JYVÄSKYLÄ STUDIES IN BUSINESS AND ECONOMICS
85

Minna Lappalainen

Entrepreneurial Orientation at the Level of Dyad Relationships in Supply Chains and Networks

JYVÄSKYLÄN YLIOPISTO

JYVÄSKYLÄ STUDIES IN BUSINESS AND ECONOMICS 85

Minna Lappalainen

Entrepreneurial Orientation at the Level of Dyad Relationships in Supply Chains and Networks

Esitetään Jyväskylän yliopiston taloustieteiden tiedekunnan suostumuksella
julkisesti tarkastettavaksi yliopiston Villa Ranan Paulaharjun salissa
lokakuun 10. päivänä 2009 kello 12.

Academic dissertation to be publicly discussed, by permission of
the School of Business and Economics of the University of Jyväskylä,
in the Building Villa Rana, Paulaharju Hall, on October 10, 2009 at 12 o'clock noon.

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2009

Entrepreneurial Orientation at the Level of Dyad Relationships in Supply Chains and Networks

JYVÄSKYLÄ STUDIES IN BUSINESS AND ECONOMICS 85

Minna Lappalainen

Entrepreneurial Orientation at the Level of Dyad Relationships in Supply Chains and Networks

UNIVERSITY OF JYVÄSKYLÄ

JYVÄSKYLÄ 2009

Editors
Tuomo Takala
School of Business and Economics, University of Jyväskylä
Pekka Olsbo, Marja-Leena Tynkkynen
Publishing Unit, University Library of Jyväskylä

URN:ISBN:978-951-39-3701-0
ISBN 978-951-39-3701-0 (PDF)

ISBN 978-951-39-3675-4 (nid.)
ISSN 1457-1986

Jyväskylä University Printing House, Jyväskylä 2009

ABSTRACT

Lappalainen, Minna
Entrepreneurial Orientation at the level of Dyad Relationships in Supply Chains and Networks
Jyväskylä: University of Jyväskylä, 2009, 138 p.
(Jyväskylä Studies in Business and Economics,
ISSN 1457-1986; 85)
ISBN 978-951-39-3701-0 (PDF), 978-951-39-3675-4 (nid.)
Finnish Summary
Diss.

The present study investigates the phenomenon of entrepreneurial orientation in the context of a buyer-supplier relationship. The aim is to better understand the phenomenon in the milieu of industrial supply chains. The main research question is: How does entrepreneurial orientation appear at the level of supply chain in comparison to the level of individual companies forming the supply chain?

The theoretical part of the study focuses on the scientific discussions on value adding, agility, supply chain management and entrepreneurial orientation. The empirical part is completed as a qualitative, multiple embedded case study.

Using the dyad buyer-supplier relationship as a context this study takes scientifically a new approach in the research of entrepreneurial orientation. The empirical results show that the entrepreneurial orientation of the dyad relationship does not equal to either one of the companies involved. The results indicated also possible connections between the autonomy and competitive aggressiveness dimensions at the inter-firm level that have not been reported earlier at the company level. The pyramid type of supply chain structure following the extended enterprise approach appears to support more the entrepreneurial orientation in the co-operative relationships than the traditional arm's length approach and a star-shaped supply chain structure. For the practitioners the message of this study is to pay attention to the entrepreneurial orientation level of their customers. This is due to the fact that the reciprocity among companies forming the value chain adjusts the entrepreneurial orientation levels of all the chain members and has effect on the company's ability to strategically renew.

Keywords: entrepreneurial orientation, supply chain, agility, value chain integration, competitiveness

Author's address Minna Lappalainen
Cygnaeuksenkatu 5 A 21
40100 Jyväskylä
Finland

Supervisor Professor Matti Koiranen
School of Business and Economics
University of Jyväskylä
Jyväskylä, Finland

Reviewers Docent Jyrki Ahola
Lappeenranta University of Technology
Lappeenranta, Finland

Professor Senja Svahn
Tampere University of Technology
Tampere, Finland

Opponent Docent Jyrki Ahola
Lappeenranta University of Technology
Lappeenranta, Finland

ACKNOWLEDGEMENTS

Completing a doctoral thesis is definitely a journey worth of taking. For me it has been a deep dive into the ocean of scientific knowledge with a purpose to find pearls of information that can help me to better solve problems in the real business world. The dive has been the most exciting and even though my pockets are now filled with the pearls of information, the greatest lesson of all has been the dive itself. The research process as such and all the consequences it has resulted in good and bad have provided me strength and life experience that are invaluable.

During my dive into the ocean of scientific knowledge I've been guided by several individuals to whom I am most grateful. My sincerest and warmest thanks go to my supervisor Professor Matti Koiranen of the University of Jyväskylä, School of Business and Economics. He has been most supportive and encouraging during the whole process and without his professional guidance I would still probably be out there diving.

I've been delighted to have a possibility to work with Docent Jyrki Ahola of the Lappeenranta University of Technology who has provided me constructive feedback and helpful suggestions for improving my thesis. I very much appreciate the input Docent Ahola has given to this process as the external and public examiner of my work.

I am also most grateful to Professor Senja Svahn of the Tampere University of Technology for acting as my other external examiner. The sharp and educative observations and instructions of Professor Svahn have improved the quality of my work substantially.

I gratefully acknowledge the cooperation of Mr Nicholas Kirkwood for his skilful work in proofreading and checking the English language of this report. I would also like to express my gratitude to the School of Business and Economics at the University of Jyväskylä for facilitating my research.

Special thanks belong also to all the interviewees of my study who provided their valuable time, experience and insight for the use of the research. Your contribution for the completion of this study has absolutely been crucial.

Furthermore, as this study was initiated as a spin-off of a practical development project related to the raw wood supply chain and Finnish forest industry, I would like to express my thanks once more to all the forest cluster companies involved in the development project for all the financial support provided also for this study: Koneyrittäjien liitto ry, Metsäteollisuus ry, Stora Enso Metsä, Ponsse Oyj, UPM Metsä, Metsähallitus, Osuuskunta Metsäliitto, MTK ry, Yksityismetsätalouden työnantajat ry, John Deere Forestry Oy, OP Pohjola Oyj, Tekes and Metsämiesten säätiö.

And for my very own captain, my dear husband Jussi, I am for ever grateful for your understanding and flexibility during this entire process. Thank you for carrying me over the troubled waters and believing in me when I did not. Without you I would not be here.

Jyväskylä, 12.9.2009

Minna Lappalainen

LIST OF FIGURES

LIST OF TABLES

CONTENTS

1 INTRODUCTION

1.1 Structure of the report

This research report consists of five parts. The first two parts familiarizes a reader to the logic of the researcher. The first part reveals the reasons why the study was completed, the goals and specific research questions and the limitations of the work. The task of the second part is to present the philosophical foundation of the work and the methodological choices made. It also discusses the validity and reliability issues from the point of view of this study.

The third part contains an extensive literature review to show the theoretical foundation of the study, covering a broader range of themes related to the research interest than in the first part. The wide-ranging themes in the literature review show the logic of why the phenomenon of entrepreneurial orientation has been studied in the context of supply chains and networks. It provides a good understanding of why entrepreneurial orientation can be considered as having an essential role in the search for competitiveness in a turbulent business environment.

The fourth part of the report illustrates the appearance of the phenomenon of entrepreneurial orientation in the dyad buyer-supplier relationships. The focus of the empirical study follows on from the wide-scale theoretical study that indicates an obvious knowledge gap in the ability of the supply chains and networks to strategically renew. In order to keep the research setting reliable, the empirical study is limited to focusing only on the "white spot" on the maps of supply chain management, strategic management and entrepreneurial orientation. The findings are discussed in the light of the research questions and the studies presented in the literature review.

The last part of the report concludes the findings of the study. The contributions to research and education are discussed in relation to both the empirical and theoretical part of the study. The managerial implications of the findings are also brought to the fore. Finally, ideas and recommendations for further studies are suggested.

1.2 Entrepreneurial orientation as research topic

Entrepreneurial orientation refers to the strategic orientation of a company covering the processes, practices and decision-making activities that lead to a new entry. The ability to provide a new entry is related to the ability to strategically renew and therefore the entrepreneurial orientation is characterised as being the key to the strategic renewal. Koiranen (1994, 16) has stated that entrepreneurship is the engine of renewal and the entrepreneur is the seeker of unused opportunities. The essential characteristics of entrepreneurship are flexibility, positive orientation to constant development and change dynamism (Koiranen 1993, 12).

There are basically two schools concerning the definition of entrepreneurial orientation dimensions that research has been based on. Covin and Slevin (1989) have defined the entrepreneurial orientation as the organisations' innovativeness, proactiveness and risk-taking behaviour. They consider all three dimensions have a positive influence on a company. This definition has been extended by Lumpkin and Dess (1996), who have added to the list of dimensions also autonomy and competitive aggressiveness. Lumpkin and Dess (1996) have also noted that the industry life-cycle and environment have a clear moderating role, which have to be taken into account when evaluating the impact the entrepreneurial orientation has on a company.

Since the beginning of the 1980s entrepreneurial orientation has traditionally been studied at the company level. In recent years there has been an increased focus on the relationship between a firm's entrepreneurial orientation and its performance. Even though there does not seem to be any straightforward or unified answer to the question, numerous researchers have concluded that entrepreneurial orientation has a positive influence on a company's performance (Morgan and Strong 2003, Wiklund and Shepherd 2004, Avlonitis and Salavou 2007, Hughes and Morgan 2007, Keh et al. 2007, Kuivalainen et al. 2007, Madsen 2007). In line with the findings of Lumpkin and Dess, the importance of taking into account the environmental dynamism and, for example, the access to capital is recognised when evaluating performance relations. The importance of entrepreneurial orientation has also been recognized in the strategic management research like in the study of Ahola (1995, 186) presenting a normative strategic process model for a group-type company.

Ranta (2005) has demonstrated in his research that companies' ability to provide added value does not only depend on their own capabilities – but also on the inter-organisational operations and their characteristics have an influence on it. The relationship with the key partners such as customers or suppliers has an effect on the ability to create value. Alajoutsijärvi (1996, 241) has recognised in his research on dyad byer-seller relationships that the way the relationship develops is affected by the results of the cooperation and by the behaviour of the partners. Ranta (2005) states, that if the behaviour of the other one or both of the partners changes it has an effect on the relationship and ultimately also on the partners' ability to create value. In accepting this fact and Lumpkin and Dess's (1996) belief that the business environment needs to be taken into account when investigating entrepreneurial orientation, there seems to be a natural need to study the phenomenon also at the inter-firm level in addition to the traditional organisational level. This aspect has anyhow been so far very limited in the entrepreneurial orientation research. Simzek et al. (2003) and Stam et al. (2008) have brought up the importance of inter-firm reciprocity in relation to the entrepreneurial orientation, but as such the phenomenon of entrepreneurial orientation has not been studied in the context of dyad inter-firm relationships.

1.3 Supply chains and networks as context

Companies' tendency to concentrate solely on core competencies, speed of changes in the operational environment as well as the constant cost reduction and innovating pressures have led companies to build strategic coalitions (Trent and Monzcka 1999, 929). The driving force of collaboration among companies is the increased efficiency in operations that can be reached as a well constructed team. Outsourcing of non-core activities to a business partner increases cost-efficiency and provides access to new capability combinations among partners. The reinforcing specialisation process can produce very competitive companies whose ability to take the full advantage of their competences is, however, like in team sports, dependent on the collaborative partners (Möller and Svahn, 2003). As a result of the increased interdependency among companies, competition has changed, too. Today, competition takes place between entire supply chains as well as between individual companies (Hamel and Prahalad 1994, 187; Spekman et al. 1998, 630). As in team sports, companies have to take care of their own competitiveness that can provide them access to a world class business team whose success depends on how innovatively and proactively the team members can play together. As the conditions on the field of play change and the competing teams vary their strategies, the business teams formed by individual companies need to have the ability to renew themselves accordingly.

The changed competition and the increased role of a kind of team play mentality require companies to pay more attention to how the interorganisational operations are organised and managed. These issues are extensively and actively discussed in supply chain management literature that in part forms the theoretical framework which provides means for understanding the context of this study. In addition to the supply chain management discipline, network researchers like Möller and Svahn (2003, 2006) have also contributed to the discussion of managing interfirm relationships. This research is anyhow limited to the supply chain management discussion concerning the management of interorganisational operations.

In despite of how strategically important the topic in question is, how independent companies together can as a team have the ability to strategically renew, has not been widely discussed neither in supply chain management nor in strategic management literature. The importance of having mutual goals, sharing information and being customer and market sensitive have been recognised. Similarly the crucial role of trust among co-operative partners for the successful performance of a supply chain or network has been underlined. Agility as an ability to adapt to and utilise changes has been taken up as a special feature of a supply chain that recognises the importance of proactiveness and innovativeness among others but does not emphasise them specifically. As a result of this a comprehensive picture of how to build the ability to strategically renew into a co-operative relationship has remained blurred.

Based on the ever increasing roles that the supply chain management and the ability to strategically renew have on companies' competitiveness, it is essential that the key factor to the renewal, entrepreneurial orientation, is studied in the context of supply chains and networks.

1.4 Motives for study

This research was initiated as a spin-off of a practical development project related to the raw wood supply chain and Finnish forest industry. The actual challenges recognised during the development project to get necessary changes in the vertically integrated supply chains to take place led to a comprehensive literature review on supply chain management and strategic management. However, the tools and guidelines provided by the recent research on these disciplines did not seem to get to the heart of the challenges that exist in the inter-organisational operations and their development in real life. The need for an entire supply chain to renew as a team and the factors having influence on it where not comprehensively discussed. This deficiency provided the spark to study the phenomenon of entrepreneurial orientation as the key to strategic renewal in the context of supply chains and networks.

Even though the research got started as a spin-off of a forest industry related development work, the particular industry is not presented in the empirical study. The decision to leave the forest industry out of the research was a deliberate one with the purpose of ensuring the higher neutrality of the work. I, the researcher, have several years of work experience in the Finnish forest industry that could have caused an unintentional researcher related bias in the findings. Hence, the case companies or industries selected for this study were not familiar to the researcher beforehand. The selection of unfamiliar cases served also as a way to learn about operating models and business practices utilised in other industries. In this respect the completion of this research has enhanced in a great way the completion of the practical development project.

1.5 Goals and research questions

The present study investigates the phenomenon of entrepreneurial orientation in the context of a buyer-supplier relationship. Bearing in mind the newness of the research context, the nature of the study is rather exploratory. The aim is to better understand the phenomenon in the milieu of industrial supply chains.

The main research question is:

> How does entrepreneurial orientation appear at the level of supply chain in comparison to the level of individual companies forming the supply chain?

The answer to the main research question will be searched for through the following sub questions:

1. Do the supply chain and the individual companies forming the supply chain differ in entrepreneurial orientation? If differences exist, what are they?

2. Do the dimensions of entrepreneurial orientation differ in significance? If differences exist, what are they like?

3. Do different supply chain structures differ in entrepreneurial orientation? If differences exist, what are they like?

1.6 Limitations of study

This study concentrates on the phenomenon of entrepreneurial orientation as defined by Lumpkin and Dess (1996). The focus of the research is on the focal company and its 1st tier supplier and on the inter-firm relationship formed by them. A 1st tier supplier is a company that has a direct business relationship to the buying company. This study does not provide any information on 2nd or 3rd tier companies in a supply chain nor on their intermediate relationship. The 2nd and 3rd tier companies belong to the supply chain serving the focal company but they do not have a direct business relationship to it, instead, the 2nd tier supplier sells its products or services to the 1st tier supplier of the focal company. The 1st tier suppliers were selected upwards in the chain from the focal company. The empirical data were collected in Finnish from companies located in Finland, thus limiting the scope of this research to Finland only. The companies selected for this study represent the mechanical engineering and meat processing industries. The collection of data took place in 2007, and being only cross-sectional it does not include any longitudinal aspect.

The ontological and epistemological choices and the research methods chosen in this study allow generalisation of the results only with the so-called analytical principle. The case method that is applied provides results that are according to Yin (2003, 10) generalisable to theoretical propositions and not to populations or universes. Yin compares multiple case studies to multiple experiments. Analytic generalisation means that a previously developed theory is used as a template with which one compares the empirical results of the case study. Replication may be claimed if two or more cases are shown to support the same theory (Yin 2003, 32). Due to the fact that there is no previous theory on how the entrepreneurial orientation appears at the level of supply chains, the results of the multiple case studies can be used as ingredients of a new theory when more than two cases show similar results.

The results should always be reflected to their context, meaning the particular inter-firm relationship, the supply chain structure and the specific line of business the companies represent and also the general market situation prevailing during the interviews. The research has been completed in the context of buyer-supplier relationships where the evaluation of the entrepreneurial orientation was based on the perspectives and experiences of the interviewees. All the interviews were completed during an economic boom in 2007. Due to this, the research results do not tell anything about the entrepreneurial orientation of the inter-firm relationships in any other kind of market situation, like the recession that we are now facing in 2009. The prevailing market situation during the interviews is important to recognize due to the fact that a weaker economical status of a company may have effect on its buyer/supplier relationships. The possible outcome that a weaker economical status may cause in the dyad relationship was not apparent when finalizing the empirical part of this study.

2 PHILOSOPHICAL FOUNDATION AND METHODOLOGICAL CHOICES

2.1 Ontological and epistemological views

According to Arbnor and Bjerke, the ultimate presumptions held by a researcher control the process of knowledge development (Arbnor & Bjerke 1997, 14). In other words, the way a researcher views the world and what is real in it has an influence on the information that he/she produces. Hence, in order to create credible scientific knowledge that can be objectively evaluated by readers, it is important to describe how the researcher defines reality.

Scientific discussions around the nature of reality are labeled as ontological choices. According to Saunders et al. (2007, 108) ontology can be categorised in two aspects, objectivism and subjectivism. Following the logic of Saunders et al. (2007, 108), objectivism states that social entities exist in reality external to social actors concerned with their existence. In other words, reality is independent from the actor's personal experiences and actions and it can be objectively observed. Subjectivism presents quite the opposite of this aspect having the view that social phenomena are created from the perceptions and consequent actions of social actors. Further on, this is a continual process in that through the process of social interaction these social phenomena are in a constant state of revision. Saunders et al. (2007, 109) have given a very clarifying example of the differences between objectivism and subjectivism:

- Objectivistic view: customer service in an organisation has a reality that is separate from the customers that perceive that reality.
- Subjectivistic view: customer service is produced through the social interaction between service providers and customers and is continually being revised as a result of this. Due to the constant change, there is at no time a definitive entity called 'customer service'.

This research is built on subjectivism. The context of the research, the dyad buyer-supplier relationship, is of a highly interactive nature and the orientation of the relationship is created during the interaction by the participants. Hence, entrepreneurial orientation is not seen as a separate entity but as a kind of mental product produced by the social actors involved in the process.

The fact that this research concentrates on the appearance of the phenomenon of entrepreneurial orientation in the interaction of two social actors indicates in addition to the subjectivism as ontological choice also the interpretivism as the epistemological choice. Whereas positivism emphasises law-like generalisations as research results, interpretivism is an epistemology that advocates that it is necessary for the researcher to understand differences between humans in our role as social actors (Saunders et al. 2007, 106). In the behaviour of human beings, like in the context of the dyad buyer-supplier relationship, the will has an essential role. This leads on from the fact that human character and behaviour cannot be described or explained through natural laws that positivism uses. As a result of this, the researchers dealing with social sciences should be focusing more on understanding rather than on explaining.

2.2 Paradigm

Saunders et al. (2007, 112) have defined paradigm as a way of examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted. In order to clarify the different, mutually exclusive choices researchers can take between different paradigms, Burrell et al. (1979, 21) have created a kind of map of social science paradigms. This map summarises the ontological and epistemological choices a researcher may take and describes different alternative paradigms in four categories based on two key dimensions: the subjective-objective dimension and the regulation–radical change dimension. The subjective-objective dimension refers to the ontological choice made by the researcher. According to Saunders' et al. (2007, 112) interpretation, in relation to business and management, radical change relates to a judgment about the way organisational affairs should be conducted and suggests ways in which these affairs may be conducted in order to make fundamental changes to the normal order of things. The radical change dimension adopts a critical perspective on organisational life whereas the regulatory perspective is less judgmental and critical. Regulation seeks to explain the way in which organisational affairs are regulated and offer suggestions as to how they may be improved within the framework of the way things are done at present. The four paradigms – functionalist, interpretive, radical humanist and radical structuralist – thus define four views of the social world based upon different meta-theoretical assumptions with regard to the nature of science and society. The set up of the paradigms in relation to the dimensions is illustrated in Figure 1.

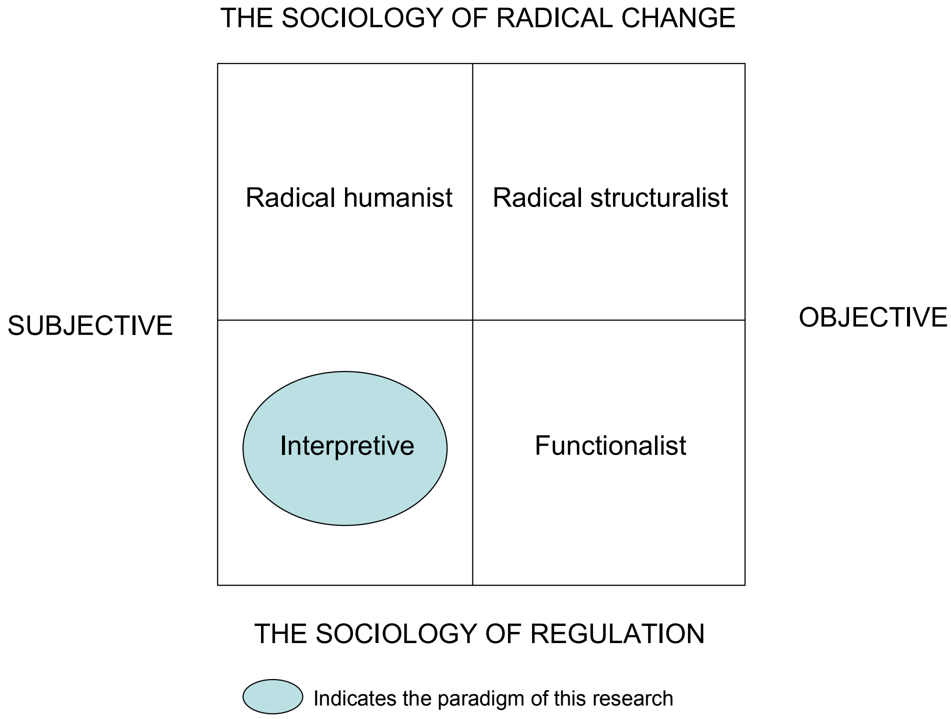

FIGURE 1 Four paradigms for the analysis of social theory. (Burrell & Morgan 1979, 22)

As the purpose of this research is to provide more in-depth understanding and not to achieve change in the order of things, the paradigm describing the way the particular social phenomena is studied is the interpretive paradigm. Burrell et al. (1979, 28) have stated that the interpretive paradigm is informed by a concern to understand the world as it is, to understand the fundamental nature of the social world at the level of subjective experience. The roots of the interpretive paradigm are in part in hermeneutics that is a philosophy evident also in the research approach of this research. In hermeneutics, knowledge is increased and understanding is improved through spirals of the so-called hermeneutic circle and the role of the researcher is to go deeper and deeper in her journey. According to Dilthey, the social whole cannot be understood independently of its parts and vice versa. Words in a sentence are understood in terms of their total context (Burrel et al. 1979, 237). Gadamer (2005, 38-39) has stated, that understanding begins when something gets our attention and we face our prejudices. Our prejudices that are based on historical knowledge can be questioned by learning more about the thing that gained our attention and the hermeneutical circle providing deeper understanding is created by starting a dialog between the former knowledge and new information. This philosophical approach is the guideline that has been followed in the search for better understanding concerning the phenomenon of entrepreneurial orientation – by creating a dialog between former knowledge related to the research of entrepreneurial orientation, strategic management and supply chain management and the new set up of these items utilising a constant debating of theoretical and empirical findings.

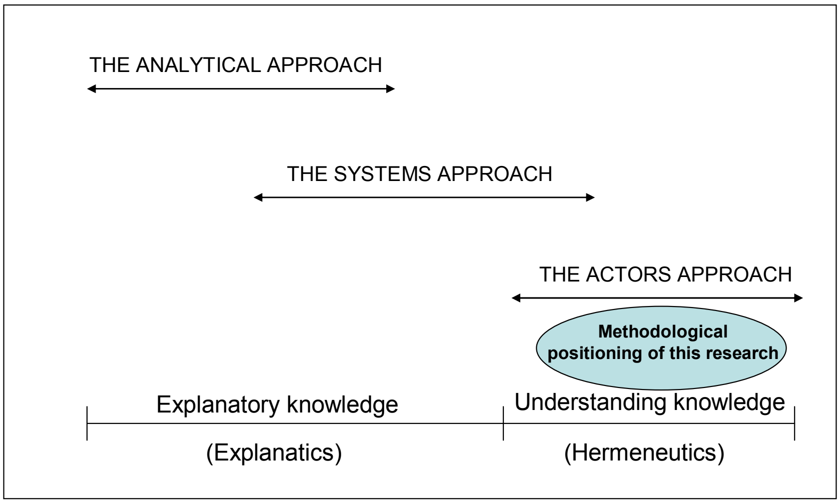

FIGURE 2 The boundary between explanatics and hermeneutics. (Arbnor & Bjerke 1997, 46)

2.3 Methodological approach

Arbnor and Bjerke (1997) have defined three methodological approaches operating in business research today. They are the analytical approach, the systems approach and the actors approach.

The goal of the analytical approach is to explain objective reality as fully as possible. Explanations of this reality take the form of causal relations. The terms cause and effect are used, and reality is assumed to be constructed of summative components (Arbnor & Bjerke 1997, 60).

The systems approach also assumes the existence of an objective (or at least objectively accessible) reality that researchers consider their primary field of interest. Systems reality is assumed to consist of components that are often mutually dependent on each other and cannot be summed up together as in the analytical approach. According to Abrnor and Bjerke (1997, 65) the constitution of these components brings about synergistic effects: not only the content of the individual components, but also the way they are put together, provides information. The whole is more (or less) than the sum of its parts. What is required for reaching an acceptable explanation (or understanding) of a specific situation is to consider the overall picture.

The reality assumed by the actors approach exists only as a social construction, which means that it is not independent of us, its observers. In the actors approach people are seen as intentional, that is, as active, reflective, and creative individuals. Arbnor and Bjerke (1997, 158) have stated that the actors approach talks about determining meaning (general understanding, meaning and significance) whereas the analytical and systems approaches talk about definitions. For the researcher, the actor is an "object" to be studied as a human being who thinks and behaves actively. This actor is often placed in a context that is more or less organised and that is also an object to be studied by the researcher. This context consists of other actors – other people with their own finite provinces of meaning (Arbnor & Bjerke 1997, 163).

In line with the ontological and epistemological choices, this research utilises the actors approach as a methodological approach. There are fundamentally two aspects supporting this decision. First of all the supply chains and networks that form the context of this research are intentionally built by actors for efficient business purposes. Secondly, the phenomenon to be studied, entrepreneurial orientation, is created by the participating actors in the supply chain or network.

2.4 Arguments for using multiple case study

According to Yin (1994, 1), case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context. Stake (2000, 436) has defined the epistemological question of case study to be: "What can be learned from the single case?"

Following the logic of Yin (1994), this research seeks to find an answer to the question of "How does the entrepreneurial orientation appear in the level of supply chain in comparison to the level of individual companies forming the supply chain?" The focus of the research is on the individual companies forming the supply chain and on the actual dyad buyer-supplier relationships which are not influenced by the researcher. By using the Stake's (2000, 437) definition, the research is an instrumental case study: a particular case is examined mainly to provide insight into an issue. The case is of secondary interest as such, it plays a supportive role and it facilitates our understanding of the phenomenon of entrepreneurial orientation.

According to Yin (1994, 21), the unit of analysis equals to what the "case" is. Hence there are two sets of cases in this research: the individual companies, buyers and suppliers that form the supply chain and the dyad relationship itself between the buyers and suppliers. In order to provide more in-depth understanding of the phenomenon, the research is completed as a multiple embedded (Yin 1994, 51) case study. The study includes ten cases presenting individual companies and five cases demonstrating the inter-firm buyer-supplier relationship formed by the individual companies. The utilisation of multiple cases is possible due to a rich, theoretical framework that states the conditions under which the phenomenon of entrepreneurial orientation is likely to be found, the actual dimensions of it. The theoretical framework makes the logic of replication possible that is essential for completing a multiple case study (Yin 1994, 46). Following the logic of Stake (2000, 437), the research could be defined also as a collective case study as the instrumental approach is extended to several cases. The reasoning for utilising several cases is that it is believed that understanding them will lead to better understanding, by providing tools for creating theories, about a still larger collection of cases.

UNITS OF ANALYSIS	NUMBER OF REPLICATIONS
INDIVIDUAL COMPANIES	10
BUYER-SUPPLIER RELATIONSHIPS	5

FIGURE 3 The formation of the multiple, embedded case study.

The selection of cases has taken place based on how rich in information they are for learning about the issues of central importance to the purpose of the research. Even though sampling is not typically related to qualitative research, Patton (1990, 169) uses the term purposeful sampling and explains that there are several different strategies in qualitative research for purposefully selecting information-rich cases. Following the definition of Patton, this research utilises the strategy of theory-based sampling: possible cases have been sampled on the basis of their potential representation of the important theoretical constructs. As Patton (1990, 177) puts it: "the sample becomes, by definition, representation of the phenomenon or interest."

Triangulation has been stated to be one important way to strengthen a study design. According to Patton (1990, 187-188) it is possible to achieve triangulation within a qualitative inquiry strategy by combining different kinds of qualitative methods, mixing purposeful samples, and including multiple perspectives. Stake (2000, 443) has said that triangulation has been generally considered as a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation. According to him, acknowledging that no observations or interpretations are perfectly repeatable, triangulation serves also to clarify meaning by identifying different ways the phenomenon is being seen. Following the guidelines of triangulation, the cases are studied by interviewing multiple informants from the original equipment manufacturer and from its supplier. The understanding of the phenomenon of entrepreneurial orientation in each case of buyer-supplier relationship will be based on several individual perspectives on both sides of the same issue. The purpose of interviewing several informants at the same position and about the same issue is thus to avoid the bias of strong personal opinions and to minimise the possibility of misinterpretations by the researcher. In addition to the triangulation of data sources, the theory triangulation has been used to reduce systematic bias in the data.

2.5 Collection of empirical research data

The collection of information has taken place in the form of semi-structured interviews. The research is based on abductive logic which has been stated to be preferable, when the purpose is to provide new insights to existing theories or to even create new theories. The reasoning behind this is that the ability to observe in a productive way actually requires some kind of leading idea or red line of thinking (Tuomi & Sarajärvi 2002, 97). The themes of the semi-structured interview are hence formulated based on the recommendations given by Lumpkin and Dess (1996). These themes were the same to all interviewees and they were delivered to them in advance. According to Tuomi and Sarajärvi (2002, 75) the most important thing concerning interviews is that they provide as much information about the area of interest as possible. Based on this it is only reasonable that interview questions or themes were given to the informants beforehand. It is also stated to be ethically correct. The information letter sent to interviewees is enclosed to this report as appendix 1.

The informants have been selected according to the recommendations of the key persons of each case. Key persons are the ones who have provided access to the organisations forming the case and their recommendations concern persons who have the required knowledge and experience on the buyer-supplier relationship in question.

2.6 Elaboration and interpreting of empirical research data

The total number of interviews for the study is 20 and they were completed between April - September 2007. The majority of the interviews were completed in face-to-face meetings but three of them were done on the phone due to challenges in meeting arrangements. The leading questions for the interview themes are presented in appendix 2. All interviews have been recorded and transcribed into written format. The interviewer also took notes during the interviews. The empirical data was analysed using the method of theory-supported (teoriaohjaava) content analysis. According to Tuomi and Sarajärvi

(2002, 98-99) in a theory-supported content analysis the units of analysis are derived from the empirical data, but the selection process utilises the former information on the topic of interest. All in all, the influence of the former knowledge on the topic can be recognised in the analysis, but the role of the knowledge is not to test an existing theory; instead the information is used to provide new insights and ideas.

The empirical data presents the phenomenon of entrepreneurial orientation at the levels of individual companies and the buyer-supplier relationships formed by them. The content analysis is used to provide a clear verbal description of it. The result of the analysis, the description, is then the basis of the conclusions. The content analysis of the empirical data has been conducted in the following order:

1) Studying the actual content of the transcriptions and searching for the expressions related to the dimensions of the phenomenon of entrepreneurial orientation as defined by Lumpkin and Dess; expressions found related to the dimensions of entrepreneurial orientation were colour coded.
2) Classifying the colour coded expressions by the entrepreneurial orientation dimension and the company.
3) Studying the expressions classified by the entrepreneurial orientation dimensions and the companies; researcher's interpretation of the content of the expressions; formulation of a simple categorisation of high-moderate-low per dimension, company and inter-firm level based on the researcher's interpretation of the interviewees' comments on entrepreneurial orientation. The high –score was given when the interview comments clearly positively brought up the dimensional factors defined by Lumpkin and Dess, the low –score was given when the interview comments did not support entrepreneurial orientation and a moderate –score was given when the case seemed to be something in between of the two extremes based on the interviews.
4) Classifying the categorised interpretations of the contents by the cases and entrepreneurial orientation dimensions. Formation of the entrepreneurial orientation maps.
5) Analysis of the high-moderate-low categorised interpretations by the cases and entrepreneurial orientation dimensions. The high-moderate-low categorisations were used to form an overall picture of the orientation level per dimension, company and inter-firm level. A more specified analysis was completed by drilling down once more to the interview arguments used as a basis for the classification. The main argumentation per case and per dimension forming the basis of the conclusions is presented in this report.
6) Conclusions based on the analysis.

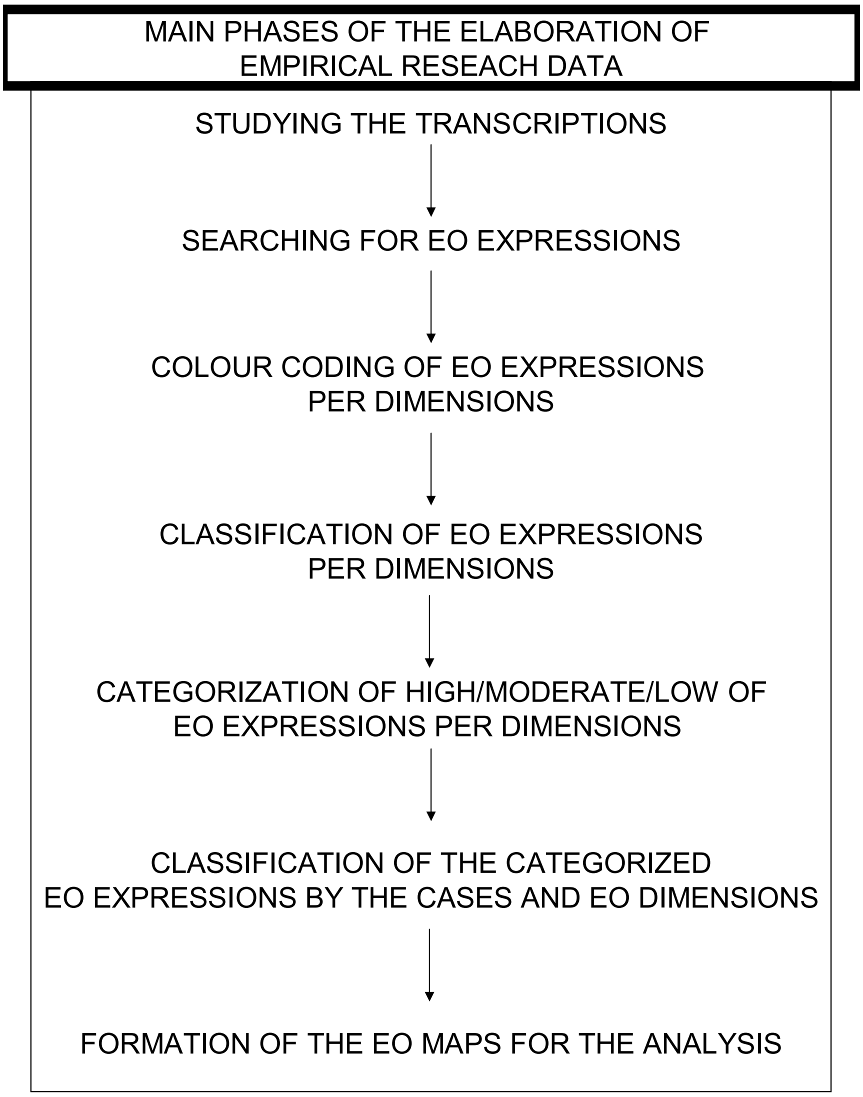

FIGURE 4 Main phases of the elaboration of empirical research data
EO= entrepreneurial orientation

2.7 Validity, reliability and potential sources of error

The question of objectivity is always a challenging one in a non-positivist piece of research. Kirk and Miller (1986, 20) state that objectivity is the simultaneous realisation of as much reliability and validity as possible. Reliability is defined to be the degree to which the findings are independent of accidental circumstances of the research and the validity tells as to whether the findings are interpreted in the correct way. Due to the fact that social sciences, covering also business research, deal with human beings, their intentions, decisions and expressions, are difficult to interpret. Bearing in mind that our thinking is influenced by our former knowledge and experiences, the question of how one can indicate that one has interpreted correctly what another person has meant, through her speech or writing, is an issue that does not seem to have one complete answer among scientists. In addition to the "heritage" of knowledge and experience we are carrying with us, the interaction taking place especially while interviewing or observing has an effect on our interpretation (Salner 1989, 50). According to Kirk and Miller (1986, 71) perfect validity in non-positivist research is theoretically impossible. Similarly Enerstvedt (1989, 153) has stated that the ideal of identical conditions required for positivist replicability is an illusion – no matter how controlled the conditions are, measurements vary. Due to the problem of subjectivity and bias, Lincoln and Guba (2000, 181) have described objectivity as a chimera: a mythological creature that never existed, save in the imaginations or those who believe that knowing can be separated from the knower.

Despite the challenges related to the indicators of validity and reliability in a non-positivist research, their importance as the criteria for evaluating research is acknowledged. As a result of this alternative constructs of the content of validity and reliability have been created in order to be better in line with the assumptions of the non-positivist approach (Remenyi & Williams & Money & Swartz 1998, 114; Lincoln & Guba 2000, 178). Remenyi et al. (1998, 115) have stated that in non-positivist research validity concerns whether the researcher has gained full access to knowledge and meanings of respondents. Following similar logic, Lincoln and Guba (2000, 180-184; Seale 1999, 46) have defined validity in more detail as authenticity, resistance and poststructural transgression and ethical relationship. Enerstvedt (1989, 153-154) encourages discussing about 'accuracy' instead of the reliability of a research. In line with Enersrvedt, Kirk and Miller (1986, 72) state that qualitative research has to be carefully documented in order to be reliable. According to their instructions, the documentation has to be completed at such a level of abstraction that the loci of decisions internal to the research project are made apparent.

Validity as authenticity means according to Lincoln and Guba (2000, 180) first of all fairness: to avoid marginalisation so that all voices in the inquiry effort have a chance to be represented in any texts and to have their stories treated fairly and with balance. Following this guideline, the empirical data of this research was collected so that both the buyer and supplier had an equal opportunity to tell their view about the entrepreneurial orientation. Especially concerning the validity of the evaluations of the entrepreneurial orientation at the interorganisational level, the importance of having the estimations of both partners involved in the relationship was recognised. When ever possible, more than one representative per company was interviewed in order to provide a more solid base for the interpretations of the comments related to the entrepreneurial orientation dimensions. Unfortunately, the utilisation of several respondents per company is limited in this research due to fact that in many companies there was only one person who had access all the information needed and experience on the issues looked at in this research. The choice of the interviewees has naturally also an effect on the results – other persons from the same companies may have provided different information for the analysis than the ones selected. However, as the selection of the interviewees was made based on the recommendations concerning the knowledge and experience level the persons have in the topic, one can expect that the results provide as truthful picture of the experienced reality as possible with the chosen approach and method. Furthermore, all the cases and respondents were treated as equally important informants for this study and the points the respondents brought up have been presented in the report as they appeared during the interviews.

In order to show the arguments of the respondents that have led the researcher to a certain interpretation, direct quotations of the interviewees' statements from the transcriptions are presented in the text. The use of the quotations gives in a way the research participants a possibility to speak for themselves, that is one of the key elements of the ethical relationship and hence part of the validity according to Lincoln and Guba (2000, 182-185). Naturally, one can always argue that the choice of the quotations is a source of researcher related bias – the selection of quotations may have been influenced by the researcher's personal opinions, consciously or unconsciously. This is an aspect that the reader has to keep in mind when comparing the selected quotations, interpretations made from them and the information he/she has from the interests of the researcher. In order to give tools for the reader to do the evaluation, the personal interests of the researcher related to this study have been presented in the beginning of this report. The quotations used in this study were selected so that they present the main argument to the reader of the researcher's interpretations presented in the text– the reader can then evaluate whether the interpretations are acceptable or not.

Lincoln and Guba (2000, 182-185) have taken up also the representation of the text as one of the factors influencing the ethicality and validity of research. In order to increase the validity of the research, special attention has been paid to the clarity of expressions, to the presentation of the commentators and to the logicality of the report. However, the fact that this study has been completed as a multilingual one causes certain challenges. The research report was completed in English in order to enable the evaluation and utilisation of the research results for a larger population other than only Finnish speaking ones. The interviews were done in Finnish due to it being the mother language of the respondents and the interviewer. The use of the mother language also ensured the clarity of communication (interviewee understands what he/she has been asked about and interviewer understands what was said in reply without any language related barriers) that is essential when considering the quality of the interview data. The challenge that occurs in this research as a result of this multilingual solution is that the use of other than one's mother language in the report text may increase the amount of ambiguous expressions due to cultural differences. There is also a risk that the translations of the quotations may not exactly respond to the original expressions. In order to increase the validity of the research the original Finnish quotations are available as attachments with references to the report text.

Lincoln and Guba (2000, 180-182) emphasise also the importance of research in providing new knowledge. They discuss about ontological and educative authenticity and resistance or poststructural transgression as a source of validity. The point that Lincoln and Guba (2000, 180) have made is that a valid research increases the level of awareness by individual research participants and by individuals about those who surround them or with whom they come into contact for some social or organisational purpose. A valid research enables a knowledge crystallising effect: by providing new aspects to the existing theory the research sharpens our thinking and results in a more in-depth understanding on the issue (Lincoln & Guba 2000, 181-182). Utilisation of a rather wide theoretical basis as a starting point and then focusing on a carefully limited part of it in the empirical part of the research increases the validity of this research through the idea of knowledge crystallising. The topic of interest, competitiveness, is reflected through different aspects in order to provide a comprehensive understanding of what according to recent research is required for achieving the target. This broad scale mapping revealed a gap in the current theories that consists of combining the request for agility and intense value chain integration. It also revealed that entrepreneurial orientation has been recognised as the key to the organisations' ability to strategically renew themselves. Furthermore, the comprehensive theoretical study showed that even though the phenomenon of entrepreneurial orientation has already been connected to the inter-firm relationships, it has not been as such studied at that particular level. Hence, the natural result of this knowledge crystallising process was to concentrate on entrepreneurial orientation in the dyad relationships in supply chains and networks and provide more in-depth understanding on the issue. From the educative authenticity point of view, one can also expect that the interview discussions with the research participants have raised the level of awareness concerning the dimensions of entrepreneurial orientation.

Validity as authenticity involves also according to Lincoln and Guba (2000) catalytic and tactical features that refer to the ability of a given inquiry to prompt action on the part of research participants and the involvement of the researcher/evaluator in training participants. Lincoln and Guba (2000) admit also themselves that this criteria they have suggested is rather easy to criticise due to the fact that the involvement of the researcher in the topic to be studied may cause personal related bias. The criteria of Lincoln and Guba may work in action research, but to use it to evaluate the validity of this particular research is not fruitful. The reason for the inappropriateness of the catalytic or tactical aspect is due to the target of this research: to understand the phenomenon of entrepreneurial orientation at the level of dyad relationships in supply chains and networks. To understand the phenomenon as such as it appears in the participating organisations today requires a neutral approach from the researcher that could be lost if the researcher would take any action on the part of the respondents of the research. Hence, the particular validity criteria cannot be utilised in this research.

Following the logic of Kirk and Miller (1986) of reliability equaling careful documentation, Peräkylä (2004, 288) has stated that the key aspects of reliability involve selection of what is recorded, the technical quality of recordings and the adequacy of transcripts. Remenyi et al. (1998, 116) discuss about audit trail that can be achieved by keeping the evidence collected in an easily retrievable form to enable others to investigate it and by keeping a research log showing the design decisions and their justifications. All the interviews conducted for this research were tape recorded so that in addition to the discussions related to the entrepreneurial orientation, also the background information of the respondent and his/her organisation were included in the recording. Only in a few cases, when the respondent had to interrupt the discussion due to a phone call or the discussion with the respondent as such did not touch the topic of the research, was the recording stopped. All tapes were transcribed and saved both as speech and text in an electronic format that enables the use of the data at a later date. The transcripts were also saved in paper format. The technical quality of the majority of the interviews was good and in some cases when the interview was completed over the phone and disturbances occurred, a mark was made in the transcriptions and the interpretation of the material was completed by the handmade notes of the researcher. A research log was kept for the completion of the content analysis and the steps of how the analysis proceeded are presented also in this report.

Factors that would have increased the quality of this research are the use of multiple research methods and the analyst triangulation. However, due to the limited resources of the research project this was not possible.

3 THEORETICAL STUDY

3.1 Value creation

3.1.1 The essence of the added value

Companies' existence depends on their ability to create added value for customers. In a very simple manner, Porter (1991) has defined value as "what buyers are willing to pay". De Chernatory et al. (2000) have analysed the meaning of the term "added value" in more detail and according to them, added value is a multidimensional construct, playing diverse roles and interpreted in different ways by different people. The research (De Chernatory et al., 2000) emphasises the subjective and dynamic nature of the added value. However, it also shows, in line with Porter's statement (1991), that the most common dimension related to added value is the aspect of getting value for money. According to the research the "values" can be both, tangibles and intangibles. In addition to the subjectivity, added value is a relative rather than absolute concept, benchmarking against competitors. The role added value plays for consumers is mainly related to the choice (how consumer chooses among different alternatives) and psychology (feeling of comfort and security). For companies the role of added value means attaining price premium, long life (of a product or service) and profitability. Concerning the sustainability of added value, de Chernatory et al. (2000) make a proposition that "the added values which are more likely to be sustainable are the intangible values representing the essence of the brand and the internal processes that deliver these values".

So the added value is the factor determining the choice among different competing alternatives – if the targeted customer segments do not recognise it, the company is lost. In Porter's terms the ability to produce added value is the key to attaining competitive advantage – as stated, it provides the reason for why a customer chooses the particular product or service offered over a competitor's one. Naturally, companies want their customers to choose them over and over again; they want their position to be strong in the minds of the customers in order to reach long-term financial success instead of being a shooting star. Porter (1996, 74) advises managers to pay attention to the unique competitive position having clear trade-offs and choices vis-à-vis competitors and effectiveness and efficiency of the operations in the search for sustainable competitive advantage. Porter points out the importance of consistency in companies' activities – every effort company makes should follow the chosen strategy and support the other actions taken to reach the goal.

Porter's (1996, 74) guidelines form a good basis for competitive advantage. However, the ongoing trend to focus on core competences and outsource have created higher interdependences among companies and the success in the markets may not anymore depend on the company's own specialized actions. Companies do not produce added value to their customers alone. Business partners' capabilities and competences have become factors that also have to be taken into account when searching for customer satisfaction and ultimately competitive advantage. In addition to the Porter's (1996, 74) instructions for companies as individuals, today's managers face the need to analyse the ingredients of competitiveness also from the point of view of a business team they form together with their partners.

3.1.2 Value system – strategic fit of a composition of core competences

In order to understand why the aspect of individual companies operating as a team to provide added value is becoming more and more important, one needs to know what its actually meant with the core competences and why it is recommended to focus just on them.

Hamel and Prahalad (1994, 204-205) have defined core competencies as the skills that enable a firm to deliver a fundamental customer benefit. The distinction between core and non-core competencies rests, in part, on a distinction between core and non-core customer benefits. To qualify as a core competence, a capability must also be competitively unique. This does not mean that to qualify as a core competence, a competence must be uniquely held by a single firm, but it does mean that any capability that is ubiquitous across an industry should not be defined as a core competence unless, of course, the company's level of competence is substantially superior to others. The core competencies should be kept in-house, everything else should be critically evaluated and outsourced when possible.

Trent and Monzka (1999, 929) have defined the concentration on core competences as of the existing trends in business that results from the pressures to constantly innovate, improve and reduce costs. It is obvious that there's no such company that can be a world-class actor in everything and hence it is only reasonable to buy the non-core activities from a partner that is specialised in them and at the same time cut some extra costs away. Focusing on core competencies is in other words improving the competitiveness of a company in two fundamental ways: it allows more resources to be used on what the company is really good at and it enables utilisation of partner company's expertise.

The outsourcing trend has led to the fact, that companies are more and more linked to each other and the way they operate together has an impact on the competitiveness of every partner. Porter (1996) has extended the concept of value chain to value system to describe the importance of the interconnectedness. The value system is created by the interconnected value chains of different companies and the way they fit with each other has an essential effect on the competitiveness of each value chain and the system as an entity. Porter's (1996, 70-74) expression on how effectively and efficiently value chains are connected to each other and function together is 'strategic fit'. According to Porter, there are three types of fit: simple consistency between each activity and the overall strategy, activities are reinforcing and optimisation of effort. In all three types of fit, the whole matters more than any individual part. Competitive advantage grows out of the entire system of activities and the more a company's positioning rests on activity systems with second- and third-order fit, the more sustainable its advantage will be.

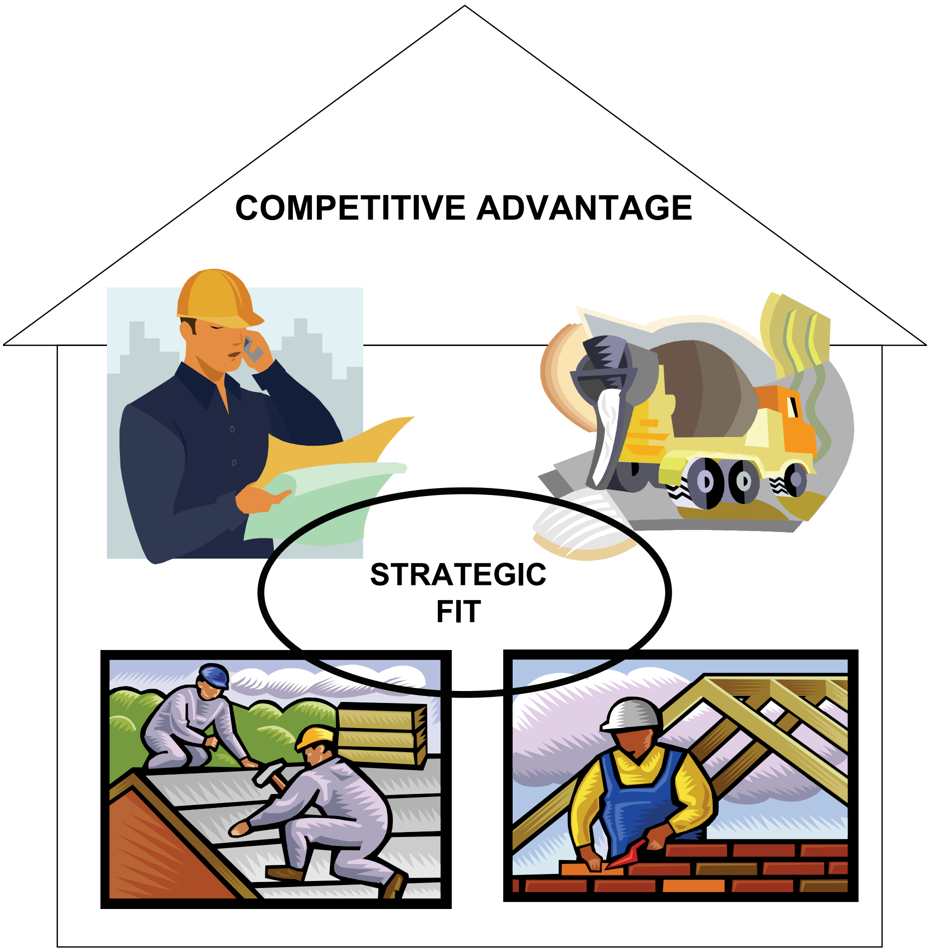

FIGURE 5 Competitive advantage is a result of strategic fit. The actions taken to reach the goal are consistent, reinforcing and provide an optimisation of effort like in a well-organised house building project.

Porter's statement of the importance of the strategic fit relies on the simple fact that companies forming a value system do not have any other source of income than the final consumer buying the products or services produced by the system. As maximising profits equals minimising non-value adding costs within the system, the way in which the entire value system is managed has a substantial effect on the profitability of the companies. Profitability has, therefore, a natural influence on the companies' ability to operate and satisfy customer requirements. As most development work eventually requires monetary resources, it is clear that companies who are profitable have better opportunities to constantly improve their operations and products/services in order to better satisfy their customers.

3.1.3 From single products to value co-production process

The higher interdependency among companies directs managers to pay attention to the processes taking place between them. Furthermore, the more we have interchangeable products and services available, the more the way they are produced and delivered will influence the customer satisfaction.

Hammer (2001, 84) has stated that the victors of this decade's productivity wars will be those companies that are able to take a new approach to business, working closely with partners to design and manage processes that extend across traditional corporate boundaries. Normann and Ramirez (1993, 65-66) have similarly noted, that global competition, changing markets, and new technologies are opening up qualitatively new ways of creating value. According to them, successful companies do not just add value, they reinvent it. The focus of strategic analysis is not the company or even the industry but the value-creating system itself, within which different economic actors – suppliers, business partners, allies, customers – work together to co-produce value. Norman and Ramirez (1993, 65-66) point out that the key strategic task of the actors is the reconfiguration of roles and relationships among this constellation of actors in order to mobilise the creation of value in new forms and by new players. And their underlying strategic goal is to create an ever-improving fit between competences and customers that are according to the authors the only two resources that really matter in today's economy.

The co-production aspect of value has been taken to a new level by recent marketing literature that talks about service-dominant logic (later S-D logic) initiated by Vargo and Lusch (2004). The key idea behind the S-D logic is that even though a company produces and sells physical products, it is actually providing tools for consumers to serve themselves with the help of the products. As Vargo and Lusch (2004, 15) have stated, the focus is shifting away from tangibles and toward intangibles, such as skills, information and knowledge and toward interactivity and connectivity and ongoing relationships. The orientation has shifted from the producer to the consumer. As a result of this, also the academic focus is shifting from being placed on the thing exchanged to one on the process of exchange. It has been recognised that customers co-produce value with the companies providing the goods or services to them, and actually the new competitive space for companies is in innovations provided for the customers taking active part in the value creation process (Prahalad & Ramaswamy 2003, 16). Grönroos (2008, 307) has developed the idea of S-D logic further and according to him, it is not the customers who get opportunities to engage themselves in the supplier's processes, but rather the supplier which can create opportunities to engage itself with its customers' value-generating processes. It is not the customer who becomes a value co-creator with a supplier, rather, it is the supplier which, provided that it adopts a service logic and develops firm-customer interactions as part of its market offerings, can become a co-creator of value with its customers.

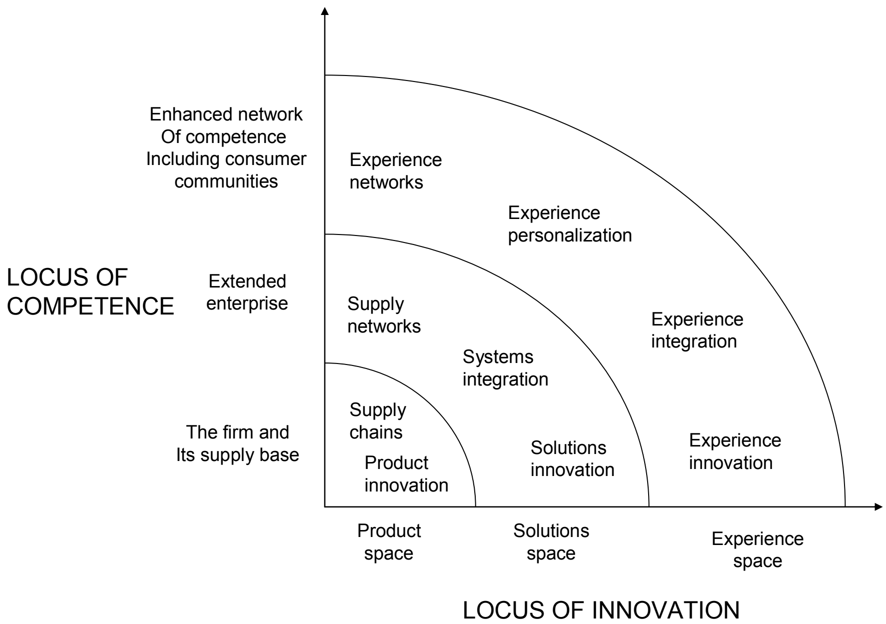

FIGURE 6 The new competitive space for innovation. (Prahalad & Ramaswamy 2003, 16)

According to Cova and Salle (2008, 271), the co-creation of value, the supply network and the customer network are the pillars of the service-dominant approach aimed at providing solutions. They state that the S-D logic not only brings the customer into the process of co-creation of value, but also the organisation's partners throughout the value network as well. As a result of this, S-D logic recognises that each entity should collaborate with other entities and integrate resources with them. The traditional supply chain shifts to value-creation network. The importance of the interfirm operations in the aspect of S-D logic is also taken up by Prahalad and Ramaswamy (2003, 16) who note that companies can differentiate themselves not just through the quality and cost of their products and services, but also through their capacity to co-create unique experience environments with consumers. In order to provide these innovative experience environments companies need to pay attention to how they operate together with their stakeholders.

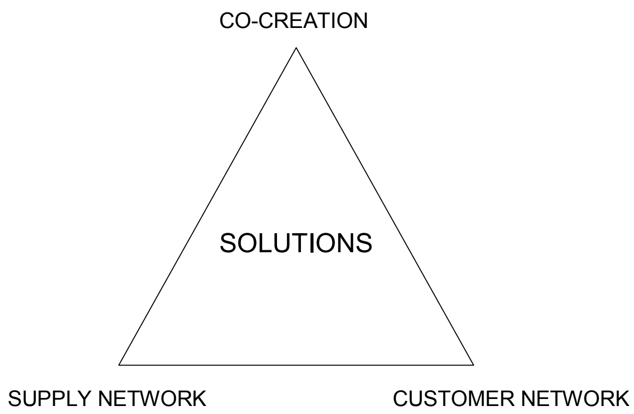

FIGURE 7 The three pillars of offering strategies according to the S-D logic. (Cova & Salle, 2008, 271)

3.1.4 Ranta's framework – a combination of co-production of value and value system

The ideas of co-production of value and the value system are combined in the work of Ranta (2005) that analyses the factors having impact on the organisations' ability to create value. According to Ranta (2005), organisations have both value producing and value destroying mechanisms, which have an intra- an inter-organisational influence, simultaneously creating the ultimate ability for an organisation to add value to its customers. The destructive mechanisms within an organisation are management failures, personal opportunism, politics and bureaucracy as well as collective blindness. Collective blindness is defined by Ranta as the unwillingness or inability of actors to see the things objectively; an organisation's way of handling things is considered to be correct and possible contradicting signals are ignored, doomed to be wrong or interpreted wrongly for various reasons. In short, people see and hear what they want to see and hear. The problem with collective blindness is that it has a negative impact on an organisation's ability to produce added value. The handicap of collective blindness is just as possible within the organisations as in inter-firm relationships. Other inter-organisational value destruction mechanisms are conflicting interests, power asymmetries and cultural complexity. On the positive side, the value adding organisational mechanisms are assets and resources, knowledge as well as competences and capabilities. As inter-organisational value creation mechanisms, Ranta (2005) names relation-specific assets, knowledge sharing routines, complementary capabilities and effective governance. The beauty of Ranta's value adding framework is that it provides a comprehensive understanding of the reality of organisations: organisational success does not only depend on their own ability to provide added value but also on the way in which they act with other organisations and how objective they are in relation to the existing world.

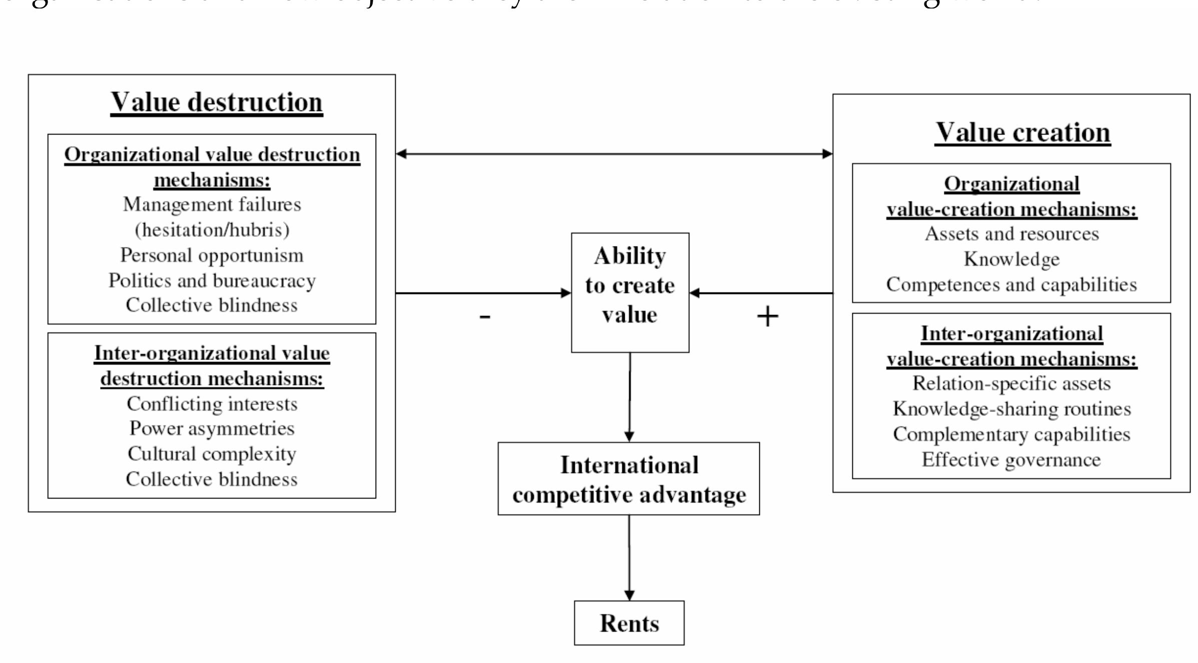

FIGURE 8 Determinants of an organization's ability to create value. (Ranta 2005, 182)

3.2 Agility

3.2.1 Definition of agility

In addition to the discussion that changing markets direct companies to co-produce value, the other important aspect that is often raised as the key to survival in turbulent and volatile markets is agility. Sharifi and Zhang (1999, 10) have stated that the concept of agility comprises two main factors:

- Responding to change (anticipated or unexpected) in proper ways and due time.
- Exploiting changes and taking advantage of them as opportunities.

The authors point out that these factors, indeed necessitate a basic ability that is sensing, perceiving and anticipating changes in the business environment of the company. (Sharifi & Zhang 1999, 10) Goldman et al. (1995) present the agility as the replacement for the lean/mass production philosophy. According to Goldman et al. (1995), the ingredients of agility consist of total solutions products, virtual organisation, knowledge management and entrepreneurial organisation. *Total solution products* mean that products are perceived as solutions to individual customer problems. *Virtual organisation* refers to leveraging of resources through co-operation. *Knowledge management* covers leveraging the impact of people and information on company operations and e*ntrepreneurial organisation* means the development of flexible, innovative organisational structures.

In line with the list of Goldman et al. (1995), Yusuf et al. (1999, 37) suggest a more comprehensive definition: "Agility is the successful exploration of competitive bases (speed, flexibility, innovation, proactivity, quality and profitability) through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast changing market environment."

Doz and Kosonen (2008, 96) discuss in their recent case study on Nokia about the dynamics of strategic agility. They define agility as follows:

Agility = Sensitivity x Unity x Fluidity.

According to the authors (Doz & Kosonen 2008, 96), strategic agility results from the combination over time of three major meta-capabilities that provide its foundations: sensivity, unity and fluidity. *Strategic sensitivity* (both the sharpness of perception and the intensity of awareness and attention) combines early and keen awareness of incipient trends and converging forces with intense real-time sense-making in strategic situations as they develop and evolve. Strategic sensitivity is fostered by the combination of a strong externally oriented and internally participated strategy process, a high level of tension and attentiveness, and a rich, intense, and open internal dialogue. *Leadership unity* involves the ability of the top team to make bold decisions fast, without being bogged down in "win-lose" politics at the top. Commitments are not delayed by personal insecurities and political stalemates at the top; nor are their implementation subject to personal agendas and private disagreements that would slow down or scuttle the effort. Even when wholehearted, commitments are still only as good as the resources put behind them. *Resource fluidity* involves the internal capability to reconfigure business systems and redeploy resources rapidly, based on business processes for operations and resource allocation, people management approaches, and mechanisms and incentives for collaboration that make business models and activity system transformation faster and easier.

The important point that Doz and Kosonen (2008) raise up in their article is that success and market leadership turn strategic agility into strategic rigidity. As companies grow quickly, they easily loose the capabilities required for agility. However, strategic agility can be regained by cognitive broadening, organisational flexibility, and relational renewal as well as by using emotions as a powerful source of energy. The details of the framework of regaining strategic agility formed by the listed dimensions are presented in the figure 9 below.

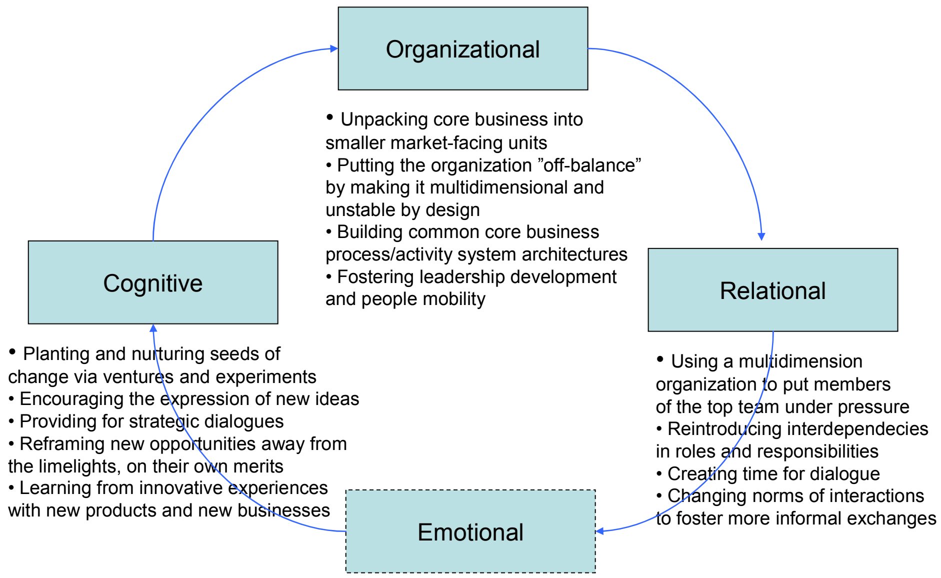

FIGURE 9 Regaining strategic agility: "the core" framework. (Doz & Kosonen 2008, 116)

3.2.2 Definition of agile manufacturing

In a simple way, Sharifi and Zhang (1999, 10) have defined an agile manufacturer as an organisation with a broad vision on the new order of the business world, and with a handful of capabilities and abilities to deal with turbulence and capture the advantageous side of the business.

According to Hooper et al. (2001, 630) in adopting and developing the key elements of agility listed by Goldman et al. (1995), there is a requirement for enterprises to overcome the philosophical challenges of a shift from mass/lean production to the customisation environment of agile manufacturing. The agile environment is focused on the delivery of total solution systems rather than the traditional product focus associated with the mass/lean production paradigm. Similarly to Hooper et al. (2001), Burgess (1994, 28) talks about agile manufacturing as a new paradigm to supplant the influential, but outmoded, Fordist mass-production model. The process point of view in management is essential in search for speed and flexibility in operations. As Booth (1996, 109) has stated, agile companies are organised around processes and the reason why this is becoming important is because the source of competitive advantage has changed. Advantage no longer derives from the possession of strong functional capability, e.g. particular production facility, but now rests in the ability to deploy the functional strength to meet differing and changing customer needs.

Vazquez-Bustelo et al. (2007) have defined agile manufacturing as a production model that integrates technology, human resources and organisation by creating an information and communication infrastructure, granting flexibility, speed, quality, service and efficiency and making it possible to respond deliberately, effectively and in a coordinated way to changes in the business environment. The key driver of agility is environmental turbulence but in addition to it, Vazques-Bustelo et al. (2007, 1308-1315) have identified a number of agility enablers. Human resources practices to develop highly-trained, motivated and empowered people working as a team forms a one group of enablers. Systematic implementation and integration of advanced design, manufacturing and administrative technologies enhances also agility. Practices related to internal organisation and external relations, including the development of mechanisms for integrating and coordinating the value chain, based on co-operation and integration of operations amongst departments in the firm and between the firm and external agents (suppliers, customers, partners, stakeholders, etc.) are stated to be a group of enablers. Similarly practices related to product development and/or design processes leading to concurrent engineering and practices related to knowledge management and learning increase the level of agility.

The outcomes are the manufacturing strength through the development of greater capabilities in the different manufacturing objectives (cost, quality, flexibility, delivery, service and environment) and the positive effect on business performance affording greater competitiveness in turbulent environments.

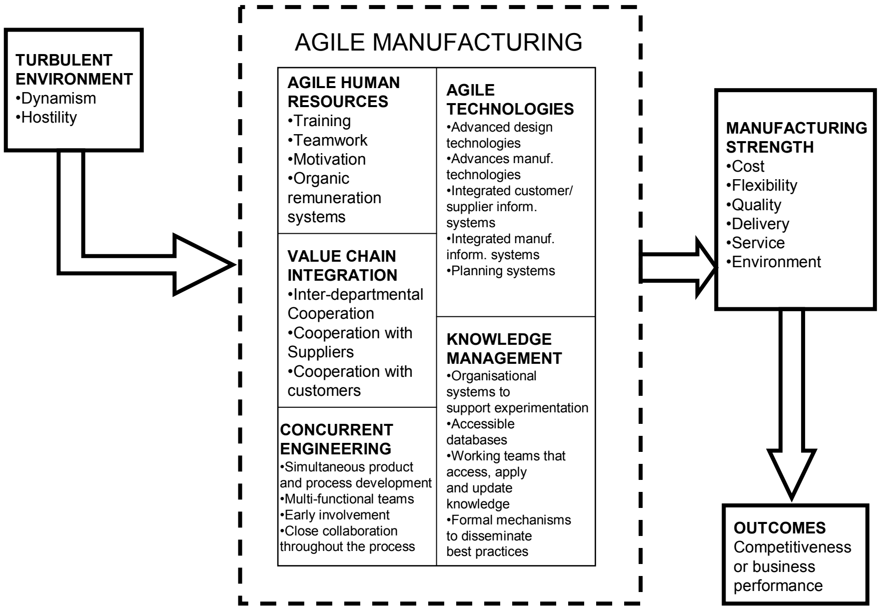

FIGURE 10 Agile manufacturing conceptual model. (Vázquez-Bustelo et al. 2007, 1313)

3.2.3 Request for value chain integration in search for agility

Referring to the earlier discussion on the co-production of added value, also agility seems to require value chain integration or as Doz and Kosonen (2008) puts it, resource fluidity. It is actually a natural result of the concentration on core competencies and outsourcing.

According to Yusuf et al. (1999, 37-40) core competence management itself can, be also seen as one of the core concepts of agile manufacturing in addition to virtual enterprise, knowledge-driven enterprise and capability for reconfiguration. Yusuf et al. (1999, 37-40) state that management, who have the sole responsibility for core skills and knowledge acquisition, must begin by listing the company's main capabilities and identifying the missing links. The missing links can be "insourced" or acquired through alliance that highlights the importance of cooperation even with competitors. The "insourcing" idea of competences relates to the virtual organisation that enables the resources and diverse skills which are spread across disparate organisations to be harnessed and coordinated for manufacturing products very quickly in accordance with customer specifications. The virtual organisation is formed by agile enterprises which cooperate at the corporate and operational levels. The idea of being knowledge-driven refers to the ability of an organisation to convert the collective knowledge and skills into customer solutions and the capability for reconfiguration means investments into processes and technology that enable operational flexibility.

The importance of value chain integration and strategic fit among cooperating companies in the two essential arenas of competitiveness, the ability to participate in customers' value generating process and the ability to be agile, emphasises the critical influence of the management of the supplier network. Supply chain management can be named as one of the critical success factors of today's companies and the development work both scientifically and practically in the field are needed to provide better understanding and tools to cope with the complexities in the ever changing world.

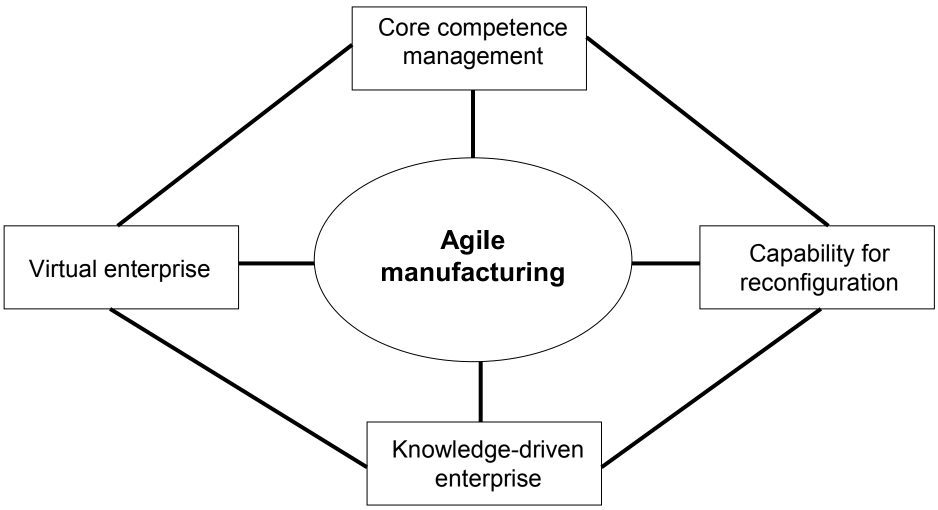

FIGURE 11 The core concepts of agility. (Yusuf et al. 1999, 38)

3.3 Supply chain management

3.3.1 Evolution of supply chain management

The council of Supply Chain Management Professionals has defined supply chain management as follows:

> Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. (http://cscmp.org/Website/AboutCSCMP/Definitions/Definitions.asp)

According to Spekman et al., the traditional view of supply chain management is to leverage the supply chain to achieve the lowest initial purchase prices while assuring supply. Typical characteristics include multiple partners; partner evaluations based on purchase price; cost-based information bases; arm's length negotiations; formal short-term contracts; and centralised purchasing. Operating under these conditions encourages fierce competition among suppliers, often requiring one supplier to be played against the others, and uses rewards or punishment based on performance. The fundamental assumption in this environment is that trading partners are interchangeable and that they will take advantage (of you) if they become too important (Spekman & Kamauff & Myhr 1998, 631).

Collaboration, trust, shared vision and information, long-term relationships, and win-win situations are the new key words in supply chain management. It has come to be seen that the traditional point of view to supply chain management is too narrow-minded, at least when applied as a sole approach, eventually only causing increased transaction costs. As Davis and Spekman have stated, in the circumstances of ever-tightening competition, value creation requires sharing information and innovation with suppliers (Davis & Spekman 2004, 4), and that kind of relationship requires a completely different approach than yearly price-based negotiations. This makes sense when looking at the most essential factors that influence the performance of the supply chains according to various international research reports (Porter 1991; Simatupang, Wright and Shidharan 2002.; Brewer and Speh 2000.; Morgan 2004.; Gunasekaran, Patel and Tirtiroglu 2001.; Simatupang and Shidharan 2004.; Chen and Paulraj 2004.; Holmberg 2000.; Yee and Tan 2004.; Hannon 2004.; van Hoek 2001.; Lockamy and McCormack 2004.; Perona and Miragliotta 2004.; de Souza, Zice and Chaoyang 2000.; Hoole 2005). The factors can be listed as follows:

- ability to recognise and satisfy customer needs
- clear vision – commonly shared and acknowledged goal of the entire supply chain integrated to the strategic goals of the individual companies within the chain, alignment
- measurement methods – should be related to customer satisfaction, are in line with the strategy and eliminate non-value adding actions
- ability to manage the entire picture of the supply chain
- ability to understand the causalities of the functions within the supply chain.

There is no question that this list is rather challenging for a traditional supply chain management system that has relied on a star-shaped supplier structure. This is due to the fact that pursuing value-added activities is easier the fewer suppliers one has (Trent & Monczka 1999, 928). Two-way information sharing, crucial for all the factors listed, can be organised more efficiently the smaller the number of recipients are. The alignment of goals and measurement methods to support the world-class quality of end-customer service is easier with tens of suppliers than hundreds or thousands of them. Innovative co-operation that results in unique competitive solutions for end-customer requires trust among partners, and development of trust requires time and mutual efforts. As one cannot have deep, mutual relationships with everyone, the solution is to decrease the number of the suppliers and re-evaluate the responsibilities between the partners.

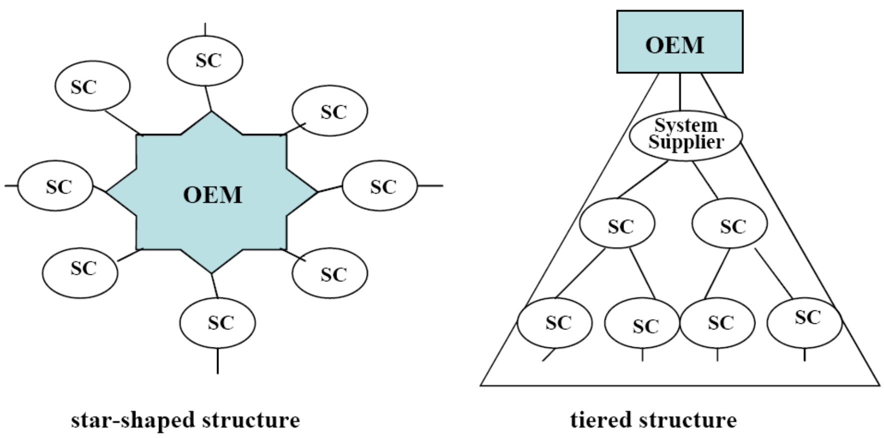

FIGURE 12 The star-shaped and tiered structure of a subcontracting system. OEM = original equipment manufacturer, SC= subcontractor. (Lehtinen 2001, 41)

In her case studies on the Finnish metal and electronics industry, Ulla Lehtinen (2001) has noted that three distinct stages in the development of the subcontracting structure can be identified. According to Lehtinen, in the first stage the prime contractor reduced the number of subcontractors by assigning subassemblies to a certain subcontractor, which became a first-tier subcontractor or a system supplier. This naturally required changes in the material and information flows within the supply chain. In the third stage, the structure of the supply chain stabilises and subcontractors take a more active role in the product/service development. This development is presented in a simplified way in Figure 13 (Lehtinen 2001, 45-46). A very similar development process, in terms of the supplier structure, has been also recognised in the Finnish shipyard industry – the traditional, star-shaped supplier structure has evolved into a pyramid-model, which contains first-tier system suppliers who are in charge of specified entities together with their own supplier base (Toivonen, 2000).

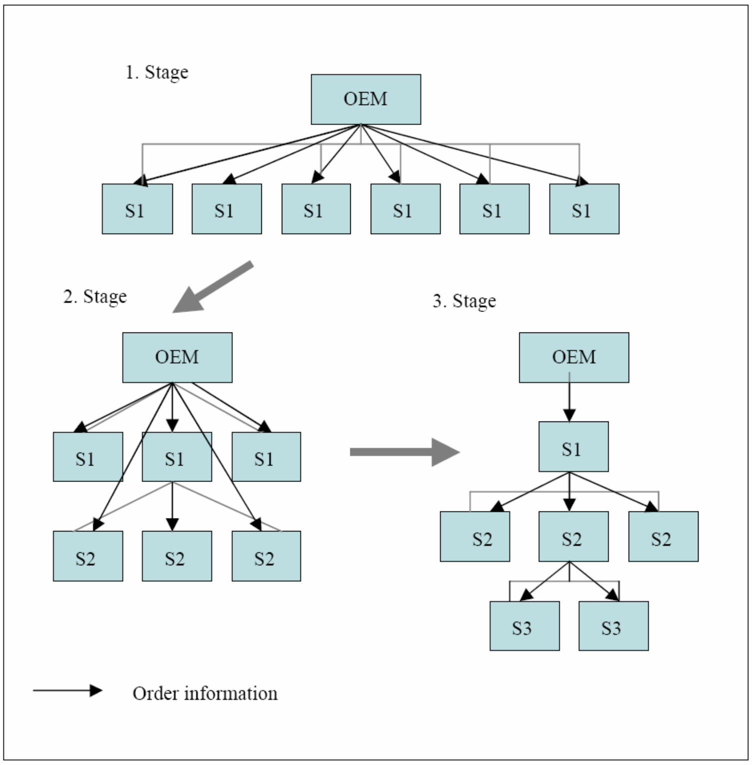

FIGURE 13 The evolution of the structure of subcontracting chain.
OEM = original equipment manufacturer, S= supplier. (Lehtinen 2001, 46)

3.3.2 Extended enterprises, virtual enterprises or encapsulated networks

As the importance of supply chains as a source of competitive advantage has risen, the traditional view of supply chain management has been replaced by ideas about extended enterprise (Bititci et al. 2005; Bititci et al. 2004; Dyer 2000) or encapsulated networks. Davis and Spekman have defined the extended enterprise as follows:

> The extended enterprise is the entire set of collaborating companies, both upstream and downstream, from raw material to end-use consumption, that work together to bring value to the marketplace… The flows of

> information that lie at the core of the coordination and collaboration among network members not only link disparate information sources, they also provide an opportunity to build knowledge-based tools. Companies engage in longer term partnering relationships built around mutual goals and accompanied by a very rich and deep exchange of information. Members' view that their destinies are interdependent. (Davis & Spekman 2004, 20-21)

Browne and Zhang (1999) have compared the extended enterprise and the virtual enterprise and according to them, these two concepts can be seen as complementary manufacturing strategies. The similarity of extended enterprise and virtual enterprise lies in the fact that they both pursue enterprise partnerships in order to achieve business success in a very competitive environment. The major difference according to the authors lies in the "temporary" or "dynamic" nature of virtual enterprises versus the relative stability of the extended ones. The virtual enterprise can be seen as a temporary "getting together" of enterprises to produce a product or service quickly for the market while the extended enterprise suggests a more permanent "togetherness" of enterprises. The extended enterprise requires organisational stability and enduring relationships across the value chain. The virtual enterprise, on the other hand, depends on high technology and advanced information systems in order to successfully integrate the business partners for a short time.

In their research on industrial trends in Finnish economy, Kemppainen and Vepsäläinen concluded that ongoing outsourcing and specialisation are expected to result in a new structure of demand-supply networks with shared technology and systems, extended decision rights and non-territorial services (Kemppainen & Vepsäläinen 2003, 716). They refer to these as 'encapsulated networks'. According to these Finnish researchers, there is an expectation that there will be dominant companies that coordinate, integrate, and orchestrate the value offerings of supply chains. On the other hand, it has been argued that supply chains and networks are too large and complex to be controlled by only one company. However, based on the findings of Kemppainen and Vepsäläinen (2003), even though it is clear that a network needs a driver and a leader, it is not self-evident which companies will dominate the chain: focal companies, large channel partners or small innovative companies (Kemppainen & Vepsäläinen 2003, 712-713).

3.3.3 The cornerstone of an extended enterprise: trust

Richard J. Arend and Joel D. Wisner (2005) provide an interesting point of view on the topic of supply chain management. According to their empirical research, supply chain management (later SCM) and small and medium sized enterprises (later SMEs) are not a good fit. The researchers define supply chain management as a way of obtaining vertical integration benefits without its formal ownership costs. They state that,

> SCM, the integration of key business processes among industry partners to add value for customers, tightly links together several consecutive elements of the industry value chain, from upstream suppliers to subassembly manufacturers to final manufacturers to distributors to retailers to end-customers to make the process more efficient and the products and services more differentiated. (Arend & Wisner 2005, 403-404)

They emphasise the long-term relationships, share of information and innovativeness among partners, so that the definition they are using can be related to the ideas of extended enterprise rather than to the traditional view of SCM.

The explanations for the poor fit are that:

1) SMEs do not implement SCM appropriately;
2) SMEs do not use SCM to complement strategic foci, and;
3) SMEs are not freely choosing to pursue SCM. (Arend & Wisner 2005, 429)

The first two explanations refer to the capabilities and knowledge-based resources of SMEs, but the third one actually raises the question of whether it is understood by all supply chain parties what the change from the price-based bargaining to the collaborative relationship actually requires. If the chain is expected to be only as strong as its weakest link, and if the SCM practices are actually having a negative effect on the SMEs involved, there is a clear indication that the implementation does not work appropriately.

Sheu et al. came to a similar conclusion in their recent research, i.e. that what is needed for achieving interorganisational collaboration is not fully understood (Sheu, Yen & Chae 2006, 25). They constructed a framework based on case studies that shows in a structured way the causalities of the factors resulting from interorganisational collaboration. The framework can be presented as follows:

1) Supplier-retailer business relationship (interdependence, intensity, trust) affects long-term orientation
2) supplier-retailer business relationship affects supply chain architecture (information sharing, inventory system, IT capabilities, and coordination structure)
    a. the lack of trust between the companies' management never develops a long-term orientation and discourages information sharing and IT applications
    b. High trust reduces the perception of risk associated with the occasional opportunistic behaviour of the suppliers
3) long-term orientation affects supply chain architecture
4) supply chain architecture affects the level of supplier-retailer collaboration

5) supplier-retailer collaboration enhances supplier-retailer performance
   a. as expected, higher levels of collaboration result in operational efficiency in supply chain systems, in terms of inventory levels, fill rates, returned products, and levels of satisfaction. (Sheu, Yen & Chae 2006, 25)

Hence, everything starts from trust. Indeed, as Davis and Spekman (2004, 161) have stated: "Trust manifests itself in the integrity of information shared, in the belief that partners will do as they say, and in the willingness to share risk and reward equitably in pursuit of common goals and interests… Trust is truly the cornerstone of any extended enterprise because it is the foundation for social order."

Dyer has also recognised the value of trust within extended enterprise based on the results it provides: lower transaction costs, superior knowledge sharing, and increased investments in dedicated assets (Dyer 2000, 88). He emphasises the meaning of process-based trust in creating a trust orientation between individuals in two large organisations. According to Dyer, process-based trust recognises that interorganisational trust may be built upon impersonal structures, processes, and routines that create a stable context for exchange. Individuals may come and go in the organisations, but the trust orientation will not be affected because it is not based on individual relationships. Processes that can foster trust include supplier-selections that demonstrate commitment, freely given assistance (to the supplier), stable and long-term employment (the greatest amount of trust appears among companies where both interpersonal and process-based trust can be found), career paths between firms, and minority ownership (Dyer 2000, 100-108).

Based on earlier research literature it has become evident that competitiveness requires intense value chain integration in the form of extended enterprise and the trust is the cornerstone of the functionality of the extended enterprise. Empirical experiences tell that trust takes time to evolve and only a few seconds to be destroyed – no matter whether it is a process- or individual based. In order to reach such a level in value chain integration that actually results in genuine new innovations, companies need to operate together for some time. Based on the findings of Walsh and Ungson (1991), Tuimala and Ahola (2000, 11) discuss about organisational memory meaning some stored information in the organization that will last even though individuals may change. The positive organizational memories concerning the interorganisational relationship provide trust and discourage opportunism. However, in addition to the value chain integration enabled by trust, competitiveness also requires agility that according to Doz and Kosonen (2008) is enabled by resource fluidity meaning reconfiguring business systems and redeploying resources rapidly. These two aspects related to the competitiveness, the intense value chain integration and agility have been combined in the recent discussion on agile supply chains.

3.4 Agile supply chain

The concept of agile supply chain has been a target of an increasing interest among business researchers during the last decade. One unified answer to the question what is an agile supply chain or what are the ingredients of it is hard to find. Instead there is a collection of agile supply chain models. The main features of the models most referred in the recent scientific discussion are presented in the following. A critical assessment of the models and a complementary aspect to them are brought up for consideration in the end of the chapter.

3.4.1 The model of Christopher and it's relatives

Christopher (2000) has researched the agility in the context of supply chain and according to him, in order for a supply chain to be truly agile, it must posses a number of distinguishing characteristics. First of all, supply chain has to be *market sensitive* meaning that it is capable of reading and responding to real demand. Secondly, it should contain the elements of a *virtual* supply chain that is information-based rather than inventory-based. This is possible by the use of information technology to share data between buyers and suppliers. Shared information between supply chain partners can only be fully leveraged through *process integration*. Process integration means collaborative working between buyers and suppliers, joint production development, common systems, and shared information that is typical for an extended enterprise. The extended enterprise aspect of supply chain, a confederation of partners linked together as a *network*, provides the fourth ingredient of agility. Individual businesses can no longer compete as stand-alone entities but rather as supply chains and the prizes will go to those organisations who can better structure, coordinate, and manage the relationships with their partners in a network committed to better, closer, and more agile relationships with their final customers (Christopher 2000, 38-39).

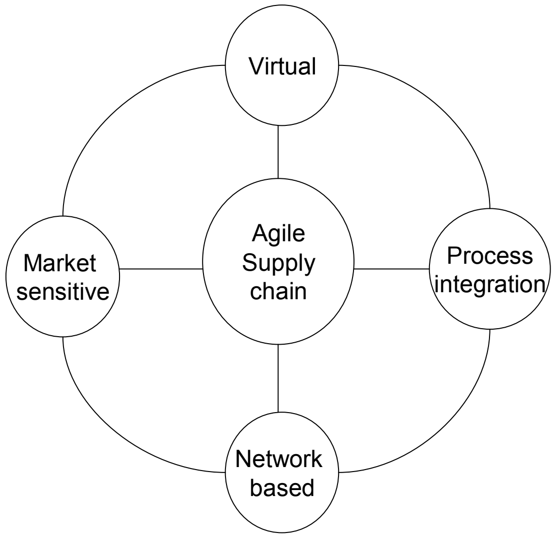

FIGURE 14 The agile supply chain. (Christopher 2000, 40)

The agile supply chain framework developed by Christopher has been further tested in an empirical environment by van Hoek et al. (2001, 139). The amendment made to the original framework of Christopher is that the market sensitivity dimension is more specifically expressed as customer sensitivity including market understanding and customer “enrichment” but also initiatives such as customization, postponement and rapid response. The model of Christopher has also inspired Iskanius (2006, 137), who has modified the model by adding in other key elements of agility found in the SCM and industrial management literature. Iskanius has used her model as benchmarking criteria to analyse the current level of agility in her study to develop an agile supply chain for a steel product network. The modified model of Iskanius is presented in Figure 15.

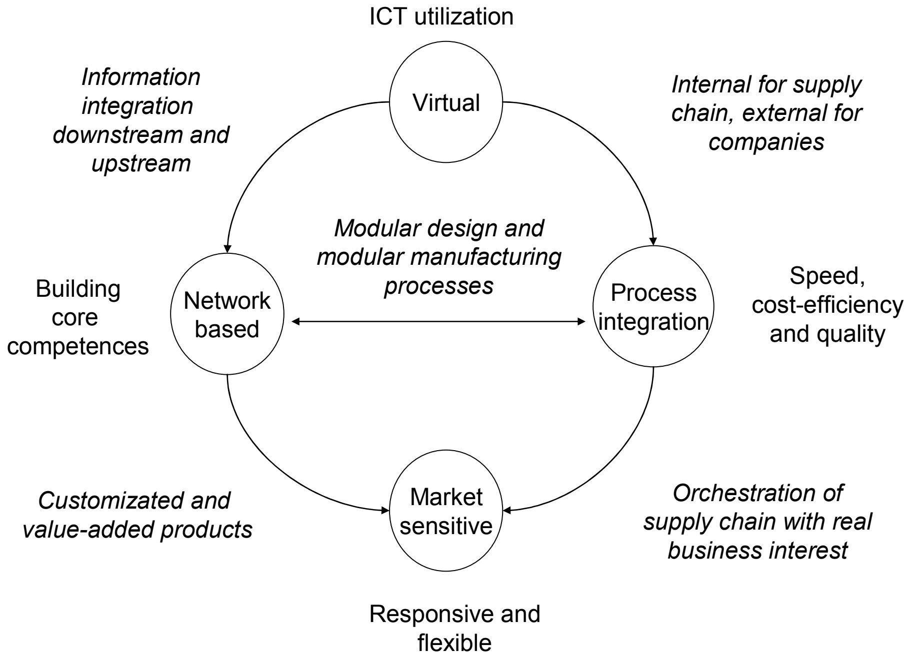

FIGURE 15 Framework of an agile supply chain by Iskanius. (Iskanius 2006, 104)

In addition to the fundamental and many times quoted work on agile supply chain framework, Christopher and Towill (2001) have also noted that the real focus of supply chain reengineering should be on seeking ways in which the appropriate combination of lean and agile strategies can be achieved. In other words, the researchers are saying that lean and agile strategies are complementary to each other. This becomes evident in their integrated model for enabling the agile supply chain that consists of three levels: principles, programs and actions. Level 1 represents the key principles that according to Christopher and Towill (2001) underpin the agile supply chain; rapid replenishment and postponed fulfillment. Level 2 identifies the individual programs such as lean production, organizational agility and quick response which must be implemented in order for the Level 1 principles to be achieved. Level 3 specifies individual actions to be taken to support Level 2 programs, like, time compression, information enrichment and waste elimination. This holistic model of Christopher and Towill (2001) is presented in Figure 16.

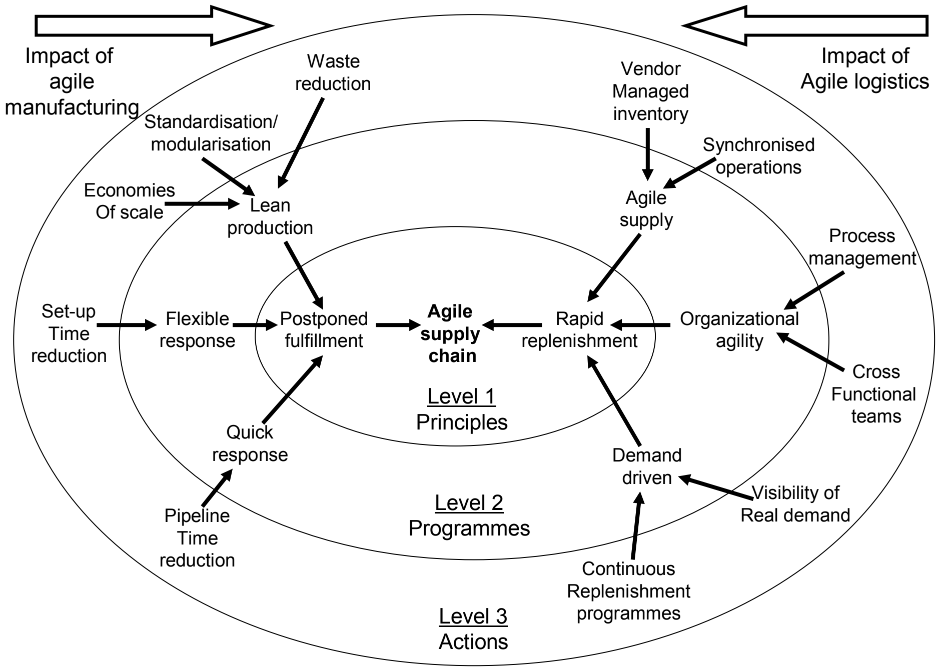

FIGURE 16 An integrated model for enabling the agile supply chain. (Christopher & Towill 2001, 243)

3.4.2 The approach of Ismail and Sharifi and the model of Lin et al.

Ismail and Sharifi (2006, 431) have developed a balanced approach to building agile supply chains that consists of two parts: supply chain design and design for supply chain. Researchers define the supply chain agility as the ability of the supply chain as a whole and its members to rapidly align the network and its operations to the dynamic and turbulent requirements of the demand network. The main focus is in running businesses in network structures with an adequate level of agility to respond to changes as well as proactively anticipate changes and seek new emerging opportunities. The suggestion that Ismail and Sharifi make is that responding proactively to the market and business environment changes can be facilitated by simultaneous development of supply chain and the output or product of the chain. In other words, when planning a new output, companies taking into account the functionality of the supply chain in the production of the output can achieve higher agility.

Lin et al. (2006) have built a conceptual model of agile supply chain that they have utilised in their work on developing an index for measuring the agility in supply chains. Similarly to van Hoek et al. (2001, 139), Lin et al. (2006) have defined the main goal of the agile supply chain to be to enrich/satisfy customers and employees. As a result of this, an agile supply chain should possess the ability to respond appropriately to changes occurring in its business environment. Hence, the driver of agility is change. In order to be able to cope with the uncertainty and unpredictability within its business environment, an agile supply chain requires various distinguishing capabilities or 'fitnesses'. These 'fitnesses' are formed by four elements that Lin et al. (2006, 287-288) define to be responsiveness, competency, flexibility/adaptability and quickness/speed. Responsiveness refers to the ability to identify changes and respond to them quickly, reactively or proactively and also to recover from them. Competency means the ability to efficiently and effectively realise enterprise objectives. Flexibility or adaptability covers the ability to implement different processes and apply different facilities to achieve the same goals and quickness/speed is the ability to complete an activity as quickly as possible.

In addition to the capabilities or so called fitnesses, Lin et al. (2006) have recognised that also agility-enabled attributes are needed as determinants of the entire supply chain behaviour and to enable the measuring of supply chain agility. According to Lin et al. (2006, 287-288) the key enablers can be presented in four categories. The first category is collaborative relationship that refers to a supply chain strategy that attracts the buyers and suppliers to work collaboratively, jointly develop products and share information. The second and third categories include the aspect of integration, of processes and information. Process integration means that the supply chain is a confederation of partners linked into a network. Information integration includes the ability to use information technology to share data between buyers and suppliers, thus effectively creating virtual supply chain. Virtual supply chains are information-based rather than inventory-based. The fourth category is a supply chain mechanism providing customer/marketing sensitivity and hence the ability to read and respond to real customer requirements, and also to master change and uncertainty. The model of Lin et al. (2006) is presented in Figure 17.

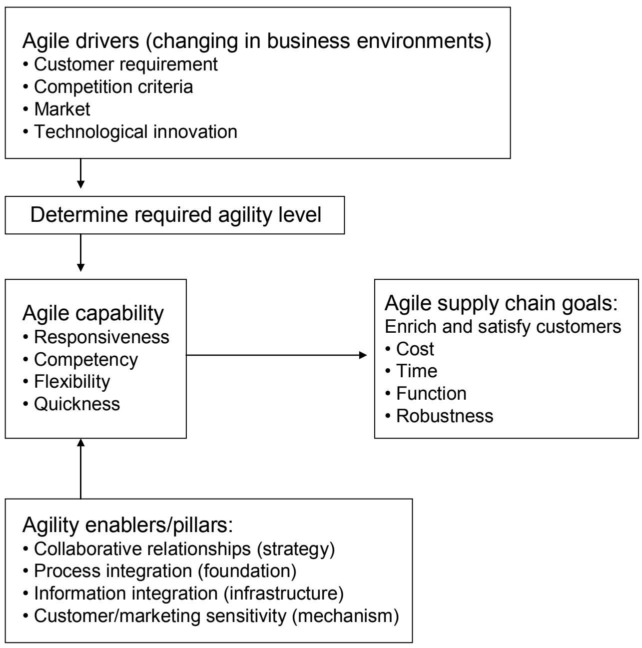

FIGURE 17 Conceptual model of agile supply chain. (Lin et al. 2006, 287)

3.4.3 The responsive supply chain of Gunasekaran et al.

In addition to the rather commonly used expression of agile supply chain, Gunasekaran et al. (2008) have created a concept of responsive supply chain (= RSC) that includes basically the same features as the agile supply chain. RSC is stated to be based on the integration of agile manufacturing and supply chain management. According to the researchers, an RSC can be defined as a network of firms that is capable of creating wealth for its stakeholders in a competitive environment by reacting quickly and cost effectively to changing market requirements. The enablers of the RSC are strategic planning, virtual enterprise and knowledge and IT management. Strategic alliances and the integration of complementary core competences are necessary in developing a virtual enterprise for RSC. Hence, the strategic planning provides the direction to form the virtual enterprise with the selected business partners. Due to the fact that sharing of information is essential in RSC, the automation and IT play according to Gunasekaran et al. a dominant role in the development of a physically distributed virtual enterprise. The detailed framework for the development of RSC is presented in the figure 18.

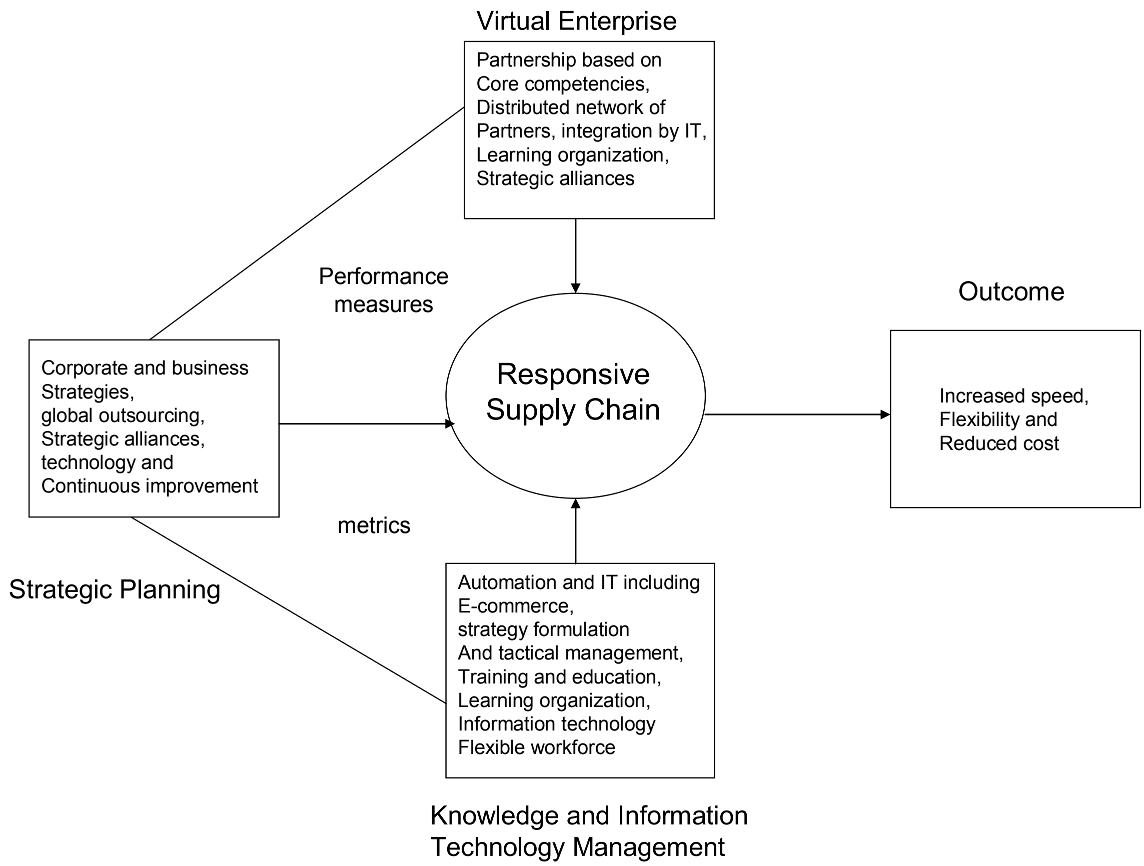

FIGURE 18 A framework for the development of RSC. (Gunasekaran et al. 2008, 561)

3.4.4 Baramichai et al. model and researches on critical success factors

Whereas the other models discuss about the concept of virtual enterprise in a rather loose and even confusing way, Baramichai et al. (2007) have developed a model, where they make a clear distinction between extended enterprise and virtual enterprise as a strategy. Unlike other existing models, the Baramichai et al. (2007, 335) model takes into account the idea that the decision of whether to maintain long-term collaborative relationships with a group of agile suppliers or to adapt the supply chain structures and relationships depends on the characteristics and the types of the changes that are likely to be faced by the companies. Hence, the researchers are saying that it is possible to create an agile supply chain either based on virtual enterprise strategy having a temporary character or based on extended enterprise strategy emphasising a more stable and long-term character.

Other recent researches related to the concept of agile supply chain are the work of Power et al. (2001) on the critical success factors in agile supply chain management and the study of Sarkis et al. (2007) on agile virtual enterprise partner selection. Based on the research of Power et al. (2001, 262-263) concerning the critical success factors, more agile companies can be characterised as more customer focused, and they also see the involvement of suppliers in this process as being crucial to their ability to attain high levels of customer satisfaction. According to the researchers, the more agile companies were also found to be using technology to promote productivity, new product development and customer satisfaction and this group was able to understand and differentiate between new product development and innovation and their specific requirements. The less agile group of companies can be characterised based on the study as more internally focused with a bias toward internal operational outcomes. The role of suppliers for these companies is to support productivity and process improvement rather than to promote customer satisfaction. Sarkis et al. (2007, 1223) have developed an analytical network decision framework for agile virtual enterprise formation based on agility performance metrics of time, cost, robustness and scope and the Porter's (1991) value chain model.

3.4.5 Critique on existing models

Except for the model of Baramichai et al. (2007) typical characteristic for the existing agile supply chain models is the careless use of the expression 'virtual'. Christopher and Towill (2001) and Lin et al. (2006) discuss about virtual supply chains meaning that the construction of the co-operation is based on information rather than inventory-based. Gunasekaran et al. (2008) discuss in their RSC model at the same time about virtual enterprises and partnerships based on core competences. Due to the fact that virtual enterprise by the definition according to Browne and Zhang (1999) refers to short-term, temporary arrangements, the existing models are somewhat confusing. On the one hand they encourage investing in IT-technologies and processes enhancing in-depth information sharing and on the other hand they emphasise the quickness and temporariness in relationships. Based on the earlier research on supply chain management, trust among the co-operative partners is the key to information sharing and it takes time and mutual efforts to be formed. Even though the models emphasise the partnerships based on core competences, the requirements of trustful relationship do not come up clear enough. Furthermore, all the models fall short on the question of how responsiveness and intense process integration needed for the in-depth information sharing can be reached simultaneously without facing the danger of being "locked in" with current partners.

3.4.6 Dilemma of being "locked in"

Dubois and Wynstra (in Axelsson, Rozemeijer & Wynstra 2005) discuss about the paradoxes related to the development of supplier relationships. Following the logic that every coin has two sides, they state that even though close supplier relationships are essential for a firm's competitive success, they may at the same time restrict the company's ability to change. They refer to the risk of getting locked in – commercially and/or technologically. Close collaboration may be necessary to jointly develop and exploit new technologies, but can at the same time harm the buying firm's flexibility to embark on competing technologies that are appearing in parallel. The importance of understanding what the critical resources for the company are, be they purely internal or also gained from the supplier network, becomes essential when making decisions about the trade-off. Another paradox is the fact that supplier relationships may be used by the buying firm to influence others or by others to influence the buying firm. The third paradox, according to Dubois and Wynstra, is that the more successful a buying firm is in controlling its supplier network, the less innovative it becomes. Control has a negative effect on creativity, renewal, and innovation. The more open opportunities suppliers have, the higher the chances are that they may come up with new products, processes, and procedures that may benefit the buying company (Dubois & Wynstra in Axelsson, Rozemeijer & Wynstra 2005, 78).

Network researchers Håkansson and Waluzewski (2002) provide an interesting view on the discussion of organisations being "locked in" in their paper concerning path dependency and its possible impact on the technical development and formation of new innovations. The definitions that the authors use for the concept of path dependency could be summarised as "organizations are prisoners of their history". Path dependence is a result of common knowledge related to a technology developed within a certain area. Over time we get "locked in" to this expertise and it starts to hinder further development. Path dependence is according to the authors usually seen as something that restricts what can be done and hence appears as a negative phenomenon in general.

The view that Håkansson and Waluzewski (2002) have in their article is contradictory to the traditional approach. Rather than seeing the path dependence only as a restricting phenomenon, authors ask whether it could be a source of new innovations. They analyse the interorganisational relationships through the lenses of relationship heaviness and variety. According to Håkansson and Waluzewski (2002), the heaviness in the interorganisational relationships is created through physical (machines, facilities) and mental (knowledge) investments dedicated to certain interactions. Variety on the other hand relates to the characteristics of the resources that are not homogeneous. Variety can be seen as the source of innovations following the logic that there is an indefinite number of possibilities to combine the current resources forming the heavy relationship. Håkansson and Waluzewski (2002) utilise the "heaviness" and "variety" of resources as two important starting points in the discussion of path dependence. In order to demonstrate that path dependence can facilitate development Håkansson and Waluzewski (2002) analyse the interaction between industrial companies in four types of substantiated resources: buying and selling products, producing and using, co-operating and business units and networking and business relationships.

Changes in the product features that take place as a result of the interaction between the buyer and seller can be seen as a development that is enabled by the path dependence. Similarly the authors (Håkansson and Waluzewski, 2002) argue that the common utilisation of facilities may lead to the creation of new processes or products. In addition to these "physical" resources, interaction between industrial actors takes also place in the format of business units and business relationships. Co-operation and new combinations of the knowledge existing in different business units forms a basis for technological development. Just as well as the business units can facilitate development so do also the various business relationships of actors involved. The individual business relationships provide an opportunity to network and to try to take advantage of the existence of relationships in their actions. In other words, the existing resource base companies already have includes a massive amount of knowledge, capability and facility bank that can provide new innovations if it is pushed in a new direction.

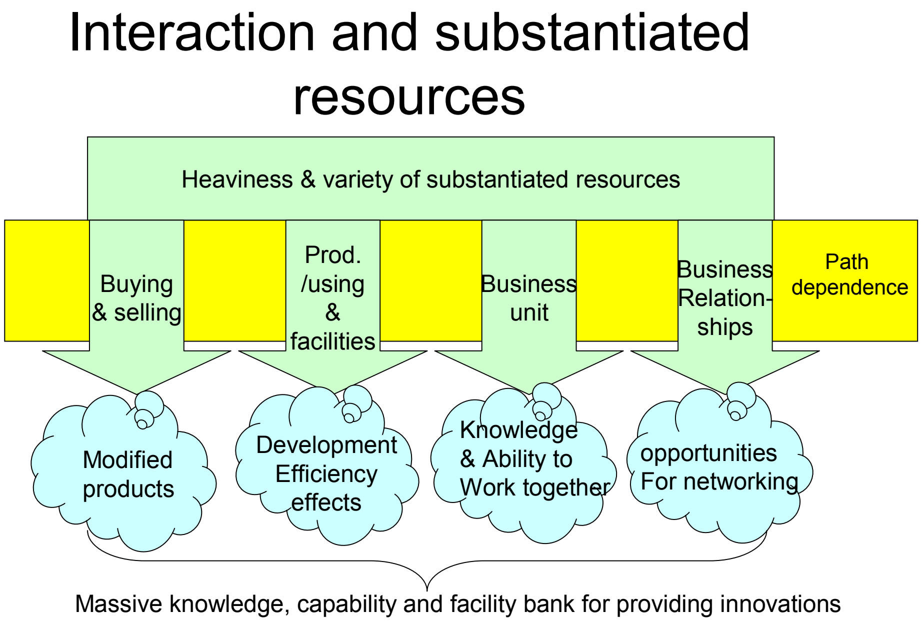

FIGURE 19 Positive path dependence.

Following the logic of Håkansson and Waluzewski (2002), intense value chain integration and agility, the ability to respond to change (anticipated or unexpected) and exploit it, are a possible combination. Their statement can actually be seen as being complementary to Dubois and Wynstra (2005) instead of being contradictory due to the fact that Håkansson and Waluzewski (2002) take up the business relationships as a source of opportunities for a new kind of networking and partnering. They in other words aknowledge like Dubois and Wynstra (2005) that sometimes new partnerships are needed, but they also notice that the old existing relationships can provide the important seeds for them.

3.4.7 Request for a mixing push-effect

In order to provide a more comprehensive understanding on how to attain competitiveness through agile supply chain, the scientific discussion has to pay attention to how the long-term trust-based relationships can avoid the dilemma of being locked-in. This is an aspect that is currently missing from the agile supply chain discussion but has a substantial impact on the implementation of the agile practices. By recognising the factor that can facilitate the use of the existing resources, relationships and know-how in new and innovative ways, one can find the answer to the question of how responsiveness and intense process integration can be reached simultaneously.

The same key issue can also be formulated as a need of extended enterprises to strategically renew in order to remain agile and competitive. The ability to strategically renew can be seen as the counterforce for the locked in –

effect pushing the existing operating models and business practices into new positions, questioning and confronting the old well proven habits.

3.5 Strategic renewal and entrepreneurial orientation

3.5.1 Definition of strategic renewal

Volberda, Baden-Fuller and van den Bosch (2001, 160) define strategic renewal in the following way:

> "Strategic renewal can be broadly defined as the activities a firm undertakes to alter its path dependence. Important parameters of a journey of renewal include: the behaviour of managers at each level of the organization in response to each other (top-down or bottom-up); the way they view investing for tomorrow versus milking profits today (exploration versus exploitation); and the way in which they share knowledge with each other across organization boundaries (intra-organizational learning)."

Barr, Stimpert and Huff (1992, 15) emphasise the top managers' ability to link environmental change to corporate strategy and to modify that linkage over time. According to them, organisational renewal is a continuous process in a successful company. Futhermore, Huff, Huff and Thomas (1992) have concluded that the need for renewal is never ending. In addition to the aspect of having an evolutionary perspective of continuous renewal, Huff et al. talk about large and small renewal outcomes and discontinuous change. They go on to explain renewal through inertia and stress, which are interdependent factors that both have an influence on a company. Inertia means the tendency to remain within the status quo and the resistance to strategic renewal outside the frame of the current strategy. According to Huff et al., inertia is defined as the level of commitment to the current strategy, reflecting individual support for a given way of operating, institutional mechanisms used to implement strategy, monetary investments and social expectations. Stress, on the other hand, is present here – as no strategy is perfect – and it increases because the environment is dynamic. Stress reflects the dissatisfactions of individual actors and imperfections in the fit between the organisation and its environment. The level of stress and inertia determines the company's ability for strategic renewal (Huff, Huff & Thomas 1992, 55-60).

3.5.2 Entrepreneurial orientation as a provider of strategic renewal

Huff, Huff and Thomas (1992, 55) have stated that a viable organisation must have the capacity to frequently improve its alignment with internal and external demands. Related to this point, Burgelman (1983, 1349-1355) pointed out already in 1983 that firms need both diversity and order in their strategic activities to maintain their viability, which is the recipe for continuous survival in the markets. The order results from imposing a concept of strategy on the organisation and the diversity is provided by the entrepreneurial activity within the organisation. Corporate entrepreneurship is the key to a company's strategic renewal. It depends both on the capabilities of operational level participants to exploit entrepreneurial opportunities and on the perception of corporate management that there is a need for entrepreneurship. According to Burgelman (1983), entrepreneurial activity is a kind of "insurance" against external disturbances or a "safety valve" for internal tensions resulting from the pressures of creating opportunities for growth.

Borch and Forsman-Hugg (2004) have researched the competitive positioning of small firms in a mature industry and their findings also highlight the importance of a company's entrepreneurial orientation. Entrepreneurial orientation can be defined on the basis of Miller's (1983, 770-771) work as innovativeness, willingness to take risks and proactiveness. According to Miller, a nonentrepreneurial firm is one that is not very innovative, has a high aversion to risk, and imitates the moves of competitors instead of leading the way. Miller points out that an entire organisation can be entrepreneurial. His statement is that the most important factor for a company's renewal is not who the critical actor is, but rather the process of entrepreneurship itself and the organisational factors that foster and impede it. Covin and Slevin (1989) have further developed the work of Miller (1983) and they have created a measurement system for entrepreneurial orientation at a company level. In their research on strategic management of small firms in hostile and benign environments, Covin and Slevin (1989, 79) created a nine-item scale to measure a company's strategic position. The scale contains items that focus on innovation, proactiveness and risk-taking, and the higher the score, the more entrepreneurial the strategic posture is.

3.5.3 Lumpkin and Dess definition of entrepreneurial orientation

Lumpkin and Dess (1996, 162) have also recognised that an entrepreneurial orientation, as reflected in the organisational processes and decision-making style of a firm, can be a source of competitive advantage or strategic renewal, even for firms that are not involved in launching new ventures. Covin and Slevin (1989) stated that in order to be entrepreneurially oriented, a company has to perform high on all three dimensions listed earlier, but Lumpkin and Dess argue that the dimensions may vary independently, depending on the environmental and organisational context. Lumpkin and Dess (1996, 140-146) have also extended the list of dimensions with the concepts of autonomy and competitive aggressiveness.

According to Lumpkin and Dess (1996, 140-146), *autonomy* refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion. Generally, it means the ability and will to be self-directed in the pursuit of opportunities. In an organisational context, it refers to action taken free of stifling organisational constraints.

Innovativeness, which was brought up also by Covin and Slevin (1989), Lumpkin and Dess (1996, 140-146) say to reflect a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes.

Risk-taking behaviour Lumpkin and Dess (1996, 140-146) see as related to incurring heavy debt or making large resource commitments in the interest of obtaining high returns by seizing opportunities in the marketplace. Authors describe also typical ways to measure risk taking at the firm level. These are stated to be questions presented to managers about the firm's proclivity to engage in risky projects, managers' preferences for bold versus cautious acts to achieve firm's objectives and the extent to which they followed tried-and-true paths or tended to support only projects in which the expected returns were certain.

Concerning their definition about the *proactiveness*, Lumpkin and Dess (1996, 140-146) refer to Venkatraman (1989, 949). A common understanding of these researchers is that proactiveness refers to processes aimed at anticipating and acting on future needs by seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of their life cycle. A proactive firm is a leader rather than a follower, because it has the will and foresight to seize new opportunities even if it is not always the first to do so.

Competitive aggressiveness is in addition to the autonomy the other one of the characteristics that Lumpkin and Dess (1996, 140-146) have brought up as an extension of the theory of Covin and Slevin (1989). Competitive aggressiveness refers to a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry in the marketplace. It is characterised by responsiveness, which may take the form of head-to-head confrontation, for example, when a firm enters a market that another competitor has indentified, or reactive, for example, when a firm lowers prices in response to a competitive advantage. Competitive aggressiveness also reflects a willingness to be unconventional rather than rely on traditional methods of competing.

Whereas Covin and Slevin (1989) say that competitive aggressiveness is included in their dimensions as a characteristic related to proactiveness, Lumpkin and Dess (1996) argue that there's a significant difference between those two. According to Lumpkin and Dess (1996, 147), proactiveness refers to how a firm relates to market opportunities in the process of new entry. It does so by seizing the initiative and acting opportunistically in order to influence trends and even create them. Competitive aggressiveness, on the other hand, refers to how firms relate to competitors; how they respond to trends and demands that already exist in the marketplace. In short, proactiveness has more to do with meeting demand, whereas competitive aggressiveness is about competing for demand.

Lumpkin and Dess have further analysed the impact of proactiveness and competitive aggressiveness on firm performance and have come to the conclusion that the industry life cycle and environment have a clear moderating role to be taken into account. The findings of their research suggest that the proactiveness and competitive aggressiveness may have different effects on firm performance and the differences were particularly apparent in the way firms relate to their external environment. Proactiveness is an appropriate mode for firms in dynamic environments or in growth stage industries where conditions are rapidly changing and opportunities for advancement are numerous. However, such environments may not favour the kind of combative posturing typical of competitive aggressiveness. Firms in hostile environments or in mature industries where competition for customers and resources is intense, are more likely to benefit from competitive aggressiveness. In other words, a further implication of the research of Lumpkin and Dess is that the dimensions of an entrepreneurial orientation, often considered to be positively related to performance under all conditions, may not always be associated with successful outcomes (Lumpkin & Dess 2001).

As a clarification, Lumpkin and Dess (1996, 136) have noted that the dimensions of entrepreneurial orientation do not represent entrepreneurship, which they define as a new entry. The new entry explains what entrepreneurship consists of, and entrepreneurial orientation describes how new entry is undertaken. Entrepreneurial orientation refers to the processes, practices, and decision-making activities that lead to new entry.

3.5.4 Entrepreneurial orientation as a tool for coping with environmental uncertainty

Wiklund and Shepherd (2003, 1310-1313) have also analysed companies from the entrepreneurial orientation point of view. According to them, firms with considerable knowledge-based resources know where to look for opportunities, can more accurately assess the value of potential opportunities, and have the ability to extract value from these opportunities, but unless the firm is willing to grasp and enthusiastically pursue these opportunities, the knowledge-based resources are likely to be underutilised. Wiklund and Shepherd's findings suggest that an entrepreneurial orientation can help explain the managerial processes that provide some firms with the ability to utilise their resources in identifying and responding to environmental cues earlier than their competitors.

Chang et al. (2007) have complemented the work of Wiklund and Shepherd (2003) by exploring how the five dimensions of entrepreneurial activity are aligned with three types of manufacturing flexibility: product mix, new product and volume flexibility. According to Chang et al. (2007, 1012) entrepreneurial orientation can enhance manufacturing flexibility as a strategy for coping with environmental uncertainty. More specifically, innovativeness, proactiveness, autonomy, competitive aggressiveness and risk-taking can stimulate a firm's capability to develop new products, offer different product options, and adjust production levels as needed.

A cluster transition that is triggered by the changes in the external environment can be a rather chaotic and turbulent time. It is then crucial that companies who are sharpening their competitiveness by re-evaluating the value added by the traditional supply chain management, and transforming their organisations accordingly, have leaders who are able to create a shared vision together with the selected partners within the supply chain/network. The direction for actions is important, but it is not enough. The leaders have to be able to look for the new opportunities and capability combinations that actually make the vision achievable and then inspire people to work accordingly. Based on the findings of Hult et al. (2004, 437), it can be stated that the entrepreneurial orientation is an important driving force behind innovation. According to the researchers, developing the extent that innovativeness is critical for organisational success entrepreneurship appears to be an important orientation for managers to foster. While market orientation and learning orientation may help managers to devise superior products, processes and ideas, it is likely that an entrepreneurial orientation provides the stimulus for driving such activities. This is because entrepreneurialism embodies the qualities of proactiveness, aggressiveness, and initiative that can propel managers into action in various innovation projects. Accordingly, an entrepreneurial orientation might be regarded as the impetus that pushes the firm into innovative action.

3.5.5 Entrepreneurial orientation in inter-firm relationships

Simsek et al. (2003) have developed a theoretical model of relationships between inter-firm embeddedness and entrepreneurial behaviour. Their main argument is that entrepreneurial behaviour, like other firm behaviours, is embedded in the structure of a firm's ongoing inter-firm relations. According to Simsek et al. (2003) there are three kinds of embeddednesses that have effect on the company behaviour: structural, relational and cognitive embeddenesses. *Structural embeddedness* describes the network's overall architecture, encompassing the properties of inter-firm ties as a whole. *Relational embeddedness* refers to the quality of dyadic exchanges, including the degree to which parties consider one another's needs and goals as well as the behaviours that they exhibit toward one another, such as trust, norms, reputation, sanctions, and obligations. *Cognitive embeddedness* refers to similarity in the representations, interpretations, and systems of meaning among firms.

In addition to the embeddednesses, the model of Simsek et al. (2003) includes also the concepts of entrepreneurial behaviour and sensemaking. *Entrepreneurial behaviour* describes the sum of the firm's innovation, venturing, and strategic renewal activities and it is divided into two types: radical and incremental entrepreneurial behaviour. Incremental entrepreneurial behaviour involves innovation, venturing and strategic renewal activity, but within the bounds of the established premises, policies, and customary views. Radical entrepreneurial behaviour instead is intended to produce fundamental changes in organisational routines and/or approaches to products, processes, and markets. Whereas incremental is about doing the same things better, radical is about doing new things. *Sensemaking* is used by the authors in the similar way Weick (1995, 91-100) does, as an individual and social process by which an organisation's members form understandings from what they experience as ambiguous situations, and then use these understandings to guide behaviour.

The core argument of researchers is that structural embeddedness, with its focus on the network as a whole, and its two consequences, relational and cognitive embeddedness, individually and collectively influence incremental and radical forms of entrepreneurial behaviour. The underlying mechanisms driving these relationships are intra- and inter-organisational sensemaking. The ongoing reciprocal interaction between these two levels of analysis produces dynamic, co-evolutionary effects on entrepreneurial behaviour. Following Granovetter (1973), researchers discuss about strong and weak ties between actors, strong ones describing the close relationships within the network and weak ones the distant and infrequent relationships. The number of strong ties has a positive effect on relational and cognitive embeddedness meaning that the more close relationships there are within the network, the more there's reciprocal behaviour and as a result of that, a common sense of identity and shared mental framework, a common worldview among the network members. The strong ties are stated to be good for the incremental entrepreneurial behaviour. The role of weak ties on the other hand is to broaden members' awareness of new ideas and insights from outside the network – they are stated to be essential for the radical entrepreneurial behaviour. The key idea of the model of Simsek at al. (2003) is that just as the inter-firm network influences each member firm's entrepreneurial behaviour, so too does each member firm's entrepreneurial behaviour influence the network.

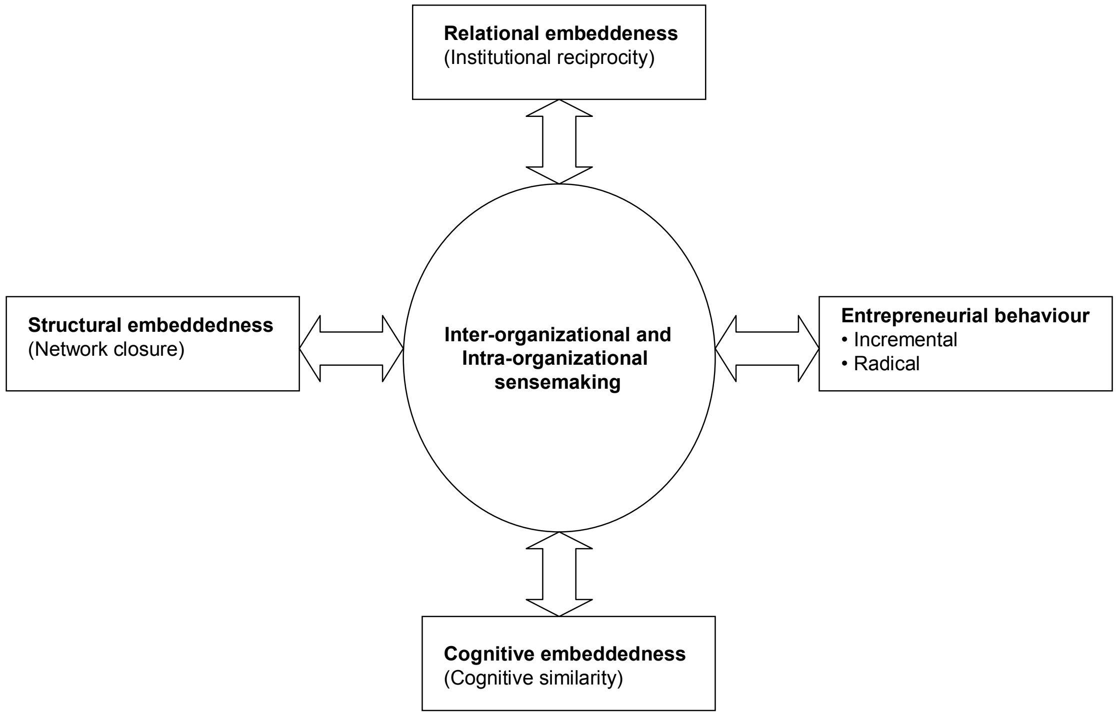

FIGURE 20 Relationships between inter-firm embeddeness and entrepreneurial behaviour. (Simsek et al. 2003, 430)

Stam et al. (2008) have researched entrepreneurial orientation and new venture performance and argue that companies need refreshing insights from other industry representatives to enhance their performance - otherwise the effect of entrepreneurial orientation will fade away no matter how industry "insider" the company is. The researchers state that the configuration of a founding team's intra- and extra-industry social capital can explain both positive and negative performance effects of a firm's entrepreneurial orientation. A combination of high network centrality and extensive bridging ties strengthened the relationship between entrepreneurial orientation and performance. On the other hand, among ventures with fewer bridging ties, network centrality weakened the entrepreneurial orientation-performance link. Network centrality is defined as the degree to which a firm has quick and independent access to other firms in a particular industry network through the fewest possible links. Range of bridging ties is defined as the extent to which a firm maintains ties beyond the focal industry network to organisations from other fields. These findings underline the importance of fit between entrepreneur's social capital resources and the unique resource needs associated with an entrepreneurial orientation.

3.5.6 Entrepreneurial orientation – a medicine against the locked-in effect

Based on the former research on strategic renewal and entrepreneurial orientation presented and discussed in this study, entrepreneurial orientation can be defined as the tool that enables path dependency to be a source of innovations instead of being a burden for companies. It fosters the strategic renewal process of companies that is essential for agility. Unfortunately there is no research on entrepreneurial orientation in the context of supply chain or network except for the work of Simzek et al. (2003) and Stam et al. (2008) who take up the important point of reciprocity in inter-firm relations.

There are some assumptions that can be made based on the former research. Encouraged by the studies of Simzek et al. (2003) and Stam et al. (2008) a systematic research of the different dimensions at the level of supply chains and networks can be seen as a natural continuum in the development process of the concept of entrepreneurial orientation. On the other hand, the extended enterprise idea provides a gateway to investigate inter-firm relationships with the help of concepts normally related only to the individual companies. One example of this is the strategy making process that has been extended from the individual company point of view to cover also the inter-firm operations in the recent literature (Hamel & Prahalad 1994; Spekman et al. 1998; Bengtsson & Kock 2000; Dyer 2000; Bititci et al. 2004, 2005). Hence, the first assumption is that the entrepreneurial orientation can be evaluated at the level of supply chains and networks.

The other assumption that can be made based on the literature review is that the lack of an entrepreneurial orientation in one or more of the supply chain partners hinders the development of the supply chain towards higher competitiveness. The reasoning behind this assumption relies on the dependency and reciprocity that exists between supply chain partners. As Angdal, Axelsson and Melin have observed; companies do not live in isolation and their actions are limited, for instance, by what customers and suppliers allow (Agndal, Axelsson & Melin in Axelsson, Rozemeijer & Wynstra 2005, 41). As the operational environment of companies change, they should take actions for strategic renewal in order to be competitive in the new environment. The ability of taking these renewal actions is, however, limited by suppliers' or customers' attitude towards it, and, furthermore, as the key to strategic renewal is the level of entrepreneurial orientation, it can be assumed that the more entrepreneurial the strategic attitude of the company's partners is within the supply chain, the better the chances are for the company to also be successful in strategic renewal.

The third assumption that can be drawn is that even though the entrepreneurial orientation could function as a medicine against the locked-in effect in long-term inter-firm relationships, the partnering companies have to take care of the fuel of the entrepreneurial orientation in the form of individual external relationships. Based on the work of Stam et al. (2008) the entrepreneurial orientation may fade away unless it is fuelled by external stimulants. As a result of this it can be assumed that in order to keep the entrepreneurial orientation level high in the existing partner relationships, individual companies forming these partnerships have to simultaneously seek stimulants outside the current relationship.

3.6 Summary

The theoretical part of this study contains a number of key concepts. In order to provide a comprehensive cross-section of all of them, a short summary of their contents is presented first. The summary forms then a basis for a reflective review indicating the purpose of the concepts for the completion of this study.

3.6.1 Summary of the key concepts

The theoretical framework started by defining the very basis of the competitiveness of companies, the ability to provide added value and the enablers of it as recognized by the recent research. The concept of *added value* is stated to be relative in nature, either tangible or intangible that is most often related to the aspect of getting value for money. The speed of changes in the business environment and globalisation has led to the value production process as such becoming a critical source of competitive advantage. The search for effectiveness and efficiency has led to the concentration on core competences and as a result, partnerships and network thinking have become essential when considering the ability to create added value. Similarly, the recent service dominant logic favoured by marketing literature, emphasises the importance of the supply network in providing the customer solutions. Based on the service-dominant logic customers are actually always buying solutions to serve themselves no matter whether they are purchasing a product or a service. The service dominant logic not only brings the customer into the *process of co-creation of value*, but an organisation's partners throughout the value network as well. Hence, instead of the ability to create added value individually, companies should pay attention to their ability to co-create value together with their customers and suppliers. Inter-firm relations have become crucial in the value adding process.

Like the ability to co-create value, *agility* has been raised as the key to success in turbulent and volatile markets. In defining agility it can be seen as the successful exploration of competitive bases (speed, flexibility, innovation, proactivity, quality and profitability) through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast changing market environment. The environmental turbulence is the key driver of agility. An agile company is organised around processes and it has the abilities to respond to change in proper ways and due time and to exploit changes and take advantage of them as opportunities. *Agile manufacturing* refers to a production model that through integrating technology, human resources and information and communication infrastructure within and over the organisational borders enables the company to operate in an agile way. The value chain integration is essential for agility due to the fact that concentration on core competences in search for the flexibility, speed and efficiency is one of the cornerstones of agile manufacturing. Like in the co-creation of value, the inter-firm relations are a critical factor in deciding the success of agile operations.

The literature review on co-creation of value and agility highlighted the importance of inter-firm relations and processes and as a tool for managing these key issues, the concept of *supply chain management* was introduced. Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. The evolution of supply chain structures from traditional star-shaped ones to pyramid models containing different supplier tiers was presented. In the circumstances of ever-tightening competition, value creation requires sharing information and innovation with suppliers that cannot be reached by the traditional arms-length supply chain management approach emphasising mainly low costs. As a result of this development, the concept of *extended enterprise* was introduced. According to the definition:

> The extended enterprise is the entire set of collaborating companies, both upstream and downstream, from raw material to end-use consumption, that work together to bring value to the marketplace… The flows of information that lie at the core of the coordination and collaboration among network members not only link disparate information sources, they also provide an opportunity to build knowledge-based tools. Companies engage in longer term partnering relationships built around mutual goals and accompanied by a very rich and deep exchange of information. Members' view that their destinies are interdependent. (Davis & Spekman 2004, 20-21)

The similarity of extended enterprise and *virtual enterprise* was stated to be the fact that both of these concepts pursue enterprise partnerships as a key for survival in turbulent markets. The virtual enterprise lies on high technology and advanced information systems and is temporary in nature, a kind of short-term get-together of companies to produce a product or service quickly to satisfy the markets. The extended enterprise instead emphasises long-term relationships across the value chain in order to provide more permanent and sustainable success for the partners. Trust among partners was stated to be the cornerstone of an extended enterprise resulting in lower transaction costs, superior knowledge sharing, and increased investments in dedicated assets.

In order to provide insight to the question of how the intense value chain integration and agility can be reached simultaneously, the concept of *agile supply chain* was introduced. Based on the literature review, an agile supply chain is a network, which may be formed as a temporary virtual enterprise or with longer-term goals as an extended enterprise. The essential characteristics of an agile supply chain are market/customer sensitiveness, intense information sharing and utilisation of advanced IT-infrastructure and process integration among partners. The capabilities that an agile supply chain should contain are the ability to identify changes, respond to and recover from them quickly, ability to efficiently and effectively realise enterprise objectives, ability to implement different processes and apply different facilities to achieve the same goals and the ability to complete an activity as quickly as possible.

The existing models of agile supply chains were stated to fall short by the fact that none of them pays attention to how the intense value chain integration requiring long-term relationships and responsiveness can actually be achieved without the risk of being locked in. The *locked-in effect* was described as a phenomenon that may take place in long relationships: close collaboration may be necessary to jointly develop and exploit new technologies, but it can simultaneously diminish the companies' flexibility to utilise competing technologies at the markets. A company is in a way locked in the relationship.

In order to provide a wider perspective to the issue of being locked in, the phenomenon was presented in the context of networks and *path dependency.* Path dependence is a result of common knowledge related to a technology developed within a certain area. Over time we get "locked in" to this expertise and it starts to hinder further development. In contrast to the traditional approach of presenting path dependence as only a negative phenomenon, research was presented showing it as a source of new innovations was introduced. The path dependence can be a capability and resource bank for new innovations if there is a factor that can push the capabilities and resources into new positions.

The *ability to strategically renew* was introduced as the counterforce for the locked in –effect pushing the existing operating models and business practices into new position, questioning and confronting the old well proved habits. The concept of *entrepreneurial orientation* was presented as the key to a company's strategic renewal. Entrepreneurial orientation is a strategic orientation of a company referring to the processes, practices, and decision-making activities that lead to new entry. It consists of five dimensions: autonomy, innovativeness, risk-taking behaviour, proactiveness and competitive aggressiveness. These dimensions may vary independently, depending on the environmental and organisational context. Based on the literature review, entrepreneurial orientation not only stimulates the company to innovate but it also can be regarded as the impetus that pushes the firm into these innovative actions.

3.6.2 Reflective review of the theoretical study

The main interest to complete this study is related to the competitiveness of companies in the ever-changing world. Every step that has been taken in this research has served the purpose to better understand the ingredients of it. The completion of the research has taken place in the form of hermeneutical circle creating and utilizing a dialog between the former knowledge and new information.

In order to gain a proper understanding of what is required for creating added value simultaneously taking care of the ability to change according to the market situations, the literature review of these two themes was completed. As both of the themes highlighted the role of the inter-firm relationships, it guided the interest of the researcher to focus on the management of the relationships in the form of supply chains.

The review of the supply chain management literature was completed to provide the next step in the hermeneutical circle to reach a higher understanding of the enablers of the competitiveness in today's world. As it became evident that a successful supply chain requires innovations and in-depth information sharing among partners and trust is the key word in reaching them, there started to appear an interesting conflict in comparison to the requirements for being agile. This was a result of the recognition of the locked-in effect in long term relationships that on the other hand were needed for creating the level of trust among companies that results new innovations.

The concept of positive path dependence provided a new inspiring aspect to the ultimate search for the competitiveness that seemed to have crashed to the risk of getting stuck in the locked-in effect. The careful review of the positive path dependence theory (Håkansson and Waluzewski, 2002) however showed that it did not provide an answer to what enables the usage of old relationships and resources as a basis of new innovations. This insight guided the research to focus on the former studies discussing the factors resulting strategic renewal of companies. These studies brought up the concept of entrepreneurial orientation. The literature review of the entrepreneurial orientation revealed that the concept had not been earlier studied at the supply chain context even though it was stated to initiate the strategic renewal process. When comparing the former knowledge gained by the extensive literature review on the described topics, there appeared to be a clear research gap that needed to be covered by the empirical research in order to fulfil the understanding of the requirements of competitiveness in the turbulent business environment.

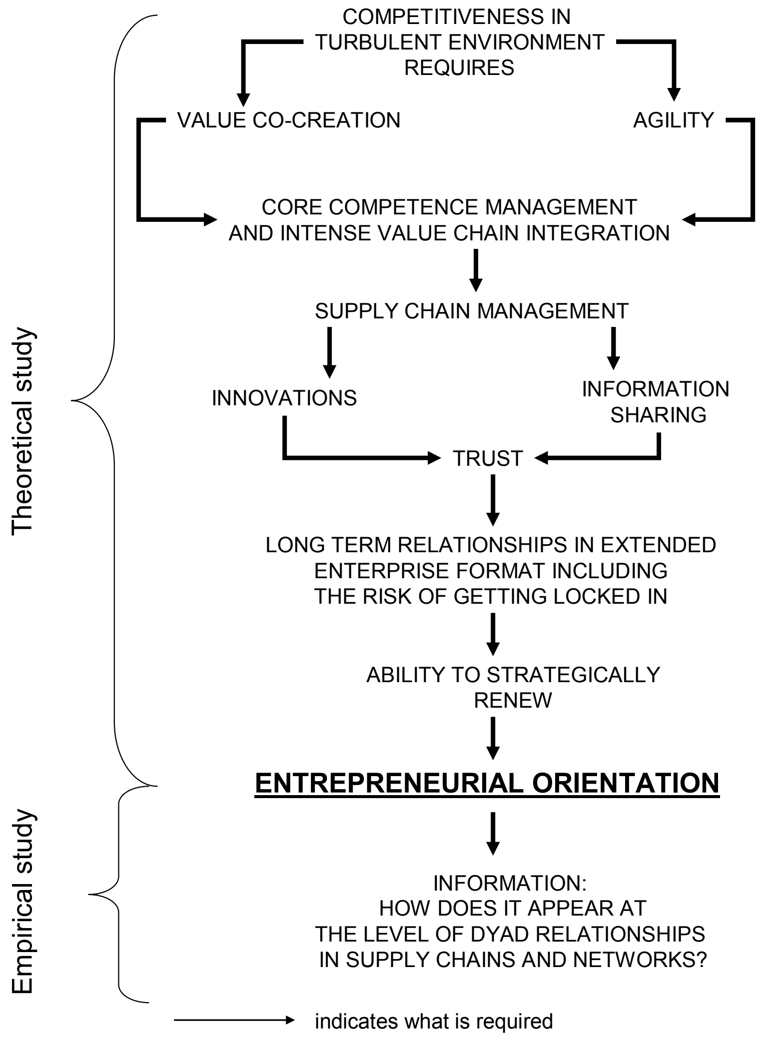

FIGURE 21 The logic of theoretical and empirical study.

3.6.3 Theoretical roadmap for empirical journey

The theoretical roadmap for the empirical journey consists of two central themes, the supply chain management and the entrepreneurial orientation. The reason to focus on rather limited literature as the basis of the empirical study in comparison to the all in all extensive theoretical part is a result of knowledge crystallizing process; the empirical part of the study focuses only on the issues previously unknown. One could say that the former research on supply chain management forms the terrain of the roadmap and the dimensions of entrepreneurial orientation as defined by Lumpkin and Dess (1996) are the map symbols to be searched for.

More specifically, the work of Spekman et al. (1996) and Davis et al. (2004) on the characteristics of supply chain management, the studies of Lehtinen (2001) and Toivonen (2000) on the development of subcontracting structure, the research that Bititci et al. (2004, 2005), Davis et al. (2004) and Dyer et al. (2000) have completed on extended enterprises and Browne and Zhang (1999) on the differences between virtual and extended enterprises form the foundations of the supply chain terrain. The studies were used as a tool to understand the form, structure and operating model of supply chain and its management in the case enterprises.

The map symbols are, as stated, the Lumpkin and Dess (1996) definitions for the entrepreneurial orientation and its five dimensions: autonomy, innovativeness, risk-taking behaviour, proactiveness and competitive aggressiveness. The dimensions listed formed the interview themes in order to provide information of the entrepreneurial orientation of the case enterprises and of the inter-firm relationship between them. The application of the Lumpkin and Dess (1996) theory at the inter-firm level studies is a new approach in business research and hence the role of the existing theoretical framework is to work as a gateway for more in-depth understanding of the factors influencing the competitiveness of interdependent companies.

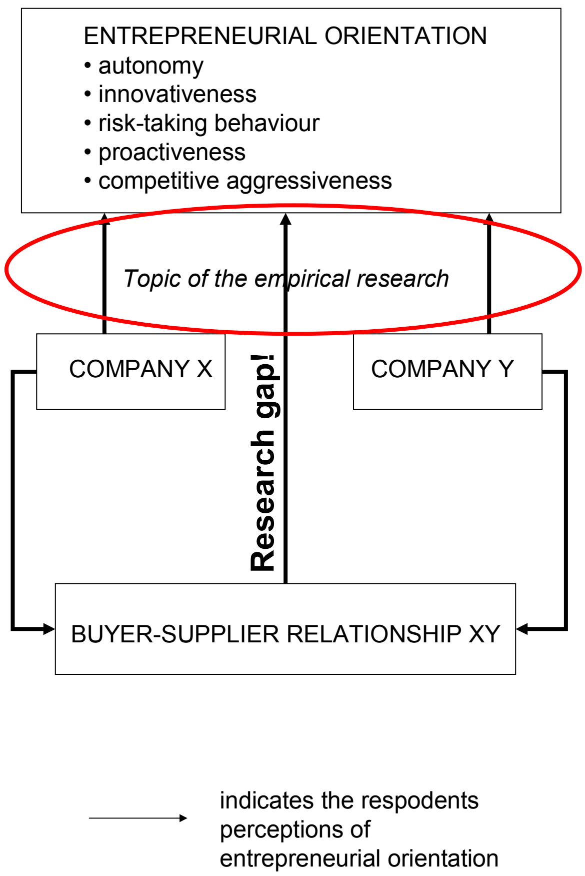

FIGURE 22 The focus of the empirical research.

4 EMPIRICAL STUDY

4.1 Description and analysis of cases

The empirical part of the study is completed as an interpretation of three different industry groups, two presenting mechanical engineering and one meat processing industry. Companies A, B, C and D form the first industry group where the company A is a buyer and companies B, C and D all first tier suppliers to company A. Company E as a buyer and company F as its supplier form the second industry group. The third industry group is formed by the companies G, H, I and J where the company G is a buyer and H, I and J are first tier suppliers to it. The description of the cases is presented in figure 23.

The three industry groups consist of two types of cases to be studied, the individual companies and the buyer-supplier relationships formed by them. The entrepreneurial orientation dimensions as defined by Lumpkin and Dess (1996, 140-146) are studied at the level of individual companies first and then in a similar way at the buyer-supplier relationship level. The presentation of the companies and the interviewees is done at the beginning of the individual company level analysis. The original Finnish quotations of the interviews are available in appendix 3 by the quotation number.

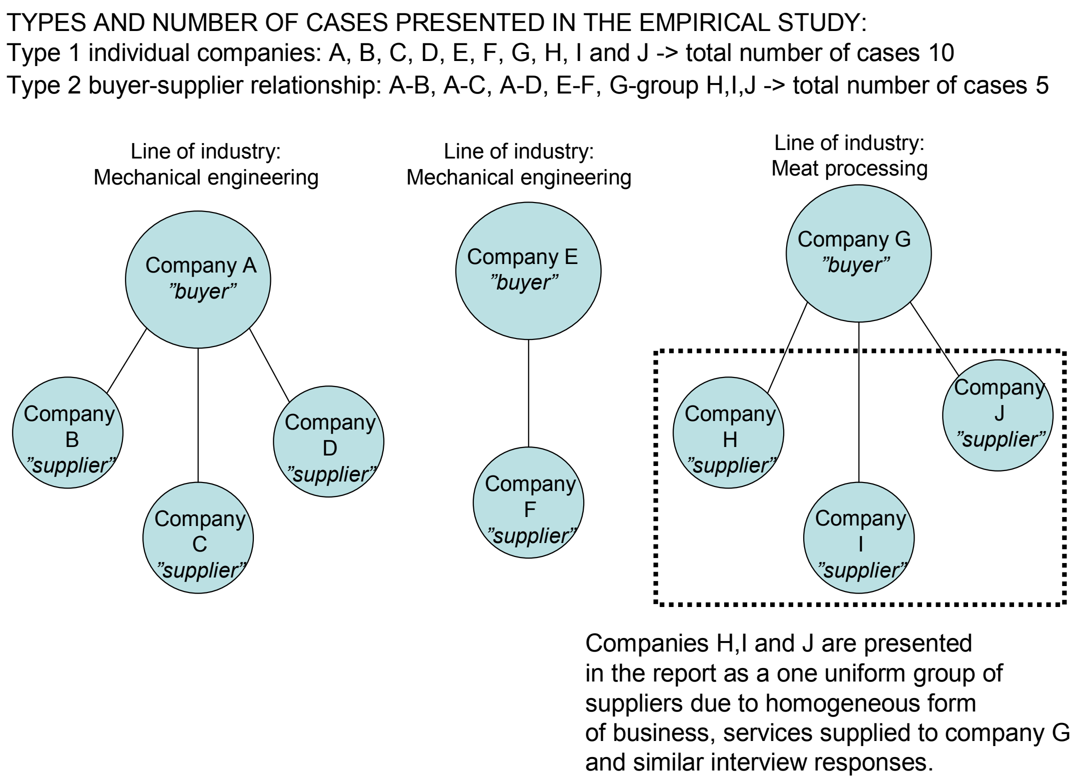

FIGURE 23 Description of the cases.

4.1.1 Company A

Company A is representing one business area of a global industrial group with advanced metal engineering products and world-leading positions in selected areas. The business area in question is present in 130 countries and has a customer base of tens of thousands. The sales of the business area in 2007 were approximately 3.6 billion euros. The global supply network of the business area is formed as a pyramid including first, second and third tier suppliers. In addition to the global business area level suppliers, individual mills may also use local suppliers. The discussion with the interviewee of the company A concentrated on the one Finnish mill and its eight local first tier suppliers. The interviewee of the company A is in charge of developing the global supplier network and the strategic cost management process of the particular business area.

Company A can be described as very entrepreneurially oriented. In the simple categorisation of low-moderate-high of the entrepreneurial orientation dimensions, company A scores high on every dimension other than autonomy, which can be also defined as a moderate one.

According to the interviewee of the company A, the global markets set limitations to the freedom in purchasing meaning that the request for efficiency and concentration of purchases to certain partners can be seen as restrictions to full autonomy within the company.

"Playing solo is not more allowed. Larger volumes are given for fewer suppliers. The number of hydraulic suppliers is in hundreds at the moment, in the future there will be less than 20. So it limits the freedom inpurchases but on the other hand it also reduces prices when the volumes per supplier are higher."(Quotation 1)

On the other hand, freedom to develop production and operations to be even more efficient is stated to be rather high. The company is currently in the process of taking the lean production into use, which will, according to the interviewee, set in time certain limitations on the development work.

"But when we talk about the production, the freedom to develop it to be more efficient is great. It's all in your own hands. Even the lean philosophy will probably be applied also there, that may happen rather fast right according to the traditional school. And then, that will harmonize the operations of all the mills, to create similar kind of frames. It means that the freedom to develop as you wish, it changes, it will take place within the frames of the lean philosophy." (Quotation 2)

Company A is famous for taking advantage of the latest innovations and new ideas in production, planning, operations and processes both internally and in external relations to customers and suppliers. The investment made in the R&D –functions is approximately 3.5% of yearly turnover and it is expected to be raised to 5%. The company has hired tens of new R&D people during the last year which clearly indicates the strong commitment to enhancing innovativeness within the company.

"This house has always been famous for it, that it takes into products all the new ideas from the automation, hydraulics, industrial design, you name it. Or if we talk about the production, then all the latest means, like Kaitzen and Value engineering and similar out of which 99% of companies have never heard about. Or do you know a company in Finland who talks about target costing, value engineering or Kaitzen. Some talk about Kaitzen, only few apply it, that's different also. There are development processes for suppliers, systematic cost reducing targets, etc. There are many of them."(Quotation 3)

Company A is defined to be a risk taker.

"Well, you have to take a risk in order to move on. We have such a saying that it doesn't matter if one falls as long as one falls ahead. Backwards one should not fall."(Quotation 4)

However, even though the risk taking in daily operations is stated to be normal, major economical risks are avoided and all in all, the risk taking behaviour could be described as a carefully calculated process.

"Many risks are taken. Usually, sometimes they are costly and there are major catastrophes and. But sometimes, most often risk taking is profitable. We do not, let's say, we do not take any major business risks that could crash the company. But let's say that operational risks that are apparent in every day work. As an example one could think that there is a sole supplier for cylinders that already is a hell of a risk."(Quotation 5)

Company A seeks actively new operating models that enhance proactive actions and operations. Personnel are strongly encouraged to be proactive and give their input to the development of operations through a systematic 'continuous improvement' –process that covers for example the collection of employee initiatives. The company's production lay-out is structured so that it enables very fast changes based on the changes in market conditions. Company A has also a dedicated person in charge of the internal production feedback that aims to proactively improve the competitiveness of the products in the end markets.

Ever tightening competition on the markets forces companies towards more aggressive competition; as the interviewee of company A says, "the prices are in a way set on the markets". The aggressiveness in competition is related to the agility and proactiveness of the company: according to the interviewee, if a competitor is able to decrease its delivery time to the customer, company A is capable of responding to this move by changing its production layout very quickly. Company A is stated to be a technology leader today, but the competitive advantage will be more and more in the future built on agility, low margins, good quality, right properties and fast reaction.

> *"Earlier we used to compete with technologies or cheaper prices, but now we are heading towards the confrontation strategy… meaning that the products are the same, suppliers equal, components similar, products are similar even though they look different. They have all the same functionalities, same components, even though they have different industrial design. So this leads to it, that someone, this leads next to it that one starts to compete with the margins meaning the price. And when you compete with the prices in the lean environment, it means that you have the maximum quality, very good quality. Then products have all the functionalities the customer is ready to pay for and nothing more. Because if there's more you'll make yourself uncompetitive. Customer naturally is happier. And the third point is that the price is in a way ser, it is set at the markets."(Quotation 6)*

4.1.2 Company B

Company B is a contract manufacturer of large machine units and a first tier system supplier to company A. Company B operates an extensive sub-assembler network of 500 suppliers providing components and parts. The customer base of company B consists of 8 companies and the turnover in 2007 was approximately 60 million euros. The interviewee of company B is the managing director of the company.

The entrepreneurial orientation of company B can be defined as a moderate one. Based on the simple categorisation of high-moderate-low, the automomy and proactiveness dimensions appear to be high, but innovativeness and risk-taking only moderate and competitive aggressiveness even low.

In company B the high autonomy is evident in the production unit structure of the company: the managers of the production units are seen as the managing directors of their own units who have the freedom to hire and fire personnel and even price their products independently. There are no detailed guidelines or instructions for personnel; instead the key thing is that everything works and profitability tells if operations are working or not. All the personnel within the company are allowed to have as much power as they are able to and willing to take it. The only centralised functions within company B are purchases, accounting and planning.

"We have now five workshops. We have a workshop manager who is in charge of the entire workshop. The workshops are rather independent and the manager is allowed to do what so ever, as long as things are running… So these guys work directly for me. I don't have, I can't involve into these things instead they hire and fire personnel independently. They have, they are a kind of managing directors of their units. So, all of this is based on it that the guys know customers very well. They know personnel very well and the products and they price them all."(Quotation 7)

Concerning innovativeness, company B is not according to its interviewee any kind of technological pioneer. Company B does not have its own product development nor there is there any fixed percentage dedicated to R&D operations; the development of products is done merely based on customer orders for which customers are also paying. The development of products is hence just one service that is sold to customers, not as such a solid function of the company. The innovativeness of the company is focused on the process development and according to the interviewee, the company invests for example on the development of IT channels in order to improve the efficiency of operations.

"We do not have any own product development. Or let's say so that we have six designers, but they design customer products and customers pay for it. So we do not do any product development at our own cost… customers pay. Not much, but so that it is still profitable… well yes, let's say, that a technological pioneer we are not. That's not what we do. We rather prefer this kind of operational improvements, related to the functions, there we are ok."(Quotation 8)

Company B is willing to take calculated risks according to the interviewee. However, company B has negotiated a minimum level of +5% for profitability in some of its major deals which substantially decreases the financial risks involved. Company B has not taken part in any mergers even though opportunities for deals have been offered.

Concerning proactiveness company B develops actively its supplier network in order to be able to improve its own customer service level and agility. According to the interviewee, company B participates in an industry working group searching for solutions to future challenges with a long-term view (2015), concentrating on items like the growing need for professionals and for the challenges of the low cost trend provided by globalisation.

"Yes, there's a team, Subcontracting 2015, where one evaluates what kind of future challenges there will be 2015. The lack of employees, that's one that is clear. And for that we have worked for and will work for. Then there's this LC-thing, this globalization, transition to the low cost countries. And for that there are certain things going on at the moment. So there are different activities. Even though the future challenges are different than they have been so far, when they are acknowledges, then one starts to work on them. In my mind, most of the things are acknowledged, but the next recession will then tell a lot about that swamp."(Quotation 9)

The competition is not seen as being very intense by the representative of company B which means that there has not been any need to start to challenge other competitors by aggressive moves on the markets. Company B sells its products only in Finland and the number of competitors depending on the product group is around half a dozen. The main competitive advantage of company B is good customer service.

> *"Well, at the moment competition is not that bad. Or how should I say it, I haven't experienced it in any ways aggressive. Here we don't, at this class and with this concept in Finland, there's now approximately half a dozen companies who can do these products. At the moment, when everyone has more than enough work to do, there's no such a thing…" (Quotation 10)*

4.1.3 Company C

Company C is a Finnish subsidiary of a large international group. It offers the complete spectrum of hydraulic, pneumatic, electronic and mechanical technologies and it is the first tier system supplier to company A. It has two supplier bases, the Finnish supplier base for the local needs and the global group level supplier base. The total number of suppliers exceeds 10 000 companies providing components and parts globally. Company C has its own internal first tier suppliers meaning that the other mills within the group may be in charge of complete systems. Otherwise the suppliers of company C can be categorised as component or part suppliers. The turnover of company C was 91 million euros in 2007. The interviewee of company C is in charge of inbound and outbound logistics.

The entrepreneurial orientation of company C is a rather interesting one; based on the interview of the company representative, the company appears to be high on innovativeness, proactiveness and competitive aggressiveness, but low on autonomy and risk-taking dimensions.

According to the interviewee, company C has clearly defined guidelines for all operations and all personnel are expected to follow them. In order to ensure the following of guidelines the company utilises regular audits. Even though the processes are carefully described, the use of common sense in daily operations is naturally encouraged. When comparing the Lumpkin and Dess definition of the autonomy dimension to company C, one can describe it as being low on autonomy.

> *"Shall we put it so, that recently the freedom has decreased due to the implementation of enterprise resource planning system and we have been bought by a big international company few years ago. So we have very much, we talk about guidelines, that describe all our operations how we are expected to complete them. And we are obligated to follow them and we are also inspected on a regular basis for that. So we have less autonomy than what we used to have. But of course in the daily matters people are allowed to use their creativity. The main processes are rather exactly described and defined."(Quotation 11)*

The importance of innovativeness and the prerequisites for that are clearly recognised in company C. According to the interviewee, company C uses at the company group level a total of 4-5% of annual turnover to R&D – the investment level is not measured at country level. The development work is mainly traditional product development with 80-20 ratio, but the process development work is gaining more and more attention. The main result of investing in R&D is stated as taking care of the competitiveness of tomorrow which also refers to the proactive character of the company. One also has to notice that even though company C provides well defined guidelines to personnel, it allows initiatives to be brought up and as the interviewee stated, the role and task of management is to support the initiatives made by personnel and choose the ones, which will be taken forward as a project.

> *"…the level is something like 4-5% of turnover at the international level, if I remember correctly. At the level of Finland, a subsidiary company, we don't measure it. But at the group level we do. So it is for us - let's say – but we see it more as product development… I mean traditionally it has always been only product development. Nowadays the process development has come along more and more. But if I have to say, it is still 80/20, product development 80, the rest 20 at maximum. But more and more we have these projects that are focusing on processes as such."(Quotation 12)*

Risk taking in company C is according to the interviewee avoided. The operating models company uses are very stable and the quality of products is defined and tested.

> *"Yes, we probably are more risk avoiders in business. We have very stabile operating models. The quality of products is very carefully defined and tested and so on. I'm sure that this kind of big companies are more risk avoiders, that's how I see it."(Quotation 13)*

Company C has a clear vision to be at the front line of the development of the industry; based on the interview, company C proactively works for the future challenges thinking of the development of customers' needs and the technology. The proactiveness of the company appears especially in the development of operating processes which many times require strategic decision making. The more operative, daily issues are dealt mainly reactively.

> *"And we try to think it so, that what we need to do, what we need to haveready for example in some technology, just for example concerning the order/supply –process, that we can serve our customers in the best possible way, meaning for example some on-line features that we need to have, those are developed constantly. Technical development is naturally under consideration. In principle, we should have something new to give also. Electronics comes into picture as well, recruiting of people, who handle it. And at the production site the technical development is an own story. There one has to think what kind of technologies could be combined for example. So we try to be rather at the frontline. In some things we are more proactive, in others more reactive."(Quotation 14)*

Competition in the industry is tough. The competitive position of the company depends on the product group but on average it could be said that the company is one of the ten biggest worldwide. The competitive advantage is based on quality, technical know-how and internationality: In addition to that in important customer relationships like with customer A, company C is ready to adapt its processes based on customer requirements. Company C obviously fights for its market position that refers to high competitive aggressiveness even though any aggressive moves as such were not mentioned during the interview.

> *"Our main competitive tools are easy to list. There's quality meaning the duration of the components. Then there's this know how – technical know how and the capability to combine*

different technologies into a one entity, which means that a customer can in a way be in charge of the entire repertoire, to buy all from a one boutique instead of ordering from 50 different suppliers. And that provides obviously cost savings for the customer + we are in charge of that unit. In a way we have the operational responsibility as well. And being international is naturally one of our advantages, our customers operate in global markets… Competition is hard, nothing comes for free, that's a fact."(Quotation 15)

4.1.4 Company D

Company D is a Finnish mill representing a division of a larger group supplying metal-based components, systems and integrated systems to the construction and engineering industries. Similarly to company B and C, company D is a first-tier system supplier to company A. The own supplier network of company D consists of component and part suppliers. The turnover of company D is approximately 80-100 million euros in 2007. The interviewee of company D is in charge of the production development.

The entrepreneurial orientation of company D can be defined as being a rather moderate one for all the other dimensions except for the competitive aggressiveness that can be said to be low.

The personnel of company D have quite good possibilities to influence the development of their own jobs and the profitability of the company through the systematic collection of employee initiatives. Even though the personnel are given rather clear guidelines for their work for example by utilising the 5 S –method, the interviewee of company D said his work was fairly free and independent. The 5 S-method means the principle of standardized cleanness applied at the workshops. (Warwood & Knowles, 2004) Instructions from the customers were expected to increase.

Concerning innovativeness, the interviewee of company D could not estimate the annual percentage invested in R&D; however, his opinion was that the investments in R&D are increasing and that the company has now better possibilities to do development work in new and more spacious facilities. Company D has earlier taken a part in a major development process together with its customer that resulted in its own development project within the company. This own development project died away due to lack of resources and hence the interviewee emphasised a lot the importance of sufficient resources for the success of any development work.

"So we started this project independently for a one product. But then, due to the fact that we didn't have enough resources, it faded away. One should have resources for such projects just like for any other rationalizations… it should be normal operative work. Otherwise it does not proceed… that's how it is. So the competition is getting harder, so it seems and in that competition we need to stay on. Otherwise we'll be left behind."(Quotation 16)

Company D is willing to take some risks in own operations for example by centralising purchases to a limited number of suppliers, but in the customer relationships the risks are always minimised.

"It's a bit like how do you want to see it. I can't say that we would be avoiders but let's say so that the structure is decided together with the customer. It's a compromise. But in that respect

> *we might take a bit risk that we may have concentrated our component supplies a bit too much… If something happens we should at least have a plan for the supplementary supplier… that's how I see it."(Quotation 17)*

The interviewee of company D represented the middle management in production that somewhat limited his knowledge on strategic outlines of the company. However, the interviewee stated that one could recognise both reactive and proactive behavior in the company; the proactiveness became evident in the innovative product development projects that were utilising for example young graduating designers. As was the case when discussing innovativeness, the interviewee emphasised again the importance of sufficient resources also for proactiveness and the common will and understanding on the issue at every organisational level.

Company D does not seem to face any strong competition in domestic markets, the main competitors are from other Nordic countries and Germany. The competitive advantage of the company is mainly built on fairly short delivery times and operational flexibility; the high quality of the products and operations are nowadays required as self-evident factors. Any aggressiveness as such in the competitive behavior of company D could not be recognised during the interview.

> *"Well in Finland we do not have many competitors. Some producers can be found, but they operate in a smaller scale. They mainly work for a one customer or for themselves. And our competitors are found from Sweden and Denmark, Germany… it is exactly this that we have been able to provide rather short delivery times for our customers… it is of course a strength that our personnel is ready to be flexible when needed."(Quotation 18)*

4.1.5 Company E

Company E is an SME presenting the metal engineering industry and has two core businesses: special tooling, including tool manufacturing and related customer services and technology trade that provides import services, project management services, and delivers sophisticated moulds. Company E manufactures and sells components but it also offers complete solutions and outsourcing services for purchase management and technical support. The customer base of company E consists of more than 60 companies. The company has about 30 suppliers providing capacity, parts and components and there are approximately three interchangeable suppliers per product or product group. The company has no dedicated suppliers providing products or services only to them. The two interviewees of company E were in charge of sales and production.

The entrepreneurial orientation of company E can be stated to be high. The company culture emphasises strongly autonomy – to the degree that one could say the autonomy to be the labeling characteristic of the company. According to interviewed personnel, the managing director encourages every employee to use their own sense and creativeness when completing tasks and as a result of that, personnel stated their work to be very free and independent.

> *"Well, there are very few certain things that have been instructed in order to make sure that we'll get what we have ordered for. Everything like this, our managing director very much encourages to use your own sense and to act independently. Basically it's same how you do it, the end results counts. We are constantly encouraged to be innovative and develop things. So I would say that the operating model is very autonomous…" (Quotation 19)*

Company E aims strongly to be innovative. Even though interviewees could not estimate the annual percentage invested in R&D, they told that company E invests money and personnel resources continuously into development projects related to both products and processes. Company E has different development teams like an active sales team and method development team whose task is to think and systematically seek new operating models. In order to support the development, these teams also audit each other within the company.

> *"In my mind product development is that we have these specific teams… in sales, covering different stages of production, training, every part has this kind of own one. Team members are own personnel gathering on a regular basis. Teams audit each other to recognize for example that there's something at the mechanizing that needs to be worked out. I'm part of few teams also, the active sales team, it's in charge of developing it. The task is to develop and innovate. In production we have a process development team." (Quotation 20)*

Company E is a risk-taker that appears for example to have taken bold moves in starting business with Chinese and Indian companies. The driving force behind the risk taking is according to the interviewees the innovativeness and willingness to differentiate themselves from their competitors.

> *"Yes, we specifically are takers. And this China case, it was basically a jump into unknown…"(Quotation 21)*

> *"I would say that we don't , we do not do the familiar and safe, instead we want to differentiate from other similar companies, so it means risk taking always. Then certain kind of innovativeness, you have to come up with something new, that's where we stand out. So in that respect we are risk takers."(Quotation 22)*

External pressures have forced company E to seek for new opportunities, the company is constantly in a way always testing the waters for new possible openings. The way the company actually operates is more reactive than proactive; according to the interviewees there is a lot of proactive discussion going on, but the actual acts are more reactive and mandatory.

> *"In my opinion, or let's say so that the external pressures have taken care of it that we have had to rethink the entire concept through what we are doing, what kind of work we have to do. And we are constantly sensing the world, trying to think that we should do next in our company. That kind of thinking, it is basically one and the same whether we are doing mechanizing or something else. The idea is exactly that we would be a service provider for certain customers. We for example shut down our other unit and outsourced majority of our production. I don't know whether it has been more proactive or reactive. When looking back, it probably has been more reactive, we were forced to do so. We have a lot of proactive discussion going on, but no actions. So the actions we have taken, they have been inevitable." (Quotation 23)*

Competition in the industry is generally hard. Company E is involved in two different sectors: in one the current overcapacity in the markets have led to a tough price war and in the other one there are still sellers' markets, where delivering security and quality are the key issues closing the deal. In the sector of tough price competition, company E fights with the easiness of buying. Their target is to make things easy for customers rather than to compete with lower prices or shorter delivery times.

"Let's say that in the tool business we want to differentiate us. We don't want to compete with the price; we want to compete with the delivery times, quality and the easiness that we provide to our customers. And if one says that how aggressive… so we don't start with the delivery times… maybe earlier we did it more that we reduced the price or shortened the delivery time in order to get the deal. But now we see, that that has caused so many problems for us that we have to be able to get the deal with something else than with the price or cutting the delivery time so that we eventually cause difficulties for ourselves. The point is that we provide the easiness for making the deal and what it requires for the customer."(Quotation 24)

4.1.6 Company F

Company F is a supplying partner of company E. Company F produces standard parts and special components for tool manufacturers in electronics, toy and construction industries. Company F has 300-400 active customers and its turnover was about 5 million euros in 2007. The supplier base of the company consists of two kinds of partners: first and second class partners. There are six first class partners who have a contract until further notice with the company. The second class suppliers do not have any written contracts, instead the co-operation is based on price lists and commonly agreed principles. The total number of key suppliers is about 20. The interviewees of the company were the managing director and the sales manager of domestic markets.

The entrepreneurial orientation of company F is like in company E, high. Company F has strong management and according to one interviewee, the employees operate quite a lot by the book. Employees are anyhow expected to be creative and innovative and they are encouraged to present their development initiatives to the top management. Top management reviews initiatives together with the employees and if they are in line with the company strategy, they will be implemented. From my point of view, it seems the company has certain rules to be followed, but according to the interviewees the work is rather free – things can be done in various ways, the end result is the one that counts.

"I would say so that they play quite a lot by the book. They are, I would say, that our personnel is rather creative. So my principle is that when I hire, I need people or I don't have use for such people who are not able to develop of to develop. We always agree together the process how it works and how one it expected to operate. But if someone notices that it doesn't work, then we'll change it. They do not change it without a permission, but if they get a better idea then… we have a vision and based on that a strategy. And if someone has said that he or she has this kind of… do you know our vision, are we going towards it or somewhere else, think carefully. If he or she says that we go a bit aside then I'll say that is there a point to discuss any further about it. They know where we are heading and what's the strategy and all the actions should serve the vision. That's our guideline… so yes, rather clear instructions are given."(Quotation 25)

"Well, of course we follow certain rules. But my own work is anyhow rather free. I can decide my timetable and my style to accomplish my duties."(Quotation 26)

The innovativeness is apparent in the principle of the top management of company F, which wants to develop a lot: the company has every year an on going development project. Company F cooperates actively with Tekes and VTT and every employee is expected to provide new ideas of how to develop the processes related to his or her own job. According to one of the interviewees, the development projects are mainly concentrated on process development as the actual product development has been suffering for lack of resources.

"A lot. When comparing to the turnover, we do invest a lot. On an annual basis – these projects at the moment – what are they, about 200 000 euros… I have every year a project in co-operation with Tekes. So continuously, every time when a project ends then a new one starts."(Quotation 27)

"Well, let's say that the development of new standard products or sales products is rather minor. As the matter in fact, we do not have enough resources at the moment. We do not have a person who would have time to think and plan. But naturally, if customers suggest something to us that they would need on a regular basis and they should get it fast, then we'll plan and develop it together with the customer… then what comes to our work or processes as such… of course our managing director works all the time on it, how the company could develop… and then probably everyone thinks about his or her own job how it could be developed, make it easier or faster, and tries to come out with new ideas… and if there's then some new investments that are needed for it, we'll discuss about it with our managing director and if he says it's OK, then we'll proceed accordingly."(Quotation 28)

The vision of the top management of company F is that without risks the business will not flourish and by simply trying to save costs the company will not make profits. Company F is according to the interviewees clearly a risk-taker, which is indicated by the fast growth in the number of personnel, high investments in domestic production and operations in Russia.

"We'll take all the time risks, I just ordered a new investment for almost 700 000 euros in June, so I live all the time at the risky limits but without risks, if you don't take any risks then this doesn't work out. If we start to avoid risks and minimize, I mean cost savings, we can quit the business in few years time. So what I always say to everyone is that by saving costs you don't make any money. Naturally you have to be careful with your cost structure but I very easily start to try something new."(Quotation 29)

Proactiveness is evident in company F. The product selection has been altered well in advance to better match the current market situation and in both interviews the aim to act and develop things so that the company is competitive also in the future was strongly emphasised.

"Well it is, I've always succeeded as I have been proactive and transferred production and played with the suppliers. Like if we would not have moved our production out of Russia, we should have increased our prices by 25%. Now we have built up this network and moved them, so now we were able to decrease our prices by 25% and double our margins at the same time. This is the way how we have played all the time the last three years."(Quotation 30)

> *"Actively yes. We think all the time the future and try to do and develop things so that we would be competitive also in the future, in this field, especially what comes to the standard products and also to the special components, the competition is getting harder. And that causes pressures to the pricing of the standard products and we are all the time developing and trying to find new solutions for it. But searching for new customers that we have a bit… but unfortunately only little bit. We should have it more. But we simply do not have enough personnel for it in sales so that it would be possible."(Quotation 31)*

Competition in the industry is hard, prices have dropped 100% during the last 10 years due to globalisation. Increasing competition has clearly led towards more aggressive behaviour among companies and company F also challenges its competitors within certain limits when needed. The competitive advantage of company F is built on special know-how and the mastering of systems instead of offering bits and peaces, exceptional accurancy in production, easiness and speed of ordering through web-based marketing channels and price. The principle in company F is that you can always sell if the price is right; quality and delivery time are nowadays taken for granted. If the price is not lucrative enough, there will not be any deals available.

> *"But prices are, one of our competitors had a bankruptcy in February, so the personnel founded a new one and started to compete with the prices. We started to get feedback that they are selling very aggressively. What are you going to do? And I said that in August we'll have a new price list. I do my own plans to reduce certain diameter groups and concentrate on fewer ones. Step by step we'll have the concept that we can do the drop. But it has been… then the other one was that we were then 30-50% cheaper than others in the 90's. We sold a lot. Of course you need to remember that except for the last year the sales of the standard components have increased. So even on hard times we have been able to get new customers. But the profitability has decreased. We used to have a net profit of 20-25% almost every year and those were the good times. But the globalization came and competition got harder and our toughest competitors reduced their prices a lot and set their offices here and… well then, at the right time I did the right decision to focus on those segments where we get higher prices and better margins. So very much it has depended on the right choices at the right time."(Quotation 32)*

4.1.7 Company G

Company G is a purchasing company in a group representing the food processing industry. The turnover of the company was about 82 million euros in 2005. The customer base of the company consists of the food processing companies within the same group and Finnish farmers producing the raw material for the industry. The company has a very close co-operative relationship with about 30 small transportation companies as service suppliers and some expert and consultation services are also outsourced. The approach in company G to supply chain management can be defined as rather traditional and the supply chain structure as being star-shaped. The six interviewees of company G presented different operational and managerial tasks related to purchasing.

The entrepreneurial orientation of the company can be defined as being moderate on average and low for the innovativeness dimension.

Concerning autonomy, the personnel of the company have certain guidelines to be followed and for example the pricing policy is strongly instructed, but all in all interviewees experienced their work to be fairly free and independent. The company is not byrocratic or very hierarchical; personnel are given clear goals to be achieved, but the way they achieve them is up to every employee. Good employee initiatives are respected and often tested in practice. According to one of the interviewees, the company could be defined as an expert organisation where results count and style is rather free.

> *"As the matter in fact in our field where we operate, I can work rather freely. So you can decide your self your timetable… sometimes we work from five o'clock in the morning until nine o'clock in the evening and sometimes you go at nine o'clock to work and get out at three o'clock. So you can adjust it quite a lot by yourself. Essential is that things are running smoothly, style is free."(Quotation 33)*

> *"All good ideas are welcome. We'll discuss about it and see what would work out. We have a pretty good team and is capable of, if there's a good idea and people thing that it good work out then we'll at least try it. Nothing happens if you don't try out new things. If it doesn't work out, then we'll take a step back, and analyse what should be done differently. But key thing is that we at least try out."(Quotation 34)*

> *"I would like to call majority of our organization as an expert organization meaning that the level of freedom in the work is high. … Naturally there are certain impulses that come also from the management time to time. But in the field organization the work of the persons in charge of customers and development are separated. And the results count. A little bit we have had it that when we discuss about the money, as we are a cooperative owned company that our culture is price list based. That in a way you don't discuss about the prices. You could say that it is almost like at a liquor store." (Quotation 35)*

None of the interviewees could say what the annual percentage invested in R&D in the company is. According to the interviewees, the company has had some development projects and trials related to transportations, but the projects were mainly started as a reactive answer to a request from the field; a systematic process for supporting new innovations could not be recognised. In general, the attitude towards development initiatives is positive but in practice it means developing things aside from the current work.

> *"Well, I can't say you any percentages or sums concerning the development, but all in all we try to develop things and operating models. And we invest also into information technology continuously."(Quotation 36)*

The representatives of the company saw their company as a pioneer in an old-fashioned industry. As a result of this, the company was named as a risk-taker in relation to new operating models in comparison to other companies within the same industry. An example of this is a new organisation format for the marketing of one product group which as such was nominated as a new and innovative solution that involves certain risks. However, concerning quality or image related issues; the company avoids any possible risks.

> *"We are risk avoiders meaning that if we notice a quality or image risk, we are very careful. But then again I would say that what comes to monetary investments, we definitely are pioneers so that if the development of this field is requires money or organizational changes then we dare to try it, as long as it does not have effect on the major issues." (Quotation 37)*

In comparison to other industry actors, the company has according to the interviewees taken a more active attitude towards dealing with future challenges than its competitors. The company has for example implemented process based organisational solutions, which have been later copied by its competitors. Even though the company was stated to be the most proactive one within the industry, the interviewees admitted, that more emphasis should be put on proactive behaviour and decision making than is currently the case; reactive decision making in an acute situation is still a common way of handling things.

> *"And these strategic actions and development things, we are at the stage that we have a vision for the next 5 to 10 years – we dare to open up the future a bit more and really see what's coming up. But there are unfortunately many things that we start to work out at the time they happen. If we face a problem today, we'll really start to solve it first tomorrow. I don't know, I guess it's the same in many other companies, but at least we definitely have such a problem…"(Quotation 38)*

> *"And concerning the future we have also taken risks. And in my mind, we are more active than in the average, for example our main competitor has done within the last six months time all the same things that we have done during the last two years."(Quotation 39)*

> *"Sometimes it feels that in certain things we first see what happens and after that react to it. So that in a way one could be more proactive."(Quotation 40)*

Competitive aggressiveness as such was not apparent in the case of company G. Interviewees confirmed the competition to be fiercer today than it was a few years ago, but competing companies are still playing as gentlemen in the field and respect each other and their operations. Some exceptions occur in the new product area of the company where the competition is rather aggressive. The competitive advantage of company G is built on operational accuracy, good customer service and on the company form. The company is the market leader in the industry.

> *"Competition has clearly got harder. From our side we have tried to keep it as honest as possible so that we respect the deals others have made… if we do not respect the deals guys have made, we can't imagine that they would respect us."(Quotation 41)*

4.1.8 Companies H-J

Companies H-J are all direct transportation service suppliers to company G and due to their homogenous operating models and interview answers, they are handled as one group in this research. Turnover of the companies H-J varies between 600 000 – 1 000 000 euros and it is produced by 3-5 trucks in transportation. One of these companies had two customers; all the others were more typical representatives of the industry having only one big customer, company G. The contracts companies H-J have with company G are valid until further notice and all of them had already a long history with the company. All the companies H-J had outsourced the repair and maintenance of their machinery. All the interviewees were the managing directors of their companies.

The entrepreneurial orientation of companies H-J is low. The work of the personnel in these companies is very operational and practical which means that autonomy for example is connected to the use of common sense in daily situations more than bringing forth an idea or a vision and carrying it to completion. The personnel of these companies is expected to work independently, following at the same time the instructions given by the customer, company G. The customer instructions that form the guidelines for the work of the employees of the companies H-J can be seen as limitations to the autonomy based on the Lumpkin and Dess definition according to which autonomy in an organisational context refers to action take free of stifling organisational constraints.

> *"They take care of all the practicalities; I don't get involved in them as such. But if there are changes in routes or something like that, that's my job. But it is, I'm in charge of the working shifts but if they want to change the shifts among each other, then they just let me know about it."(Quotation 42)*

> *"This is a rather free job, you need to be able to make decisionsindependently in your daily work, how shall I say it… this is physical work like building a house… of course we get the instructions from the customer's office where shall we drive and what shall we do, but you need to be able to adjust them in the daily operations. And for my own employees I have certain guidelines how to operate. But naturally, they work also independently and they have to be able to make their own decisions in the daily operative matters."(Quotation 43)*

Innovativeness in companies H-J is strongly related to developing the daily operations aside from the normal routine tasks. There is clearly willingness to innovate, but not necessarily enough resources to bring the new idea further or there are other stakeholder related limitations to the innovativeness. None of the companies informed about systematic processes fostering innovativeness or new ideas nor did they bring up stories concerning experimentation of new business solutions. The representatives of the companies H-J named the contractors' union to be the main actor enhancing the development of individual companies in their industry. Some of the companies utilised personnel training, some did not. Despite the relatively low innovativeness, the interviewees recognised the ability to adapt and change according to customer needs essential for future success.

> *"That is a good one to think. Maybe too little bit, this business is rather old fashioned. I would like to try and modernize more, but somehow things just do not proceed. And everything does not depend on us…" (Quotation 44)*

> *"I always think about something new. So basically yes. But it naturally depends on many people how it goes and so on. But I'm willing to try something new. We have developed things related to the vehicle, loading techniques and so on, that's what kind of development work we do."(Quotation 45)*

> *"I think I was on a holiday in Cypros when I got the idea of the cart…" (Quotation 46)*

Companies H-J all calculate carefully all their operations and investments beforehand. All the three companies could be defined as risk avoiding ones rather than as risk takers. A good example of avoiding business risks is the agreed profitability level of +5% with the customer G that does not allow high returns but creates security for the companies within the industry.

> *"Let's say so that we take moderate risks. Our principle is that if we start something we have to able to handle it, we do not start to try our limits, and we have not tried to grow aggressively or anything like that."(Quotation 47)*

> *"I calculate carefully all the investments and others, so yes. I want to know pretty exactly what is coming and what are the risks related and in that way I evaluate them rather carefully."(Quotation 48)*

> *"Yes, I'm a risk avoider. I've always been this kind of a feet on the ground –person. Certain risks one always has to take, but I don't do anything before I have evaluated the situation, what is reasonable for us."(Quotation 49)*

The proactiveness of the companies H-J appeared to be rather low that could be related to the special characteristics of the customer relationship: the representatives of the companies H-J saw their role more as possible developers of the operational issues, decisions concerning future needs or opportunities were seen as customer dependent issues. The comments of the interviewees of the companies H-J reflected a kind of reactive customer service attitude: companies will provide the service that customer G expects them to provide but they did not actually bring up their possibilities or willingness to influence the future development of the customer relationship.

> *"Well, I would say that I'm not very active in any case. We should find new operating models, they would be welcome, but they are not easy to find. At least I haven't found."(Quotation 50)*

> *"Yes, I do think and so but in practice it is so that we just do this work. Of course we think about various alternatives, but in this kind of chain the authority to change things is so small that one doesn't bother… and you can't think about it so that some contractor tells how the entire chain should work out, the contractor is a service provider and does what the chain needs."(Quotation 51)*

Competitive aggressiveness of the companies H-J was low due to the fact that there was need for the capacity and service provided by all the companies; the companies did not actually experience competition among each other. Even though real competition was not apparent, all companies stated the quality of work to be important for keeping the customer relationship in the future.

> *"I wouldn't say that it is very aggressive as we have deals that are valid until further notice, that we don't have any kind of competitive bidding… in our field we don't have, and our customer has sometimes experienced it as a problem that we don't have such a competition that tenders would be required and so on."(Quotation 52)*

> *"No, not aggressive as such. By the aggressive I meant that I would harm my fellow contractors somehow. This is such a limited line of business that if I would start to be more aggressive then I would break my other values, too. That's not my style." (Quotation 53)*

"Not so, we do not do any marketing. There's no aggressive competition, but we want to accomplish our work for our customer so that we would not be the worst contractor or how should I say it, at least that we would be the most suitable one so that our customer wants to buy the service from us. And I think that as the number of contractors has decreased the ones that are left are the most reliable ones who can definitely do the job."(Quotation 54)

4.1.9 Relationship A-B

TABLE 1 Interpretations of entrepreneurial orientation of companies A and B and the buyer-supplier relationship A-B.

CASE / ENTREPRENEURIAL ORIENTATION DIMENSION	COMPANY A / OWN ORIENTATION LEVEL	COMPANY A / ORIENTATION LEVEL OF A-B RELATIONSHIP	COMPANY B / ORIENTATION LEVEL OF A-B RELATIONSHIP	COMPANY B / OWN ORIENTATION LEVEL
AUTONOMY	moderate	high	high	high
INNOVATIVENESS	high	high	high	moderate
RISK-TAKING	high	low	low	moderate
PROACTIVENESS	**high**	**high**	**high**	**high**
COMPETITIVE AGGRESSIVENESS	high	moderate	moderate	low

Following the simple categorisation of high-moderate-low of entrepreneurial orientation, it can be stated that the entrepreneurial orientation of the buyer-seller relationship does not equal to either one of the individual companies. However, both of the companies A and B evaluate the entrepreneurial orientation of the relationship exactly in the similar way; autonomy and innovativeness and proactiveness are high, risk-taking low and competitive aggressiveness moderate. The only dimension that is equal in all three cases, in the individual companies A and B and the estimate of their relationship, is proactiveness, which appears to be a very customer-led according to the answers. The main difference appears in the risk-taking dimension: even though company A strongly presents itself as a risk-taker and company B as a moderate one, the risk-taking in the relationship is anyhow minimal.

Concerning autonomy, the interviewee of company A told that their first-tier suppliers are given a price reduction target of -2% and suppliers are given a total freedom to find a way of achieving that target. If achieving the reduction target requires changes also in the operating model of the company A, that is approved by the company A. If the required change in the operating model cannot be implemented by the company A in order to enable the price reduction by the company B, the initiative will be anyhow counted for the benefit of the company B. Company A makes usually three-year long contracts with its suppliers which define the product/service to be delivered and the requested quality level of the product/service. No guidelines for organising the production of the ordered product/service will be given by company A to any of its suppliers.

The relationship described by company A is confirmed by company B; according to the interviewee of company B, the customer is naturally interested in quality, accuracy of delivery and price, but as long as the requirements of these items are met, no further instructions are given. Company B informs company A for example about the machine investments they are going to make, but company A does not have any influence on the decisions to be made.

When discussing about innovativeness in the relationship, both companies, A and B, take up the same systematic development project they had together for some years. The experiences and results of this common project were good and active innovation and developing together has continued ever since.

Avoiding any risks is typical for the relationship of company A and B. According to the interviewee of company A, changes in the cooperative relationship are made based on a continuous improvement process that favours standards and small, yet constant, development steps. The interviewee of company A stated that the first target in the cooperation is to minimise the insecurities and the second is to reduce the number of transactions. The representative of company B confirmed the description given by company A: no risks are taken in the relationship and the main thing is to ensure the accuracy and quality of deliveries.

Concerning the proactiveness, company A has an award system in order to encourage suppliers to be proactive in the development of the cooperative relationship. However, the change proposals made by the supplier are admitted to be somewhat more challenging to implement than the initiatives made by company A's own personnel. This was confirmed by the interviewee of company B who told that the customer meaning company A is the one who decides the direction and speed of development and it is just more a question about whether the supplier wants to be involved in that development or not. The interviewee of company A sees the supplier network as a source of agility and hence it has been structured so that it enables very fast adaptability to the market changes by company A. The representative of company B experienced the relationship to company A to be rather easily adaptable to market changes. Company A and company B have common development meetings related to future challenges on a regular basis.

According to the interviewee of company A, the developing of the supplier network and co-development together with suppliers are increasingly important factors in competitiveness. The actual challenging of competitors together with suppliers was not apparent but company A systematically strengthens its competitiveness by networking. The comments of the interviewee of company B reflected clearly that company B is competing together with company A against the main competitor of company A. Company B sees itself in the same front line together with company A against the competitors of company A even though no aggressive confrontation was apparent. As a result of this, company B could not sell its products or services to the competitor of company A.

4.1.10 Relationship A-C

TABLE 2 Interpretations of the entrepreneurial orientation of companies A and C and the buyer-supplier relationship between A-C.

CASE / ENTREPRENEURIAL ORIENTATION DIMENSION	COMPANY A / OWN ORIENTATION LEVEL	COMPANY A / ORIENTATION LEVEL OF A-C RELATIONSHIP	COMPANY C / ORIENTATION LEVEL OF A-C RELATIONSHIP	COMPANY C / OWN ORIENTATION LEVEL
AUTONOMY	moderate	high	high	low
INNOVATIVENESS	**high**	**high**	**high**	**high**
RISK-TAKING	high	low	low	low
PROACTIVENESS	**high**	**high**	**high**	**high**
COMPETITIVE AGGRESSIVENESS	high	moderate	low	high

Similar to the relationship between A-B, the entrepreneurial orientation of the relationship between A-C does not equal to the entrepreneurial orientation of the individual companies A and C. Following the simple categorisation of high-moderate-low, both of the companies evaluate the entrepreneurial orientation of the relationship anyway in a similar way; autonomy and innovativeness and proactiveness are high, risk-taking low and competitive aggressiveness moderate or low. Interestingly, the evaluation of the entrepreneurial orientation of the relationship between A-C is very similar to the entrepreneurial orientation of the relationship between A-B. Exactly as in the case of A, where the customer is the same company, the proactiveness appears high and customer-led. Both companies strongly emphasise innovativeness in their operations and this can be recognised in their evaluations concerning the high innovativeness of their co-operation as well. The interesting point is that even though both companies state that they are high on competitive aggressiveness, they only recognise it as moderate or low in the co-operative relationship; the high amount of autonomy might reflect this.

Regarding autonomy, the representative of company A stated that the first-tier suppliers are given a price reduction target of -2% and suppliers are given total freedom to find the best way to achieve that target. The interviewee of company C told that the company is actively involved in the planning processes of its customer, company A. The close cooperation in the planning phase provides a great opportunity to bring new ideas to the customer and influence the decisions company A makes. According to the interviewee, company C sees itself as a problem solver for company A. After the planning phase the customer deliveries are expected to be completed exactly as agreed; there is no more room for improvisation by company C. The interviewee said the limitations after the planning phase are only natural due to the fact that the possible changes in the products and services delivered by company C have a major influence on the end product of company A.

For innovativeness the interviewee of company C took up the same development project that company A had with company B. Company C participated also in the project and like in the case of companies A and B, company C similarly experienced the project as being very useful for deepening the cooperative relationship with company A. Currently company C has several smaller development projects going on with company A. The active communication on different inter-organisational levels is stated to be the key thing for developing the relationship and the interviewee of company C stated the inter-organisational development work to be essential due to the fact that the operations of both companies A and C influence each other.

Like in the relationship between A-B, changes in the cooperative relationship between companies A and C are done according to the interviewee of company A based on a continuous improvement process that favours standards and small, yet constant, development steps. Similarly to the relationship between A-B, the first target in the cooperation between companies A and C is to minimise the insecurities and the second is to reduce the number of transactions. According to the interviewee of company C, the functionality of the product delivered to customer, company A, is a thing about which company C is not willing to take any risks. The interviewee of company C stated that a certain amount of business risk is always included in the customer relationship that cannot be avoided in a networked structure either, but the important thing is that one can agree and negotiate with the customers. Companies cannot just start to do wild experiments in co-operative relationships, but for example in logistic processes some calculated risks can be taken according to the representative of company C.

Concerning proactiveness, company A has the same awarding system in use with company C as it has with company B in order to encourage suppliers to be proactive in the development of the cooperative relationship. In contrast to company B, the interviewee of company C did not see any differences in the implementation rate of the new ideas depending on the initiating company. The development of processes was stated to take place equally in both companies. For technical solutions the representative of company C told company A to set the direction and make the decisions even though company C tries to be also initiative in these questions. The cooperation between company A and C is according to company C very transparent, company A informs company C for its needs 6-12 months in advance.

As has already been stated, in the relationship between A-B, the developing of the supplier network and co-development together with suppliers are increasingly important factors in competitiveness according to the company A representative. The actual challenging of competitors together with the supplier, company C, was not apparent. According to the interviewee of company C, the company does not see itself as competing together with company A against other supply chains but it recognises that company A is an important customer. The perspective of the representative of company C is that networks or supply chains cannot compete against each other due to the simple fact that many of the companies are usually part of several different networks. The main task of the supplier according to the interviewee of company C is to support the customer in the best possible way, be a partner but not as such to compete as a network. Company C delivers also to the competitors of company A and the statement of the representative of company C is that it is not even reasonable for any company to commit itself only to one customer due to the fact that such a situation easily leads into power asymmetry and distortion of cooperation.

4.1.11 Relationship A-D

TABLE 3 Interpretations of the entrepreneurial orientation of companies A and D and the buyer-supplier relationship between A-D.

CASE / ENTREPRENEURIAL ORIENTATION DIMENSION	COMPANY A / OWN ORIENTATION LEVEL	COMPANY A / ORIENTATION LEVEL OF A-D RELATIONSHIP	COMPANY D / ORIENTATION LEVEL OF A-D RELATIONSHIP	COMPANY D / OWN ORIENTATION LEVEL
AUTONOMY	moderate	high	high	moderate
INNOVATIVENESS	high	high	moderate	moderate
RISK-TAKING	high	low	low	moderate
PROACTIVENESS	high	high	moderate	moderate
COMPETITIVE AGGRESSIVENESS	high	moderate	low	low

In contrast to the buyer-seller relationships between A-B and A-C, companies A and D evaluated the entrepreneurial orientation of their relationship rather differently. The exceptions are the dimensions autonomy and risk-taking which were evaluated similarly by both parties. Company D evaluated innovativeness, proactiveness and competitive aggressiveness lower in the relationship than company A; that may reflect the rather different entrepreneurial orientations of the individual companies. The essential point is that again the entrepreneurial orientation of the relationship does not equal to either one of the individual companies.

As was presented in the relationships between A-B and A-C concerning autonomy, the company A representative stated that the first-tier suppliers are given a price reduction target of -2% and suppliers are given total freedom to find the best way of achieving that target. According to the interviewee of company D, the company participates actively in the planning process of company A, which provides the possibility to influence the decisions made by company A. Once the production process of company A is decided, the freedom and autonomy of company D, related for example to the purchases, is limited due to the fact that every change done by company D may have an effect on the end product of company A. However, as long as the customer requirements of company A are met, company D can choose whether it produces the ordered product itself or whether it will use subcontractors. There is also a possibility to do some changes to the product during its lifecycle, but that always requires customer approval.

For innovativeness the same development project that company A had with company B and C was also brought up by company D. Company D participated also in the project but unlike companies B and C, the interviewee of company D reported that the project had been a bit too bureaucratic and heavy and that a somewhat more lighter version would have been better for Finnish culture. Company D has constantly different development projects going on with its customers like company A, where the main driver is the higher cost-efficiency in the relationship.

Similar to the relationships between A-B and A-C, changes in the cooperative relationship between companies A and D are made, according to the interviewee of company A, based on a continuous improvement process that favours standards and small, yet constant, development steps. As in other first-tier relationships with company A, the first target in the cooperation between companies A and D is to minimise the insecurities and the second is to reduce the number of transactions. The representative of company D confirmed that the needs of company A are always respected and any risks involved in the relationship are to be avoided.

Concerning proactiveness, company A has the same awarding system in use with company D as it has with company B and C in order to encourage suppliers to be proactive in the development of the cooperative relationship. The leading role of company A related to proactiveness was evident also in the relationship between company A and D. The interviewee of company D informed that the impulses for innovations or amendments come from the customer, company A. Company D can according to the interviewee adapt well to the changed needs of company A The leading role of company A is also emphasised by the fact that suggestions or initiatives for amendments are more easily approved if they are done by the personnel of company A than company D.

As was already brought up in the relationships between A-B and A-C, the development of the supplier network and co-development together with suppliers are increasingly important factors in competitiveness according to company A's representative. However, no kind of agreement or spirit for competing together with company A against other supply chains is evident in company D nor are any kinds of signs of aggressive cooperative competing in the relationship.

4.1.12 Relationship E-F

TABLE 4 Interpretations of the entrepreneurial orientation of companies E and F and the buyer-supplier relationship between E-F.

CASE / ENTREPRENEURIAL ORIENTATION DIMENSION	COMPANY E / OWN ORIENTATION LEVEL	COMPANY E / ORIENTATION LEVEL OF E-F RELATIONSHIP	COMPANY F / ORIENTATION LEVEL OF E-F RELATIONSHIP	COMPANY F / OWN ORIENTATION LEVEL
AUTONOMY	high	high	high	moderate
INNOVATIVENESS	high	low	low	high
RISK-TAKING	high	low	low	high
PROACTIVENESS	moderate	high	moderate	high
COMPETITIVE AGGRESSIVENESS	high	moderate	low	high

Companies E and F can be both defined as very entrepreneurially oriented. Interestingly the entrepreneurial orientation of the relationship between E-F is nothing like the companies individually, only the autonomy is clearly high according to both of the parties. Innovative companies are not innovative together nor are risk-taking companies risk-takers together. Proactiveness is clearly customer-led and competition is faced individually rather than together. However, both parties again see the relationship in a rather similar way; only in proactiveness and competitive aggressiveness can some minor differences be recognised.

According to the interviewees of company E, their orders are clearly specified to their suppliers including target price level and exact delivery time. Suppliers are anyhow given freedom to choose how they will fulfil the specifications, for example, the decision as to whether company F produces the order itself or uses subcontractors is the sole decision of company F. The opinion of the interviewees of company E was that every company should mind their own business, for example, when it comes to cost efficiency, and according to the interviewees there were no common projects between companies E and F that concentrate on the interorganisational cost efficiency issues. The other interviewee of company E did not see the value added by in-depth networking and interorganisational cooperation. The interviewees of company F confirmed the rather high autonomy in their relationship with company E. According to the interviewees of company F, company E gives a rather free hand to them to organise the delivery of the order as long as the requirements concerning raw material and production method are fulfilled.

Concerning innovativeness, the interviewees of company E said that there are not any common development projects going on with company F. The reason for this was mentioned to be a lack of resources; company E focuses on developing its own processes and products and lets company F and other suppliers to develop their own ones. The cooperation between company E and F naturally involves some development of daily routines and processes but that is done as part of the daily work and not as any systematic project. This perspective of company E's representatives was confirmed by the interviewees of company F who said that there have not been any common development projects together with company E. The interviewees of company F informed that company runs its development projects rather independently and usually presents the ready made solutions to its customers. The initiatives related to the development of products are stated to come usually from the customers, like company E, but the development ideas and innovations related to processes are created within the company itself. The attitude of customers, like company E, towards the development of processes by company F is positive and clearly the value and the benefits for both parties have been recognised and understood.

Company E expects its suppliers, like company F, to deliver their orders as agreed even though they also expect that their suppliers have the courage to try and produce different products. The interviewees of company E see that in such trials the risk taker to be company E. According to the interviewees of company F, the cooperation with company E is avoiding risks; company F does exactly what company E has ordered and that is it.

Company E has according to the interviewees a rather large supplier network that provides fairly good agility to company E. Company E has not made any monetary based agreements with any of its suppliers and it has chosen its supplier base by emphasising the flexibility and ability to change, which are the key issues by which company E itself tries to differentiate itself in the markets. The importance of recognising the needs of the end customer in every part of the supply chain were raised as an essential issue by the other representative of company E. However, any signs of seeking future opportunities together with company F could not be recognised. According to the interviewees of company F the relationship to company E has been a rather traditional one meaning that the initiatives related to the product development come from company E. Company F was quite obviously willing to, and also capable of, doing some interorganisational development work with company E, but so far there have not been any common projects related to winning future challenges together. Based on the interviews in company F, the relationship between companies E and F involves ingredients for a deeper cooperation in the future, as it is apparent that it is a fairly open and interactive one on both sides.

Concerning competitive aggressiveness, any intense challenging of other supply chains by the relationship between companies E and F could not be recognised. The representatives of company E did not see any value in using the supplier network for marketing purposes. However, company E does not only buy from the cheapest or fastest suppliers, because according to the interviewees such buying behaviour does not develop the mutual trust or development of common processes. Company E has 3-4 interchangeable suppliers who also sell their products and services to the competitors of company E. The supplier network of company E is not fixed but the number of suppliers in the network is limited. This kind of supplier structure enables the development of the order-delivery process and cooperation between the buyer and supplier, but also at the same time creates competition among suppliers that regulates the price development and enhances development of the product and service selection. According to the interviewees of company F the relationship with company E is tight and company F sees its role in the relationship to be one of supporting the competitiveness of company E. The relationship between companies E and F was defined as a partnership by the representatives of company F but they did not think that they would be fighting together with company E against other supply chains in the industry. Company F sells its products and services also to the competitors of company E. The fact that the suppliers are not solely dedicated to company E is also seen as a good thing by the interviewees of company E.

4.1.13 Relationship G – companies H-J

TABLE 5 Interpretations of the entrepreneurial orientation of the companies G and group H, I, J and the buyer-supplier relationship between G-H,I,J.

CASE / ENTREPRENEURIAL ORIENTATION DIMENSION	COMPANY G / OWN ORIENTATION LEVEL	COMPANY G / ORIENTATION LEVEL OF G-H,I,J RELATIONSHIP	COMPANY H,I,J / ORIENTATION LEVEL OF G-H,I,J RELATIONSHIP	COMPANY H,I,J / OWN ORIENTATION LEVEL
AUTONOMY	moderate	low	low	low
INNOVATIVENESS	**low**	**low**	**low**	**low**
RISK-TAKING	moderate	low	low	low
PROACTIVENESS	moderate	low	low	low
COMPETITIVE AGGRESSIVENESS	moderate	moderate	moderate	low

The entrepreneurial orientation of the buyer-supplier relationship between food processing company G and its suppliers, companies H-J, is all in all low. The perspectives of the supplier companies H-J are presented in this report together as one group due to the high similarity of their comments. Both of the parties, company G's representatives and the suppliers H-J see the relationship in a similar way, that actually follows very much the entrepreneurial orientation of the group of suppliers. Based on the answers of all the interviewees, all the other dimensions except for the competitive aggressiveness are low for entrepreneurial orientation. Interestingly in these buyer-supplier relationships the feeling of competing together as one team came up more clearly than in any other case.

When discussing about the autonomy in the relationship, the interviewees of company G informed that the suppliers H-J are given very clear instructions of how they are expected to operate, starting with their behaviour. The suppliers are ordered about and they are even seen as servants rather than as independent entrepreneurs. According to the interviewees of company G, the suppliers are pure capacity providers guided by company G. As the suppliers operate in close contact with the customers of company G, the marketing value of the suppliers is acknowledged by company G and hence the suppliers are not allowed to sell their services to any of the competitors of company G. As a result of this the suppliers have in practice only one big customer. The strict guidance from the customer, company G, was confirmed by the suppliers H-J. According to the interviewees of the companies H-J, they negotiate about their investments first with their customer before making any moves and the detailed instructions for daily operations are received from company G. Even though the entrepreneurial orientation for the autonomy dimension could be stated to be low based on the very hierarchical relationship, the interviewed suppliers actually found the operating model as a rather clear and good way to cooperate. The representatives of companies H-J were satisfied with the freedom they have on daily minor operational issues.

The innovativeness in the relationship appears according to the interviewees of company G mainly as ad hoc –development of the normal daily routines. The representatives of company G told that the suppliers, like companies H-J, are fairly little involved in the planning of operations, the decisions are usually made at the purchasing management level of company G and the suppliers are involved in the testing of the ready-made solutions by company G. More often than the supplier companies themselves, the representing union of the entrepreneurs takes a part in the development discussions with company G on behalf of the individual companies. The essential role of the representing union of entrepreneurs was confirmed by the interviewees of companies H-J. The common development projects that the union typically had with the company G were related to the operational arrangements, not to any major business issues. Similarly to the representatives of company G, the interviewees of companies H-J said that the innovativeness in the relationship takes place in the form of everyday communication concerning the improvements of routine operations. The importance of co-innovating with company G was recognised by the interviewees of companies H-J. The representatives of companies H-J did not report on any differences related to the implementation rate of ideas depending on the initiating organisation, but they were missing more information on the results of the completed trials and pilot projects.

Avoiding risks is typical for the buyer-supplier relationship between company G and companies H-J. According to the interviewees of company G, the cooperative relationships with the suppliers are stable and long-term ones and company G is not willing to risk anything related to the relationships. The suppliers like companies H-J, have a substantial effect on the satisfaction of the customers of company G and this is the reason for why the supplier relationships are carefully handled. The risk avoiding behaviour in the cooperative relationship was taken up also by the interviewees of companies H-J; the security in deliveries is stated to be the key issue. However, one representative of companies H-J brought up an example when company G was willing to share the business risk related to a new kind of equipment by investing in machinery on behalf of the small supplier.

The proactiveness in the buyer-supplier relationship appeared to be very customer-led. According to the interviewees of company G, the possible changes in the strategic issues related to the cooperation are decided by company G, which then just informed the suppliers about them. The suppliers, like companies H-J, were seen as flexible partners but there were no signs of strategic level cooperation aiming to find solutions for future challenges. The representatives of company G found the long traditions and the long-term business partner relationships in a way restricting for the company's agility. The interviewees of companies H-J commented on the ability to change to be of a rather good level in the supply chain due to their own flexibility. The representatives of companies H-J evaluated company G as the pioneer in its industry even though they recognised that the amendments in a big company take quite a long time and there is always a certain amount of resistance and old fashioned thinking on both sides, among suppliers and the personnel of company G.

When discussing about the competitive aggressiveness, the interviewees of company G brought up the suppliers like companies H-J as one source of their competitive advantage. The representatives of company G clearly saw the companies H-J as part of their own team fighting together against the competing teams in the industry. This same kind of strong team spirit together with company G was confirmed by the interviewees of companies H-J. The representatives of companies H-J saw themselves as standing in with the troops of company G, trying to win the battle of the market shares together with their customer. The quality of operations was stated to be the main source of the competitive advantage of the team formed by company G and the suppliers.

4.2 Summary – answers to the research questions

The empirical findings described case by case are concluded by reflecting them to the original research questions.

The main research question is:

> How does the entrepreneurial orientation appear at the level of supply chain in comparison to the level of individual companies forming the supply chain?

The answer to the main research question has been searched for with the help of the three following sub-questions:

1. Do the supply chain and the individual companies forming the supply chain differ in entrepreneurial orientation? If differences exist, what are they like?

2. Do the dimensions of entrepreneurial orientation differ in significance? If differences exist, what are they like?

3. Do different supply chain structures differ in entrepreneurial orientation? If differences exist, what are they like?

The conclusions driven from the empirical data are presented in the following summary covering all the three sub-questions of this research.

TABLE 6 Synthesis of the interpretations of the entrepreneurial orientation at the level of individual companies.

ENTREPRENEURIAL ORIENTATION OF THE INDIVIDUAL COMPANIES								
CASE / EO. DIMENSION	CO. A	CO. B	CO. C	CO. D	CO. E	CO. F	CO. G	CO. H,I,J
AUTON.	moderate	high	low	moderate	high	moderate	moderate	low
INNOV.	high	moderate	high	moderate	high	high	low	low
RISK-T.	high	moderate	low	moderate	high	high	moderate	low
PROACT.	high	high	high	moderate	moderate	high	moderate	low
COMP.AGGR.	high	low	high	low	high	high	moderate	low

Based on the empirical data it can be stated that the entrepreneurial orientation of the buyer-supplier relationship does not equal to either one of the companies involved. Hence, one cannot conclude that the entrepreneurial orientation of an individual buyer or supplier indicates automatically the entrepreneurial orientation at the buyer-seller relationship level. Good examples of this are the companies E and F that can be both defined as very entrepreneurially oriented. Interestingly the entrepreneurial orientation of the relationship between E-F is nothing like the companies individually; only the autonomy is clearly high according to both of the parties. Innovative companies are not innovative together nor are risk-taking companies risk-takers together. On the other hand, both companies A and C experienced certain limitations to their own autonomy, but both of them evaluated autonomy in their co-operative relationship to be high. The only dimension where the leading role of the buyer could be noticed was in the proactiveness. In all of the cases, the suppliers seem to follow their customers in the relationship concerning the decisions of how to prepare for forthcoming challenges. In that respect, the buyer and the payer is in a way the "man in the house" and the other partner respects the visions of the decision maker. Concerning the other dimensions of entrepreneurial orientation, no connections to the leading role of either one of the partners could be recognised.

TABLE 7 Synthesis of the interpretations of the entrepreneurial orientation at the level of buyer-supplier relationships.

ENTREPRENEURIAL ORIENTATION OF THE DYAD BUYER-SUPPLIER RELATIONSHIPS										
CASE / EO. DIMENSION	RELATIONSHIP A-B		RELATIONSHIP A-C		RELATIONSHIP A-D		RELATIONSHIP E-F		RELATIONSHIP G-H,I,J	
INTERPRETATION OF THE RESPONSES PER COMPANY										
	A	B	A	C	A	D	E	F	G	H,I,J
AUTON.	**high**	**high**	**high**	**high**	**high**	**high**	**high**	**high**	**low**	**low**
INNOV.	high	high	high	high	high	mod.	low	low	low	low
RISK-T.	**low**	**low**	**low**	**low**	**low**	**low**	**low**	**low**	**low**	**low**
PROACT.	high	high	high	high	high	mod.	high	mod.	low	low
COMP.AGGR.	mod.	mod.	mod.	low	mod.	low	mod.	low	mod.	mod.

Even though the interviewees were clearly not used to evaluating the orientation or characteristics of their relationship to another company, the estimates of the entrepreneurial orientation were very similar, meaning that for example, the representatives of companies A and B saw their relationship in a similar way.

The entrepreneurial orientation of individual companies is always a unique combination; hence a uniform trend among dimensions cannot be recognised. The most entrepreneurially oriented companies are the buyer companies A and E and from the suppliers the company F; all represent the mechanical engineering industry; the group of transportation entrepreneurs represent the other extreme of the entrepreneurial orientation.

When looking at the co-operative relationships, some clear trends can be recognised: autonomy seems to be high on every other relationship except for the very closely integrated food processing company G and its suppliers, and the risk-taking dimension is low in every relationship. Companies clearly want to avoid having any risks in their co-operative relationship, no matter how risk-taking they define themselves otherwise. The greatest variation seems to appear in relationship to innovativeness and proactiveness, where the most interesting point is in the relationship between companies E and F: even though both of the companies are very innovative individually, this does not seem to carryover into the co-operative relationship.

Hand in hand with high autonomy seems to be the rather modest level of competitive aggressiveness in the co-operative relationship. Despite the fact that the individual companies have described themselves as fighting hard on the markets, they did not report doing it together with their customer or supplier against other supply chains. A very good example of this is again the relationship between companies E and F where both of the companies individually stated fighting hard on the markets, but neither one of them saw much value of fighting together; both of these companies reported autonomy to be high in their co-operative relationship. On the other hand, in the relationship between companies G and its suppliers H-J where the autonomy could be defined as rather low, the feeling of competing together as one team came out more clearly than in any other case.

The common denominator to all co-operative relationships is the low risk-taking dimension, no matter what kind of supply chain structure is involved. Co-operating companies do not want to have any risks involved in their relationship. The first-tier supplier relationships in cases related to company A seem to provide clearly the most entrepreneurially oriented results if the innovativeness and proactiveness in the relationships are used as a measure. Company A utilises a pyramid form in its supplier structure having first-, second- and third tier suppliers.

However, one cannot conclude based on the entrepreneurial orientation of the relationship between companies A and B or A and C that the pyramid form as such provides higher entrepreneurial orientation. This becomes evident in the case of the relationship between companies E and F. The supply chain structure utilised in the relationship is closer to the pyramid model rather than the basic star-shaped model, but still the individual orientation levels did not accumulate in the relationship level. The innovativeness of the relationship between E-F appeared to be rather low and proactiveness also was minor even though these are the items where the companies individually stated to be strong. There clearly was no culture of developing together, rather the representatives of companies E and F emphasised the idea that everybody should mind their own business and develop along those lines.

In addition to the different results of the different relationships based on a rather similar supply chain structure, it should be noticed that all the companies A, B, C and D have had a systematic development project together for several years, which aimed at deepening the bilateral relationships and gaining higher cost efficiency within the chain. The positive influence on the co-operative relationship of this project was confirmed by all interviewees.

The most traditional star-shaped supply structure that is applied between company G and its suppliers seems to provide the worst ingredients for the entrepreneurial orientation – it simply does not support in any dimension such behavioural patterns that enable the entrepreneurial orientation to take place. However, in order to be able to make any further conclusions of the unfit of the star-shaped supply chain structure to entrepreneurial orientation one should have more comparative information of the entrepreneurial orientation of the other similar supply chain structures.

4.3 Reflections to literature

Based on the findings of the empirical research, the phenomenon of entrepreneurial orientation can be studied and evaluated in the supply chain context. When reflecting on the literature review, the results provide some interesting insights in addition to the information, of how the entrepreneurial orientation as such appears in the level of supply chains. The structure of the supply chain, whether it is a more traditional star-shaped one or formed based on the pyramid-model, does not seem to decide the character of the relationship. The arm's length relationship that does not involve any in-depth co-operative behaviour between companies was present in both, in star-shaped supply chain structures and in the one favouring a more pyramid-type of structure. All the case relationships were long-term ones, but it automatically did not mean intense information sharing among partners – instead even a relationship that had lasted already tens of years could appear to be rather superficial when evaluated based on the level of information shared.

The importance of having fuel for the entrepreneurial orientation in the format of external stimulants (Stam et al. 2008) got validation in the empirical results. The supplier-buyer relationships that were based on the traditional star-shaped supply chain structure (Lehtinen 2001; Spekman et al. 1998) allowing only one customer for the suppliers appeared to be low in entrepreneurial orientation, both at the level of individual companies and at the level of the inter-firm relationship. This could be a sign of a negative path dependence (Dubois and Wynstra 2005) that does not contain a counterforce for the locked-in effect due to the fact that the entrepreneurial orientation has faded away due to the lack of stimulants received from external relationships. This finding confirms the studies of Simsek et al. (2003) and Stam et al. (2008) about the role of different ties organisations have. According to Simsek et al. (2003) the strong ties that the case companies forming the star-shaped supply structure obviously have between each other increase the common sense of identity and shared mental framework which was reported to take place in the case companies. However, in line with the findings of Stam et al. (2008) in addition to Simsek et al. (2003) the lack of bridging ties or weak ties to broaden members' awareness of new ideas and insights from outside the network weaken the entrepreneurial orientation.

The mutual efforts and co-operative processes emphasised in the theoretical extended enterprise models (Bititici et al. 2005, Bititci et al. 2004, Dyer 2004, Davies and Spekman 2004, Kemppainen and Vepsäläinen 2003) appeared to positively influence the proactive and innovative behaviour in the inter-firm relationships. The empirical results showed that all the case companies which had participated in an extensive, common development project also reported to have a rather high innovativeness and proactiveness in their inter-firm relationship. This may be a result of the increased process-based trust as Dyer (2000) has noted in his research. Hence, the role of the co-operative processes should be taken into account in addition to the structure of the supply chain when evaluating the entrepreneurial orientation at the inter-firm level.

The empirical research provided some interesting findings concerning the observation of Lumpkin and Dess (2001) about the variation of the proactiveness and competitive aggressiveness in relation to the differences in the operational environments. The statement of Lumpkin and Dess (2001) is that the proactive behaviour is more preferable in rapidly changing, dynamic environments or in the growth stage industries and that the competitive aggressiveness is typical in hostile environments having intense competition or in mature industries. This statement got confirmation in all the inter-firm relationships. However, the same companies that informed that the proactiveness in their buyer-supplier relationship is high and competitive aggressiveness is low stated also that individually both their proactiveness and competitive aggressiveness were simultaneously high.

Based on the empirical findings it also seems that the entrepreneurial orientation dimensions, autonomy and competitive aggressiveness are connected to each other at the inter-firm level. The results show that in cases where the companies report their inter-firm relationship to contain high autonomy, they also seem to report on low competitive aggressiveness even though they may have informed on high competitive aggressiveness at the individual level. Furthermore, the companies that informed that their inter-firm relationship contains only a low level of autonomy also reported rather strong feelings that they are competing together as a team. This may indicate a diminishing impact that the feeling of high autonomy could have on the experience of competing together against other supply chains – a kind of surviving on his/her own –effect.

5 DISCUSSION AND CONCLUSIONS

5.1 Contribution

5.1.1 Contribution to research and education

The main contribution to research is the scientifically new approach to study the phenomenon of entrepreneurial orientation in the dyad buyer-supplier relationships in supply chains and networks. Entrepreneurial orientation has been a target of growing interest as a research topic, but so far it has been studied only at a company level. However, the need for intense value chain integration and the formulation of extended enterprises has also created new research needs to provide better understanding of the essence and dynamics of the inter-firm relationships. Various business scientists and practitioners agree that the competition in the future will take place more and more among supply chains and networks, but so far the discussion on how the actual competitiveness in supply chains or networks is ensured has been limited. Previous research has listed the factors influencing the performance of supply chains as well as the characteristics and capabilities enabling agile supply chains; and the differences in supply structures have been studied and the importance of inter-firm trust has been recognised. However, the answer to the question of how supply chains or networks can ensure their ability to strategically renew themselves in the ever-changing markets has remained unclear.

This research has demonstrated that studying the phenomenon of entrepreneurial orientation can be extended to the inter-firm relationships. Already this result provides a new starting point for further research on the competitiveness of the supply chains and networks. Furthermore, the adjustment of the definitions of the entrepreneurial orientation dimensions created by Lumpkin and Dess (1996) to interview themes and leading questions to be utilised both at the individual company level and at the inter-firm level provides a tool to be tested in further research. This research has also provided material for testing and developing the theory of entrepreneurial orientation further by recognising the possible connection between the autonomy and competitive aggressiveness dimensions at the inter-firm level.

Taking up the dilemma defined by Dubois and Wynstra (2005) of getting locked in when building long-term relationships in order to gain such a level of trust among partners that can result in shared goals and inter-firm innovations, fulfils the discussion on agile supply chains. Combining this aspect with the concept of positive path dependence of Håkansson and Waluzewski (2002) and by suggesting the phenomenon of entrepreneurial orientation to work as a counterforce for the locked in effect provides a new basis for further research to study the competitiveness of supply chains and networks.

This research has revealed pitfalls in the existing agile supply chain models related to the misleading use of the expression 'virtual' and to the question of how responsiveness and intense process integration can be reached simultaneously. The use of strategic management (value creation discussion), supply chain and network management and entrepreneurial orientation literature as a combined toolkit to find more in depth understanding of the competitiveness of supply chains and networks has been proved to work. A similar kind of multidiscipline approach to business research may also be useful in future research.

The multidiscipline approach formed in this research provides also a good basis for educational discussions due to the fact that business operations in real life are not constrained by disciplines and managers have always more than one view to take into consideration when making strategic decisions. The interview themes and leading questions can be used in business training to draw the attention of students to the entrepreneurial orientation level of the inter-firm relationship in addition to their own one. A teaching approach that makes students focus on the importance of reciprocity in terms of the existence of entrepreneurial orientation and as a result of it the ability to strategically renew in turbulent markets can enhance also the learning of networking skills.

5.1.2 Contribution to business practice

By utilising findings from various business research disciplines, this study has been able to create more in-depth understanding on how the competitiveness of individual companies and supply chains formed by these companies can be ensured. The first insight that can be drawn from the theoretical part of the study is the notion that the requirements for effective networking and agility should be taken into account simultaneously when planning business strategies – not separately. Several guidelines on how to build agility into one's operations emphasise the meaning of outsourcing and partnering but neglect the view that in order to have partnerships that truly provide innovative results one needs to invest in time and mutual efforts. Hence, the risk is that as agility is often related to the ability to do fast moves, the efforts to reach this goal may focus on utilising only short-term contracts. On the other hand, building long term, confidential relationships may contain the risk of getting locked into the existing operating models, falling into collective blindness that eventually hinders the rise of new innovations. In order to avoid these pitfalls company strategists should be aware of the dilemma described and be aware of the factors that enable the agility also in long-term relationships. As the theoretical research revealed, entrepreneurial orientation has been recognised as the key to the continuous strategic renewal process that is the survival kit for companies in ever changing markets. So when guiding the company towards higher competitiveness, the company strategists should pay attention to networking skills, agility enablers and to the level of entrepreneurial orientation of the organisation simultaneously.

The empirical results of the research showed that the level of the entrepreneurial orientation in the dyad buyer-supplier relationship cannot be derived from the level of entrepreneurial orientation in the individual partner companies. In practice this means that innovators are not necessarily innovators together or risk-taking companies risk-takers together. The implication of this in real business life is that it is not enough to take care of the entrepreneurial orientation of your own company. In order to be competitive companies need to pay attention to the entrepreneurial orientation of the inter-organisational relationship. What this means in practice is that the structure of the supply chain or network, the inter-organisational processes and the management styles of the partnering companies are all supporting entrepreneurial orientation. The empirical results indicated two things related to the supply chain/network structure. Firstly, the structure of the supply chain, whether it is a more pyramid-type or traditional star-shaped one, does not decide the entrepreneurial orientation level of the inter-firm relationship. However, in line with earlier studies like Covin & Slevin (1988), the entrepreneurial orientation needs air and space to flourish and the star-shaped, strongly controlled supply chain structure does not seem to provide that – according to the empirical results, the traditional star-shaped supply chain structure does not seem to contain any ingredients for it. Covin and Slevin (1988, 229) have noted that managers, who choose to engage in entrepreneurial activities should not attempt to gain greater control over their organisations by resorting to mechanical structures – instead, entrepreneurial actions are effectively employed when accompanied by a loosening of the structural reins. Secondly, even though the pyramid-type structure with higher autonomy of partners seems to provide a better basis for the entrepreneurial orientation, it still does not automatically mean that the inter-firm relationship contains it. The inter-firm processes created as a result of an entrepreneurially oriented management style combined with the right kind of supply chain/network structure first will provide the elements that can result in entrepreneurial orientation also in the inter-firm operations. As the former studies (Kemelgor 2002, 70; Kickul & Gundry 2002, 93) have showed, the top management of the company as the main decision makers have a substantial effect on the entrepreneurial orientation of the organisation. If the top management of the company does not recognise the value of entrepreneurial orientation or the requirements that are needed to accomplish it in the organisation, the ability to strategically renew will not be of a very high level. The company simply does not have the ingredients for it. Hence, if a company wants to be competitive in the future, it is recommended that the key persons be entrepreneurially oriented and own good networking skills in addition to basic management capabilities.

Bearing in mind the intense value chain integration that is essential in the search for higher competitiveness, the entrepreneurial orientation and networking capabilities are recommended to be taken into account also in business partner selection. Like in any partnership the results are not as good as they could be if both partners do not invest in the relationship or respect each other. For the competitiveness of a network or a supply chain it is important that the cooperating partners both own entrepreneurial orientation and the skills to work together over the organisational limits. It is not enough that only someone in the network is innovative, proactive, ready to take risks and compete aggressively – there has to be also partners who respect these capabilities and with whom the new ideas can be taken into action. Otherwise there is a risk that the entrepreneurial orientation and eventually the ability to strategically renew will fade away as a result of negative reactions or ignoring partner reactions. Like Simsek et al. (2003) have recognised, the inter-firm network influences each member's entrepreneurial behaviour just like each member firm's entrepreneurial behaviour influences the network. Similarly, also Niemelä (2003, 178) has stated that both the inter-firm co-operation capability and (family) business culture contribute to the competitiveness of the network of (family) firms.

The importance of partner selection is emphasised by the empirical results of this research revealing that the proactive behaviour in the inter-firm relationship is clearly customer-led. Quite naturally supplying companies tend to obey their customers' visions and needs - payer rules. However, this fact involves a risk that if the buyer is not really entrepreneurially oriented and especially if it has a lot of power over the suppliers, it may have a negative influence on the agility of the entire supply chain or network. It may simply block or at least severely restrict the aims to respond to the market changes and limit the ability to strategically renew from the supplying companies. Due to this dependency it is recommended, that supplying companies pay careful attention to the entrepreneurial orientation of their customers and even use it as one of their customer selection criteria in order to ensure their own future ability to strategically renew.

5.2 Seeds for further studies

The more one knows the more one can ask. The increased understanding provided from this research, has resulted in a number of further questions that need to be answered in further studies. In order to test the ideas brought up in this study with a larger sample size, one approach could be to study the actual correlation of the buyer's and supplier's level of entrepreneurial orientation to each other through the means of quantitative research. Furthermore, following the logic of Simsek at al. (2003), an interesting question could also be: Is the perceived level of entrepreneurial orientation in the respondent's organisation connected to the level of entrepreneurial orientation in the buyer-supplier relationship the respondent's organisation is involved?

A quantitative research approach could also be useful when investigating whether the two dimensions of entrepreneurial orientation, autonomy and competitive aggressiveness, correlate to each other at the level of inter-firm relationships as suspected in this research. In addition to the possible connection between the dimensions, further empirical research is needed to study the relation of positive path dependence (Håkansson and Waluzewski 2002) and entrepreneurial orientation as the counterforce for the locked in effect (Dubois and Wynstra 2005). The idea of entrepreneurial orientation working as a counterforce for the locked in effect was presented as a result of the theoretical research in this study; and empirical evidence is needed in order to be able to evaluate the sensibility of the insight.

Further research is also needed concerning the entrepreneurial orientation and the different supply chain structures. Based on this research it seems that the star-shaped supply chain structure does not provide good grounding for the entrepreneurial orientation to flourish. However, as this study involved only one group of companies in one line of industry that was organised according to the star-shaped structure, one cannot make any definite conclusions without further empirical studies.

Related to the changing market situations, a very interesting approach would be to complete a comparative case study with a similar research setting during a recession. As the old song suggests, the tough times show who's your friend, and in that respect it would be very interesting to see how the current challenging economic times will influence on the co-operative processes and the entrepreneurial orientation within and between the organisations. A longitudinal study of the entrepreneurial orientation within and between the organisations during a recession and a boom focusing on the organisations' ability to remain competitive could provide a valuable contribution to strategic management.

5.3 Final words

This study has opened the door for the entrepreneurial orientation research taking place at the supply chain context. As a pioneer study for this kind of research set up it has demonstrated that the concept of entrepreneurial orientation can be and even ought to be extended to the inter-firm relationships due to its strategically crucial effect on the competitiveness of the companies.

In addition to the new scientific opening, the prevailing entrepreneurial orientation theory of Lumpkin and Dess (1996, 2001) has received new interesting aspects to be further researched. First of all there's the idea of having the phenomenon of entrepreneurial orientation as the counterforce for the locked in effect in long term business relationships. This aspect can be further utilized in the studies trying to solve the challenges of fitting the agility and intense process integration into a company strategy simultaneously. Secondly, the research results indicated possible connections between the autonomy and competitive aggressiveness dimensions at the inter-firm level that have not been reported earlier.

For the practitioners the main message of this study is that especially companies serving only a limited number of customers in the business-to-business markets are recommended to pay attention to the entrepreneurial orientation level of their customers. The reason for this is that the entrepreneurial orientation is recognized as the key to the strategic renewal and in a value system like a supply chain the reciprocity among companies forming the chain adjusts the entrepreneurial orientation levels of all the chain members. In this research the role of the customer was evident especially when analysing the proactive behaviour in the dyad relationships that was without an exception in all of the cases led by the customer's intentions. So if the level of the proactiveness and the entrepreneurial orientation of the customer all in all are very low, it may have negative consequences on the suppliers' ability to respond to the market changes.

For the success of entire supply chains or networks the entrepreneurial orientation level of the top management teams is raised up as one of the key things. In order to build up a supply chain that is agile and simultaneously intensively integrated on a long term basis, the requirements are that the top managers in the partnering companies favour entrepreneurial orientation as their strategic approach. Therefore it is recommended that a special attention is paid in the recruiting process to the key persons' capabilities and willingness to apply entrepreneurial orientation in the strategic actions. In addition to the management style that supports entrepreneurial orientation, good networking skills are important to provide the fuel for the entrepreneurial orientation in the form of external stimulants. For the supply chain structure, the pyramid type of structure following the extended enterprise approach appears to support more the entrepreneurial orientation in the co-operative relationships than the traditional arm's length approach and a star-shaped supply chain structure.

YHTEENVETO (SUMMARY IN FINNISH)

Tämä tutkimus on saanut alkunsa kiinnostuksesta yritysten kilpailukyvyn muodostumiseen ja sen ylläpitoon jatkuvasti muuttuvassa toimintaympäristössä. Käytännön yrityselämässä koettu haaste toimia ketterästi osana tiiviisti integroitua toimitusketjua johdatti tutkimuksen keskittymään yrittäjyysorientaation käsitteeseen ja sen ilmenemiseen ostavan ja toimittavan yrityksen välisissä suhteissa toimitusketjuissa sekä – verkostoissa.

Ketteryyteen tähtäävät yritysstrategiat painottavat usein resursoinnin joustavuutta eli yrityksen kykyä muuntaa resurssinsa toimintaympäristön muutosten edellyttämään suuntaan. Samanaikaisesti yritysten tulisi myös panostaa tiiviisiin yhteistyösuhteisiin ja – rakenteisiin strategisesti tärkeiden kumppaneidensa kanssa pystyäkseen luomaan ketteryydenkin kannalta keskeisiä uusia innovaatioita. Yritysten välisen yhteistyön kehittyminen tasolle, joka aidosti tuottaa uusia innovaatioita ja merkittävää lisäarvoa toimitusketjun loppuasiakkaalle, vaatii osapuolten välistä luottamusta. Luottamus puolestaan ei kehity hetkessä, vaan se on ajan myötä syntyneiden myönteisten kokemusten tulos. Luottamuksen rakentaminen pitää sisällään paradoksin: ajan saatossa muodostuva yhteistyösuhde on edellytys luottamuksen syntymiselle muodostaen yritykselle samalla kuitenkin riskin ”lukkiutua” olemassa olevaan suhteeseen. ”Lukkiutuminen” tarkoittaa eräänlaisen ns. putkinäön syntymistä eli yritys ei enää omaksu yhteistyösuhteen ulkopuolisia (kehitys)impulsseja ja vähitellen sen kyky uusiutua tuotevalikoiman ja toimintamallien osalta rapistuu. Strategisen uusiutumiskyvyn mureneminen heikentää yrityksen kilpailukykyä.

Ketteryyden elementtejä samoin kuin yritysten välisten arvoketjujen integrointia on käsitelty laajasti sekä strategia- että toimitusketjujen johtamista käsittelevässä kirjallisuudessa. Vallitsevat teoriat jäävät kuitenkin vajaiksi tarkasteltaessa kysymystä muutoskyvykkyyden ja pitkäaikaisen yhteistyösuhteen rakentumisesta ottaen huomioon edellä kuvattu yhteistyösuhteen ”lukkiutumisvaara”. Tämän ”lukkiutumista estävän lääkkeen” etsiminen johti tutkimuksen keskittymään yrittäjyysorientaation käsitteeseen.

Yrittäjyysorientaation on todettu vaikuttavan myönteisesti yksittäisen yrityksen strategiseen uusiutumiskykyyn. Näin ollen sen voidaan katsoa omaavan elementtejä, joiden avulla yritysten ns. putkinäköä sekä ”lukkiutumisvaaraa” yhteistyösuhteessa voidaan ehkäistä. Yrittäjyysorientaatiolla tarkoitetaan yrityksen strategista suuntautuneisuutta, joka korostaa toiminnan ja päätöksenteon autonomisuutta, innovatiivisuutta, riskinottokykyä, proaktiivisuutta sekä kilpailuaggressiivisuutta. Yrittäjyysorientaation dimensio autonomisuus kuvaa yrityksen henkilöstön toiminnanvapautta, mahdollisuutta toimia itsenäisesti, kykyä viedä asioita itsenäisesti eteenpäin ja toteuttaa luovia ratkaisuja. Innovatiivisuudella puolestaan viitataan yrityksen kykyyn tarttua uusiin ideoihin ja halua kokeilla niitä, halua irtaantua nykyisestä teknologiasta ja toimintatavoista ja uskaltautua nykytilan, mukavuusalueen ulkopuolelle. Yrityksen panostukset tuotekehitykseen ja joustavuus uusien toimintatapojen käyttöönotossa kertovat omalta osaltaan sen innovatiivisuudesta. Riskinottokyky kertoo yrityksen epävarmuuden sietokyvystä, yrityksen alttiudesta ryhtyä riskialttiisiin hankkeisiin ja johtajien mieltymyksistä rohkeisiin tai varovaisiin toimenpiteisiin yrityksen tavoitteiden saavuttamiseksi. Proaktiivisuudessa keskeistä on tulevien haasteiden, tarpeiden ja muutosten työstäminen tarkoittaen käytännössä mm. uusien markkinamahdollisuuksien kartoittamista ja luomista. Yrityksen taipumus haastaa kilpailijansa suoraan, käyttää epätavallisia kilpailukeinoja ja rakentaa kilpailuetua toimien toisin kuin muut kertovat yrityksen kilpailuaggressiivisuudesta. Yrittäjyysorientaatiota on perinteisesti tutkittu yksittäisen yrityksen tasolla. Simzek ym. (2003) ja Stam ym. (2008) ovat tutkimuksissaan nostaneet yritysten välisen vuorovaikutuksen merkityksen esille, mutta ilmiötä ei aikaisemmin ole tutkittu yritysten välisen suhteen tasolla.

Tämä opinnäyte täydentää yrittäjyysorientaation tutkimusta tarkastelemalla ilmiötä ostaja-toimittaja suhteessa. Koska tutkimus on kontekstinsa puolesta uraa uurtava, sen tavoitteena on ennen muuta tuottaa tietoa siitä, kuinka yrittäjyysorientaatio ilmenee teollisuuden toimitusketjuissa. Tutkimuksen pääkysymys on: Kuinka yrittäjyysorientaatio ilmenee toimitusketjutasolla verrattuna toimitusketjun muodostavien yksittäisten yritysten tasoon? Pääkysymykseen haetaan vastausta seuraavien kolmen alakysymyksen avulla:

1. Eroavatko toimitusketju ja sen muodostavat yritykset yrittäjyysorientaationsa suhteen? Jos eroja esiintyy, millaisia ne ovat?
2. Esiintyykö yrittäjyysorientaation dimensioiden merkitysten välillä eroja? Jos eroja esiintyy, millaisia ne ovat?
3. Eroavatko erilaiset toimitusketjurakenteet yrittäjyysorientaation suhteen? Jos eroja esiintyy, millaisia ne ovat?

Tutkimuksen tieteenfilosofinen perusta on ontologian osalta subjektivismi, jonka mukaan yrittäjyysorientaation ilmiö luodaan sosiaalisen kanssakäymisen aikana, käsitysten ja niitä seuraavien toimenpiteiden tuotoksena. Vastaavasti epistemologian osalta perustan muodostaa interpretivismi, joka korostaa ihmisten vapaan tahdon merkityksen ymmärtämistä tutkimuksessa. Vapaan tahdon vaikutuksen vuoksi ihmisten toimintaa ei voida kuvata tai selittää luonnonlakien avulla, vaan sitä voidaan vain pyrkiä ymmärtämään. Tutkimuksen empiirinen osa toteutettiin laadullisena monitapaustutkimuksena, jonka aineisto koottiin yhteensä 20 teemahaastattelun avulla. Tutkimuksen kohteena olleiden yksittäisten yritysten tapausmäärä oli kymmenen ja yritysten välisten suhteiden tapausmäärä oli viisi. Haastatteluaineiston analyysi toteutettiin teoriaohjaavana sisällönanalyysinä.

Yrittäjyysorientaation tarkastelu ostajan ja toimittajan välisessä suhteessa on tieteellisesti uusi avaus alan tutkimuskentässä. Empiiristen tutkimustulosten perusteella voidaan todeta, että kahden yrityksen välisen suhteen yrittäjyysorientaatio ei vastaa kummankaan yksittäisen yritysosapuolen yrittäjyysorientaatiota. Kahden innovatiivisen yrityksen yhteistyö ei näin ollen ole automaattisesti innovatiivista. Tutkimustulokset antoivat viitteitä myös autonomisuuden ja kilpailuaggressiivisuuden mahdollisesta keskinäisestä riippuvuudesta yritysten välisissä suhteissa, mitä ei ole aikaisemmissa yritystason tutkimuksissa havaittu. Pyramidirakenteinen, lukumäärältään harvempiin kumppanuuksiin perustuva toimitusketju, joka pohjautuu yli organisaatiorajojen menevään toimintamalliin (extended enterprise) tuki selvästi enemmän yritysten välisen toiminnan yrittäjyysorientoituneisuutta kuin perinteinen kilpailutukseen, yritysten rajapinnat etäällä pitävään ja suuren toimittajajoukon myötä ns. tähtimalliseen rakenteeseen perustuva toimitusketjurakenne.

Käytännön yrityselämän kannalta tutkimuksen pääsanoma on, että erityisesti yritysten välisillä markkinoilla toimivien, lukumäärältään pienen asiakasjoukon omaavien yritysten tulee kiinnittää erityistä huomiota asiakkaidensa yrittäjyysorientaation tasoon. Yritysten välinen vuorovaikutus muokkaa osapuolten yrittäjyysorientaatioiden tasoja. Tutkimustulosten mukaan ostavan asiakkaan proaktiivisuus heijastui myös ostajan ja toimittajan yhteistyösuhteen luonteeseen. Mikäli proaktiivisuus tai asiakkaan yrittäjyysorientaatio kokonaisuudessaan ovat alhaisella tasolla, tämä voi heikentää myös toimittajayrityksen kykyä vastata markkinoiden muutokseen – asiakkaan kyvyttömyys ennakoida tulevaa murentaa toimittajan kilpailukykyä. Varmistaakseen strategisen uusiutumiskykynsä ja siten tulevaisuuden kilpailukykynsä, toimittajayrityksen on suositeltavaa nostaa yrittäjyysorientaatio asiakasvalintakriteereidensä joukkoon erityisesti strategisten kumppanuuksien osalta.

Toimitusketjun ja – verkoston yrittäjyysorientaatio ja edelleen strateginen uusiutumiskyky edellyttävät molempien osapuolten avainhenkilöiltä yrittäjyysorientoitunutta johtamistapaa, yli perinteisten organisaatiorajojen meneviä toimintaprosesseja sekä toimitusketjurakennetta, joka tukee strategian toteutusta. Yrittäjyysorientoituneen johtamistavan lisäksi avainhenkilöiden kyky verkostoitua muodostaa tärkeän kanavan ulkopuolisten kehitysimpulssien saamiselle, minkä voidaan kuvata toimivan yrittäjyysorientaation polttoaineena.

REFERENCES

Ahola, J. (1995). Yrityksen strategiaprosessi. Näkökohtia strategisen johtamisen kehittämiseksi konserniorganisaatiossa. Academic dissertation. Lappeenranta University of Technology. Research papers 44.

Alajoutsijärvi, K. (1996). Rautainen pari – Kymmenen ja Valmetin suhde, lähiverkosto ja makrovoimat 1948-90. Academic dissertation. Jyväskylä Studies in Computer Science, Economics and Statistics 31.

Arbnor, I. & Bjerke, B. (1997). Methodology for creating business knowledge. Second edition. Sage Publications, Inc.

Arend, R.J. & Wisner, J.D. (2005). Small business and supply chain management: is there a fit? Journal of Business Venturing 20/2005.

Avlonitis, G. J. & Salavou, H. E. (2007). Entrepreneurial orientation of SMEs, product innovativeness, and performance. Journal of Business Research 60. p. 566-575.

Axelsson, B., Rozemeijer, F. & Wynstra, F. (2005). Developing sourcing capabilities – creating strategic change in purchasing and supply management. John Wiley & Sons, Ltd. England.

Baramichai, M. & Zimmers, E. W. Jr. & Marangos, C.A. (2007). Agile supply chain transformation matrix: an integrated tool for creating an agile enterprise. Supply Chain Management: An International Journal. 12/5 (2007). P. 334-348.

Barr, P.S., Stimpert, J.L. & Huff, A.S. (1992). Cognitive change, strategic action, and organizational renewal. Strategic Management Journal, Vol. 13. 1992.

Bengtsson, M. & Kock, S. (2000). "Coopetition" in Business Networks – to Cooperate and Compete Simultaneously. Industrial Marketing Management, No. 29.

Bititci, U.S., Martinez, V., Albores, P. & Parung, J. (2004). Creating and managing value in collaborative networks. International Journal of Physical Distribution and Logistics Management. Vol. 34. No. ¾, 2004.

Bititci, U.S., Mendibil, K., Martinez, V. & Albores, P. (2005). Measuring and managing performance in extended enterprises. International Journal of Operations and Production Management. Vol. 25, No. 4. 2005.

Boardman, J.T. & Clegg, B.T. (2001). Structured engagement in the extended enterprise. International Journal of Operations & Production Management. Vol. 21, No. 5/6, 2001. p. 795-811.

Booth, R. (1996). Agile manufacturing. Engineering management journal. April 1996. p. 105-112.

Borch, J.O. & Forsman-Hugg, S. (2004). Competitive positioning and resource configuration of small firms in mature industry. Inter-RENT Online Publication. http://www.ecsb.org/eng/publications/

Brewer, P.C. and Speh, T. W. (2000). Using the balanced scorecard to measure supply chain performance. Journal of Business Logistics, Vol. 21, No.1, 2000.

Browne, J. & Zhang, J. (1999). Extended and virtual enterprises – similarities and differences. International Journal of Agile Management Systems. 1/1 (1999), p. 30-36.

Burgelman, R.A. (1983). Corporate entrepreneurship and strategic management: insights from a process study. Management Science. Vol. 29, No. 12, December 1983.

Burgess, T.F. (1994). Making the leap to agility: defining and achieving agile manufacturing through business process redesign and business network redesign. International Journal of Operations & Production Management. Vol. 14. No. 11. p. 23-34.

Burrell, G. & Morgan, G. (1979). Sociologica Paradigms and Organisational Analysis. Heineman Educational Books Ltd. London.

Chang, S.-C. & Lin, R.-J. & Chang, F.-J. & Chen, R.-H. (2007). Achieving manufacturing flexibility through entrepreneurial orientation. Industrial Management & Data Systems. Vol. 107, No. 7. p. 997-1017.

Chen, I.J. and Paulraj, A. (2004). Understanding supply chain management: critical research and a theoretical framework. International Journal of Production Research, Vol. 42, No.1, 2004.

Christopher, M. (2000). The agile supply chain – competing in volatile markets. Industrial Marketing Management. 29. p. 37-44.

Christopher, M. & Towill, D. (2001). An integrated model for the design of agile supply chains. International Journal of Physical Distribution & Logistics Management. Vol. 31, No. 4. p. 235-246.

Cova, B. & Salle, R. (2008). Marketing solutions in accordance with the S-D logic: co-creating value with customer network actors. Industrial marketing management 37 (2008). P. 270-277.

Covin, J. G. & Slevin, D. P. (1988). The influence of organization structure on the utility of an entrepreneurial top management style. Journal of Management Studies. 25:3, May 1988. pp. 217-234.

Covin, J.G. & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environments. Strategic Management Journal. Vol. 10, No.1.1989.

Davis, E.W. & Spekman, R.E. (2004). The Extended Enterprise – Gaining Competitive Advantage through Collaborative Supply Chains. Prentice Hall. USA.

De Chernatory, L. & Harris, F. & Dall'Olmo Riley, F. (2000). Added value: its nature, roles and sustainability. European Journal of Marketing. Vol. 34. No. ½. Pp. 39-56.

de Souza, R., Zice, S. and Chaoyang, L. (2000). Supply chain dynamics and optimization. Integrated Manufacturing Systems, 11/5, 2000.

Doz, Y. & Kosonen, M. (2008). The dynamics of strategic agility: Nokia's rollercoaster experience. California Management Review. Vol. 50. No. 3. p. 95-118.

Drucker, P.F. (1985). Innovation and entrepreneurship. HarperCollins Publishers, Inc. New York.

Dyer, J.H. (2000). Collaborative Advantage – Winning Through Extended Enterprise Supplier Networks. Oxford University Press. USA.

Enerstvedt, R. T. (1989). The problem of validity in social science. In Kvale, S. (edit.) Issues of validity in qualitative research. Studentlitteratur. Lund, Sweden.

Gadamer, H.-G. (2005). Hermeneutiikka: ymmärtäminen tieteissä ja filosofiassa. Toinen painos. Suomentanut Ismo Nikander. Tampere: Vastapaino.

Goldman, S.L. & Nagel, R.N. & Preiss, K. (1995). Agile competitors and virtual organizations: strategies for enriching the customer. Van Nostrand Reinhold, New York, NY.

Granovetter, M.S. (1973). The strength of weak ties. American Journal of Sociology. No. 78. p. 1360-1380.

Grönroos, C. (2008). Service logic revisited: who creates value? And who co-creates? European Business Review. Vol. 20. No. 4. p. 298-314.

Gunasekaran, A. & Lai, K-H. & Cheng, T.C.E. (2008). Responsive supply chain: a competitive strategy in a networked economy. Omega 36 (2008). P. 549-564.

Gunasekaran, A., Patel, C. and Titiroglu, E. (2001). Performance measures and metrics in a supply chain environment. International Journal of Operations & Production Management, Vol. 21, No. ½, 2001.

Hamel, G. (2007). Johtamisen tulevaisuus. Talentum Media Oy. Helsinki. (Original: The future of management. 2007. Translated into Finnish by Jorma Alanen).

Hamel, G. & Prahalad, C.K. (1994). Competing for the Future. Harvard Business School Press. Boston, Massachusetts

Hammer, M. (2001). The superefficient company. Harvard Business Review. September 2001. pp. 82-91.

Hannon, D. (2004). Performance measurement: tracking total logistics value from the inside out. Purchasing, chemicals edition, Vol. 133, Issue 16, 2004.

Holmberg, S. (2000). A systems perspective on supply chain measurements. International Journal of Physical Distribution and Logistics Management, Vol 30, No. 10, 2000.

Hoole, R. (2005). Five ways to simplify your supply chain. Supply Chain Management. An International Journal 10/1 2005.

Hooper, M. J & Steeple, D. & Winters, C. N. (2001). Costing customer value: an approach for the agile enterprise. International Journal of Operations & Production Management. Vol. 21. No. 5/6. p. 630-644.

Huff, J.O., Huff, A.S. & Thomas, H. (1992). Strategic renewal and the interaction of cumulative stress and inertia. Strategic Management Journal. Vol. 13, 1992.

Hughes, M. & Morgan, R.E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. Industrial Marketing Management 36. p. 651-661.

Hult, G.T.M., Hurley, R.F. & Knight, G.A. (2004). Innovativeness: its antecedents and impact on business performance. Industrial Marketing Management, 33/2004.

Håkansson, H. & Waluszewski, A. (2002). Path dependence: restricting or facilitating technical development? Journal of Business Research, 55 (7).

Iskanius, P. (2006). An agile supply chain for a project-oriented steel product network. Academic Dissertation. Faculty of Technology, Department of Industrial Engineering and Management, University of Oulu.

Ismail, H.S. & Sharifi, H. (2006). A balanced approach to building agile supply chains. International Journal of Physical Distribution & Logistics Management. Vol. 36. No. 6. p. 431-444.

Keh, H. T. & Nguyen, T.T.M. & Ng, H.P. (2007). The effects of entrepreneurial orientation and marketing information on the performance of SMEs. Journal of Business Venturing 22. p. 592-611.

Kemelgor, B. H. (2002). A comparative analysis of corporate entrepreneurial orientation between selected firms in the Netherlands and the USA. Entrepreneurship & Regional Development. 14. pp. 67-87.

Kemppainen, K. & Vepsäläinen, A.P.J. (2003). Trends in industrial supply chains and networks. International Journal of Physical Distribution & Logistics Management. Vol. 33, No. 8, 2003.

Kickul, J. & Gundry, L.K. (2002). Prospecting for strategic advantage: the proactive entrepreneurial personality and small firm innovation. Journal of Small Business Management. 40 (2). pp. 85-97.

Kim, W.C. & Mauborgne, R. (2007). Sinisen meren strategia. 4. painos. Gummerus kirjapaino Oy. Jyväskylä. (Original: Blue ocean strategy – how to create uncontested market space and make the competition irrelevant. 2005. Translated into Finnish by Maarit Tillman).

Kirk, J. & Miller, M.L. (1986). Reliability and validity in qualitative research. Sage Publications.

Koiranen, M. (1993). Ole yrittäjä – ulkoinen ja sisäinen yrittäjyys. Tammer-Paino Oy: Tampere.

Koiranen, M. & Pohjansaari, T. (1994). Sisäinen yrittäjyys – innovatiivisuuden, laadun ja tuottavuuden perusta. Tammer-Paino Oy: Tampere.

Kuivalainen, O. & Sundqvist, S. & Servais, P. (2007). Firms’ degree of born-globalness, international entrepreneurial orientation and export performance. Journal of World Business 42. p. 253-267.

Lehtinen, U. (2001). Changing subcontracting – a study on the evolution of supply chains and subcontractors. Oulu University Press: Oulu.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T.S. & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. Omega – the International Journal of Management Science, 34/2006.

Lin, C.-T. & Chiu, H. & Chu, P-Y. (2006). Agility index in the supply chain. International Journal of Production Economics 100 (2006). P. 285-299.

Lincoln, Y. S. & Guba, E. G. (2000). Handbook of qualitative research. Second edition. Sage Publications, Inc.
Lockamy, A. III and McCormack, K. (2004). The development of a supply chain management process maturity model using the concepts of business process orientation. Supply Chain Management: An International Journal, Vo. 9, No. 4, 2004.
Lumpkin, G.T. & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review, Vol. 21, No. 1. p. 135-172.
Lumpkin, G.T. & Dess, G.G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: the moderating role of environment and industry life cycle. Journal of Business Venturing. 16. p. 429-451.
Madsen, E.L. (2007). The significance of sustained entrepreneurial orientation on performance of firms – a longitudinal analysis. Entrepreneurship & Regional Development, 19, March (2007). p. 185-204.
Maskell, B. (2001). The age of agile manufacturing. Supply chain management: An International Journal. Vol. 6, No. 1, p. 5-11.
Miller, D. (1983). The correlates of entrepreneurship in three types of firms. Management of Science. Vol. 29, No. 7, July 1983.
Morgan, C. (2004). Structure, speed and salience: performance measurement in the supply chain. Business Process Management Journal, Vol. 10, No. 5, 2004.
Morgan, R.E. & Strong, C.A. (2003). Business performance and dimensions of strategic orientation. Journal of Business Research 56. pp. 163-176.
Möller, K. & Svahn, S. (2003). Managing strategic nets: a capability perspective. Marketing Theory. Volume 3(2). pp. 209-234.
Möller, K. & Svahn, S. (2006). Role of knowledge in value creation in business nets. Journal of Management Studies 43:5 July 2006. pp. 985-1007.
Niemelä, T. (2003). Inter-firm co-operation capability – a processual empirical study on networking family firms. Academic dissertation. Jyväskylä Studies in Business and Economics 22.
Normann, R. & Ramirez, R. (1993). From value chain to value constellation: designing interactive strategy. Harvard Business Review. July-August 1993. pp. 65-77.
Patton, M. Q. (1990). Qualitative evaluation and research methods. 2nd ed. SAGE publications. 532 p.
Perona, M. & Miragliotta, G. (2002). Complexity management and supply chain performance assessment. A field study and a conceptual framework. International Journal of Production Economics, Vol. 90, 2004.
Peräkylä, A. (2004). Reliability and validity in research based on naturally occuring social interaction. In Silverman, D. (edit.) Qualitative research – theory, method and practice. Second edition. Sage Publications, Ltd.
Porter, M.E. (1991). Kilpailuetu. Gummerus kirjapaino Oy. Jyväskylä. (Original: Competitive Advantage – Creating and Sustaining Superior Performance; 1985; translated into Finnish by Maarit Tillman)

Porter, M. E. (1996). What is strategy? Harvard Business Review. November-December 1996. pp. 61-78.

Power, D. J. & Sohal, A.S. & Rahman, S.-U. (2001). Critical success factors in agile supply chain management – an empirical study. International Journal of Physical Distribution and Logistics Management. Vol. 31. No. 4. 2001. p. 247-265.

Prahalad, C.K. & Ramaswamy, V. (2003). The new frontier of experience innovation. MIT Sloan Management Review. Summer 2003. p. 12-18.

Ranta, T. (2005). Organizational value creation and destruction in corporate venturing – in search of international competitive advantage. Helsinki University of Technology. Doctoral dissertation series 2005/4. Espoo.

Remenyi, D. & Williams, B. & Money, A. & Swartz, E. (1998). Doing research in business and management. An introduction to process and method. Sage Publications, Inc.

Salner, M. (1989). In Kvale, S. (ed.) Issues of validity on qualitative research. Studentlitteratur. Lund, Sweden.

Sarkis, J. & Talluri, S. & Gunasekaran, A. (2007). A strategic model for agile virtual enterprise partner selection. International Journal of Operations & Production Management. Vol. 27, No. 11. p. 1213-1234.

Saunders, M. & Lewis, P. & Thornhill, A. (2007). Research Methods for Business Students, Fourth Edition. Pearson Education Limited: England.

Seale, C. (1999). The quality of qualitative research. Sage Publications, Ltd.

Sharifi, H. & Zhang, Z. (1999). A methodology for achieving agility in manufacturing organisations: an introduction. International Journal of Production Economics 62 (1999) p. 7-22.

Sheu, C., Yen, R.H. & Chae, B. (2006). Determinants of supplier-retailer collaboration: evidence from an international study. International Journal of Operations & Production Management, Vol. 26, No. 1, 2006.

Simatupang, T.M. and Sridharan, R. (2004). A benchmarking scheme for supply chain collaboration. Benchmarking: An International Journal, Vol.11, No.1, 2004

Simatupang, T.M. and Sridharan, R. (2005). An integrative framework for supply chain collaboration. The International Journal of Logistics Management. Vol. 16, No. 2, 2005.

Simatupang, T.M., Wright, A.C. & Sridharan R. (2002). The knowledge of coordination for supply chain integration. Business Process Management Journal, Vol. 8 No.3, 2002.

Simsek, Z. & Lubatkin, M.H. & Floyd, S.W. (2003). Inter-firm networks and entrepreneurial behaviour: a structural embeddedness perspective. Journal of Management. 29(3), p. 427-442.

Spekman, R.E., Kamauff, J.W. Jr. & Myhr, N. (1998). An empirical investigation into supply chain management – a perspective on partnerships. International Journal of Physical Distribution and Logistics Management. Vol. 28. No 8, 1998.

Stake, R. E. (2000). In Denzin, N.K. & Lincoln, Y.S. Handbook of qualitative research. 2nd ed. Thousand Oaks (Calif.): Sage. 1065 p.

Stam, W. & Elfring, T. (2008). Entreperenurial orientation and new venture performance: the moderating role of intra- and extraindustry social capital. Academy of Management Journal. Vol. 51, No. 1, p. 97-111.

Toivonen, J. (2000). Reppumiehistä kokonaistoimituksiin – telakkateollisuuden alihankinnan toimintatapamuutoksen institutionaalinen analyysi. Turun kauppakorkeakoulun julkaisuja sarja A-4:2000. Kirjapaino Grafia Oy: Turku.

Trent, R.J. & Monczka, R.M. (1999). Achieving world-class supplier quality. Total Quality Management, Vol. 10, No. 6, 1999.

Tuimala, A. & Ahola, J. (2000). Networking as a local development strategy: leadership in network organizations. Telecom Business Research Center Lappeenranta. Working papers 4. Lappeenranta University of Technology.

Tuomi, J. & Sarajärvi, A. (2002). Laadullinen tutkimus ja sisällönanalyysi. Tammi. 158 p.

van Hoek, R.I. (2001). The contribution of performance measurement to the expansion of third party logistics alliances in the supply chain. International Journal of Operations & Production Management, Vol 21, No. ½, 2001.

van Hoek, R.I. & Harrison, A. & Christopher, M. (2001). Measuring agile capabilities in the supply chain. International Journal of Operations & Production Management. Vol. 21, No. ½, p. 126-147.

Vargo, S. L. & Lusch, R.F. (2004). Evolving to a new dominant logic for marketing. Journal of Marketing. Vol, 68 (January 2004). P. 1-17.

Vázquez-Bustelo, D. & Avella, L. & Fernández, E. (2007). Agility drivers, enablers and outcomes – empirical test of an integrated agile manufacturing model. International Journal of Operations & Production Management. Vol. 27, No. 12. p.1303-1332.

Venkatraman, N. (1989). Strategic orientation of business enterprises: the construct, dimensionality, and measurement. Management Science, 35. p. 942-962.

Walsh, J.P. & Ungson, G. R. (1991). Organizational memory. Academy of Management Review. Vol. 16, No. 1. p. 57-91.

Warwood, S.J. & Knowles, G. 2004. An investigation into Japanese 5-S practice in UK industry. The TQM Magazine, 16(5).

Wiklund, J. & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. Strategic Management Journal, 24/2003.

Wiklund, J. & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: a configurational approach. Journal of Business Venturing 20. p. 71-91.

Weick, K.E. (1995). Sensemaking in organizations. London: Sage.

Yee, C.L. and Tan, K.H. (2004). A process and tool for supply network analysis. Industrial Management and Data Systems, Vol. 104, No. 4, 2004.

Yin, R. K. (1994). Case study research – design and methods. 2nd ed. Sage publications, Inc.

Yin, R. K. (2003). Case study research – design and methods. 3nd ed. Sage publications, Inc.

Yusuf, Y.Y. & Sarhadi, M. & Gunasekaran, A. (1999). Agile manufacturing: The drivers, concepts and attributes. International Journal of Production Economics 62 (1999) p. 33-43.

APPENDIXES

Appendix 1 xx.yy.2007

Dear recipient,

Company X has agreed research collaboration with the School of Business and Economics at the University of Jyväskylä. This research collaboration concerns the doctoral dissertation, ”Entrepreneurial orientation in the supply chain”, of the undersigned, researcher Minna Vesterinen. The aim of the research is to establish how an entrepreneurial orientation (= autonomy, innovativeness, risk taking, proactivity and competitive aggressiveness) manifests itself at the level of the supply chain. The logic of the research work as well as the concepts of entrepreneurial orientation and the supply chain are explained in greater detail in appendix 1 accompanying this letter.

The research will be conducted during August 2007 by means of personal interviews. **We would like to arrange an interview with you as part of this study.** The interviewees have been selected from amongst the personnel of company X and enterprises that have signed a delivery agreement with company X. Interviews will be conducted with a total of two to six persons from each of these reference groups. The undersigned will act as interviewer. **The interview will last for about an hour and the themes for discussion are contained in appendix 2 accompanying this letter.** The themes of the interview are identical for all participants. The interviews will be recorded and converted into written form anonymously. The results of the research will be made available to all interviewees during the winter of 2007-2008.

By taking part in this research project you will obtain

- **Information on the views of your partners (suppliers/customers) regarding the nature of your cooperation**
- **An independent analysis of the supplier – customer relationship as concerns its entrepreneurial orientation**
- **Tools for developing your own operations and the supplier – customer relationship**

The undersigned researcher will contact you within a week or so of the date on this letter in order, if possible, to arrange a suitable interview time. From the perspective of developing the management of supply chains your expertise and experience occupy a key role, so we sincerely hope that you respond to our research project in a positive manner. Should you require further details about the research, the undersigned will be happy to reply to your phone calls or email.

With best wishes for fruitful cooperation,
Minna Vesterinen

MSc (Econ), researcher

University of Jyväskylä
School of Business and Economics
PO Box 35 (MaC209)
FI-40014 University of Jyväskylä

Tel: +358 50 428 5295
Email: minna.vesterinen@econ.jyu.fi
www.woodfuture.fi

Appendix 1: Perspective of doctoral dissertation research

By entrepreneurial orientation we refer to the autonomy, innovativeness, proactivity (= matters are dealt with before they are in a bad way), risk-taking capacity and competitive aggressiveness of the subject to be analysed. Entrepreneurial orientation has been shown to be of central importance where enterprises' strategic regenerative ability is concerned. The tighter the competitive situation and changing markets, the greater the influence the enterprise's proactivity, innovativeness and risk-taking capacity naturally have on its competitive ability. An enterprise's strategic actions are limited, however, in practice by existing stakeholders with interests of their own. An enterprise's customers and suppliers exert a significant influence on how the enterprise is able to implement its reforms.

The vast majority of enterprises are part of a supply chain, in other words an individual enterprise does not alone produce in its entirety the product or service offered to the end user, rather, it constitutes one part of the production process in question. The supply chain is thus a network of organisations connected to each other via different processes, a network that attempts to create value added for the customer in the form of products and services. More and more researchers of business economics as well as professional practitioners in business life hold the opinion that in future the competition for markets will be conducted not only between individual companies but precisely between these supply chains – the ability to manage whole entities and the skill of becoming networked will have a decisive effect on enterprises' success. As the competition grows and becomes one between chains it is important to understand how competition is conducted at this level and which factors influence the created end result. From the viewpoint of competitive ability the fundamental question is thus how to ensure that the strategic regenerative ability of the supply chain can answer in the best possible manner the demands of an operating environment changing at an increasing pace.

The concept of entrepreneurial orientation has been studied earlier at the level of both individuals and individual companies. Examination of the concept at the level of supply chains is therefore an internationally new and significant undertaking in the field of Business Economics. The aim is thus to complement the debate conducted over the competitive ability of supply chains by going into the views of two enterprises regarding their own level of entrepreneurial orientation as well as that of the supply chain made up of the same enterprises with each other. The research logic could also be described in the manner of a pair relationship: if you wish to gain as realistic a picture as possible of how well the relationship works, there is every reason to ask both parties about the relationship and the partner’s role.

Appendix 2: Themes of the interviews

Theme I: Autonomy
Definition: independence of work – results count; freedom of operation – to what extent things are conducted/not conducted “by the book”; scope for creative solutions; opportunity and ability to take things forward independently

Theme II: Innovativeness
Definition: seizing on new ideas and supporting them; experimenting/desire to experiment; new processes that produce new products, services, technologies;
Desire to get away from current technology and operating methods and venture outside the present state, the comfort zone; investments in product development; the number of new products/services; the frequency of change in operating methods; flexibility in introducing new ways of operating

Theme III: Risk taking
Definition: ability to tolerate uncertainty; venturing into the unknown; commitment of relatively large resources without certain knowledge of the result; substantial use of outside capital; enterprises’ willingness to get involved in risky projects; senior managers’ preferences for bold v cautious actions for achieving the company’s goals

Theme IV: Proactivity
Definition: contemplation of future challenges, needs and changes; innovative forward-looking approach; charting and creation of new (market) opportunities (shape markets, create demand); the opposite of passivity

Theme V: Competitive aggressiveness
Definition: enterprises’ tendency to challenge their competitors direct; meeting a competitor “face to face”; the use of unusual means of competition in addition to/in place of the traditional; the building of competitive edge acting in a different manner to others

Appendix 2

Minna Vesterinen
University of Jyväskylä

Leading questions for the interview themes / Entrepreneurial orientation at the supply chains and networks:

Following leading questions are orally presented by the interviewer during the interview session. The interview themes have been delivered to the interviewees in advance. The descriptions of the interview themes are based on the recommendations of Lumpkin and Dess (1996). The interview themes and leading questions are the same to all interviewees. All interviews are completed anonymously and tape recorded.

Background information:

- Position in the company
  - entrepreneur / managing director
  - purchasing director
  - director, customer service and sales
  - purchasing manager
  - customer service / sales manager
  - something else, what?

- What are your services/products that you produce?
- Who are you customers? Number of customers?
- Do you use subcontracting? In what kind of cases?
- Number of subcontractors per product/service?
- How would you describe the current market situation for your company and in general in your industry?

Turnover of the company _______________

Number of personnel__________________

Theme I: Autonomy
Definition: independence of work – results count; freedom of operation – to what extent things are conducted/not conducted "by the book"; scope for creative solutions; opportunity and ability to take things forward independently

Leading questions:

1. *How much freedom do you have at your work? Do you have strict guidelines how to operate or are you expected to solve different situations independently?*

2. *What about in your customer/supplier relationship*
   - *how strict guidelines do you give to your supplier or do you just explain the case and let them solve it as they see best?*
   - *how much freedom or how strict guidelines do you get from your customer to complete his/her order?*

Theme II: Innovativeness
Definition: seizing on new ideas and supporting them; experimenting/desire to experiment; new processes that produce new products, services, technologies; desire to get away from current technology and operating methods and venture outside the present state, the comfort zone; investments in product development; the number of new products/services; the frequency of change in operating methods; flexibility in introducing new ways of operating

Leading questions:

1. *How much do you invest in R&D in your company? How easily do you try new operating models or techniques?*

2. *Do you have common development programs or projects with your customers/suppliers? If yes, then what kind of? How the project/program got started?*

3. *What is your opinion of / what kind of experiences do you have of the common development efforts between customer and supplier? What kind of results have you received?*

Theme III: Risk taking
Definition: ability to tolerate uncertainty; venturing into the unknown; commitment of relatively large resources without certain knowledge of the result; substantial use of outside capital; enterprises' willingness to get involved in risky projects; senior managers' preferences for bold vs. cautious actions for achieving the company's goals

Leading questions:

1. *How would you describe your company – do you rather take risks or avoid them? Why?*

2. *What about your co-operation with your customer/supplier, do you together prefer more to take risks or to avoid them?*

<u>Theme IV: Proactivity</u>
Definition: contemplation of future challenges, needs and changes; innovative forward-looking approach; charting and creation of new (market) opportunities (shape markets, create demand); the opposite of passivity

Leading questions:

1. *How actively do your search for new business opportunities in your company? Would you describe your company more as reactive or proactive?*

2. *How would you describe the adaptability and agility of the supply chain formed by your company and your customer/supplier? How do you prepare your co-operative relationship for the challenges of the future?*

3. *If there are changes in the operating models of the supply chain, who has usually initiated them and based on what?*

4. *Are there any differences in the implementation of the initiatives based on who has expressed them?*

<u>Theme V: Competitive aggressiveness</u>
Definition: enterprises' tendency to challenge their competitors direct; meeting a competitor "face to face"; the use of unusual means of competition in addition to/in place of the traditional; the building of competitive edge acting in a different manner to others

Leading questions:

1. *How would you describe, how aggressively does your company compete at the markets today?*

2. *What are the competitive tools of your company?*

3. *What is your opinion about the statement that competition takes more and more place between supply chains? How strongly do you feel that your company competes together with your supplier/customer against other supply chains in your industry?*

Appendix 3

Original Finnish quotations of the interviews referred at the research report:

Quotation 1:

"Enää sooloilua ei sallita. Suurempia volyymia harvemmille toimittajille. Hydrauliikkatoimittajia on monta sataa tällä hetkellä, niitä tulee oleen alta 20 tulevaisuudessa. Eli se vaan rajottaa hankintatoimenvapautta, mutta toisaalta se pudottaa myös hintoja, kun volyymit kohoo."

Quotation 2:

"Mut sitte kun mennään tonne tuatantoon, ni vapaus kehittää sitä tuatantoo tehokkaammaks, ni se on suuri. Se on ihan omissa käsissä. Tosin sielläkin varmaan tulee sitte tämmöset leanit, voi tulla hyvinkin nopeesti lean-tuotanto oikein perinteisten oppien mukasesti. Ja tota sillo, sehän tua kaikille tehtaille samanlaiset tavat toimia, samanlaiset raamit. Se tarkottaa, että sillonki se vapaus kehittää niin kun tykkää, se muuttuu toisenlaiseks, se tapahtuu sillon niissä Leanin raameissa nii tää lean-tuotanto eli ykskappalevirtaus ilman varastoa tapahtuvaa tuotantoo, mitä se niinku asettaa ehtoja."

Quotation 3:

"Tää talohan on ollu aina siitä tunnettu, että tää ottaa tuotteisiin nimenomaan mukaan kaikki uusimmat ideat sekä automaation puolelta, hydrauliikan pualelta, teollisessa muotoilussa, ihan missä tahansa. Tai sit jos mennään tonne tuatannon pualelle, ni kaikki viimesimmät keinot, niinkun kaitsemit ja Value engineeringit ja kaikki täntyyppiset, mistä 99 % suomalaisesta yrityksistä ei oo kuullukaa mitää. Vai tiätkö Suomessa jonkun yrityksen, joka puhuu target costingista wave, Value engineeringistä, puhuu Kaitsemista. Kaitsemista jokku puhuu, harva sitte toteuttaa, seki on eri. On toimittajien kehittämisprosesseja, on systemaattisia kustannustenalentamistavotteita jne. Niit on paljo."

Quotation 4:

"No koska riskiähän on pakko ottaa sen takia, että mennään eteenpäin. Meillähän onsemmonen sanonta, ettei se oo mitään väliä, vaikka kaatuu, kuhan kaatuu eteenpäin. Taaksepäin ei saa kaatua."

Quotation 5:

"On monia riskejä otettu. Yleensä, joskus ne laukee ne riskit ja tulee suuria katastrofeja ja. Mutta joskus, useinmiten se riskinotto on kannattavaa. Eihän me nyt mitään, sanotaan, että eihän tääl ny mitään suuria liiketoimintariskejä oteta, jotka yrityksen kaataa. Mutta sanotaan, niinkun tämmösessä jokapäiväsessä työskentelyssä olevia riskejä. Voidaan ajatella esimerkiks, että keskitetään sylinterit yhdelle toimittajalle, joka on jo helkkarinmoinen riski."

Quotation 6:

"Ennen kilpailtiin teknologioilla tai halvemmilla hinnoilla, mut nyt ollaan menossa sitä kilpailukohtaamisen strategiaa kohti… Elikkä tuatteet samat, toimittajat yhtenäistyy, komponentit yhtenäistyy, tuatteet yhtenäistyy, vaikka ne on erinäkösiä. Niistä löytyy samat toiminnot, samat komponentit, vaikka ne on teollisesti muatoiltu eri näköseks. Niin täähän johtaa siihen, että jollaki, tää johtaa seuraavaks siihe, että sitte ruvetaan kilpaileen katteella elikkä hinnalla. Ja ku hinnoilla lähetään kilpaileen lean-ympäristössä, se tarkottaa sitä, että on maksimilaatu, erittäin hyvä laatu. Sitten tuatteissa on ne toiminnot, mistä asiakas on valmis maksaan eikä yhtään enempää. Koska jos siäl on enemmän, ni sä teet ittes kilpailukyvyttömäks. Asiakas tiätysti on onnellisempi. Ja kolmantena tekijänä on se, että hinta on tavallaan asetettu, se on asetettu markkinapaikalla."

Quotation 7:

"Meil on nyt viis tuoteverstasta. Tääl on niinku verstaspäällikkö aina täällä näin, joka vastaa tästä asiakkuudesta koko verstaasta. Ne on varsin itsenäisiä verstaita ja tää päällikköki saa tehä ihan mitä vaan, kunhan homma käy ku… Elikkä tota nää kaverit on suaraa mun alaisia. Ei mul oo niinku, mä en pysty puuttuu mitenkää näihin asioihin, vaan ne palkkaa, erottaa henkilökunnan itsenäisesti. Niil on, ne on niinku vähä niinku pieniä, taikka tavallaan yksikön toimitusjohtajia. Että tää perustuu just siihen, et ne kaverit tuntee asiakkaat erittäin hyvin. Tuntee kaikki henkilöstön erittäin hyvin, tuntee tuotteet ja hinnottelee ne kaikki."

Quotation 8:

"Meillähän ei omaa tuotekehitystä ole. Tai sanotaan, että meillähä on kuus suunnittelijaa, mut ne suunnittelee asiakkaan tuotteita ja asiakkaat maksaa sen tuotesuunnittelun… Elikkä omasta tuotekehittelystä ni se menee, niiko omalla kustannuksella kehitetään asiakkaan tuotteita, ni ei ole, jos tätä tarkotit… Asiakkaat maksaa. Ei paljoo, mutta semmosen, että kannattaa kuitenki…. No kyllä, sanotaan, että tuossa teknologinen edelläkävijä me emme eikä ossaa. Et kyllä se tekniikka sinänsä on varmaan jo koettua niinkun työstökoneista ja näistä, että panis meitä tutkimaa että se ois hyvää, et jos me ei olla varma siit, et se on hyvä. Et täntyyppistä me ei harrasteta. Mieluummin sitten taas toisaalta tämmösiä toiminnallisia, et tähän toimintaprosesseihin liittyviä, jos semmosia löytyy, niin kun parannuksia jotakin, me ollaan sieltä sitten (1 sana ei kuulu) suhteessa niinku iha oikeen."

Quotation 9:

"Joo no siinä on kyllä tota, erikseen mainitsen työryhmän, kun Alihankinta 2015 nyt on Ek ryhmä, jota siäl mietitään, että mitä haasteita 2015. Sehän tulee niinkun työvoimapula on se yks, mikä on selkee. Ja sen suhteen tietysti ollaan tehty asioita ja tullaan tekemään asioita. Sit on tää LC-asia, tää on tämmönen glopalisaatioo siirtyminen, halpa maa. Ja siinä tehdään tiettyjä asioita parasta aikaa. Et kyllähän meillä erilaisia. Vaikka siinä tulevaisuudessa erilaisia haasteita on, mitkä on erilaisia ko tähän asti on ollu, havaitaan, jossa sitten ryhdytään niihin toimenpiteisiin. mun mielestä ne nyt on suurin piirtein tiedossa ne asiat kyllä, mut niinku seuraavan viiden vuoden (3 sana ei kuulu). Oikeestaan se, että seuraava taantumahan kertoo sitte paljon sitä suosta."

Quotation 10:

"No tällä hetkellä tietysti kilpailutilanne ehkä ei oo niin hirveen paha. Tai miten nyt sanosin, että emmä oo kokenu sitä mitenkää aggressiivisena… Täällä ei, tässä kokoluokassa ja tällä konseptilla Suomessa ei, tääl on nyt n. puolentusinaa firmaa, mitkä pystyy tekemään esim. näitä kudottajia. Tällä hetkellä, kun kaikilla on kädet täynnä töitä, niin ei oo sellasta niinkun..."

Quotation 11:

"Sanotaanko näin, että viime aikoina vapausasteet on vähentyny, koska me ollaan tehty toiminnanohjausjärjestelmän implementointia ja Bosch on ostanu meijät jokunen vuosi sitten. Elikkä meillä on hyvin paljon, me puhutaan guide lineista, jossa kaikki toiminta on kuvattu, miten se Bosch-konsernissa tehdään. Ja me ollaan niitä velvollisia noudattaan ja meijät myös sitten säännöllisesti tarkastetaan, että miten on (1 sana ei kuulu) toiminnolla. Elikkä vähemmän enää autonomisia kuin oltiin aikasemmin. Mutta toki sitte taas tällasissa päivittäisissä asioissa ihmiset saa käyttää luovuuttaan. Perusprosessit on kyllä melko tarkkaan määritetty."

Quotation 12:

"…Jotain 4-5 %:n tasoo muistaakseni liikevaihdosta siis kansainvälisellä tasolla. Suomen tasolla sitä, tytäryhtiötasolla sitä ei mitata. Mutta konsernin tasolla mitataan. Et kyllä se on meille – sanotaanko – mut me nähdään se ehkä enemmän Bosch Rexrothissa tuotekehityksenä…. Siis perinteisesti se on aina ollu pelkästään tuotekehitystä. Nykypäivänä siihen on otettu jo enemmän mukaan prosessin kehittämistä. Mutta jos nyt pitää sanoo, niin se on vielä 80/20, tuotekehitys 80, muu maksimissaan 20. Mut enenevässä määrin on myös meille nyt näitä projekteja, jotka kohdistuu itse prosesseihin."

Quotation 13:

"Kyllä me varmaan ollaan yritystoiminnassa enemmän välttäjiä. Meillä on hyvin tällaset stabiilit toimintamallit. Meillä on melko tarkasti tuotteitten laatu määritetty ja testattu ja näin poispäin, että. Varmasti tällaset suuret yritykset on ehkä enemmän sitten riskin välttäjiä, näin näkisin."

Quotation 14:

"Ja me yritetään sillain ajatella, että mitä asioita tekemällä, mitä meillä pitää olla valmiina esimerkiks jossain teknologiassa, ihan siis vaikka nyt tilaus/toimitus-prosessin osalta, että me pystytään meijän asiakkaat palveleen parhaalla mahollisella tavalla, elikkä jokku sähköset esimerkiks rajapinnat järjestelmässä pitää vaan olla, niitä kehitetään koko ajan. Tekniikassa tietysti mietitään sitä, että mihin suuntaan se tekniikka menee. Et meillähän periaattees pitäis olla jotain uutta tuotavaa myös. Tuolla tulee elektroniikkaa mukaan, rekrytoidaan ihmisiä, jotka sitten hallitsee sitä alaa. Ja tuotetehtaallahan totta kai sitten tekninen kehitys on oma juttunsa. Et siellähän pitää sitte haistella, että mitä teknologioita voi vaikka yhdistää. Et kyllähän me aika sillai yritetään olla siellä eturivissä. Toisissa asioissa ollaan enemmän proaktiivisia, toisissa enemmän reaktiivisia."

Quotation 15:

"Meijän pääasialliset kilpailukeinot on melko helppo sanoo. Siin on laatu elikkä komponenttien kesto. Sitte tää Knowhow – tekninen osaaminen ja kyky yhdistää eri teknologioita kokonaisuudeks, jollon asiakas pystyy tavallaan ottamaan näin tämän repertuaarin kokonaisvastuun, elikkä ostaa sen yhdenkin liikkeeseen sisätäl, että se tilas ne 50 eri toimittajilta. Ja siitähän on asiakkaalle kustannusetua selkeetä + sitte tää tavallaan vastuu, kokonaisvastuu, et me vastataan siitä yksiköstä. Tavallaan meil on sen toiminnallinen vastuu myös. Ja kyllä tietysti kansainvälisyys on se yks etu, elikkä suomalaiset koneenrakentajat kuitenki toimii glopaalilla markkinoilla että kyl se on, kyllä me nyt yhden pienen suomalaisen kanssa esimerkiks varaosabisneksessä toimia meijän kanssa… Kilpailu on kova. Mitään ei tuu ilmaseks kyllä, se on tosiasia."

Quotation 16:

"Eli me alotimme Wave-projektin tuota niin itsenäisesti ohjaamon X kohdalla. Mut sitte se, meil ei ollu voimavaroja, se kuivu. Siihen pitää olla voimavaroja satsata ihan niinkun muihinki rationalisointeihin…. Se on ihan normaalia toimintaa pitäs olla. Siihen pitää olla voimavaroja satsata. Ei se muuten mee eteenpäin…. Näin se on. Nii kisa taitaa koventua, sillä vaikuttaa siltä ja siinä kilpailus on pysyttävä mukana. Muutoin jää pian lehdelle soittelemaan."

Quotation 17:

"Se on nyt vähän, kantilta, jolta kattoo se. Jos on pyöriä vastaus sanoo sekä että. Sillä tavalla, en mä voi sanoo, että välttäviä, mutta tuota niin sanotaan niinkun se rakenne päätetään tavallaan yhdes asiakkaan kanssa. Se on kompromissin tulos. Mutta siinä mieles ehkä jonkin verran riskin ottajia näiden komponenttien hankinnassa, mitä me ostetaan muilta toimittajilta. Elikkä meil on liikaa keskittäny…Että jos jotaki tapahtuu, ni ainaki pitäs olla enemmän suunnitelmaa sille varatoimittajalle… Sen kyllä sanosin näin."

Quotation 18:

"No Suomessa oikeestaan ei kovin paljoo oo kilpailijoita. Joitaki työmaaohjaamon valmistajia löytyy, mutta ne on niin pienessä mittakaavassa. Ne tekee pääsääntösesti ni sanotaan yhdelle asiakkaalle, tai itselleen. Ja meillä taas kilpailijat löytyy Ruotsista ja Tanska, Saksa, niinku lähinnä täällä…. No se on nimenomaan tämä tää, että on pystytty vastaamaan suhtkoht. lyhyellä toimitusajalla asiakkaiden vaatimuksiin…. Se toki on vahvuus sitte, että meil on henkilökunta valmis joustamaan."

Quotation 19:

"No meil on tietyt harvat asiat, mitkä on ohjeistettu vaan varmistaaksemme sen, että siellä saa sellasta, mitä on tilannu. Kaikki tämmönen, hyvin paljon Jari rohkasee tämmöseen oman

järjen käyttöön ja vapaaseen toteuttamiseen sanotaan ihan ympäri firmaa että. toteutustapa on sama kunhan lopputulos on se, mitä nyt, jatkuvaan innovatiivisuuteen ja kehittämiseen rohkaseva jatkuvasti. Et kyl mä näkisin, et hyvi vahvasti autonominen toimintatapa firmassa. Että en muista sellasta kertaakaan, että olis siitä moitittu, että on omatoimisesti jotain tehty. Päinvastoin, että, pikemminkin että. Tulee yleensä satikutia, jos ei ole osannu omatoimisesti. Ja sentyylisiä ihmisiä ei sovi tänne yrityskulttuuriin, jotka ei osaa omatoimisesti tehdä päätöksiä tai muuten ideoida, viedä asiaa eteenpäin. Et kyl me semmosta, semmonen yrityskulttuuri on, autonominen ja semmonen asenne, että haluu ottaa selvää. Kyl mä näkisin, et on tosi vahva kulttuuri."

Quotation 20:

"Mun mielestä tuotekehitystä on se, et meil on nää kantoaaltoryhmät tarkottaen, et pitäs se ison syndikaatin ja siihen kuuluu tämmöset kehitykset. Elikkä se on ihan myynnissä, valmistuksen eri vaiheet ja koulutus ja kaikilla on tämmönen oma. Tästä omasta porukasta kasattu porukka, joka säännöllisesti kokoontuu. Ryhmät auditoi toisiaan ja huomataan vaikka, että tuol koneistukses on jotain, mikä meidän pitää käsitellä siellä kanssa. Nää ryhmät, no se on vaan yks osa sitten tämmöstä, mut siel on myöskin sitten täällä jokasella ryhmällä, jos meilläki on – minäki istun muutamassa, niin aktiivimyyntiryhmä, niin myöskin vastuulla on kehittää sitä. Kehittää ja keksii uutta. Valmistuksessa nii menetelmäkehitysryhmä…"

Quotation 21:

"Kyllä me nimenomaan ollaan ottajia… Ja tota. Myöski sitte tää Kiinan kuvio, että periaatteessahan se oli hyppy tuntemattomaan…"

Quotation 22:

"Kyl mä edelleen näkisin, että ei me, ei me lähetä semmosta tuttua ja turvallista, vaan ihan vaan kyllä halutaan erottua monesta tai vastaavantyylisistä firmoista, niin kyllä se meillä tätä riskinottoa on aina (1 sana ei kuulu). Sit tietynlainen innovatiivisuus, että pitää keksiä jotain uutta, jotta me erotutaan. Kyllähän me ollaan riskin ottajia siinä mielessä."

Quotation 23:

"Kyllä mä nään, että – tai sanotaan, ulkoiset paineet on pitäny siitä huolen, että on ollu pakko miettiä pakkaa uusiksi, että mitä täs nyt ruvetaan tekemään, meillä hommia tästä on. Ja tässä koko ajan ninku tuntosarvet maailmalla, että pyritään miettimään, että mitähän täs firmassa nyt oikeen tehään. Semmosta ajatusmaailmaa, että se on ihan sama, että koneistetaanko, tehdäänkö ihan jotain muuta. Vaan ideana on just se, että oltais tän palvelun tuottaja tietyille asiakkaille. Esimerkiks just tämä, että toinen yksikkö kokonaan lopetettiin ja valtaosa tuotannosta ulkoistettiin…. En tiä, onko ollu proaktiivista vai reaktiivista. Kyl se varmaa enemmän on ollu, jos nyt taustapeiliin kattoo, ni on reaktiivista. Että se on pakon sanelemana ollu. Proaktiivista keskustelua käydään paljon, mutta tekoja ei. Että ne on enemmän näin, että ne teot, mitä on ollu, ni on ollu pakon sanelemia."

Quotation 24:

"Sanotaan ehkä työvälinepuolella niin ne, me halutaan erottua. Me ei haluta hinnalla kilpailla, me halutaan kilpailla toimitusajalla, laadulla ja sitte sillä, että me pyritään tuomaan sitä helppoutta asiakkaalle. Ja jos sanotaan, että kui aggressiivinen… ni ei me lähdetä toimitusaikaa… ehkä aikasemmin lähdettiin enemmän siihen, että pudotettiin hintaa tai pudotettiin toimitusaikaa, jotta saadaan se kauppa. Mutta me koetaan, että niistä on niin paljon saatu nenillemme, että meidän pitää pystyä se asiakkaalle se kauppa argumentoimaan jollain muullla ku hinnalla tai sillä, että kutistetaan se toimitusaika niin, että tehdään ittellemme isoi vaikeuksii. Nimeomaa sillä, tai nimeomaa sillä asiakkaan, tuodaan sille asiakkaalle helppous siihen, siihen kaupantekoon ja siihen mitä se tarvii."

Quotation 25:

"Kyl mää sanosin näin, että ne toimii aika tavalla kirjan mukkaa. Ne on, minä sanosin, että meijän henkilöstö on aika luovaa. Elikkä mulla on semmonen periaate, ko ihmisiä otan töihin, minä tarviin ihmisiä – tai minulla ei ole käyttöö ihmisille, jotka eivät pysty kehittymmään eikä kehittämmään… Että me sovitaan aina se prosessi, miten se toimii ja miten toimitaan.

Mutta jos sitten henkilöistä huomaa, että ku tää ei toimi, ni muutetaan. Että ne ei omin lupineen ei lähetä muuttamaan sitä, vaan jos niille tullee parempi idea, että okei mul on semmonen idea että tää…. Kyllähän on olemassa, meillä on visio ja sitte sen pohjalta on tehty strategia. Ja sitte kun on joku sanonu, että mul on semmonen… Tiät sä meijän vision, vai mennäänkö tätä kohti vai mennäänkö me jonnekkin muualle, että mietippäs tarkkaan tässä. Sanoo, että mennään vähän sivvuu. Minä sanon, että nii, kannattaako meijän keskustella tästä tämän enempää. Sanoo, no ei kannata. Ne tietää sen, mihin me ollaan menossa, mikä on strategia ja sitten ne pittää tietysti ne toimenpiteet suunnata siihen visioon. Sen mukkaan mennään ja… Kyllähän se tarkkaan pyritään ohjeistamaan tätä toimintaa."

Quotation 26:

"No tuota totta kai toimitaan ja mennään ja tehdään asioita tiettyjen pelisääntöjen mukaan. Mutta tuota minun oma toimenkuva nytte ja työnkuva on kuitenki aika vapaa. Minä pystyn tekemään niitä asioita oman aikataulun mukaan ja omaan tahtiin ja omalla, tietyllä omalla tyylillä.."

Quotation 27:

"Paljon. Elikkä kyllähän me suhteessa liikevaihtoon, ni kyllähän me laitetaan. Elikkä vuosittain – tuota tällä hetkellä nääki projektit – mitä ne on, parisataatuhatta euroo… Mul on joka vuos Tekesin projektin. Eli me jatkuvasti, aina kun entinen loppuu, ni alkaa uus."

Quotation 28:

"No fyysisesti varmaan tuotteiden kehittämistä niin tällä hetkellä, sanotaan, että uusien standardituotteiden tai noitten myyntituotteiden kehittäminen on aika vähäistä. Et itse asiassa siihen ei ole resursseja tällä hetkellä. Et ei ole henkilöä, joka niitä kerkiis miettimään ja suunnittelemaan. Mut tuota nii tietenki jos asiakkailta tulee sitten jotain ehdotuksia, että nyt he tartteevat tällasta ja tällasta tuotetta ihan jatkuvasti ja sitä menee koko ajan, että pitäs saada sitä ja pitäs saada nopeesti, muuten totta kai sillon asiakkaan kanssa yhdessä suunnitellaan ja kehitellään niitä tuotteita.… Sit tuota niin varsinaisesti näin työnkuvaan tai toimenkuvaan liittyviä kehityksiä tai prosessien miettimistä, niin – no totta kai tj miettii varmaankin koko ajan koko yrityksen osalta ja kannalta niitä uusia prosessja, että miten asioita viedään eteenpäin, miten niitä kehitetään. Mut sitten tota jokainen varmaan sitte taas omalta osaltaan miettii sitä oman työn kohdalta sitä, että miten sitä mahdollisesti vois kehittää, helpottaa, nopeuttaa jotain tiettyä asiaa ja prosessia. Ja sen mukaan sit yrittää keksii uusia juttuja. Ja sit jos jotain on, jotain tarvitaan jotain uusia välineitä ja laitteistoja tai jotain tämmöstä kehitystä, sitte tietysti ollaan tj:aan yhteydessä, jollonka me käydään läpi niitä ja suunnitellaan ja mietitään ja sen jälkeen jos se on hänen mielestä kans se homma OK, ni sitte viedään asia eteenpäin."

Quotation 29:

"Kyllähän tää on koko ajan tietysti nyt näitä, mehän otetaa koko ajan riskiä, ku nyt tilasin kesäkuussa taas uuden, lähes 700.000, tota elän koko ajan siellä riskirajoilla, mutta eihän niitä ilman, jos ei ota riskiä ni eihän tästä tuu mittää. Jos me ruvetaan välttämään riskejä ja minimoimaan, eli ruvetaan säästämään, me saahaan lopettaa tää liiketoiminta muutaman vuoden päästä. Elikkä mul on aina semmone lause, mä aina sanon kaikille, että säästämisellä ei tehä tulosta…. Se terve säästäminen pittää aina olla ja niihän mä oon, mä kehitän toimintoja ja rukkaan ja hyvin herkästi lähen siihen, että kokeillaan tuota ja."

Quotation 30:

"No se on, minä, mut mä oon aina pärjänny, ku mä oon aina ennakoinu sen ja siirtäny sitä tuotantoo ja pelannu näihen toimittajien kans. Niin kun nyt jos me ei ois Venäjältä siirretty sitä tuotantoo pois, nii ei ois pästy – hintoja ois pitäny nostaa 25 %. Nytten me rakennettiin tää verkosto ja siirrettiin ne, ni nyt me saatiin hintoja pudotettuu 25 % ja kate nousemaan kaksinkertaseksi. tällä tavalla, koko ajan tällä tavalla on pelattu viimeset kolme vuotta."

Quotation 31:

"Aktiivisesti kyllä. Et mietitään koko ajan tietenki tulevaisuutta ja pyritään tekemään asioita sen mukaan ja kehittämään asioita, että pärjätään tulevaisuudessa kilpailussa, että se ontällä alalla nyt kuitenki koko ajan, varsinki standardipuolella sekä myöskin nyt tuolla erikoiskomponenttipuolella, ni kilpailu kiristyy. Ja se vaatii paineita sit tietysti ennen kaikkea standardipuolella toho hinnotteluun ja sitä koko ajan tietenki kehitetään ja mietitään uusia kuvioita siihen. Mut varsinaisesti sanotaan sitten uusien asiakkaiden hankkiminen, tällanen kartottaminen, ettiminen, niin se on, sitä on jonkun verran… mutta valitettavan vähän. Sitä pitäs olla enemmän, tai sais olla enemmän. Mut yksinkertasesti meil ei tällä hetkellä, ei ole riittävästi henkilöitä siihen tossa myynnin puolella, että olis mahdollista tehdä sitä."

Quotation 32:

"Mutta hinnat on, sinne nytki tuli, helmikuussa tuli semmonen, meni nurin meijän yks kilpailja, niin siellä olevat ne työntekijät lähti ja perusti uuden ja alottivat kilpailun hinnoilla. Alko tulla palautetta, että ne myy hyvin aggressiivisesti. Mitä sie nyt aiot tehä. Ja mie sanoin, et no elokuussa tulloo uus hinnasto. Ei oo ennen ku elokuussa ja siinä, minähän oon aistinu nää. Nää on sitten, teen omat suunnitelmat, että poistetaan tietyt halkasijaryhmät, keskitytään niihin ja asiakkaita ja. Pikkuhiljaa rakentamalla ni siitä saahaan se konsepti, että voijaan tehä se pudotus. Mutta kyllä se on ollu… Sitten toinen oli se, että me oltiin sillon 30-50 % halvempia kun muut 90-luvulla. Meille tuli, me myytiin paljon. Toki täytyy muistaa, että se, me on viime vuotta lukuun ottamatta niin koko ajan standardikomponenttien myynti on kasvanu. Laskutus on kasvanu koko ajan. Et se on tietysti, vaikeina aikoinaki koko ajan vaan asiakkaita saatu lissää. Mutta se kannattavuus on heikentyny siellä. Et se on, tehtiin tosiaan, että voittoprosentti oli siellä 20-25 % melkein joka vuosi tehtiin ja ne oli hyviä aikoja. Mut se tosiaan tuli tää glopalisoituminen ja kilpailu kiristy ja maailmalla nää meijän kovimmat kilpailijat puotti rajusti hintoja ja perustivat tänne toimistot ja… Kyllä se sieltä kautta tuli, että… No sitten tietysti, sitten tein oikeeseen aikaan ratkasun, että me ruvetaan kehittämään tätä erikoislevyjen, erikoistuotteiden valmistusta, ruvetaan panostamaan sinne, että siellä saahaan parempia hintoja, parempia katteita. Eli pitkälti on tehty oikeita valintoja oikeeseen aikaan."

Quotation 33:

"Oikeestaan täällä kentällä, jotka toimitaan, ni aika vapaasti. Eli päivien kulun voi aika lailla ite päättää…. Että välillä tehään aamuviidestä iltayheksään ja välillä lähtee yheksältä töihi ja tullee kolmelta pois. Et tuota pystyy aika pitkälle ite säätämään. Oleellista on, että homma toimii että. Eli niinku vähä tyyli vapaa."

Quotation 34:

"Kaikki hyvät ajatukset otetaan vastaan. Et tota sitte niistä keskustellaan ja katotaan, että mikä vois toimia ja. Meil on aika hyvä porukka ja pystyy sillee niinku, tuntee, että ku tullee hyvä idea ja porukka on sitä mieltä, et tämähän vois toimia, niin kokkeillaan nyt ainaki. Mittää ei tapahu, jos ei yritä ees, et jää vaan jumittammaan. Jos ei toimi, niin sitte otetaan askel takasi ja mietitään, että mitä pitäs tehä eri lailla. Mutta oleellista on kuitenki se, että yritettää."

Quotation 35:

"Mielellään kutsusin suurinta osaa tämän organisaation toiminnasta ni asiantuntijaorganisaatioks mielelläni. Nautatilan kehittäjät, joiden tää toimintakenttä on loppukasvatustilojen managementin parantaminen, niin ilman muuta he toimivat hyvin pitkälti oman asiantuntijuuttaan käyttäen ja varmasti toimintavapaus on suurta. Samoin hankintaedustajat, jotka vastaa asiakkuuksista, ostavat lihat, ostavat vasikat, myyvät rehut, niin kun yleensäkki tääl asiakaspinnasta vastaavilla henkilöillä on, paras asiantuntijuus on heillä siellä. Ja tietysti hankintapäälliköt tiimien vetäjinä sitte 3 hankintapäällikköö ni vetävät ikään kuin tiimiä ja sitten tiimi itse katsoo tehtäviään, mitä kulloinkin tehdään, missä järjestyksessä. Tietenkin jonkunlaisia impulsseja tulee sitten johdostaki aika-ajoin. Mut et kyllä kenttäorganisaation toimenkuva on asiakaspinnassa asiakkuuksista vastaavien henkilöitten ja kehityksestä vastaavien henkilöitten toimenkuva eritelty. Ja enemmän katotaan tuloksien kautta. Pikkusen sellasta ilmapiiriä on kyllä ollu, et sit ku puhutaan rahasta, niin tässä, tämä organisaatio, kun olemme kuitenki osuuskunnallisesti omistettu firma, niin täällä

tällanen toimintaperiaatteisiin ja sääntöihin kuuluu ylivertainen kohtelu asiakkuuksista riippumatta, niin tietenkin se on tuonu tähän tälläsen hinnotteluasioihin ja raha-asioihin tälläsen hyvin hinnastoperusteisen toimintakulttuurin. Et tavallaan hinnoista ei keskustella. Vois sanoo, että lähestulkoon viinakaupan meininkiä."

Quotation 36:

"No tota niin tohorahajuttuun niin siitä kehittämisprosenttia tai summia en osaa sanoo, mutta sitte kyllä ylipäätään niin, ylipäätään niinkö asioita niin hyvin yritetään kehittää ja toimintamalleja justiinsa. Ja niinkö hoitaa tietojärjestelmiä jne., että kyllä niihinki panostettaa jatkuvasti."

Quotation 37:

"Kyllä me riskin välttäjiä ollaan. Et jos me havaitaan tämä laaturiski tai imagoriski tai tällanen, niin tuota erittäin varovaisia. Mutta sanoisin sitten kyllä, että rahapuolessa niin tähän kyllä me varmaan, ja ollaankin ilman muuta siis suunnannäyttäjiä oltu, että jos alan kehitystä johonkin suuntaan on viety sellasta, missä selvitään rahalla taikka organisaatiomuutoksilla, kokeillaan jotain uutta, joka, jolla ei nähdä selvästi, että sillä olis tällasta eläintauti- tai näihin suurimpiin, isompiin asioihin vaikutusta, niin uskalletaan kyllä kokeilla."

Quotation 38:

"Ja tota nyt sitten näitä strategisia toimia ja kehitysjuttuja niin tämä, mistä tässä firmassa on vasta päästy sellasille alueille strategisissa pohdinnoissa, että meiltä löytyy näkökantaa sinne 5 vuoden, 10 vuoden – niitä uskalletaan vähän enemmän aukasta ja kattoo oikeesti, eikä puoleksi. Mutta kyllä me vaan valitettavasti liian monta asiaa tehhään tässä hetkessä. Ku tänä päivänä tulee ongelma esiin, ni sitä ruvetaan oikeesti ratkomaan vasta huomenna. En tiedä, se taitaa olla aika monessa muussaki firmassa kyllä, mutta jotenkin vaa sellanen ongelma meillä varmasti on…

Quotation 39:

Ja kyllä tässä on riskejäkin otettu tulevaisuuteen katsoen. Ja tuota kyllä me tälläki hetkellä omasta mielestä nii ollaan tässä asiassa ihan merkittävästi alaa keskimäärästä rivakammilla liikkeillä – esimerkiks pääkilpailija on tullu puoli vuotta, niin kaikki asiat, mitkä me on nyt tehty viimesen kahden vuoden aikana. Pääkilpailija on puolen vuoden sisään tehny täsmälleen samat asiat."

Quotation 40:

"Kyllä se totanoin niin joskus vaaa joissaki asioissa tuntuu, että ensi katotaa, mitä tapahtuu ja sen jälkeen ruvetaan vasta reagoimaan, et tota. Että tavallaan pystys reagoimaan aikasemminki varmaan."

Quotation 41:

"Et kyllähän kilpailu on selkeesti lisääntynyt. Omalta puolelta on ainaki pyritty pitämään se mahollisimman rehtinä sillee, että kunnioitetaan toisten sopimuksia… Jos me ei kunnioiteta kavereitten sopimuksia, ni ei me voia kuvitella, että ne kunnioittas meitä."

Quotation 42:

"Että kaikki ne sellaset käytännön hommat ni ne hoitaa, et emmä niihin puutu sillä lailla. Mutta sitte kaikki reittimuutokset ja sellaset, jos muutetaan jonkun kaupan paikkaa tai sellasta, ni ne taas sitte on mun hommia. Mutta on, mä teen niille työvuorot, tai niil on säännölliset vuoroviikot, mitkä niil on, mutta että sitte jos ne haluaa vaihdella nii ne voi keskenään, ne vaan ilmottaa mulle, että me on vaihdettu."

Quotation 43:

"Tämähä on sillä lailla niinko just vappaata työtä, että pittää pystyä tekemään itsenäisiä ratkasuja niinkun siitä perustyössä, miten mä nyt sanon…. Se on vähän samalla lailla kun

tämä on ihan niinko voi sanoo, että ihan semmosta ruumiillista työtä tai vain työtä. vaikka omakotitalon rakentaminen. Tämä ei sillee, miten niinko ajat-, sillee ajattele työnä…. Että tota totta kai meillä niinku ohjeet tullee konttorilta, mitä tehhään, ajomääräykset tullee, mitä tehhään, mutta kyllähän niinku se joutuu soveltammaan sinne käytännöihin ns. pikkuaskareita, että tämä mennee, tullee tavallaan linjat ja tämmöset…. Ja sitte tietysti minä olen omille työntekijöille, että mul on tietyt, että miten tehhään. Totta kai ne niinku tekkee Sitä itsenäisesti ja joutuu tekemään, ku ite on ratkasujen ääressä siellä ni – on asiakkaan kanssa tai eläimen kanssa tai muuta tai mitä tahansa, ni pittää pystyä tekemään ite."

Quotation 44:

"Sitä olis muuten ihan hyvä ajatella. Ehkä liian vähän. Tai sitte tavallaan, että aika vanhoilline, pikkusen kaavoihin kangistunutta täällä on, mutta ei sillä tavalla. Enempi haluisin kokeilla ja uudistaa, mutta se on jotenki se vaa vähän niinkuk jumplaa. Ei välttämättä oo ihan pelkästään meistä kaikki kiinni…"

Quotation 45:

"Ainahan sitä tulee mietittyä kaikkee uutta. Että oikeestaan kyllä. Mutta se on tietystikii, sanotaan monistaki ihmisistä kii, että miten se sitte niinko mennee ja on. Mutta kyllä oon halukas kokkeilemaan uutta. Onhan sitä aina niinku kehitetty, mutta me tietysti, meillä on likellä se ajoneuvon jossakin lastaus, lastaustekniikasta niin (1 sana ei kuulu) sen auton tekniikasta ja niin päin pois se kehittely ja juttu ja siinä sitten niinkun eläinten kulku on oleellista. Kylmiökulkuneuvoista ja tämmösistähän se on niinku se meijän se kehittely että enemmänki."

Quotation 46:

"Minä taisin sillon kerran ollaki lomalla, missä me oltiin Kyproksella, nii siinähän minä ton kärryidean..."

Quotation 47:

"No sanotaan ny, että sellaasen maltillisen riskin ottaja paremminki. Että pyritään siihe, että jos johonki hommaan lähretään, ni se on sellane homma – ensinnäki, että me hoidetaan se, mutta että ei me lähretä tuonne urheileen tai johonki, että ku jatkuvastiha on myynnissä nykyään autoja ja näin, ni ei kovin aggressiivisesti olla lähdetty hakeen mitään kasvua tai sellasta."

Quotation 48:

"Tarkasti lasken investoinnit ja muut, niin kyllähän… Aika tarkkaan haluan selvittää, mitä on tulossa ja mitkä on riskit ja sillä tavalla laskelmoin aika tarkasti niitä."

Quotation 49:

"Kyllähän sitä on välttäjä. Aina mä oon tämmöne jalat maassa kulkija. Tota satsaus, satsaus… – Riskiäkihä on otettava ja tällee, mutta tietysti aina tullee mietittyä sitä, että ei niinku, se ei suinkaan lähe vaan ennenkun kartotetaan tilannetta, että onko tää järkevä vai pittääkö meijän jotenki toisin päin tätä tehä, ilman muuta."

Quotation 50:

"No tota, jos mä sanosin sen verran, ni ei nyt hirviän aktiivinen missään nimessä en ole niin. Toimintamalleja täytys löytää uusia, niin ne ois ihan tervetulleita, mutta ei niitä hirviän helposti ei löydy kumminkaan tälle puolelle. Emmä ainakaan oo löytäny."

Quotation 51:

"Kyllähän sitä mietittyä tullee ja tälleen, mutta tuota kyllähän se käytännössä meillä on niin, että mehän tehhään niinko, tehhään vaan tätä työtä. Pääasia se meillä on. Että me vaan tehhään niinko tätä työtä. Mutta totta kai mietitään sen sisällä niitä juttuja aina ja tällee, mutta just tämmösessä ketjussa tai sanotaan tämmösessä yrityksessä, ni on pieni – tai tuntuu, että se vaikutusmahollisuus on pieni itellä, niin ei tietenkään niinkun jaksa… Eikä se voi lähteä siitä, että jonkun autoilijan mukkaan vaan lähettäs viemään jotaki ketjuja, vaan ne

pittää olla niin, että kun se on siellä ketjussa se palveluyritys, niin se palvelee tätä ketjua. Elikkä se tekee, mitä se ketju tarvii, sen pitää tehä sen autoilijan."

Quotation 52:

"No emmä nyt pitäs sitä sillä lailla kauhean aggressiivisena, että kun meil on toistaaseksi voimassa olevat sopimukset, että ei oo sillä lailla mitään tarjouskilpailujuttua, että sopimukset on kumminki koko ajan voimas ja ei sillä lailla… Ja eläinpuolella ku ei siellä oo sellasta, sehän on niinku kuljetuksen ostaja on kokenukki sen joskus ongelmana, että kun ei oo täällä sellasta kilpailua, että tuota pyydettäis tarjouksia ja sillä lailla."

Quotation 53:

"No en mikään sillee aggressiivinen en ole sillä tavalla. Toki en koe silleen… Tämä aggressiivinen tarkotti sitä, että jos mä jou'un tallomaan siinä jotain virkaveljee sitten aika lailla. Tää on nii supistunu ala, ni jos jotaki rupee tuleen aggressiiviseks vaa enemmän, ni mä sillon polen vähän muita arvoja. Nythän se ei käy niinko mun tyyliin."

Quotation 54:

"Tota ei sillee, että ei markkinointia oo ollenkaan. Elikkä semmosta, ihan niinku semmosta aivan ku sillee aggressiivista kilpailua ei oo, että vapailla markkinoilla, mutta totta kai me halutaan hoitaa Atriaan päin tämä työ niin että kato sitä ajatellaan, että siellä sisällä toisten autoilijoitten kanssa, ni totta kai me kilpaillaan siitä, että me ei olla se huonoin tai – miten sen nyt sanos, mutta että oltas ainaki se sopiva autoilija, että Atria siis sen palvelun, mitä se niinko haluaa ostaa meiltä, ni se sais meiltä. Ja tota, ja minä luulen, että kun näitä autoilijoitaki on koko ajan vähentyny ja tällee, ni ne on vaan jääny se porukka jälelle, jolla se homma onnistuu ja ne on niitä luotettavia palvelijoita."