when considering Coopetition
15	2003	Levi et al	SMEs, co-opetition and knowledge sharing: the role of information systems	European Journal of Information Systems (2003) 12, 3–17	Empirical and theoretical	To analyze the role of IS/IT in SME's in coopetition using a game theoretic approach. Using 2 dimensions: the synergy effect possible and the leveragability of knowledge by the receiving company (NRI - negative reverse impact)	They conclude that SME's attitude towards knowledge sharing and its use of IS systems are related, and that SME's can have a hard time utilizing the knowledge gained, though they often develop it, and therefore the risk of other companies being able to use the gained knowledge against them influences their willingness to engage in coopetition

16	2015	Lindström and Polsa	Coopetition close to the customer — A case study of a small business network	Industrial Marketing Management 53 (2016) 207–215	Empirical and theoretical	to investigate which factors influence the success of coopetition, with focus on close to customers	They concluded that several factors play a role in cooperative success, distance as well as activeness is important, and resources enough to engage with the network is required "which is a paradox since networks should decrease the need for resources, not increase"
17	2014	bengtsson et al	Coopetition —Quo vadis? Past accomplishments and future challenges	M. Bengtsson, S. Kock / Industrial Marketing Management 43 (2014) 180–188	Theoretical	aims to define coopetition better, and give questions for further research	They give a good definition of coopetition to be two continua of competition and cooperation, as well they give an overview of the development of the field and 5 questions they believe should be researched further
18	2010	bengtsson et al	Co-opetition dynamics – an outline for further inquiry	An International Business Journal, Vol. 20 Issue: 2, pp.194-214	theoretical	Aims to show different cooperative interactions and their result on the cooperative outcome	They conclude on several measures that results in failed cooperation.
19	2010	Bengtson and Kock	"Coopetition " in Business Networks— to Cooperate and Compete Simultaneously	Industrial Marketing management 29. 411-426	Empirical	To understand how it is possible to both compete and cooperate at the same time (one of the first in the field)	They conclude that cooperation is beneficial for sharing risk, and it is most effective if the cooperation is far from the customer as this is where there is a lot of cost and utilization of resources

20	2015	jankowska	Cluster organization as a pro-internationalization form of cooperation in the SME sector – a Polish case in the European context	Journal of Economics and Management Vol. 22 (4) • 2015	Empirical and theoretical	To investigate how cluster organizations , improve internationalization	they conclude that informal cooperation decreases internationalization success, and that cluster organizations therefore can help SME's to internationalize better, thus a form of intermediaries are important for the success of cooperation
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