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ABSTRACT

This doctoral thesis focuses on dyadic relations between the main contractor and its suppliers. Specifically, it studies critical factors, existing in communication from the perspective of supply chain actors, when operating in dyadic relationships. It integrates supply chain management and theories vital when concentrating on industrial networks and supply chain relationships with communication.

The doctoral thesis has its basis in qualitative research. With one main contractor and its supply chain partners in-depth interviews were conducted. Interviewees represented different organizational levels, the main emphasis being among actual supply chain actors, e.g. boundary spanning people, whose ways of operating reflects the level of the collaboration and partnership in every-day business. Additionally, two focus group discussions were organized, in order to update and prioritize factors found in in-depth interviews.

The data gathered in this study points out the importance of relationship characteristics, that is, factors that were found as critical when operating in dyads, more specifically, in partnership relationships in supply chains. Relationship characteristics were divided into two categories, first of them concerning the dyadic relationship and its contents and the second expressing factors in the environment, e.g. outside the actual dyadic relationship. The themes reflecting the relationship itself, information flow, power and dependence and trust, were considered as the most important having a key role in partnership relationships, whereas themes covering partner's characteristics, partner's location and operating in supply networks were found as secondary.

More importantly, when processing relationship characteristics further, it was possible to define factors that can support or prevent relationship development of dyadic relations. The enablers and barriers can be used as a basis when creating ways of assessing partnership relationships. Therefore, based on enablers and barriers of supply chain relationships, argument patterns were created that can be used as a starting point when assessing supply chain relationships. Argument patterns contribute an important element that can be integrated with other assessment tools. In other words, it helps the management level to discuss and assess themes of communication and to utilize relationship enablers and barriers in strategic management.

Keywords: dyadic relations, supply chain communication, procurement

Author's address   Tuija Korpela
                       Kilpisenkatu 14 b 45, 40100 Jyväskylä
                       korpetui@outlook.com

Supervisors   Prof. Marita Vos PhD
                       Department of Communication
                       University of Jyväskylä

Reviewers   Tuula Mittilä PhD, Senior Researcher
                       University of Turku

                       Prof. Jukka Vesalainen PhD
                       University of Vaasa

Opponents   Tuula Mittilä PhD, Senior Researcher
                       University of Turku

PREFACE

The journey from having an idea of writing a thesis concerning supply chain communication to this point - finishing the study - has been long, sometimes bumpy, yet a very colorful one. I would not be here, writing the last pages of my study without a group of people, who have been supporting, commenting on and participating in my work. First of all, I want to thank everyone who has been a part of my study in any way possible.

I started my work with Professor Jaakko Lehtonen, whom I want to thank for being a critical and valuable advisor when creating the main structure of my thesis. After the structure was created and preliminary work accomplished, I began a joint journey with my supervisor, Professor Marita Vos. Her tremendous support, multifaceted professionalism, advisory and continuous motivation have been significant factors in this long process. Also, the ability to encourage and maintain the positive spirit, even in the darkest moments of challenges, has helped me greatly and kept me believing in the final day of finalizing this study!

This research has evolved and developed via my working experience and is connected with the global business environment and its changes that the organizations in focus have met. There are many people, representing the main factor and suppliers, who have been involved with this study. One of the most important and first specialists, giving valuable advice and enabling my participation in various joint meetings (negotiations, supply chain development projects, audits etc.) was Mr Hannu Paanala, Project Manager in Valmet Technologies Ltd. I owe him special thanks for providing and supporting discussions in the starting point, sharing the background information and enabling me to collect the core of my study, the data from the representatives of the main factor and the suppliers.

Mr Olli Hyvärinen, Vice President in supply chain, Valmet Technologies Ltd., has supported my study in various ways by providing financial and informational support in writing the thesis and allowing me to join meetings where core ideas and factors of partnerships and supply chain collaboration are shared and discussed. Mr Harri Allonen, Director in Subcontracting & Comp. Category, Valmet Technologies, has enabled me to collect the data in the focus group phase. Also, I want to express my deepest gratitude to interviewees for sharing valuable and confidential experiences and views on the factors influencing the communication in supply chains. In addition to these specialists, I especially want to thank Mrs Hilkka Alatalo-Korpi, Vice President in Talent Management and my previous and current superiors, Mr Jorma Sinkkonen and Mr Reijo Heinämäki for enabling me to continue my studies beside my tasks at work and during my study leaves. My colleagues and business partners have shared my journey in many ways, and they have always been encouraging me to continue my path, no matter what. To them I also owe my deepest thanks.

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Tuija Korpela

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1   INTRODUCTION

In the beginning of the research process, when discussing with different business representatives and supply chain members, the ambiguity of the concepts of dyadic relations and, more specifically, communication in dyadic relations became evident. For some, when contemplating challenges in dyadic relationships from the perspective of communication, communication meant software or hardware solutions in IT or projects carried out by the communication department. For others, communication referred to fluent information flows or sharing views on goals and their implementation with other supply chain members. Very often communication is taken for granted: it is conducted all the time, everywhere when people are interacting. Without communication no operation or result would be gained. Simultaneously, the contents of the concept can consist of a variety of interpretations, views and practical implementations. However, since communication already exists in business activities and business relationships, why would it be worthwhile to take a closer look at it, especially in dyadic relationships?

The key words in discussing communication in dyadic relations are its characteristics and quality. They provide implications on effectiveness and efficiency which further indicates to the performance and its level, e.g. the successful or weak outcomes in business interactions. More specifically, it is relevant to take a closer look at factors that can influence the level of performance, that is, the outcomes provided by the organizations and their personnel in supply chains. This information – specific information on critical factors in dyadic relations communication - is still lacking. Therefore, it is vital to discuss and study communication, in order to contribute current information for the use of business organizations and their management, as well as for the personnel that operates daily in different relationship interfaces in various organization networks.

A global business environment reflects challenges and opportunities to organizations and their everyday operations. Companies have the pressure to focus on their core business and to acquire suppliers, producing concepts and products that are more complex and innovative than previously, in traditional

markets. Main contractors want to concentrate on collaboration with fewer supply partners in supply chains. Simultaneously, a dynamic business environment requires agility, innovativeness and global as well as local presence near customers. Due to these requirements chains and networks are created, trying to provide effectiveness and the highest competitive advantage for the use of the end customer and its customers. Instead of competing against each other, organizations are now competing in networks against another network, creating collaboration relationships with their network partners (Spekman, Kamauff & Myhr 1998: 632-633).

Networks rarely end or start somewhere. They are complex webs, where each actor has to survive. In order to succeed, organizations develop deep collaboration relationships, where joint operations, mutuality, two-way communication, trust and commitment replace the traditional pure competitive approach against other actors in networks. However, this is not an easy path: it requires an updated and a fresh look at organization's environment, its internal and inter-organizational relationships.

Organizations function in a complex field of forces in which organizations are dependent on many parties, and where communication has an interface function, e.g. facilitating cooperation (Vos & Schoemaker, 2011: 21, 37-38). In strategic management and strategic planning literature the focus is on finding a perfect fit between the organization and its environment (Hofer & Schendel 1978). Since organizations are currently seen tightly linked to their environment, the main question is: with and to whom organizations are creating and exchanging value. Individuals, groups, and organizations affect and are affected by an organization, thus, relationships between them and the organization play a significant role. (Freeman 1984, Freeman, Harrison, Wicks, Parmar & de Colle 2010.) Respectively, the management level has to take the question of stakeholders and their influence into account when considering value creation and value growth. This calls for an analysis of the relationship with the stakeholders and designing strategies for dealing and cooperating with each stakeholder group. However, as Freeman (1984) states, an analysis is not enough. The problem of congruence calls for a need for understanding how stakeholders operate and cooperate, e.g. the processes and the ways of interaction must be understood.

Since individual organizations and businesses are not regarded as autonomous entities but as supply chains (Lambert & Cooper 2000), supply chain policies and supply chain development can significantly influence the success of the organization and its partners (Spekman et al. 1998). As Möller, Rajala & Svahn (2009: 9) state, collaboration networks that have been built strategically and consciously enable conducting business in a new way. This requires identifying central questions of management and solving them by developing the concept tools, skills and knowledge needed. Operations in supply chain relationships have to be integrated with the strategy of the organization and the activities the organization performs; in order to produce value to its shareholders, clients and citizens, the organization has to have a

clear map how to produce it. This refers to strategy that is understood by everyone and integrated with every activity the personnel perform. In order to follow the strategy as well as possible, there has to be to clearly defined way of working and the tools that measure it, including also the intangible assets such as communication. (Kaplan & Norton 2004.)

The drivers for networking and supply chain building are visible around us: globalizing, rapid economic changes, new economic foci (in the area of technology, Asia, India and South America) and, thus, bring great challenges to survive in global competition and a need for continuous concept development and reactivity. From a small country's perspective, networking offers a possibility to get access and visibility, share risks concerning economic uncertainty and investments and to receive more ways to grow and survive in times of economic decline. These drivers modify the concept of the supply chain management: it is necessary to ask, whether the strategy is correct and provides ways to meet the challenges and to boost economic growth (Cousins, Lawson & Squire 2006). Therefore, management has to take a look at supply chain operations with a careful analysis: how to adapt to the demands of the future environment. This enhances the need for aligning and fitting the organization with surrounding threats and opportunities. Simultaneously, the current drivers force companies to build and maintain long-term partnerships, where they can benefit from partners' resources and networks by having more capability to react and proact. And more specifically, strong and consistent partnerships require thorough and systematic analyses concerning the partners and the company itself.

Based on the need for an analysis of supply chains and, precisely the relationships between supply chain actors, it is vital to study the elements existing in the relationships and in collaboration between the main contractor and suppliers as critical supply chain actors. Since communication enables the collaboration between the supply chain actors, it is important to focus on communication in the dyadic relationships and find out more than currently is known. Prospering in the current business environment necessitates organizations to know with whom they are collaborating and how they could create the highest possible competitive value for their end customers and their customers. Further, this indicates to a deeper relationship analysis and, thus, acknowledging the critical factors, referring to possibilities for relationship development. Through this, it is possible to find indicators for dyadic relationship characterization and performance assessment in more detail. Therefore, this study contributes to defining the current status of the main contractor – supplier relationships e.g. dyadic relationships, when aiming for deeper partnership relationships. Also, it gives ideas for relationship development by defining elements of supply chain communication, and, more specifically, relationship characteristics, factors that can support or prevent relationship development. Hence, relationship assessment will be possible and based on practical factors existing in the supply chain communication.

The purpose of this study is to better understand characteristics of dyadic supply chain relationships, in particular, between the main contractor and its suppliers in industrial networks. This may help analyze performance, and clarify enablers and barriers for development of these relationships. The focus is on relationships between Metso Paper Ltd. (current Valmet Ltd. as a main contractor) and its suppliers. In supply chain management, the people and relationship focus has widely been neglected (Storey, Emberson, Godsell & Harrison 2006: 754). The role and critical function of communication are acknowledged but creating a supply chain culture with communication emphasis is still missing and requires a deeper analysis on communication and its factors (Gambetti & Giovanardi 2013: 412). In this study, characteristics of current buyer-supplier relationships will be defined. Based on theoretic and empirical data, we aim at defining relationship characteristics in dyadic relationships in supply chains. Therefore, the main research problem is: What are the critical factors in dyadic relations of main contractor and suppliers in industrial relationships?

Since dyadic relationship actors who operate in the organization interfaces in supply chains are realizing the ways of supply chain communication in practice, it is vital to include data based on interviews with them in the study. Theories relating to communication and management in supply chains and, more specifically, factors influencing supply chain communication and supply chain management create a background and a basis to assess the data gathered in the interviews. As the strategy creates the basis for buyer-supplier collaboration, it is necessary to include strategic policies into the analysis. As a continuum to strategic choices made by the main contractor in its relationship creation and development processes, it is critical to include the current ways of relationship assessment into the study. In the Figure 1 (below) these main elements, needed when defining and assessing supply chain relationships, are presented.
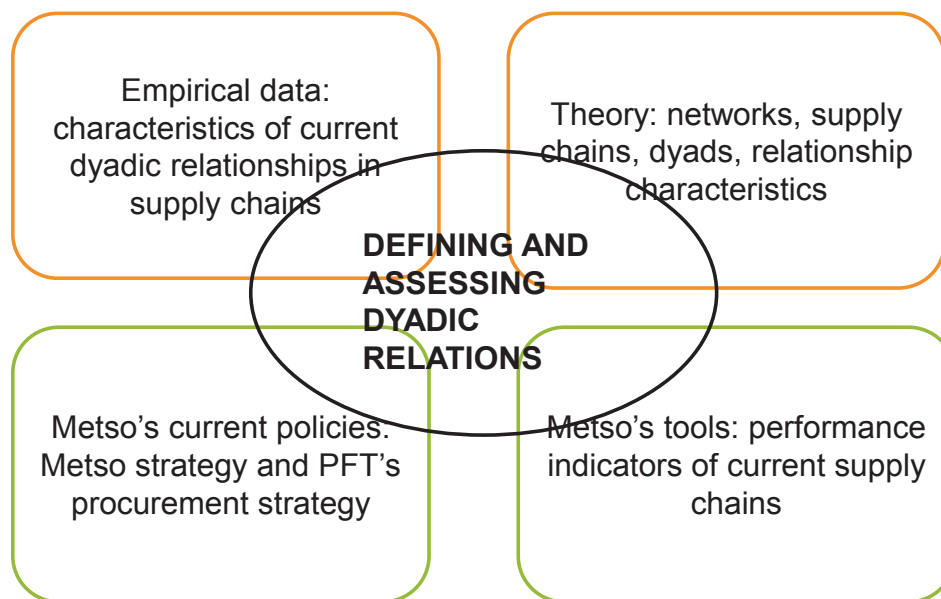
FIGURE 1   Defining and assessing supply chain relationships.

In Figure 2 (below), the structure of this study is presented. As the focus is on dyadic relations between the main contractor and the suppliers, first the greater context where the dyadic relations studied exist, i.e. industrial networks, is explained. Organizations make strategic choices when defining their ways of working, and currently most of the organizations exist in various network environments. The network characteristics influence the content of the dyadic relations, for example, their agility and complexity. Therefore, it is relevant to understand the theoretical background concerning network characteristics and benefits, costs and outcomes that are received from industrial networks. Further, the dyadic relations investigated in this study, are located in supply chains. This requires a view on the context of supply chains and their strategic management.

The case company of this study, representing the main contractor, is Metso Corporation (currently, Valmet Corporation) and one of its business lines in particular. The external environment of the company and its suppliers is described, as well as the internal environment and its most important "embodiment" e.g. the strategy of the main contractor.

After the introduction of the case company, the methodology of this study is presented. The findings are divided into three different main categories:

- Findings I describe the relationship characteristics, collected based on the in-depth interviews

- Findings II highlight the enablers and barriers that are transferred from the relationship characteristics, in order to process the characteristics more for the use of the management level

- Findings III consist of argument patterns that have been created based on the enablers and barriers and can be used for the basis of a performance model in further development of dyadic relations.

After representing the three categories of the findings, it is time to outline the discussion and make the main conclusions received in this study. This way, the journey, starting from characteristics of dyadic relations is ended by defining guidelines for further performance assessment of dyads.
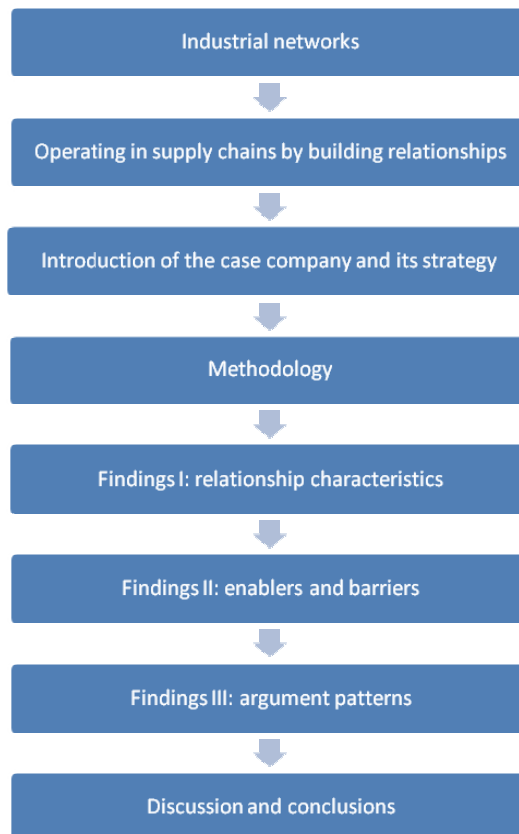
FIGURE 2   Structure of the study

As shown in the Figure 2 (above), in this study, networks, supply chains and relationship characteristics are discussed. This involves management issues on different levels. As Möller & Halinen (1999, 417) emphasize, such issues that are specified on different layers are interrelated. Managerial challenges (Möller & Halinen 1999) concern the main critical questions for a company to survive in current supply chains and networks. Therefore, it is vital to integrate the issues relevant to the strategic management in this study, when contemplating dyadic relationships.

The understanding of dyadic relationships in this study was built in stages and reprocessed when literature and empirical data analysis cas carried out.

The findings help understand the value of and the critical factors that exist for dyadic relationships in supply chains in networks. In this way the study provides valuable information on dyadic relationships in the current, turbulent business environment.

2   INDUSTRIAL NETWORKS

When studying dyadic relationships in supply chains, it is vital to start with the context where the relationships exist. Networks have their specific characteristics that influence the relationships between members of the network. Simultaneously, they create a vague and a complex business environment where features of markets and hierarchies are combined. Inside and across different networks, organizations form links and, through this, create relationships with each other. Business operations are realized in coordination, cooperation and collaboration relationships where different costs, benefits and outcomes are received. Based on its strategic choices, each organization has its reasons for networking, relating, for example, to decreasing transaction costs, exchanging resources or sharing capabilities and knowledge between and among organizations in networks.

2.1   Characteristics of networks

As Ford, Gadde, Håkansson & Snehota (2002) state, there is no description of a network that would define it completely and correctively. Networks are global as well as local, owning global structure but local, territorial and cultural experiences and characteristics (Borja & Castells 1997). Simultaneously, they are open-ended and multi-edged, programmed and self-configurable (Castells 2009: 19, 21). Thorelli (1986: 39), taking the systemic nature of a network into account, defines it as a "special type of system, one whose internal interdependencies generally change over time".

According to Castells (2004: 3) we live in a network society, where networks create a social structure that is seen as an "organizational arrangements of humans in relations of production, consumption, reproduction, experience and power expressed in meaningful communication coded by culture". In networks, communication technology has an important role of supporting the information delivering. Networks are dynamic and self-reconfigurable, complex

structures of communication. Networks are modifying, reconstructing and regenerating themselves, which, simultaneously, is a criterion for surviving. Constant changes in networks can be seen at network actors' level, too: they have to cope with delivering and managing a high quantity of communication with other network actors. (Castells 2004.) In a network society, "our society is characterized by the power embedded in information technology, at the heart of an entirely new technological paradigm… informationalism" (Castells 2004: 7). Fukuyama (2000: 199-201) in his definition of a network, underlines informality of norms or values (in addition to common transaction in the market) that are shared by individual agents (a group). This refers to a difference between hierarchy and a more informal characteristic of a network.

2.1.1   From Market-based to Network-based Business

Forms of conducting business are, when simplified, divided into three categories: market-based, vertically created and network-based business (Thorelli 1986, Möller et al. 2009, Vesalainen 2006). In the table 1 (below), the main ideas of these forms are represented.

TABLE 1   Summary of characteristics of market-based, vertical-based and network-based business activities (based on Jarillo 1993, Thorelli 1986, Möller et al. 2009, Vesalainen 2004, 2006, 2009).

Business forms	Market-based	Vertical	Network
What basis	prices in the market	one actor's ownership, controlling and dictating the chain	cooperation and partnerships
How	competitive bidding, price as the main criteria	one actor creating the rules and guidelines	relationships based on trust and openness
When useful	- when price is the only criteria - when a standardized product - when costs forming from competitive bidding are reasonable	- when providing the whole concept (product and services) for the client - when individual actors in the chain are agile and ready to react - when control of the chain is needed	- when activities requires long-term cooperation - when complex concept of products and services - when a need to concentrate on core competence - when a need for agility and flexibility - when network creates added value
Challenges	costs, coming from competitive bidding and exchanging suppliers	heavy control can cause bureaucracy and administration costs	- creating partnerships takes time and effort - network complicates the decision making process and activities

In market-based business, competition is mainly based on the pricing and relationships between business actors remain competitive. In vertically integrated business operations one company owns, controls and manages the whole supply chain, simultaneously complicating its ability to react agilely to changes in the market environment. The capability of smaller units to react, adapt and implement new developments and skills more rapidly serves as one of the main reasons for vertically integrated organizations to outsource their activities and create more specialized smaller units. (Möller et al. 2009.)

A third form, networks, offers a relationship-based way of operating. When outsourcing resources, both tangible and tacit, companies become more dependent on each other, which drives them to create more intensive relationships with their partners. However, the actual transformation from, for example, vertically integrated to network organizations provides new challenges: the need to create relationships in the market, to transfer knowledge and skills in a way that partners have the same understanding of the aims and rules of working. While in a vertically integrated network one company has the power to control and decide, in network relationships it is inevitable to share it among

the actors. When sharing the power, the nature and depth of the relationship becomes more critical. Historically, when comparing to network organizations, vertical organizations have dominated. (Möller et al. 2009, Vesalainen 2004, 2006, 2009, Fukuyama 2000.) Network organizations, having a more horizontal nature, have lacked available technologies (Castells 2009: 22). The current society with a high level of information and technology possibilities "forces" hierarchies to change their structure towards more horizontal organizations in a knowledge-based economy (Fukuyama 2000).

Vertical, market-based and network relationships can be integrated or also conducted with different suppliers simultaneously. Kohtamäki (2005) states, that business activities can be steered or lead by integrating three ways (authoritarian, market-based or socially based), when choosing the best way depending on the relationship and its context. The main contractor can steer its supplier relationships based on the nature and conditions of relationship, emphasizing different dimensions in different relationships: some relationships need more authoritarian emphasis, whereas some relationships have a strong social dimension.

Depending on the nature and structure of the business, competitors, demands in the future, product or service qualities and its life-cycle etc., one of the forms is viable. Not one of the previous forms of business activities is the only correct answer. Different forms may be mixed and integrated inside a network or even a company. Network-based business activities can also be divided into alliances and partnerships. (Vesalainen 2004, 2006, 2009.) Forms of conducting business can be overlapping, and simultaneously many forms may exist also internally in an organization (Möller et al. 2009). Companies have pressures to build new solutions by linking their products with new services, technologies and innovative solutions that create more value for their end customers. In this context of business of integrated solutions (Davies, Brady & Hobday 2006), there has to be an extensive network to provide final products and services, which may require different variations or hybrids of the three forms of conducting business.

2.1.2 Business Networks and Network Relationships

Since networks can be considered to cover every activity in our society, it is necessary to define their functions and reasons for existence more specifically. A network is defined as long-term relationships, where organizations have co-operation that is not determined only by markets (Thorelli 1986, Vesalainen 2006: 10), in other words, a network consists of actors, resources and activities (Håkansson & Snehota 1995). A network can be determined as an "activity between independent partners who have a common interest and seek some means to achieve a higher level of performance by using a multilateral group design" (Routamaa & Varamäki 1999: 6). For example, in the Japanese economy, different forms of alliances and networks (keiretsu as one of the most known form) created a base for efficient and competitive business operations and gave directions for supply chain management in general (Gerlach 1992).

A network can be seen as nodes that are linked with threads. For example, in business networks, business units can be seen as nodes, whereas relationships correspond to threads between them, enabling interaction and coping with interdependence. Every interaction, taking place in a relationship, has to be interpreted in connection with the relationship itself, whereas operations, conducted in the relationship, have to be analyzed with the context of the network where the relationship is located. In networks, companies are interdependent, their relationships are based on their strategic choices and operations and they search for balance of controlling others and being controlled by their partners. In other words, what is taking place in business networks is connected with the relationships with a partner company. (Håkansson & Ford 2002.)

People work in organizational networks that are formal and informal. Formal and informal networks can be seen as ends of the same continuum: while formal networks create the organizational structure (Weber´s [1947] view of formal channels, where orders and information are transmitted), informal networks emerge by people working in the organization (Fukuyama 2000: 146-147). Based on the key role of social relations (instead of individuals' roles) in networks, network relationships are embedded (Granovetter 1985): the outcome is dependent on social relationships and interaction between network actors and network relations are embedded in social relations. Business networks have economic, technical and social dimensions (Håkansson & Ford 2002: 134-135). The social dimension is reflected with the collective knowledge of a network: "what everyone knows" or the collective understanding the participants have (Ford et al. 2002). When adapting the thinking of Håkansson & Ford (2002) of the key role of business relationships in business networks, it is necessary to analyze possibilities of relationship development, in order to maximize the outcome the network actors can reach in business relationships. As Håkansson & Ford (2002: 136) state, companies have two ways that may need to be integrated when developing relationships: a company can develop its own relationships (emphasizing the company's initiative and ability to act) or be developed through or by the relationships it has (intensive communication and reflection with other actors). Usually it is necessary to strengthen both ways of development. This can be seen as a paradox but well defines the challenges and many-sidedness existing in a networked business environment.

Business networks provide a framework for conducting business activities, more specifically, within network relationships. In developing business relationships, the goal is to increase the value networks are providing. What represents value is different for each network. "Value is what is processed in every dominant network at every moment in every space according to the hierarchy programmed into the network by actors upon the network" (Castells 2004: 26). Creating and capturing the value in network relationships may appear complex: many benefits may be indirect and values can be captured in many ways (Doz & Hamel 1998).

Networks and network relationships create new challenges for partners, looking for competitive advantages. For example, 50-70% of relationships in

networks fails or ends unsuccessfully (Day 1995, Duysters, Kok & Vaandrager 1999). Various types of networks have different challenges: stable networks, operating in more stable or mature markets may face challenges most in too high a level of dependency or suppliers' "overutilization", as well as in a lack of creativeness. Internal networks (operating inside a firm), may suffer from over-extending the capacity and too strict a control as a management method. In dynamic networks, independent actors in value chains may fail in specializing in too narrow an area. They are forced to compete against a mass of suppliers that provide similar assets, which may create a threat of opportunism. The term "dynamic networks" refers primarily to industries with low technology and short-term relationships or temporary alliances. (Miles & Snow 1992.) However, a dynamic nature of networks can refer to agility of the value chains operating in networks, as, for example supply chain agility (Gligor & Holcomb 2012: 296): it can be defined as "supply chain's ability to quickly adjust its tactics and operations", proactively or reactively.

While networks have emerged and changed the ways of operating, organizations are forced to change their structures towards new forms of organizing. Simultaneously, the management ways have to be reanalyzed and updated (Miles & Snow 1995). Different network categories, based on their activities and the value they are producing, can be distinguished. Networks either produce basic business activities or rebuild them, or, as a third option, they are developing new business activities. Depending on the network's function, the role of the main contractor (or another central network actor) varies. When producing basic activities with the aim of lowering costs with a maximum agility, the main contractor's focus is in outsourcing and acting as a brand owner in a traditional network structure. In networks, where activities are rebuilt, the main contractor has to lead the development and build networks required in each project, consisting of specialists, who create new knowledge and improve the quality of more traditional networks. When developing new business activities, the main contractor has to recognize new business ideas, signs or trends and to form actors that are innovative and have the ability to build new development networks. (Möller et al. 2009, analogous with Miles and Snow 1995, Möller & Svahn 2003.)

According to Möller et al. (2009), when analyzing the three different network categories, the network characteristics clearly differ from each other. In networks providing basic business activities in relatively stable markets, the role of coordinating is strong. A business area may consist of a very specific technology, where the direction is towards networks that cover larger order-delivery processes. In networks that rebuild business activities an innovative focus, the role of trust and delivering tacit knowledge is critical. The networks may act only a short term, whereas the networks, focusing in creating new business activities have to focus on future markets, future needs and development. Similarly, the role of trust is significant.

Network relationships are defined to be voluntary: they are based on fair and voluntary participation instead of dictation by any party in question. How-

ever, this is influenced by the growing dependence and power relations existing in the relationship. Also, the relationships are visible to all parties (because of their external nature). (Miles & Snow 1992: 68-69.) In spite of the visibility and voluntariness, it is still challenging to clarify the critical elements of network relationships. Ford et al. (2002) mention the many choices that companies have to make in with whom to work with (conforming or confronting the existing state of relationships), where to stand (deciding on their network position) and how to network (to coerce or to concede as ways of networking). These choices show the challenges in defining the concepts of network and network relationships. Their dynamic, vague and simultaneously specific, nature makes characterizing complex. As Miles & Snow (1992: 70) point out: "the network organization is always in the process of renewal". Thus, each network should be understood in its context, taking the dynamic nature of aims, contents, processes and actors into account.

The concepts of coordination, cooperation and collaboration are used frequently related to but vaguely. Compared to collaboration, coordination and cooperation are mainly considered as more superficial ways of operating: collaboration indicates a deeper relationship between organizations. Coordination can be interpreted as an alignment of actions between the actors (e.g. managing dependencies), whereas cooperation is found as an alignment of interests and division of tasks between the relationship actors. (Lawrence & Lorsch 1967, Malone & Crowston 1994.) Spekman et al. (1998: 634) see cooperation, coordination and collaboration as different stages of transition from open-market operations to supply chain integration and collaboration. In the cooperation phase, long-term contracts already exist, whereas in coordination information linkages between partners are increasing. Finally, in collaboration there are joint planning and technology sharing activities.

Cooperation problems primarily emerge from problems in motivation and coordination problems emerge because of cognitive limitations the relationship actors have (Gligor and Holcomb 2012). However, when defining coordination and cooperation as elements influencing the supply chain agility, Gligor and Holcomb (2012: 303) found cooperation not as critical as coordination and communication: "The conclusion that may be drawn is that aligned interests, although important, are not enough for quick adjustment of a supply chain's tactics and operations". In other words, cooperation requires coordination. Further, Gligor & Holcomb (2012: 303) argue: "[I]t is coordination and communication that primarily enable a firm and its respective supply chain members to proactively and reactively change as business conditions warrant". In other words, agility, as one possible competitive advantage of efficient supply chains, is related to levels of coordination and communication between the supply chain actors.

2.1.3 Network actors, operating in network organizations

According to Gummeson (2005: 212, citing Enspiro's report [2003: 17]): "those companies that can't survive in dynamic two-way network relationships cannot

utilize the networks, where the future clients exist". The dynamic, two-way characteristic a network has requires an analysis on actors, their positions and relationships.

The concept of a network organization is regarded as "a collection of organizations along with the linkages that tie them to each other, often organized around a focal organization ….including joint partnerships, strategic alliances, cartels, R&D consortia and a host of others" (Monge & Contractor 2003: 219.). Linkages are created and maintained via interaction in relationships between network actors. In networks, since technological knowledge, information about markets and collective knowledge is dispersed (Doz, Santos & Williamson 2001), in order to receive knowledge and information necessary, there is a pressure for creating synergy between different network actors. This also strengthens a need for relationship building. The network is also defined by the roles of a network actors, for example, a gate keeping role refers to exercising power and influencing the messages and their flow in networks (Castells 2009: 418-419, 423). Network organizations can also be seen as virtual. Virtual enterprises create partnerships with others, based on their core competencies, simultaneously aiming for flexibility and responsiveness in networks. This results an increase in inter-organizational interactions, when creating "a common working environment". (Gunasekaran, Lai & Cheng 2008: 554-555.)

A network structure consists of members of the network in question (in this study, they are called network actors) and links existing between different network members. Business activities, conducted in the network provide a value to customers. Network members can be defined from the perspective of the focal company, as companies with whom the focal company interacts (directly or indirectly) are categorized as primary members (having an operational and/or managerial role in providing value for end customers) or supporting members (that support the primary members, for example, with their knowledge and resources) (Lambert, Cooper & Pagh 1998: 4-5).

Network members can be categorized according to their role and position (the level, e.g. the tier) in the network. A network consists of several levels of actors, e.g. (in this study, similarly to Anderson, Håkansson & Johanson 1994) members of supply chains. Values they produce in a supply chain can be divided into, firstly, values based on industrial processing (production), secondly, values based on integrating flows (of material, information and/or services) and, thirdly, values based on problem solving in client's R&D (Vesalainen 2009: 24-25). There are different supplier categorizations: a system supplier (a 1st tier supplier) is a supply chain actor, providing values in all three areas. A component supplier (can be a 2nd or a 3rd tier supplier) both manufactures and supplies products for its customer, whereas a subcontractor (can be a 2nd or a 3rd tier supplier) mainly focuses on manufacturing and, for example in the area of the metal industry, on welding and machining (Vesalainen 2009: 79). Also, a subcontractor may be interpreted as a component supplier. The concepts used can refer to different levels of the chain. For example, an original equipment manufacturer (OEM) has the responsibility for product assembly and develop-

ment, and either the 1st tier supplier or the focal company can be referred as an OEM (Sturgeon 2008: 8-10). In this study, the 1st tier supplier is called as a system supplier, and the focal company is referred as a main contractor (with the abbreviation MC).

Networks can be viewed from a "helicopter perspective", studying relationships in one or more networks. Also, just one dyadic relationship or all dyadic relationships of one company can be the focus of a study. It is challengeable to define outcome of a single networking activity. (Ford et al. 2002). Suppliers (and customers) have links with each other on different levels, while they may also have links directly to the focal company (despite the fact that they may not exist in the 1st tier) and even to an end customer. For example, a 2nd tier supplier can have a relationship with the MC's customer or its customers. A 1st tier supplier (a system supplier) is mainly in a close relationship with the focal company (in this study, a main contractor) and has a wider chain of its own, consisting of suppliers, providing material, products and services to it. That is, for example, a 1st tier supplier has taken the responsibility of developing and supplying a bigger product or service to the focal company. Also, the 1st tier supplier can support and boost a 2nd tier supplier to become a 1st tier supplier, as well, in order to receive a greater solution to provide together for the focal company. (Möller et al. 2009, Vesalainen 2004, 2006, 2009.) Figure 3 (below) provides a simplified overview of inter-organizational links in a business network.

If the focal company, the main contractor, takes all the responsibility and coordination that is required to provide the product to the end customers, the way of operating becomes highly bureaucratic and costly. Therefore, it has shared tasks and responsibilities with its suppliers. Outsourcing can be one solution to share tasks that are not the core business of the focal company. It can cover, for example, in the supplier interface, responsibilities in manufacturing and/or development or, in the customer interface, there can be organizations being responsible for marketing. (Möller et al. 2009.) From the focal company, this requires a clear strategy and awareness of its core business and competitive advantages, as well as strong collaboration relationships with other network actors.
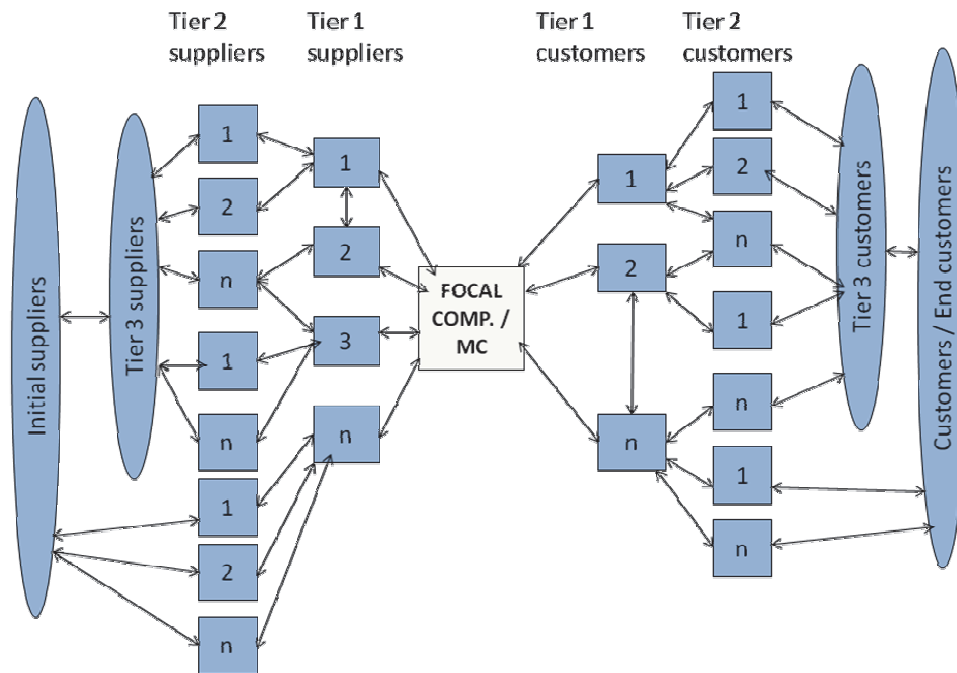
FIGURE 3   Types of inter-company links of business processes (modified from Lambert et al. 1998: 3).

Based on Lambert et al.'s (1998) picture, it could be assumed, that the lower the level where a supplier is located, more distant its relationship is with the system supplier and the main contractor generally is, but, as mentioned previously, this is not always the case. Company size is not necessarily correlating with its status (level) in the supply network: a big organization can have several branches to provide products and services to several fields of industries and it can play a minor role in some networks. Additionally, suppliers may have or may not have collaboration with others in the same network. Company status and location are also based on the strategy it has chosen. Market-, hierarchy- and network-based activities exist among suppliers and their own chains, as well. (Vesalainen 2009.) This refers to complex network characteristics where roles, actors and relationships are not fixed and easily defined. The complexity and shared responsibilities require intensive collaboration between network actors. Therefore, two-way arrows (missing from the original picture of Lambert et al. 1998) have been added in the picture to represent relationships requiring two-way communication. Because of the network complexity, it is beneficial to concentrate on each dyadic relationship, to view its characteristics and its quality. Moreover, as Håkansson and Ford (2002: 134) mention, it is not possible to understand any relationship without viewing the wider network that the relationship is connected with.

Suppliers can be defined as primary stakeholders that exchange "resources for the products and services of the firm, and in return receive the benefits of the products and services" (Freeman et al. 2010: 25). According to Freeman et al. (2010: 28), stakeholder theory concerns "creating as much value as possible for stakeholders, without resorting to trade-offs". However, since trade-offs are common in current markets (Freeman et al. 2010), and stakeholders can have a significant influence on relationship outcomes, it is valuable to know the stakeholders and their strategies. Relationships between organizations are usually forming through individual activities. Also, how individuals define and address uncertainty in the relationship, base their conflict solving on trust (interpersonal based trust) and define their expectations (of efficiency and equity) in the relationship, influences the relationship. (Ring & Van de Ven 1994.) This refers to the vital role of individuals involved in the collaboration.

In spite of the valuable input social relationships bring to network relationships, they can also prevent fair activities. For example, pricing can be biased based on deep, personal relationships. Prices can be dictated by the relationship, the other party benefiting from biased pricing (compared to market-based pricing). Also, long-term, deep relationships, where friendships exist, can prevent open communication when discussing problems and challenges in the relationship. (Kohtamäki 2005: 149-150, 211-218.) Deep relationships with high interdependency are not automatically creating open communication. Also, a deep or personal collaboration relationship is not always the best way to conduct business; it depends on the aims the organizations have concerning the relationship and its outcome (Heide & John 1990).

The network actors, when interpreting them as organizations, have different characteristics. The network context places high demands and requirements for the network actors: for example, in a dynamic context, agility and flexibility may act as an advantage (Castells 2009). Based on the network structure they can be dispersed, flat hierarchies, self-managed or scalable and, simultaneously, they can be dependent on other actors or highly autonomic, regarding other network actors as competitors or potential partners, creating social and intercultural relationships etc. (Miles & Snow 1986, 1995, Möller et al. 2009). Depending on the starting point, network units can be categorized according to their role and function, the duration of their activities or the location they have in the network (Ghoshal & Bartlett 1995, Ford et al. 2002). As a result, they can be realized as deep relationships, formal or informal or they can emerge as different types of organizations, providing value in any form of a network unit possible (Ford et al. 2002, Miles & Snow 1995).

In Table 2 (below), characteristics of network organizations, network units and their forms of realization are summarized. Its content is further explained below.

TABLE 2   Summarizing characteristics of network organizations, network units and their forms of realization.

Attributes of network organizations	Units in a network	Realizations of network units
- flexible - scalable (shrinking / expanding) - geographically dispersed - horizontally coordinated - boundaryless - dispersed - autonomic - dependent - agile - self-managed - flat hierarchies - interactive - based on restricted freedom - cooperative and competitive - willing to learn from others - dynamic - embedded - social context - intercultural context - collectiveness - virtual	- nodes - modules - projects - dispersed members - dispersed units - teams - subsidiaries - satellites - companies - main contractors - subcontractors	- value chains - formal networks - informal networks - networks of relationships - clusters - joint ventures - alliances - partnerships

When discussing a network organization, a variety of attributes, network units and their realizations are referred to. The first column in the table refers to a variety of attributes, used when defining network organizations. The attributes of organizations refer sometimes to features looked for in the chain, too: actors are expected to be dynamic, flexible and agile with intensive interaction and learning and development capabilities with others (Gunasekaran et al. 2008, Miles & Snow 1992, 1995). The boundaryless and dispersed structure (Castells 2009) can also provide vagueness when comprehending the network as a whole. Further, organizations in networks become interdependent, influencing each other and consequently decreasing each other's freedom (Anderson & Narus 1990). Networks are seen as social entities where relationships are embedded (Granovetter 1985). Simultaneously, these entities become more virtual (Storey et al. 2006: 771), where information and knowledge are shared (Gulati 1995).

Respectively, based on how the organizations' attributes are seen, the management sets aims for the realization of networks: if they are horizontally coordinated, cooperative or competitive, if they can be seen as boundaryless,

what kinds of strategic choices concerning the position and levels of relationships have been made etc. (Ford et a. 2002). In other words, network organizations create a variety of characteristics, and their strategic decisions guide the formation of network units and their realization.

Networks are created based on their tasks, e.g. their aims of creating competitive advantage (Möller & Svahn 2003, Möller et al. 2009). The units of a network can be seen via the roles of the chain actors, as roles in the chain determine their definitions (main contractors, subcontractors, teams, projects, etc.). Further, network actors can build different kinds of bonds or relationships, based on their strategic choices: they can be seen as partnerships or alliances; they can join industrial clusters etc. (Vesalainen 2006, Möller et al. 2009.) When thinking of realizations of how the network units in practice, there are multiple variations: when seeing network units as a chain the emphasis is in providing a unique and specific value (Porter 2004 [1980]), which refers to the central concept of a value chain (Chen & Paulraj 2003). Another key definition in network unit realizations is relationships and their meaning in contributing competitive value (Håkansson & Ford 2002). More specifically, concepts referring to deeper relationships, as alliances (Gulati 1998) and partnerships (Mohr & Spekman 1994) are seen as a critical core of networks.

In this study, a network is defined as a complex whole of network actors, who carry out activities in a business context and have individual and collective aims when creating, developing and maintaining business relationships between each other when communicating (sharing, exchanging and interpreting messages and meanings) with each other.

As Ford et al. (2002) emphasize, network and types of network are analyzed always from the point of view of a particular company. In this study, when describing and viewing supply networks, this is seen from the point of view of the main contractor and the actors are defined according to the main contractor's aims and views. Networks that are viewed in this study possess characteristics of different forms of networks: they provide basic activities, simultaneously rebuilding them and looking for new entries to new networks and scanning the future needs in different business areas. Concepts of network and environment may be used vaguely by referring the same or separate definitions around one organization. In this study, the notion of Anderson et al. (1994: 4) is followed that both an organization and its external factors influence and are influenced by each other: "[I]n contrast with the classical specification, a network perspective better captures the notion that the boundary between the firm and its environment is much more diffuse."

In this study, as explained above, networks and supply chains are mainly analyzed from the perspective of the main contractor. Network actors refer to the main contractor organization and its suppliers e.g. actors operating in dyadic relations, but also individuals operating in interfaces with other organizations. Companies as network actors have characteristics, similar to factors described in the table above. The main network actors in this study are defined as the main contractor (MC) and suppliers. The main contractor provides products

and services to end customers. The MC acts as a buyer, e.g. in buyer-supplier relationships.

2.2 Benefits, costs and outcomes, received from networks

Drivers for networking form the starting point for organizations and their management to contemplate whether it is beneficial to network and form relationships with others. When operating in a network, the organization's strategy should cover the main idea for its existence in the network in question and ways of surviving in a global competition. The strategy has its effect on transaction and production costs (Dyer 1997: 550). It defines the main choices the organization has made and explains the values that are received from various perspectives (Kaplan & Norton 2004).

2.2.1 Why do companies network?

Starting from 1960s and 1970s, there was an increasing need to manage the growing of the knowledge-based productivity, as well as to survive in the changing economies (i.e. transformations in previous soviet countries). In addition, social movements emphasized individual freedom, cultural diversity and ecological values in the society. All these changes structured society towards networking and creating networks that started in corporations in 1980s. (Fukuyama 2000, Castells 2000, 2004.)

In order to survive global competition, a company has to concentrate on its´ core competencies while outsourcing the secondary skills and activities by forming a variety of networks, building long-term relationships with its´ partners and becoming more dependent on them (Hamel & Prahalad 1994). It is not rational or economical to possess all "value activities" that are needed to provide the whole value chain. When concentrating on core competencies, the collaboration with other companies becomes critical and complex (Möller et al. 2009: 17-18), and the ability to create networks and act as a part of them has been assessed as one of the preconditions for successful business activities (Jarillo 1993, Johnston & Lawrence 1988, Parolini 1999).

The contemporary communication technology enables and supports operating in networks. Due to technological changes in environment, networks are defined as the most efficient form of organization, based on the flexible (reconfiguring), scalable (expanding/shrinking) and survivable features of networks (Castells 2004, 2009). Generally, efficiency is defined as costs that are connected with an economic exchange (Ring & Van de Ven 1994).

Because of the trend of outsourcing "noncore" activities, companies become more dependent on each other. The ways to network vary, based on the criteria the companies have in the relationship. Criteria, or reasons for networking, can be derived from the desired outcomes of networking. Benefits of networking in a supply network can be categorized to three groups: firstly, bene-

fits related to effectiveness, secondly, new business, increasing volume and im-
proving competitive position and, thirdly, benefits related with acquiring re-
sources and developing skills and knowledge (Vesalainen 2004, citing also Hovi
1995). Based on Vesalainen (2004) benefits, realized in dyadic relationships, can
be defined as follows:

- by centralizing purchases and automating orders, transaction costs between
  buyer and supplier decrease

- centralizing purchases provides benefits in production volume

- long relationship supports mutual learning and realization of learning out-
  comes

- specialization and sharing tasks enables both parties to make activities more
  effective

- long cooperation and relationship enables to maximize production capacity

- controlled flow of orders decreases production costs

- successful estimations decrease production costs

- in collaborative relationship a supplier has a chance to develop and grow its
  activities with smaller risks enabling it to grow as a system supplier

- in collaborative relationship a supplier can become a specialist in logistics,
  enhance its position as producer when participating in R&D

- buyer's R&D processes become faster.

Benefits received from networking and partnership creation can also be based
on a company's position, reputation or visibility in networks, for example, a
partner may receive a higher status and attractiveness via its partner. (Gulati
1998). However, as Gulati (1998: 301), stresses, "[F]irms don't form alliances as
symbolic social affirmations of their social networks, but, rather, base alliances
on concrete strategic complementaries that they have to offer each other".

These benefits can be interpreted as outcomes of networks and network
relationships. By networking companies increase engagement with each other.
(Möller et al. 2009: 16-17). Value chains, produced by actors in business net-
works, are determined by inter-firm specialization, which creates embedded
activities in relations with other actors (Dyer 1997: 535). In other words, because
of the networking drivers, companies are "forced" to interact and engage in
other actors more deeply, aiming to provide the total value (service and/or
product) to the end customer together. Drivers, background and actions that are
needed for networking are summarized in the Table 3 below. As a result, sever-
al benefits can be derived from working in networks. Whereas the benefits give
reasons to the existence of the network, realization of these benefits can vary.

TABLE 3   Drivers and outcomes in networking.

Drivers	Background	Necessary actions of a single company	Consequences / Benefits / Competitive values
Business environment becomes complicated	"Systematic offers" = extended products and services Changes in social and business environment, in society Technological knowledge, information about markets and collective knowledge are dispersed	Need to manage knowledge in R&D, design, production, commercialization, marketing, client channels, management of customerships Need to identify trends and changes in the society, consumer behavior, procurement behavior and media behavior Need to collect the necessary information from different actors	➢ Integrating knowledge and coordination of activities ➢ Cooperating with different actors, coordinating various activities among different actors ➢ Creating and intensifying relationships
Rapid changes in technology and consumer cycles	Changes in technology increases the R&D –costs Products have to be launched more rapidly onto the market	Need to concentrate on the core competence, create networks with specialized partners Need to increase flexibility and intensify the channel relationships	➢ Increasing dependence on other actors ➢ Creating flexible networks
Globalization and increasing speed in business actions	Changes in competition and increase of development and activity costs Internet and information technology supports the globalization Increase of investments in extended markets Acting in global market in intercultural context	Need to extend business area and client focus, need to cost efficiency Need to coordinate and integrate business processes, to increase flexibility in product development and in launching products Need to share investments with other actors, local companies with existing channels Need to extend knowledge of target cultures, adjust activities to the cultural context	➢ Creating strategic networks ➢ Creating intercultural, global networks

As also Vesalainen (2004) pointed out, the new knowledge that is integrated and created jointly is one of the key benefits, resulted in networks. This is required by a complex environment, customers asking for more extended and complex product and services solutions (Möller et al. 2009). Respectively, knowledge creation is achieved by realizing and managing the assets from different parts of the network. Producing a more complex set of services and products can result an efficiently coordinated network of actors whose cooperation provide a significant competitive value. (Dyer 2000.) Since information is more dispersed (Doz et al. 2001), although it is available due to development of the information technology (Castells 2004, 2009), it is vital to form networks and have an access to information that is critical concerning consumer behavior, trends, changes in markets etc. (Möller et al. 2009). Simultaneously, because of these rapid changes, the need to concentrate on one's core competence (Hamel & Prahalad 1984) plays a key role in relationship building and growing dependence between network actors (Pfeffer & Salancik 1978).

Rapid changes in business environment refer to shorter product cycles (Möller et al. 2009), which requires agility in operations and in networks. Moreover, globalization sets various requirements and possibilities for networking. Acting globally refers to operating, e.g., investing locally, which calls for significant investments from the companies. However, this can be shared among the network members. Also, creating global networks consisting of intercultural actors provides better possibilities to adapt to different cultural conditions. Simultaneously, these requirements guide ways of managing networks: networks are formed and managed with a strong strategic emphasis. (Möller et a. 2009.)

In the Table 3 (above) a simplified overview is presented. Actually, networking and network activities cannot be defined as clearly and one-sidedly as presented in the table: outcomes occur or do not occur simultaneously, on many levels and in complex ways. In multiplex relationships aims and outcomes may be difficult to write down explicitly. As Ford et al. (2002) describe, aims and outcomes in networking vary according to the level where they are viewed. Outcomes for single actors, single relationships and for the whole network differ significantly and they all should be taken into consideration. Also, network outcomes influence the activities that are conducted and decision making on resources. This refers to the inter-connectedness of different elements that, simultaneously, could be interpreted to form the core elements of strategic management and strategic development in networks: outcomes that are expected when operating in networks and their impact on each network actor and network relationship.

A significant advantage of networks is their ability to react in an entrepreneurial way of working, closely linking many actors and therefore being closer to decision making in more independent units (Jarillo 1993). Possibilities for risks sharing, accesses to new market areas, saving time in receiving access and integrating various sources of knowledge are reasons for joining innovative

networks and increase competitive advantage. (Powell, Koput & Smith-Doerr 1996.)

2.2.2 Transaction costs and resources defining the nature of networks

Transaction costs theory (or transaction costs economics, TCE) is one of the self-interest theories that underline the potential benefit an actor may receive and choices that are made to reach for it (Monge & Contractor 2003: 142). An organization has to make various decisions and strategic choices, how to operate in relationships with others. In a dyad relationship transactions are taking place and influencing the nature of the relationship. Transactions and decisions regarded to it can serve as groundwork when defining a firm. Coase (1937) defines boundaries of a firm on the basis on its decision to buy or to manufacture the product/process in-house (to make or buy). In other words, a role of transaction costs (manufacturing and coordinating costs) plays the key role. As long as costs of manufacturing and carrying out the transaction in-house are lower or equal to carrying out it on the market, it is worthwhile for a firm to conduct these activities itself and not buy the same product on the market. Williamson (1971, 1987, and 1991) has extended this theory by creating a continuum, where the location of a company is determined based on the level of transaction costs: whether to have high transaction costs and hierarchy within the company or to have low transaction costs and buy the product on the market. The choice to operate as networks is seen as a hybrid and is located in the middle of this continuum. According to Williamson (1999), the transaction cost approach has been "operationalized" by providing governance structures in an organization, covering both economization and a human actor (concepts of bounded rationality and opportunism).

However, Williamson's theory lacks the network perspective, even as a "subset" of markets (Thorelli 1986: 44), as well as it ignores the dynamic nature of the business environment (Ghoshal & Moran 1996). It lacks the emphasis of relations and two-way operations (interdependence), existing between partners (from single to two-firm perspective) which also leads to ignoring joint value and its maximization in the relationship. Also, while emphasizing the structure and its importance, it ignores the processes taking place in organizations (Zajac & Olsen 1993). Also, transaction costs are not automatically low in market-based transactions because of the costs of new and continually changing relationships. When creating relationships purely based on transaction costs and not taking communication and its relationships into account, this approach does not provide a complete basis to study critical factors in supply chain communication.

A primary driver in market-based activities is, according to the transaction costs theory, opportunism, a goal to find an individual benefit. According to Williamson (in: Dyer 1997), when asset-specific investments are made, transaction costs increase because of the fear of opportunism and a need for controlling and protecting systems to prevent opportunistic behavior of partners. This would mean, that in more engaged and specific relationships costs of the trans-

actions increase significantly, which might create barriers for cooperation. However, Dyer (1997) has stated that when making asset-specific investments in a relationship, transaction costs may be lower than in a relationship with less specialized supplier, or the costs can vary independently of asset specificity (for example, due to "safeguards" in relationship governance). Relationships factors - like trustworthiness - may prevent opportunistic behavior. When setting hierarchy and market-based model as opposites, it should be noticed, that for different organizational actors a different approach may lead to successful results (Ghoshal & Moran 1996). The transaction theory alone does not serve as a base of this study, but, it provides a starting point for analyzing supply chain organizations and operations within and between them.

Whereas in the transaction cost approach a firm is determined according to its´ transactions within the firm or outside, in a resource-based view a firm has its own assets, that are physical, human and intangible: resources and levels of difference in resources comparing with others define company's competitive advantage (Peteraf 1993: 179-180). Resource heterogeneity refers to competition but also to a need for creating alliances in order to provide complementary and bigger product concepts. As Mahoney and Pandian (1992: 365) state: "differences among firms in terms of information, luck and/or capabilities enable the firm to generate rents" (rents are returns). Capabilities are seen, for example, as technical know-how and managerial ability. However, the ownership of capabilities is not the basis of creating returns, but rather the unique or diverse ability to use them. Respectively, by balancing exploitation of existing resources and acquiring new resources, the company can reach profitable growth. (Mahoney & Pandian 1992.) Penrose (1959) considers management and its resources key when considering an organization's development and growth, both in limiting and expanding an organization's level of growth. Competition is considered as a process with dynamic elements, whereas the environment and its changes influence an organization's resources (1959: 79).

According to Mahoney & Pandian (1992: 363-364), the resource-based view (RBV) incorporates also strategy research (e.g. concerning diverse competencies), organizational economics (e.g. concerning knowledge and its use), and industrial organizational analysis (following Porter's 2004 [1980] approach). Organizations are in competition when aiming for a superior position or superior resources in the market place (Peteraf 1993). Consequently, the RBV suggests organizations to protect their assets instead of sharing them (Dyer & Singh 1998). However, when organizations are concentrating on their core competitive factors and simultaneously limit their own business focus, they need partners in order to provide the total competitive value for their customers. Respectively, based on their strategic choices, they have to decide on the optimal way of utilizing internal and external resources, which is in this sense, similar to transaction cost economics.

Therefore, a network and network membership can be seen as a resource. The relationships the organization possesses and their structural pattern can contribute competitive advantage for the organization itself (Gulati, Nohria &

Zaheer 2000). However, the RBV is generally more concentrated on companies' strategic decisions, activities and resources located inside a firm, and, as Mahoney & Pandian (1992: 369) conclude "on the key success factors of individual firm behavior". When studying supply chain relationships and dyads, this approach does not provide a complete view on communication and collaboration relationships. Although it provides partly a reason for creating supply chain relationships and contributes a deeper understanding of an organization's competitive advantages (including core competencies and capabilities), the focus should be extended towards resources existing in relationships.

2.2.3 Capabilities and knowledge as outcomes of working in networks

Concentrating on core competencies is mentioned as one of the main reasons why companies are outsourcing their activities. According to Carter and Narasimhan (1996:7), "creating a sustainable competitive advantage through purchasing and supply management depends on the development of competencies that are not easily duplicated by competitors". Hamel & Prahalad (1994) see the core competencies as dynamic capabilities that separate one company from another and create the competitive advantage and the basis for the growth. As an extended definition from a resource-based view, according to the dynamic capability view, a company owns distinctive assets that determine how processes are coordinated and integrated by the people of the company, creating a competitive advantage of a company in question (Teece, Pisano & Shuen 1997). The dynamic capabilities are defined as a "firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments" (Teece et al. 1997: 516). Organizations have a need for creating alliances and relationships with other actors in the market, in order to complement the dynamic capabilities they have generated and to develop the competitive advantage owned by the company. The dynamic capability view stresses the dynamic nature of business environments, as well as the critical role of strategic management in how to create, acquire and maintain required assets, tangible or tacit (Teece et al. 1997). Williamson (1999: 1093) criticizes the previously mentioned author and states that the concept of core competence is vague without a mechanism that would support an organization to analyze and develop its competencies. Additionally, according to Williamson (1999: 1094-1095), the focus on competencies seems to ignore the economic and calculative nature of human actors.

The dynamic capability approach supports an analysis on sharing and developing competencies between two or more organizations, for example related to organizational learning. In this line, Möller & Svahn (2003) discuss network capabilities that are based on the main question of how organizations can create and maintain competitive advantage. Since networking as such does not provide benefits automatically, a clear view on the critical capabilities and their utilization is needed. Collaboration has also been identified as a dynamic capability and has been integrated with improved operational performance (Allred,

Fawcett, Wallin and Magnan 2011). However, in dynamic capability approach the role of communication and its characteristics is not specified.

Similar to the dynamic capability view, the knowledge-based view of the firm underlines capabilities and resources, specifically knowledge-based assets as the key to the competitiveness. Organizations provide a place, where knowledge can be transferred and modified into competencies. The process is not simple, especially tacit knowledge is difficult to shape because of the costs and time needed (Teece 1998: 62-63). This way the definition of a company can have a knowledge perspective: "(T)he firm is a repository for knowledge – the knowledge being embedded in business routines and processes" (Teece 1998: 75). How knowledge is formed, reconfigured, integrated and used creates the competitive advantage of the organization (Teece 1998).

Nonaka & Konno (1998: 40-47) suggest to create a platform for emergence of collective knowledge, which can, for example, exist in interfaces between buyers and sellers. Expressing, delivering, interpreting and sharing explicit and tacit knowledge generates new knowledge. In joint activities tacit knowledge is exchanged by expressing it in a way that the actors in the interface mutually understand it. The explicit knowledge is converted into more complex sets of explicit knowledge, which finally are converted into an organization's tacit knowledge.

A network structure as a context can support or inhibit the knowledge transfer: the central position in a network supports the access and gaining of new knowledge, which provides potential for joint learning. However, the structure alone does not guarantee increased business performance, but rather the capacity to acquire and apply knowledge by the network unit plays a central role. (Tsai 2001.) One of the values networks produce is processing new knowledge and innovations. Monge & Contractor (2003: 96) state "that the probability for the network to generate more new ideas and attract more members is an accumulative function of the size of the contributor pool" which refers to the amount of network actors.

The knowledge-based approach provides an opportunity to study knowledge creation and knowledge exchange in supply chain relationships. In a long-term relationship, creating new knowledge that benefits both parties supports the idea of generating and maintaining partner relationships. The knowledge-based view stresses the critical role of social actors and the communication processes existing in the supply chain and network context. Since the knowledge is structured, shared and accessed in social interaction with others, studying the nature and the quality of relationships is vital.

Different theoretical approaches, described above, create various starting points to study communication in dyadic relations. Transaction cost theory provides a setting and reasons for network building. However, it ignores network relationships and partnerships, and, especially, communication in relationships. The resource-based approach explicates the assets, defined and owned by the network actors and highlights the strategic approach needed in business networks. Simultaneously, it brings us closer to relationships and their

contents, although not explaining communication and assets found in relationships more specifically. Similar to the resource-based view, the dynamic capability view stresses the vital role of organizational competencies and their value in business, which is the basis for relationship building and networking. Also, capabilities and their use, for example, in innovation processes are critical when looking for competitive advantages in partnerships. Again, however, a deeper analysis of communication, especially in dyadic relationships remains absent. The fourth theoretical approach, the knowledge based view, partly repeats two previous views by emphasizing the significant value that lies in personnel's assets, in knowledge and skills. And more importantly, when the knowledge is shared and processed jointly, it can become a success factor. Networks, more specifically, relationships in networks are places where, for example, tacit knowledge can be shared and created. Therefore, this approach supports our goal to view relationships more specifically but lacks specific information on elements of communication in relationships in networks. In other words, these theories provide us a background and a starting point for a deeper analysis, but more theoretical views are needed when focusing on communication in dyadic relations in supply chains.

3 OPERATING IN SUPPLY CHAINS BY BUILDING RELATIONSHIPS

Different contexts create different requirements for communication. In industrial networks, in order to understand communication in supply chain relationships, it is critical to define supply chain relationships in more detail. Managing supply chains requires a strategic approach. Firstly, it is necessary to define procurement, sourcing and contents of a supply chain and a supply network, after which it is vital to consider a concept of strategic management in supply chains and the performance conducted by supply chain actors.

Since communication is the key in this study, it is important to explicate the contents of the concept from the viewpoint of supply chains and network environment. Respectively, since dyadic relations, more specifically, partnerships are in focus, it is necessary to define partnerships as relationships and how partnerships are formed. In order to be able to take a closer look into partnerships, it is vital to define partnership characteristics more specifically. Since more theoretical views are needed, theoretical views concerning exchange and resource dependence in relationships are represented. Power and trust are also vital elements in relationships. Additionally, the social capital theory provides a perspective for understanding relationships. After this, it is possible to represent the main theories in the literature.

3.1 Managing supply chains – towards strategic thinking

According to Mintzberg & Lampel (1999), the way of formulating the company strategy has been changing: from a static, position and bureaucracy oriented emphasis, the direction is towards collaboration and implementation oriented strategy forming. Respectively, the network structure supports moving from bureaucracy towards more flexible strategy formulation, adaptable to the changing environment. The strategy map of Kaplan and Norton (2004) integrates four views (economic, client, internal and learning and growth), which

enables integration of the strategic guidelines into the everyday operations. It describes the processes and operations that are to be realized. Simultaneously, it requires definitions around a company (supply chain and supply networks) as well as inside a company (procurement and sourcing).

The strategy as a concept has many definitions and purposes for use. In this study, the strategy refers to finding and designing "the match between an organization's resources and skills and the environmental opportunities and risks it faces and the purposes it wishes to accomplish" (Hofer & Schendel 1978: 11). Since strategy can be located in the corporate, business and functional level (Hofer & Schendel 1978), it is vital to take a look at strategic policies that concern the supply chain and supply chain relationships. In everyday conversation, a strategy often refers to the business perspective, but it is important to take the other components of the strategy into account: distinctive competencies, competitive advantages and synergy between the business scope and organizational competencies. Together these components can be seen as a basis for strategy creation.

Since this study focuses on supply chains, it is relevant to take a closer look at the supply chain management and its elements. However, before a bigger picture of elements of managing the whole supply chain is analyzed, it is necessary to define the functional level of procurement and sourcing and the main ideas behind these concepts.

3.1.1 Conducting procurement and sourcing in supply chains in supply networks

In this study the focus is on supply chains and dyadic relationships that exist in it. Before defining the supply chain, it is important to determine the function that has a vital role in creating, maintaining and developing supply chains.

a. Procurement and Sourcing

The decision on whether to manufacture itself or buy from others forms a core of operations in procurement. In their review of purchasing literature, focusing on strategy, Ellram and Carr (1994) state that one of the links between purchasing and strategy thinking was made in marketing, but purchasing was slowly developing as a strategically more important part of organizational success. In current supply chains, purchasing has a new role, promoting, for example partnership implementation, information exchange, two-way communication and systems thinking (Spekman et al. 1998: 633). Hahn, Kim & Kim (1986) underline the importance of maximizing the value from purchasing by questioning the competition between the suppliers. Instead of short-term contracts and a variety of suppliers that cause uncertainty and inefficiency among suppliers, it would be beneficial to consider cooperation in a long-term perspective. As a result, deeper buyer-seller relationships can provide value for an organization and its strategy (Watts, Kim & Hahn 1992). This enhances the important role of purchasing activities and their significant input for organization's success.

Purchasing and procurement have been searching for their role and value in the organizational chart. Their role has varied from a "clerical" or not recognized player to an important strategic function (Farmer 1981, Van Weele 1984). Also, whether to consider purchasing in the context of external factors (e.g. challenges in pricing, reliability or long-term cooperation with suppliers) (van Weele 1984: 17) or internal factors (e.g. management style, power and responsibilities of purchasing) (Ellram & Carr 1994:14), defines the recognition of the strategic value of purchasing. Additionally, when considering purchasing as a profit center or an agent contributing profit for the company, this underlines the concept of a separate function without a link with an organization's other operations and its strategy and ignores the importance and value of supplier relations (Watts et al. 1992).

Ellram & Carr (1994: 16-17) find that key strategic foci of purchasing are make or buy decision, supplier technology, relationship types with suppliers, external factor in market and link of purchasing with the company's strategy. As Benton and Maloni (2005) state, a main contractor needs satisfied suppliers and an aligned strategy with them, in order to provide the best outcome to the end customers. A long-term emphasis can be interpreted as long-term contracting with fixed prices. However, in supply chain relationships ways of procurement can vary: spot trading, integrated with fixed-price contracts, may be conducted. A spot trade is interpreted as adjusting the commitments, made previously in the relationship, which may mean changes in prices or quantities. (Mendelson & Tunca 2007.)

Sourcing includes activities as finding and mapping potential sources for procurement and their level of availability (Iloranta & Pajunen-Muhonen 2008: 60). Additionally, securing alternative sources for procurement, as well as ensuring continuous supplies are included in the area of sourcing. Global sourcing refers to focusing "on the integration and coordination of common items, materials, processes, designs, technologies and suppliers across worldwide buying, design and operating locations" (Kusaba, Moser & Rodriguez 2011: 74, similarly to Trent & Monczka 2003). Low cost country sourcing is an activity where sourcing is conducted in a country where costs concerning production are lower and the country differs from its cultural, economic or geographical location, compared with the buyer's country (Kusaba et al. 2011: 74).

b. Supply chain in supply networks providing value

As organizations seek for value, they have to identify the business core, where the value emerges. Porter (2004 [1985]) approaches the value chain from the point of separating the core business (the value) from the other activities that can be transferred outside in order to reduce cost structure and strengthen the organization's competitiveness.

A supply chain can be defined "as a network of materials, information and services processing links with the characteristics of supply, transformation and demand" (Chen & Paulraj 2003: 119). However, in this supply chain study the

focus is in internal operations, whereas the definition of Chen & Paulraj (2003) refers to a network that can exist inter-organizationally, as well. More specifically, Spekman et al. (1998: 631-632) define operations of a manufacturer company's supply chain as: planning & forecasting, procurement, manufacturing, distribution & logistics, customer service and performance measurement. At one end of these activities are suppliers, and the other, customers. In this study, the focal organization is the main contractor.

A product or a service and its characteristics may influence how the supply chain functions and, therefore, level of product uniqueness, complexity and innovation have to be taken into account. Supply networks can be divided into two categories according to the supplied products: innovative-unique networks, where flexibility and speed create the competitive advantage, and functional networks with a focus on quality and costs. (Lamming, Johnsen, Zheng & Harland 2000.)

Supply chains can be analyzed looking at their horizontal or vertical structure and the focal company's horizontal position. A horizontal structure describes the number of levels (also called tiers) existing in the supply chain, whereas, when vertically analyzed, it is possible to see the amount of actors (i.e. supplying companies) at each level. A horizontal position points out the company's status in relation with the initial supplier or the final customer. Further, links in supply chains can be categorized because of their critical resources and, thus, their criticality: managed, monitored and not-managed or non-member process links. (Lambert et al. 1998.) Chen & Paulraj (2004: 120) view supply chain internally and highlight purchasing, production and distribution (see Figure 4 below), whereas Gunasekaran et al. (2008: 557) use different terms from similar segments: sourcing, manufacturing and delivery. Flexibility and speed are reflections of agility, and success factors, in the supply chain.
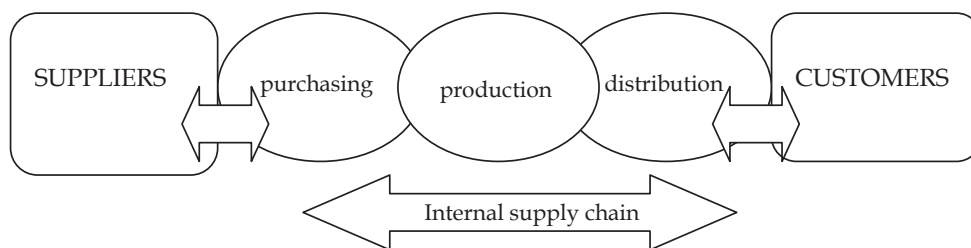
FIGURE 4   An illustration of a company's supply chain (modified from: Chen & Paulraj 2004: 120).

In supply chain conceptualization the value the chain provides is emphasized (Womack & Jones 1994, Möller et al. 2009: 18). Also, the value chain is often extended to include consumers or clients' clients (Möller et al. 2009), whereas suppliers are divided into suppliers of different levels or tiers in the chain

(Lambert et. al. 1998). Because of tightening competition between supply chains, the supply chain agility as a vital capability has become important. This refers to alertness to evolving opportunities and challenges and capability to use resources in responding timely and flexibly (Li, Chung, Goldsby & Holsapple 2008: 421). Based on their theoretical review, Li et al. (2008) explain that agility is a complex concept: agility can be integrated with flexibility (e.g. in manufacturing, procurement or logistics), cost, time, material and information flows, human resource factors, etc. This illustrates its criticality, since agility involves basic elements in supply chain operations.

Instead of describing the supply chain on a general level as a whole, this study concentrates on the collaboration between the main contractor and its suppliers. The internal supply chain of an organization (the main contractor) is not in the core of the study focus, although it should be taken into account that many departments (production, engineering, distribution and sales) interact with suppliers, not only purchasing. In this study, a part of the supply chain is viewed more closely: the focus is on the supplier – main contractor linkage. The perspective of clients (in this study called end customers) is emphasized when analyzing the supply chain, which is often ignored in traditional supply chain thinking.

When supply chains are gathered together into a bigger entity, a supply network emerges. According to Emerson (1983: 277) a network of exchange consists of

- actors (persons/groups),

- a distribution of resources (bringing the value) among the actors,

- opportunities that each actor has with the others,

- exchange relationships (e.g. exchange opportunities that have been developed),

- and network connections (that link actors' relations into a network).

Supply networks have mainly been studied from two different viewpoints: descriptive analysis of industrial networks and supply chain management consisting of strategic management, operations management and logistics (Lamming et al. 2000: 675). The first perspective has been used by the Industrial Marketing and Purchasing group that mainly concentrated on buyer-supplier relationships (Häkansson & Ford 2002, Gadde, Huemer & Håkansson 2003), whereas supply chain management has the emphasis in the chain, its components, processes and structure (Cooper, Lambert & Pagh 1997), for example, in upstream and downstream chain elements (e.g. Womack & Jones 1994).

In this study, a supply network is defined as a network, where a main contractor and various suppliers collaborate in supply chain relationships as a network providing end products or services to the end customer. Although the perspective of the main contractor is visible in many instances, similar to

Vesalainen (2006: 11), the relationship itself is the critical focus of research here, not either one of the companies involved.

3.1.2 Supply Chain Management as a strategic perspective

Organizations, when networking and operating in networks have to decide on strategic issues, for example, on their positioning in networks, make-or-buy operations, transactions between organization's units, mergers, and acquisitions. Since networking is based on strategic choices, it is vital to view communication in networks from a strategic basis. (Thorelli 1986: 37-38.) Strategic decisions form the basis on which the outcomes of the relationship are depending. (Håkansson & Ford 2002: 136). The relationships are the key elements through which – based on strategic policies – the "process of influencing" is taking place.

Supply chain management (SCM) has its basis in an organization's strategy and strategic choices. The meaning, role and the concept of SCM is often argued among different researchers. Traditionally, SCM is defined as "to leverage the supply chain to achieve the lowest initial purchase prices while assuring supply" (Spekman et al. 1998: 631). This view refers to partners that can be exchanged, cooperation on short-term basis, competition between suppliers and information sharing on a cost-basis (Spekman et al. 1998).

The current business environment has forced to modify the SCM view. Cooper et al (1997) introduced the domain of supply chain management, where they integrated the different aspects of SCM:

- management of components (controlling and planning, structure, methods, power and leadership, culture)

- supply chain processes (procurement process as one of them, where the focus is on managing relationships with strategic suppliers [Hewit 1994]) and

- supply chain structure (closeness, level of partnership).

In SCM, managing the chains can be interpreted as managing the whole chain. However, Cousins et al. (2006) state that there are few examples of organizations that manage the chain end-to-end. They refer managing of the supply chain to a relay race, where actors change their turns in management. This suits the idea of an agile network, consisting of chains, where, for example, the manufacturing process is fragmented and shared among different actors, who each have their responsibilities and who manage their share of the chain. The problem can be seen when the management is too overlapping (inefficiency due to overlapping activities and control) or the management doesn't exist (roles and responsibilities vaguely stated or not jointly shared). Contrary to Storey et al. (2006: 769), one solution to the vague or inadequate management is to centralize the supply chain management to one actor, who views the chain from the "helicopter perspective" (Cousins et al. 2006: 771).

The main SCM processes can be defined covering customer relationship and customer service management, demand management, order fulfillment,

manufacturing flow management, supplier relationship management, product development and commercialization and returns management (Lambert, Garcia-Dastugue & Croxton 2005, citing the Global Supply Chain Forum). This is similar to Cooper et al.'s (1997) definitions, with the exception of including procurement instead of returns management. Supply Chain Operations References (SCOR) (developed by the Supply Chain Council) covers 5 processes of SCM: plan, source, make, deliver and return. In other words, contents of supply chain management can be defined variously based on a strategic or more tactical perspective. (Lambert et al. 2005.) Akkermans, Bogerd & Vos (1999), concluding different definitions of SCM state that SCM consists of different processes, its' key is in coordination and/or integration, and the main reason and goal of SCM is based on its increasing profitability and customer service simultaneously.

Mills, Schmitz & Frizelle (2004) emphasized the importance of the company's point of view when considering SCM, suggesting four perspectives, from which it is possible to view the supply chains more closely:

- up-stream (purchaser – suppliers),

- down-stream (supplier – clients: links between them, operations in the chain),

- static network (static view of the value chain, comparing several supply chains, a firms position in them) and

- dynamic network perspective (strategic approach, where different possibilities to develop and modify the chain are seen and analyzed, dynamic, long-term view).

Although the focus of the SCM study has mostly been on the up-stream perspective, the current changes in organizational environment influence on the "direction" of the study as well: the "greening" of the supply chain may increase studies from the perspective of the downstream (Mills et al. 2004). In the Table 4 (below), different perspectives and their main ideas are represented. These perspectives form the main areas that the supply chain management research focuses on. The up-stream perspective concentrates on elements in buyer-supplier relationships, whereas the down-stream perspective represents suppliers' viewpoint. The static and the dynamic perspectives provide information on performance and development in supply chains.

TABLE 4 Perspectives and themes, covering the scope of supply chain management research (based on Mills et al. 2004)

	Themes
Up-stream perspective	Characteristics and benefits of buyer-supplier relationships Supplier selection and selection criteria Supplier relations Supplier development Supplier performance Data, interviews: main contractor's perspective
Down-stream perspective	Characteristics and benefits from suppliers´ point of view Asymmetry and symmetry Data, interviews: suppliers' perspective
Static perspective	Value stream management: re-engineering the value chain, processes and outcomes Supply chain performance Structure of the supply chain Data, interviews: current structures of supply chains
Dynamic perspective	Analysis and modifications of the strategic map Competition between supply chains Data, interviews: procurement strategies for developing and modifying current supply chains and networks

In addition to the up- and down-stream perspective, the themes of static as well as dynamic perspective are noticed in this study. When viewing the relationship between the main contractor and its suppliers, the critical focus is in the dyadic relationship, that is, a two-way relationship and its characteristics. The network environment also necessitates taking static and dynamic perspectives into account.

Croom, Romano and Giannakis (2000) analyze the role of SCM and its existence. Supply chain management has a multidisciplinary background which may prevent its acknowledgement to be considered as a discipline, but, simultaneously, they state that it is critical to include and require multi-disciplinarity when conducting SCM research. The main areas ("component bodies") of supply chain literature are defined as strategic management, relationships, logistics, best practices, marketing and organizational behavior. (Croom et al. 2000: 70.) Ketchen and Giunipero (2004) argue that the field of strategic management research in its dominant theories has ignored supply chain management: resource-based, knowledge-based, agency theory and institutional theory, the perspective of SCM has not been taken into account. They suggest an integration of SCM, in order to take a look at supply chains more deeply, instead of viewing mainly material and product or service flows of supply chains. Recently, SCM has been integrated with the resource-based approach.

SCM has been one of the most popular strategies for supply chain operations improvement. However, Hunt & Davis (2008, 2012), contrary to Barney (2012), see that traditionally many researchers following the resource-based view have not considered SCM to contribute any competitive advantage because of the "neoclassical, equilibrium economics research tradition" the RBV has been based on (Hunt & Davis 2008: 11). As an example, perfect competition and statistical information are in focus. Also, homogenous demand and exogenous innovation (exogenous to competition) exist. Instead, they (Hunt & Davis 2008) suggest a resource-advantage theory to be a base for an analysis which could include SCM to be a part of the competitive advantages to aim for.

A supply chain strategy refers to choices made by the main contractor (a buyer) on the potential suppliers and the supply chain best suitable for its targets and needs. The strategy can be based on the product (functional / innovative) and supply chain priorities (physically efficient / market-responsive) (Fisher 1997). However, when designing supply chain strategies, according to Frohlich & Westbrook (2001), success is reached by integrating suppliers and customers with the internal processes of the main contractor (MC). Ways of integration can be divided into forward (flow of deliveries among suppliers, MC and their customer) or backward (flow of information from customers to suppliers) integration. The degree of integration indicates to benefits in supply chain outcomes: according to Hines, Rich, Bicheno, Brunt & Taylor (1998), the higher the level how supply chain actors have been integrated with each other (from supplier to customers), the more competitive advantages can be reached. This can be reached via value stream management (similar to lean management and lean manufacturing [Liker & Wu 2000]) that helps management to notice sources of "wastes" and to tackle them in the supply chain (Hines et al. 1998).

A strong integration of supply chain actors does not alone provide success. More specifically, values and beliefs, shared by the actors in the interface play a vital role. According to Spekman et al. (1998), buyers and sellers do not share the same view on benefits in SCM: buyers may share a more cost-based view and regard other benefits, emerging from a supply chain, as less important. This can refer to lack of commitment when developing and conducting supply chain responsibilities.

One solution for an effective strategy in supply chains is a responsive supply chain: "a network of firms that is capable of creating wealth to its stakeholders in a competitive environment by reacting quickly and cost effectively to changing market requirements" (Gunasekaran et al. 2008: 551). The enablers, creating this development (supporting outcomes to be realized) are a network of carefully chosen suitable partners who are collaborating based on strategies enabling competitiveness (strategic planning), IT and systems (virtuality) that enable controlling and supporting activities and knowledge management, covering performance assessment as one of the elements of continuous improvement. (Gunasekaran et al. 2008.)

Whichever the strategic perspective is chosen, the focus is on improving the total value received from the supply chain by its organizations. The ways to

reach it differ, although different strategic aspects are complementing each other. The current environment requires responsiveness and agility, taking dynamic and static network perspective into account, as well as integrating upstream and downstream chain actors into a unique complex of actors and operations. In order to be able to manage the complex proficiently, it is necessary to have ways to assess the supply chain performance. Therefore, the strategic basis should be clearly designed, consisting of tools that support the assessment of outcomes in the supply chain.

3.1.3 From Supply Chain Performance towards Relationship Performance Assessment

Carter, Carter, Monczka, Slaight & Swan (2000) identified 18 most important areas of concern in purchasing executive research, covering also, "strategic cost management", "strategic sourcing", "relationship management", and "performance measurement". Although this was considered as a ten-year forecast, same themes are currently in focus. Similarly, Cousins et al. (2006) define transparency of information and knowledge, supply chain behavior and performance measurement as three main enablers or inhibitors of supply chain management. Transparency of information and knowledge refers to long-term view and long-term forecasts and rich information, used by restricted amount of chain members. Supply chain behavior consists of roles of chain members, power balance, rewarding and promoting, whereas performance measurement is defined as measuring key performance indicators or using a balance score card, or a hybrid of them.

In relationships, aiming for a partnership level, a deep relationship with more comprehensive means of assessment and measurement will be needed. In many cases, suppliers are ranked and evaluated by the main contractor (often including more negative indicators than positive, for example, the amount of reclamations, deviations etc.), or the procurement department inside the MC's organization is assessed by the internal organizational key performance indicators. Also, all suppliers may be measured by the same measuring criteria and tools (regardless of their status, role and the level in the chain) and the measurement activities may be carried out coincidentally. (Iloranta & Pajunen-Muhonen 2008.).

Kannan & Tan (2002:11) state that although supplier management has been acknowledged as a critical area of management, "little evidence exists regarding the impact of specific tactics on performance". In other words, the relation of supplier development to relationship outcomes has remained vague. In one area of supplier development, in supplier selection criteria, Kannan & Tan (2002) found that "soft" selection factors influence significantly the performance. This sets requirements for a main contractor to assess the buyer-supplier relationship more deeply, as well as to modify and update the ways of assessment. Also, although supplying to the main contractor's competitor may be seen as a negative criteria in partner selection, Kannan & Tan (2002) state that suppliers, supplying to competitors, are considered as high performing partners.

As Wagner (2006) found, companies are active in the formal supplier development with regular development activities in a long-term view. Instead of an ad hoc approach, companies are willing to develop their suppliers in a proactive and systematic way. This requires a set of assessment tools that are designed based on the strategy and strategic goals for the collaboration. Also, regular and iterative assessment is critical in relationship development. According to Krause, Scannell & Calantone (2000) companies with formal supplier development (including regular and consistent assessment) succeed in further direct supplier development. This can cover, for example, supplier training, education programs and temporary personnel transfer.

Companies have acknowledged the importance of managing supplier relationships: supplier relationship management is seen as one of the competitive factors providing critical advantage in current markets (Wagner 2006). The core question of strategic management is: why some firms outperform others (Meyer 1991). This refers to the need for assessing the performance of a company and the reasons for competitive advantage. Supply chain integration is regarded as a good way to increase supply chain performance: linking supply chain actors effectively with each other can create strategic advantage. (Lee, Kwon & Severance 2007, similarly to Hines et al. 1998). Enhancing linkages can be implemented in several ways, for example, by studying the partner and understanding its way of working better (Liker & Choi 2004). In assessing supply chain performance, different elements can be taken into account. Zelbst, Green, Sower & Reyes (2009) suggest that power (reciprocal but not necessarily equal), supply chain benefits and risk reduction have positive impacts on supply chain performance.

As OEMs (Original Equipment Manufacturers) have been defined as a more responsible party in supplier's development and as the core of SCM is in the managing role of MC over the suppliers, the current assessment models usually cover methods of measuring the supplier. As an example of measuring ways and themes used by the main contractors (when measuring and evaluating the supplier performance) are using check lists and gathering information on supplier's milieu & environment, general impression, procurement and supply chains, reception of material, production, production management, technology, maintenance, quality processes, IT, logistics, customer satisfaction, general business environment, ownership, HR, organizational structure, reporting, environmental issues, sales and finance. (Iloranta & Pajunen-Muhonen 2008.) Rating and assessment measures are mainly used by the main contractors, who are willing to assess the existing relationships with their critical suppliers. Measurements are sometimes specified according to each company's context and specific needs. Indicators concerning, for example, collaboration are classified as factors of strategic development: the depth of cooperation on all levels, roles of key customers, openness in strategic issues, mutually shared views and mutually agreed tasks and responsibilities. Also, interaction skills and ability to create relationships in networks are mentioned as indicators. (Ruohomäki, Koivisto, Huuhka & Harkki 2003: 40-49.)

Although both parties are involved when assessing and developing the partnership, Liker and Wu (2000) argue that OEMs are responsible for their suppliers' performance. They have significant influence on the ability of suppliers to conduct the lean production (e.g. high quality with lowest costs and on time). Developing the lean production demands a "give-and-take" partnership that exists in everyday operations between the partners. This implies the significant role of the performance management. On the other hand, performance and its conceptualization may be complex and with a variety of associations: according to Benton & Maloni (2005), for example, in the automobile industry, the suppliers (when not linking performance as a driver of supplier satisfaction) may myopically be not capable to see and comprehend their own actual performance, or they may see alignment with the main contractor automatically providing a higher level of supplier performance. This refers to challenges in assessing performance in a SC relationship.

In performance assessments, there are several challenges that researchers must take into account. One of the tools to measure performance is a Balanced Score-card (BSC). The BSC was not developed in a SCM context or in a network context: it is suggested that each firm, in the supply chain or in general in other environments as well, should have its own BSC when assessing the performance. However, it is also suggested, that common and shared meaning for terminology of a BSC should be created among actors in the same supply chain. (Kleijnen & Smits 2003: 509-510.) This would support the joint communication. According to Kleijnen & Smits (2003), the target, the supply chain, should consist of sufficient amount of companies, including upstream, downstream and midstream actors (possibly including benchmarking to similar or different supply chains). Also, the list of metrics (including submetrics) should be viewed in relation with the management and the environment where the supply chain exists, as well as with other BSCs used and the time period companies are using them. Finally, instead of optimal solution, robustness of the solutions is recommended, due to the ability to adapt them to the changes in the environment.

If traditionally performance has been assessed based on performance indicators of one organization, in SC relationships the same way of assessing does not provide a total answer. As Chen & Paulraj (2004: 122) argue, "performance is no longer affected by a single firm". In performance assessment, the entire supply chain should be involved, and buyer and supplier performance assessment is a good starting point. Similarly to Chen & Paulraj (2004), O'Toole & Donaldson (2002) suggest a division of the relationship performance concept into two: financial (switching, interdependence and cost-sharing) and non-financial (speed of response, product quality, benefits comparison, lead times and involvement in design) dimensions. Further, they suggest that the relationship should be on the focus of assessment instead of a single actor's perspective: a relationship performance assessment should be included into a more specific research. This is because they find the concept of performance has a multidimensional nature. They (O'Toole & Donaldson 2002: 205) also find, that "[A] relationship under-standing of buyer–supplier exchange performance provides

an additional rationale for closely aligning purchasing and supply management to the strategy of the firm". In other words, the relationship between strategy and relationship performance become explicitly significant. Stank, Goldsby & Vickery (1999), when studying service performance, divide the concept of performance into operational and relational. Operational performance refers to activities linked with productivity, quality and efficiency, whereas relational performance consists of acquiring understanding on customer's expectations and needs, e.g. enhancing the relationship with the customer.

3.2 Partnerships as dyadic relationships

Dyadic business relationships possess a critical role. Although it is vital to contemplate the network context around the dyadic relationship (Anderson et al. 1994) and that way to avoid the "dyadic atomization" (Granovetter 1992), it is critical to analyze the characteristics of the dyadic relationships. Especially, when dyadic relationships are aiming for, building and maintaining partnerships. However, since interaction creates a starting point for relationship existence, it is necessary firstly to view the concept of interaction more closely.

3.2.1 Communication in networks and in supply chains

In networks streams of information flow between different nodes whose importance to the network is defined by their ability to efficiently process information, relevant to the network and by their contributions to the network goals. Networks communicate between each other by using protocols of communication, supported by the communication technology. Communication processes are defined by the technology, characteristics of actors (receiving and sending information), as well as cultural codes they have. (Castells 2004: 3-4, 2009: 54.) Based on Castell's definition of a network and network society, communication becomes a central issue, as the definition of an important network actor (a node) lies in the node's ability of processing information in message flows in a way that supports the common goal of the network. In this task, communication protocols support or decrease the success of cooperation with another network, as well as the competitiveness against competing networks (Castells 2004: 3-4).

Actors in relationships create and modify their world by making sense of the elements surrounding them. As Weick (2001: 4) states, "sensemaking is necessitated by the conditions of ambiguity in organized life". In sensemaking, history and its impact, order creation in the middle of a chaos, attempts to rationalize issues, creating and maintaining images and social context as a whole are central (Weick 2001). This calls, for example, for understanding of how relationship actors interpret and comprehend their organization, partners, partner organization and the relationship itself.

Communication networks are defined as "patterns of contact that are created by the flow of messages among communicators through time and space"

where the message is viewed as any symbolic form that exists in communication between different actors, e.g., communicators, in a network (Monge & Contractor 2003: 3). Networks set different requirements for communication: it is not only the relationship where network actors are communicating, but the whole chain of actors that influence on the received outcomes. Communication can be seen as the connecting interface in the network, facilitating cooperation and strengthening relationships that are vital for an organization. In this study, we focus on communication in dyadic relationships in supply chains.

Åberg (2000: 33, 54) emphasizes that in communication meanings are given by each actor according to background and experience. Drawing conclusions from several researchers, Chen & Paulraj (2004: 126) conclude, that in buyer-supplier relationships, communication has been characterized as two-way inter-organizational, frequent, genuine, involving personal contacts and interaction between different actors. Communication in relationships has a key role: it assists and supports partnership actors to discuss and agree on the performance requirements, it helps adapting to an actor's expectations and their changes and it increases certainty in the relationship, as well as it decreases the possibility of conflicts (Mohr & Spekman 1994, Tuten & Urban 2001). From the supply chain performance perspective, it helps setting, implementing and assessing the joint goals, stated by the relationship actors. Respectively, communication is in a critical role when building agile supply chains, for example, when reconfiguring sources, e.g. adjusting them according to changes in the market environment (referring to suppliers' strategic response capability) (Li et al. 2009).

As Pfeffer & Salancik (1978: 13-14) state, organizational environments "are not given realities; they are created through a process of attention and interpretation" and organizations' information systems influence the organizational environments. The information the organization has on its environment depends on its contacts and links with the environment. This refers to the vital role of communication shaping external and internal organizational realities. Additionally, communication works as a glue, holding "together the channel of distribution" (Mohr & Nevin 1990: 36), governing the relationship (Dwyer, Schurr & Oh 1987). As Anderson & Narus (1990: 44) define communication "the formal as well as informal sharing of meaningful and timely information between firms", communication can be considered as one of the basic enabling factors of conducting supply chain management (Lee, Padmanabhan & Whang 1997, Sahin & Robinson 2002, Fugate, Sahin & Mentzer 2006). However, many barriers emerged in relationships, concern especially information and benefit sharing and decision making, when it is jointly conducted (Chan, Chung & Wadhwa 2004). As managers' interpretations and expectations concerning their partner organization and managers play a critical role in building stable relationships (Mainela & Tähtinen 2007), the business relationships and the ways of managers acting and communicating in them appear to be very crucial.

Formal (structured) communication results from authority relationships and formal mechanisms in the coordination of work, referring to communication via official organizational structure, whereas informal (spontaneous) communica-

tion indicates to communication that has not emerged based on official organizational chart (Mohr & Nevin 1990, Johnson, Donahue, Atkin & Johnson 1994). Communication, in creating a closer relationship with a customer, impacts firm performance (Stank et al. 1999, Knemeyer & Murphy 2004). From the SCM perspective, open ("complete") exchange of strategic and operating information is critical (Bowersox 1990). Respectively, communication patterns and the level of partnership has a linkage (deeper partnership with deeper and more various communication patterns) (Lambert, Emmelhainz & Gardner 1996). Additionally, the level of communication (referring, for example, to openness), indicates to the level of understanding: how obligations are seen and how quickly adaptation is facilitated in changing circumstances (Schreiner et al. 2009).

    a.   Collaboration in supply chains

One of the functions of communication is to facilitate collaboration. Barratt (2004) offers an extended view on collaborating in supply chains by viewing it from different aspects: collaboration can be conducted vertically (with customers, suppliers or internally) or it can be seen from a horizontal view (collaborating with competitors or with other organizations, as well as internally). The concept of collaboration, besides its dynamic capability character (Allred et al. 2011), is sometimes seen as a possibility for a long-time commitment and partnership relationship: collaboration has been referred to "matter-of-fact level without the need for organizational posturing" (Burnes & New 1997: 11). Collaboration can be seen to be realized at different levels: according to Burnes & New (1997), it can be executed solely at the operational level, but when aiming for strategic level collaboration, the aims of SC members must overlap and it must be seen and realized at the operational level, as well. However, Vereecke & Muylle (2006), relying on Burnes & New (1997) in the definition of collaboration, refer to partnerships as well as possible shorter-term relationships with mutuality but a possible lower level of trust and openness.

    The reason for creating collaboration relationships is congruent with the main target in conducting business: according to Allred et al. (2011), a primary driver for collaboration is to increase customer satisfaction. Collaboration can be seen as "competition in a new form", referring to successful collaboration relationships that have been created between competitors (or potential competitors in the future) (Hamel, Doz & Prahalad 1989: 134). However, as Allred et al. (2011: 151) state "Boundary spanning initiatives like aligning goals and metrics, improving information sharing, and investing in collaborative people skills are seldom embraced holistically". This refers to the complexity of the concept of collaboration and ways of implementing and developing it in inter-organizational relationships. Also, as Barratt (2004: 33) argues, "[I]nternal collaboration must be married with external collaboration, in terms of developing closer relationships, integrating processes and sharing information with customers and suppliers". In other words, external collaboration (as buyer – sup-

plier relationships) requires collaboration with actors of an internal supply chain and other possible internal actors, as well.

One expected value in collaboration relationships is a win-win relation. Duysters et al. (1999), summarizing literature on failures in alliances, state that if one of the partners benefitted from the alliance in a way that would increase its competitiveness against another (as a potential competitor), it would create clear tensions in cooperation between them. Also, collaboration can be conducted in different areas of business: in R&D, logistics distribution, in supply differentiation of material, etc. Naturally, when collaborating, collaboration rules are critical, strongly concerning the significance of sharing different assets and information (Chang et al. 2004).

Barrat (2004) summarizes the elements of collaboration in supply chains, including a collaborative culture, external and internal trust, mutuality, information exchange emphasizing transparency and quality of information flows, communication and understanding to support information sharing, and openness and honesty. These elements of collaboration also refer to elements that a partnership should consist of, in order to prosper as a way to operate in supply chains.

Although supply chain management has been a focus of extended research, the cultural aspect and culture's influence on relations in global supply chains have played no or very little role in various researches (Griffith & Myers 2005). However, in global networks, cultural backgrounds of supply chain actors cannot be ignored. Hofstede & Hofstede's (2005, based on Hofstede [1991]) and Hall's (1973/1990) definitions of a culture as collective mind programming and communication links them to communication in global supply chains. Similarly, since cultural background affects the conceptualization of each phenomenon and the organizational culture is modified by the cultural context of management and employees (Trompenaas 1993: 3, 6, 138-144, 147), cultural characteristics have their value in supply chain communication, as well.

In global networks, when reducing risks of cultural conflicts, it would be important to study the most important cultural cues (Hall 1989: 42, 55). However, the difference between the views of network actors is not always culturally bound. Alasuutari (1994: 50) emphasizes that the way of understanding the surrounding world depends on a person´s relationship towards the world, which no-one has the same. Even individuals, because of their occupation, work experience and personality, can have a different emphasis and views on networking, as one can interpret the meaning of networks and networking in different ways (Vesalainen 2006: 40-41). Therefore, the cultural context is one of the characteristics, covering the supply chain communication.

b. Taking a strategic perspective in communication

The level of collaborative communication is linked with the supply chain outcomes. As Mohr, Fisher & Nevin (1996: 103) state: "Collaborative communication can be used to create an atmosphere of mutual support, thereby creating voli-

tional compliance between partners". Collaborative communication, integrated with intensive relations, positive climate and symmetry in power relations are indicated to improve outcomes in the relationship (Mohr & Nevin 1990).

As an example, relationships between organizations enhance knowledge development (Wallenburg 2009). Errors in products and performance are decreased via efficient and effective communication which enhances quality (Chen & Paulraj 2004, Dyer 1996). Further, organizations that are considered as highly communicative are able to reduce transaction costs as transparency in behavior increases, and improve performance (Paulraj, Lado & Chen 2008). In other words, communication between organizations provides a strategic advantage (Paulraj et al. 2008) which indicates a significant role of strategic decisions concerning communication: it is vital to include elements of communication into account when making decisions on strategic policies.

Similar to SCM, emphasizing the role of strategic management, a communication strategy refers to a more systematic strategic approach in interfirm relationships. A communication strategy covers facets of communication, combined in a way suitable for the relationship in question (Mohr & Nevin 1990). Designing a strategy refers also to an ability to measure the main elements that should be analyzed, in order to achieve the strategic goals in question. In other words, it is necessary to measure the intangible assets of the organization, too. Kaplan & Norton (2004) define intangible assets as different capitals, owned by the members of the organization: human, information and organization capital. Therefore, good supply chain relationships can be considered an intangible asset of the organization.

Communication can be defined as a management function, enhancing interactive relationship between the organization and its environment (Vos & Schoemaker 2003: 26, 31). When trying to assess communication and the elements that are considered as critical when communicating successfully, it is possible to make communication and communication management more transparent (Vos & Schoemaker 2004:13). That way, it is possible to assess the current situation, manage and develop it. The communication perspective provides the management level with the possibility to concentrate on relationship management, as well as information channels in networks, which contributes to a management perspective (Vos 2007).

Communication as a concept raises different interpretations and different understanding what is the focus, when communication in dyadic relationships is studied. In this study, communication is defined as realities, where meanings are received, sent, shared and interpreted in collaboration relationships in supply chains, when operating in networks. These realities are shared and created by supply chain partners, e.g. dyadic relationship actors, and, simultaneously, they are modified by the same actors, organizations and the factors surrounding them. Further, communication is understood as a critical facilitator (Vos & Schoemaker 2011) in creating collaboration relationships in supply chains. And, finally, as Deetz (2001: 5) states, communication can be seen as explaining and describing organizations, more specifically, "production of social structures".

3.2.2 Interaction as a basic process

In an interaction approach, both parties are seen as focal and critical actors. There is an exchange relationship where series of discrete episodes or interactions take place, providing social and economic results. According to Möller & Wilson (1995: 10), interaction is "intra- and interfirm behaviors that are carried out in and by the focal firms forming an exchange relationship. Interaction is composed of processes through which a relationship is established, developed, maintained, and terminated." As outcomes of interaction, a company learns and develops its embeddedness in relationships, links between its resources and actors and the mutual understanding of the network of all actors (Håkansson & Ford 2002: 138-139). In other words, interaction, its level and intensity can determine the success of a network.

A network refers to a "set of companies and a set of relationships" (Håkansson & Ford 2002: 137). A company can traditionally be seen as an actor of one party and a reaction to it from another. However, a network environment differs from this assumption: instead of reaction, there should be interaction: companies can be determined as members of a network who are active, heterogeneous, interacting with other network members and creating interacted solutions to their problems (Ford et al. 2002). Therefore, a company can be considered as a whole and a result of its interactions (Ford et al. 2002, Håkansson & Ford 2002). Further, when interacting in relationships, Ring & Van de Ven (1994: 95) link formal interaction (roles) with informal interactions (personal interactions). They state that individuals act based on their roles (views on topics that need to be resolved) and that relationships develop and change based on individual interactions.

In marketing management literature, in the 1980's a more holistic view of a buyer-seller interaction was adopted (Möller & Wilson 1995: 4-5). Basic elements in understanding interaction are usually motivation (why we interact in this relationship), actions (what is conducted in our interaction) and knowledge to carry out the actions in the dyadic relationship context (Möller & Wilson 1995: 24).

Wathne & Heide (2004:3) state that a company's success depends significantly on the way of organizing relationships that are connected with the company, e.g. the interactions have their consequences for other relationships, too. Similarly to Möller & Wilson (1995), Wathne & Heide (2004) acknowledge that the supplier – manufacturer relationships are highly critical. When defining a dyadic interaction model, Möller & Wilson (1995: 33-35) point out that the interaction between a buyer and a supplier is affected by organizational characteristics of both organizations (that are influenced by, for example, management, previous history, control, strategic decisions as well as task-related resources etc.) and task characteristics (a product or a service, its features and ways they are produced). In a context, the interaction is influenced by the environment, its features, requirements and conditions. The interaction processes of coordination, resource and social exchange and adaptation result in outcomes of bonds and performance. The dyadic interaction model of Möller & Wilson (1995) re-

fers to the necessity of taking all the levels of organization (strategic or organizational levels, management, operations, and individuals) and the environment into account, when defining the characteristics of the buyer-supplier interaction relationship. When extending interaction in a network level, similarly to Möller & Wilson (1995), Möller & Svahn (2003) argue, that characteristics of the task of the organization influence significantly the set of capabilities required and the ways of managing the strategic network.

3.2.3 Relations, relationships, dyads and supply chain relationships in a focus

Relations and relationships as concepts are used widely and sometimes vaguely. They are used when discussing similar phenomena, and the concept of a relationship is mostly used when discussing especially partnerships, while, referring to operations in supply chains, the concept of a supply chain relationship is frequently used. The concept of relation is used especially when discussing "ties" in communication structures and characteristics of communication in networks in general. Although it appears to be challenging to clearly separate the two concepts in question, it is possible to find some definitions clarifying their difference.

a. Relations and relationships in supply chains

Defining relationships and relations appears to be complex: there is a variety of definitions, trying to explicate them according to their structure, distance between relationship actors, level of intensity in business operations etc. Relations can be seen as defining "the nature of the communication connections between people, groups and organization" (Monge & Contractor 2003: 30). Simultaneously, they have different characteristics, such as "strength, symmetry, transitivity, reciprocity, and multiplexity" (Monge & Contractor 2003: 30).

Golicic et al. (2003: 59), summarizing various categories of relationships in the literature, divide them into three relationship types (based on the characteristics the relationships possess): arm's length, cooperative relationships and integration (overlapping with Rinehart et al.'s 2004 continuum of transaction – relationship – ownership). Partnerships and alliances are cooperative relationships, although organizations that operate as one (and managed via supply chain management) are considered as integration. Also, they propose a relationship magnitude, "defined as the extent or degree of closeness or strength of the relationship between or among organizations, is a component of inter-organizational relationship structure distinct from relationship type" (2003: 61). The relationship between a relationship type and relationship magnitude is suggested by them (Golicic et al. 2003): closer the relationship, higher the level of the relationship magnitude.

Supply chain relationships, when focusing on a buyer and a supplier, can be defined as "mutual, two-way, involved exchanges between buyers and suppliers" (O'Toole & Donaldson 2002: 197). More broadly, supply chain relationships can be extended to cover all the relationships, existing within a supply chain (supply chain as defined by Chen & Paulraj 2003). Supply chain actors,

e.g. the boundary spanning people have a crucial task and role in influencing relationship success (Gulati 1998: 305): the people managing the dyad are especially crucial in relationship development (Narayandas & Rangan 2004).

b. Relationship marketing exploring relationships

Theories, explaining relationships between suppliers and their main contractors, are often overlapping, consisting of elements that have much in common. Elements, describing relationships, exist in many levels (networks, organizational, individual) and cover themes that concern operations, systems, processes, people etc. Although Möller & Halinen (2000) contemplate the role of the relationship marketing theory (whether it is a separate theory from marketing management, a totally new theory or something else), the exchange relationships between buyers and sellers remain the key in this theoretical view in any case.

Relationship marketing explores relations and relational exchanges between the organization and its partnerships (covering, as an example, suppliers, internal and lateral partnerships and buyers). The activities that are carried out in relationships can be defined as relational exchanges, when they are established, developed and maintained (Morgan & Hunt 1994). Resources, assets, tangible and tacit are exchanged, but the social relations are the basis for the activities to emerge, since relationship commitment and trust are seen as "central to successful relationship marketing" (Morgan & Hunt 1994: 22).

Instead of focusing on one perspective (either buyer's or seller's), relationship marketing contemplates the actual dyadic relationship (Möller & Halinen 2000). Several starting points where relationship marketing has been launched can be presented: as Möller & Halinen (2000: 34) see it, "…many of the research traditions in relationship marketing are not monolithic, but include constructs and ideas from more than one discipline" (similarily to Gummesson 1994). Further, relationship marketing can be divided into market- and network-based relationship marketing. In the latter approach, the complex context of networks are strongly presented when relationships are studied. (Möller & Halinen 2000.)

Although collaboration is the aim in dyadic relationships, there is also a possibility for co-optition (Brandenburger & Nalebuff 1996), which can be especially in networked organizations the reality. Gummesson (2002) extends relationship marketing to total relationship marketing, emphasizing that it covers all relationships and integrates several marketing and management theories. Simultaneously, Gummesson (2002) underlines the role and the meaning of an individual (customer/ supplier) as a starting point of the study. With important themes including collaboration, long-term view, win-win and partnership, (total) relationship marketing contemplates the elements critical in this study, too.

c. Taking a closer look at dyadic relationships

In this study, the focus is on the relationship between two actors in the supply chain e.g. the focus is on a dyadic relationship. It can be defined as a "basis of

business", where values are exchanged (Gummesson 1994: 12). Croom (2001) highlights the contents of the dyadic capability framework, when new product development in service context is concerned. Capabilities, critical in such a dyad are divided into service-, structure- and interaction-based capabilities. The interaction-based capabilities concern capabilities that support interaction and communication, relationship development and problem-solving in the dyad. Nuojua & Tähtinen (2013: 39) emphasize the importance of interaction-based capabilities in improving the service- and structure-capabilities. More specifically, visioning capability and communication and cooperative atmosphere creating capabilities are critical when interaction-based capabilities are defined. Close relationships and direct interaction are emphasized as highly important when new service innovation development and capabilities concerning it are involved.

Holmlund (2008: 39) discusses the concept of relationship quality, more specifically, perceived relationship quality as a significant concept, defining "perceptions of the entire relationship seen as an offering reflecting two companies' interlinked production processes". She underlines the dyadic nature of the concept e.g. that both actors are critical when the quality of the relationship is concerned. As in the business relationship, many people are involved that also play an important role when the business relationship is evaluated, the quality should be discussed as perceived quality, where several people assess the quality of the dyadic relationship. (Holmlund 2008.)

When discussing relationships, inter-organizational processes are concerned. Zajac & Olsen (1993: 141-142), emphasizing inter-organizational exchanges, define three main stages of processes, covering inter-organizational activities and exchanges taking place in them. An initializing stage is based on an analysis on the future of the exchange, alternatives and exchanging communications. In a processing stage the focus is on learning, trust and norms creation and conflict management, whereas in a reconfiguring stage the relationship is analyzed based on possible changes, strategy updates or possible ending of the relationship. Different stages may appear in a circle, depending on conditions, changes and the relationship itself. Narayandas & Rangan (2004), focusing on buyer-seller relationships found overlapping development in relationships initiation, building and maintenance by defining five processes that clarify relationship initiation and maintenance. In the first phase, position and power relations assessment and consideration of creating formal agreements take place. Secondly, based on the performance evaluation (outside and inside of the themes of the agreement), trust and commitment develop. Thirdly, trust (interpersonal) influences commitment (inter-organizational), whereas in the fourth phase the increased trust boosts motivation to improve performance (also outside the contract terms). Finally, commitment has an influence on the power relations, existed initially by balancing the potential power asymmetry.

Narayandas & Rangan (2004: 9) underline the role of activities, taking place "outside of the 'letter' of the agreement", by stating that relationship performance is a result of activities agreed formally by the partners and activities that

exist outside the formal contract. This indicates to a vital role of boundary spanning people and their relationship with each other in a dyad. According to Ring & van de Ven (1994: 109), "if personal relationships do not supplement formal role relationships over time, then the likelihood increases that conflicts will escalate between the role specialists of the organizational agents". Organizational agents refer to actors who support the relationships with in a specific role (for example, lawyers) but are not involved with the relationship as their core task. In other words, according to Ring & van de Ven (1994), personal relationships are significant since they can gradually compensate formal roles. Additionally, it is important to take care of actors with different roles in relationships (people with similar roles interacting with each other).

When studying business relationships and especially their development, the focus is on companies and the individual human beings involved (Mainela & Tähtinen 2007). Mainela & Tähtinen (2007), summarizing studies concerning business relationships, underline the importance of individual action that influences relationship development. For example, individual managers and their influence on interpersonal level has to be taken into account. According to Mainela & Tähtinen (2007: 7), studying the "streams of actions and interactions" would help us to understand relationships in business and their process nature (referring to Håkansson & Snehota 1995). The division into organizational role-acting and personal acting (presented by Mainela & Tähtinen 2007: 13) is paralleled by Ring & van de Ven (1994) when discussing the important role of personal relationships in business interactions.

d. Relations and relationships as creating networks

Relationship building and networking is connected with building a congruent picture on joint activities. When building a relationship, the main concepts concerning organization's identity and existence are in focus. This is based on the predispositions (cognitive and motivational), possessed by the people involved in the relationship building (Weick 1979) and refers to a need to get the management involved when creating a relationship. This way it is possible to match expectations, aims and the main definitions in the relationship as congruent.

Since network actors are interconnected with each other with relations, the nature and characteristics of relations play an important role. Brass (1995 in Monge & Contractor 2003: 30-34) has presented measures defining typical social network measures of ties (relations), measures that are assigned to individual actors and that are used to describe networks themselves. Typical social network measures analyzing relations or types of relationships include directionality, frequency, strength or symmetry of the relationships (Brass, Butterfield & Skaggs 1998). Measures that are assigned to individual actors consist of characteristics of location (e.g. closeness, betweenness, and centrality), number of links (e.g. numbers of direct links with others) or prestige. Roles of different actors define these characteristics more specifically. Measures that are used to describe networks are

also referring to actors' location, their number, a subset of nodes or links, connectedness etc.

Relationship strength indicates the frequency of contacts (quantity) in the relationship, whereas the directionality is connected with the characteristics of sharing (mutual) or delivering (from one point to another). A relationship between main contractor and supplier can be seen as a directional relationship, when emphasizing the function of a supplier (supplying to one destination), whereas it can simultaneously be considered as nondirectional, when stressing the partnership or alliance nature of the relationship (with no one direction or destination). In analyzing two or more relationships simultaneously, the focus is on multiplex relations, whereas when viewing them one at a time, the emphasis is on uniplex relations. (Monge & Contractor 2003: 35-36.)

Relationships can also be seen as restricting activities in networks and when creating them (Ford et al. 2002). The formal and informal networks can prevent or support business activities. While the formal network works as a skeleton, providing official channels for communication and operations, an informal network can be referred to as a nerve system, steering adviser, trust and communication relations. Especially in rapid changes the informal network can displace a formal one. Therefore, relations and their formal and informal mapping should be fitted into an organization's needs and aims. (Krackhardt & Hanson 1993.)

In network relationships, informal and formal structures as well as actors' dyadic relationships are significant. Networking and relationship building influences both parties and other parts of the supply chain, too. According to Håkansson and Ford (2002: 134) if a supplier has more clients, its activities with one influence the relationship with others. Therefore, when analyzing communication in supply chain relationships, it is necessary to take the supply chains and the network environment into account. Despite the dyadic nature of the relationship, the connectedness of other relationships plays an important role.

3.2.4   Partnerships as a concept and their emergence

Mohr & Spekman (1994) define partnership attributes, significant in partnership building and maintaining: commitment, interdependence, coordination and trust. Similarly to Anderson & Narus (1990), they (Mohr & Spekman 1994: 135) define partnerships as "purposive strategic relationships between independent firms who share compatible goals, strive for mutual benefit and acknowledge a high level of mutual interdependence".

The definition of Mohr & Spekman (1994) refers to creating relationships, based on mutual strategy, where actors gain competitive advantage when creating an interdependent relationship. Tuten & Urban (2001: 159) extended the model of Mohr & Spekman (1994) conclude, that partners, when evaluating the relationship, use performance indicators, communication flows and characteristics of a strong relationship as the basis for their evaluation process. If expectations are met, the relationship is supposed to develop and prosper, whereas in other cases relationships have a risk to diminish.

Partnership relationships usually do not emerge immediately. Relationships can be seen as a development process, starting from creating awareness of potential partner(s), exploring the possibilities and conducting trials (consisting of assessing potential rewards, power relations, developing norms and expectations towards the relationship), moving to expanding the relationship (by increasing the interdependence) and continuing development process towards stronger commitment in the relationship. Finally, there is a possibility of relationship dissolution. Depending on the product/service and the relationship, its targets and nature, relationships face (or do not face) different development phases. (Dwyer et al. 1987.) Based on the previous definitions of partnerships, it can be assumed, that a partnership can be reached in the expanding phase of relationship development (because of growing mutuality and interdependence). Respectively, Spekman, Forbes, Isabella & Macavoy (1998) list stages of an alliance life cycle as: anticipation, engagement, valuation, co-ordination, investment, stabilization, ending with re-evaluation and further decisions on the direction of the alliance.

Usually in partnerships, there are a lot of linkages that tighten the mutual relationships between two organizations and create strategic value to the relationship members. Relationships are "locked" by different links (relationship specific investments) that prevent pure market-based business activities. Further, social relationships and structure between partners (electronic, processes, protocols) bind partners closer each other. (Vesalainen 2009.)

Besides partnerships or partnership relationships, also a concept of an alliance is used when referring to a deeper, usually long-term cooperative relationship. Besides the time frame, Gulati (1998: 293) defines a strategic alliance similarly to partnership relationship definitions: "voluntary arrangements between firms involving exchange, sharing, or co-development of products, technologies or services".

Kim et al. (2010) divide research on supply chain partnerships into two streams: relationship-oriented and objective-centered views. The relationship-oriented view concentrates, according to Kim et al. (2010: 1888), on "relationship itself without considering critical variables or drivers" (e.g. Maloni & Benton 1997), whereas the objective-centered view highlights the objectives and variables according to the management perspective, including strategic emphasis and performance (e.g. Teece 1992, Lambert, Knemeyer & Gardner 2004). Also, referring to Lambert et al. (1996) and Lambert et al. (2004), Kim et al. (2010: 188) combine these two approaches by defining supply chain partnerships as "a strategic alliance to achieve business advantage and exclusive goals by paying attention to critical success factors, such as organizational commitment, coordination, leadership, trust, communication, conflict resolution techniques and resources". Again, similarly to Lambert et al. (1996), they (Kim et al. 2010) conclude that supply chain partnership can cover a variety of different timelines, such as short-term partnership or working in a partnership on a permanent basis.

Depending on the strategic aim, characteristics and contents of the relationship, the main contractor and a supplier aim at working in a partnership. Therefore, in this study network actors, such as the main contractor and suppliers, can

be referred to as partners. When studying partnerships, there is a danger to generalize the concepts of partnerships and alliances. As Heide (1994) states, the concepts are misused when they refer to "a generic departure from market governance" to "an implicit move toward hierarchical governance". Therefore, it is vital to view the partnership characteristics more specifically, in order to receive a comprehensive picture of the elements of the partnership. Further, since the supply chain partnership consists of both relationship and objective-oriented elements, it is necessary to assess SC partnership performance by taking the relationship perspective into account. In other words: "companies should measure and enhance the outcomes that are intangible and difficult to measure" (Kim et al. 2010, similar to Kaplan & Norton 1994). As Pike et al. (2005) state, intangible outcomes are significant innovation drivers.

3.2.5 Partnership characteristics

Relationship quality refers to critical elements existing in the relationship influencing its success. Kumar, Scheer & Steenkamp (1995: 55, based on Dwyer et al. 1987) conceptualize relationship quality as "encompassing conflict, trust, commitment and two constructs that represent the converse of disengagement – willingness to invest in the relationship and expectation of continuity". Jap (2001:88) sees relationship quality as "satisfaction, outcome fairness and willingness to collaborate in the future". These definitions refer to relationship characteristics, needed when aiming for a successful collaboration. Further, in order to prosper in partnership relationships, it is relevant to view them more specifically.

It is assumed, that partnerships are created based on organizational strategies, in order to gain particular competitive advantages via partnerships. Besides the benefits and success aimed for in supply chain relationships, partnering and collaboration may also have great difficulties (Spekman et al. 1998). Mohr and Spekman (1994) underline that research on partnerships rarely point out the fact, that partnership is not automatically successful. Therefore, there is a need to clarify factors defining partnership characteristics. Based on literature on partnerships and partnerships characteristics, factors associated with partnership and/or collaboration relationship success are presented in Table 5 below.

Information sharing can have benefits or challenges in supply chain relationships. As an example, in spot trading suppliers may reduce their information sharing with their partners: sharing part of cost information with them can provide benefits, whereas too open information sharing may cause strategic conflicts in the relationship. It concerns especially spot trading. However, spot trading is also used as a complementing method even in supply chain relation-ships with longer contracts. Additionally, although spot trading can improve supply chain performance, it may decrease a supplier's power in the relation-ship. (Mendelson & Tunca 2007.)

TABLE 5   Summarizing partnership characteristics based on literature

Characteristics	Description	Literature
Partner's compatibility / symmetry – asymmetry		
	symmetry, corporate compatibility	Lambert et al. 1996, Brinkerhoff 2002
	complementarity in resources	Schreiner et al. 2009
	flexibility	Hamblin 2002 Wathne & Heide 2004
	mutuality, mutual aims	Narus & Anderson 1987 Brinkerhoff 2002
Organizational and managerial components		
	encouragement and commitment of executive board, management style, philosophy	Whipple & Frankel 2000 Spekman et al. 1998 Brinkerhoff 2002
	leadership, resources and partner capability	Kim et al. 2010
	length of the relationship, joint history	Hamel et al. 1989 Anderson & Weitz 1989
	location	Vesalainen 2004
	corporate compatibility	Lambert et al. 1996
Coordination & participation		
	mutually fulfilled expectations	Frazier et al. 1988
	bilateral decision processes joint activities	Heide 1994 Schreiner et al. 2009
Clarity in target setting & ability to meet defined expectations		
	goal assessment, clarity and achievement, performance expectations and performance evaluation	Whipple & Frankel 2000 Brinkerhoff 2002
	partner's satisfaction	Benton & Maloni 2005 Mohr & Spekman 1994 Anderson & Narus 1990
Communication quality		
	information transmission / information sharing	Stohl & Redding 1987 Mohr & Spekman 1994
	communication facets	Mohr & Nevin 1990 Mohr et al. 1996
	accuracy, timeliness, adequacy, credibility, openness	Stohl & Redding 1987 Anderson & Narus 1990

	in communication predictability	Kelley & Thibaut 1979
	conflict resolution techniques, joint problem solving	Mohr & Spekman 1994, Burnes & New 1997
	competence of liaison personnel	Anderson & Weitz 1989
	networking capability	Möller & Törrönen 2002
Commitment / interdependence / power		
	willingness to operate in the relationship	Porter et al. 1974 Dwyer et al. 1987
	continuity	Anderson & Weitz 1989
	friendships, social networks	Gligor & Autry 2012 Pfeffer & Salancik 1978
	interdependence and its role in relationships	Spekman et al. 1998 Anderson & Narus 1990 Emerson 1962
Equity		
	fairness, fair dealing	Jap 2001 Kumar et al. 1995 Dwyer et al. 1987 Anderson & Weitz 1989 Ring & van de Ven 1994
Trust		
	can be based on contracts, competencies or on goodwill	Sako 1992 Whipple & Frankel 2000
	willingness to rely on the partner	Moorman, Zaltman & Desphandé 1993
	confidence in reliability and integrity, uncertainty reducing factor	Morgan & Hunt 1994
	joint outcomes exceeding individual ones, realized in relationship outcomes	Anderson & Narus 1990 Frazier et al. 1988:

a. Partner's compatibility / symmetry – asymmetry

Lambert et al. (1996) define symmetry as one of the partnership facilitators: when partners are demographically similar, it supports the partnership development. "Symmetry in terms of importance of each firm to the other's success, relative size, market share, financial strength, productivity, brand image, company reputation, and level of technological sophistication will make a stronger

relationship" (Lambert et al. 1996: 7). Additionally, close proximity as well as prior history are found to be one of the supporting factor in partnership creation and development (Lambert et al. 1996). Symmetry or asymmetry in different relationship characteristics has various effects: for example, in power relations, whether there is a symmetry or asymmetry has a critical role when commitment and performance are concerned (Brown, Lusch & Nicholson 1995).

According to Ahuja (2000), the main "inducement" for partnering lies in obtaining resources that the organization is lacking: securing access for assets that increase or support the firm's competitive advantage is a significant value which justifies partnerships, as well. In other words, there has to be an asymmetry in resources (Schreiner et al. 2009), in order to be able to succeed: since relationships are usually created based on exchanging resources that together provide a unique set of competitive advantages, it is critical that partners complement each other.

Wathne & Heide (2004) define flexibility as critical, but not as a goal as such. However, flexibility (as a part of agility) has been considered as a competitive advantage in networks. Based on Griffith & Myers (2005: 265) the determination of the level of flexibility in any relationship can be developed for individual partners". Hamblin (2002) defines flexibility as being able to respond to changing circumstances and calls for flexibility management as a way to improve the performance, for example, to be able to reconfigure the business according to needs and environment.

Mutuality can be interpreted as equality in, for example, decision making, transparency and resource exchange. Also, mutuality indicates to interdependence, as well as mutual respect between the partners. (Brinkerhoff 2002.) This way, it is tightly integrated with the power balance in the relationship.

b. Organizational and managerial components

Lambert et al. (1996, 2004) define management components as supporting managers in reaching for partnership benefits. They are considered as operational: planning, joint operating controls, communications, risk and reward sharing, trust and commitment and contract style, scope and investment. Also, Kim et al. (2010) based on literature on supply chain partnerships, listed critical success factors that cover leadership, resources and partner capability. Similarly, Spekman et al. (1998: 648) calls for abilities to "orchestrate this alignment" and to ensure the success of the whole supply chain.

Management plays a critical role in enhancing partnerships, in creating and modifying goals, policies and cultures (Wong 2001). Commitment of all the levels, especially the executive and management level is a critical factor when viewing partnership success (Whipple & Frankle 2000). Commitment of the management level especially supports and enables trustful relationships with partners (Brinkerhoff 2002).

Very often length of the partnership is considered as a success factor (longer relationship as more successful one), although partnerships can also act

for a certain limited period of time and then be dissolved, as mutually agreed and expected (Hamel et al. 1989). A long-term relationship refers to joint history and joint expectations. Also, location is regarded as one critical factor when thinking of developing level of networking and especially increasing the surfaces, where activities are conducted. From Finland some European partners may be seen as too distant to develop different links in surfaces (Vesalainen 2004).

  c. Coordination and participation

Coordination refers to possibilities and skills to implement joint activities (Schreiner et al. 2009), and high levels of coordination indicate to mutually fulfilled expectations (Frazier, Spekman & O'Neal 1988). It helps organizations to reach a more balanced status in changing circumstances (Pfeffer & Salancik 1978).

Participation refers to joint operations, when both parties are engaged, especially, when actions of one actor influence the other (Mohr & Spekman 1994: 139). Schreiner et al. (2009) underline the role of strong communication abilities in reducing information asymmetry and that way supporting and enabling joint activities, whereas Heide (1994) calls for bilateral decision processes that increase the level of participation.

  d. Clarity in target setting and ability to meet defined expectations

According to Whipple & Frankel (2000) both customers (e.g. a main contractor) and suppliers have relatively similar views on success factors in strategic alliances, despite the fact that the win-win may not be realized equally. They (Whipple & Frankel 2000: 2) also conclude that "…performance and 'people skills' interact to determine the viability and success of an alliance." This reflects the need to acknowledge the critical connection between efficient target setting and performance and personnel and their skills and talents.

Mohr & Spekman (1994) define two indicators of partnership success: an objective indicator (to achieve a set of companies' goals, for example, sales volume flowing in the partnership) and an affective measure (satisfaction of one party with the other). Benton & Maloni (2005), focusing their study on supplier satisfaction, find this factor significant in buyer-seller relationships. Satisfaction is a "feeling of contentment with the supply chain relationship no matter what power imbalance exists" (Benton & Maloni 2005: 15). Respectively, the lack of supplier satisfaction is a significant threat to efficient performance. (Benton & Maloni 2005: 2-3.)

Mohr & Spekman (1994) found, that information sharing and satisfaction with profits have negative association, probably based on possible too high expectations, raising from openness and thereby interpretation of a greater closeness. The extent of sharing critical information is often linked with openness and asymmetry.

e. Communication quality

Communication quality overlaps with other partner characteristics, since they can be related (implicitly or explicitly) to the level of communication in the relationships. Communication quality can refer to information transmission. It can indicate measures defining the message and its contents as information adequacy, e.g. how relevant, comprehensive and usable the information is or its credibility and validity. Also, the level of openness or secrecy and the cultural context can act as indicators to the quality of communication. (Stohl & Redding 1987.) Respectively, information sharing can be seen as exchanging information that has a critical and exclusive nature (Mohr & Spekman 1994, Anderson & Narus 1990). When assessing communication quality, different aspects of communication and communication behavior can be included. Mohr & Nevin (1990, similar to Mohr et al. 1996) define collaborative communication as covering frequency of contacts, two-way flows of communication, formality or informality in communication and use of influence strategies when sharing information.

Problem solving may have challenges in relationships: problems related to strategic issues (for example, costs in new operations) may have to be solved at a level that is not involved in operations (for example, by the senior management level). If the interpretation of the efficiency in the relationship is only based on the amount of times the strategic level has to be involved, it may create a biased view on the success in joint operations. (Burnes & New 1997.) Mohr & Spekman (1994: 139-140) summarize literature concerning conflict resolution techniques and list ways of solving conflicts as use of persuasion, coercion or domination (constructive vs. destructive), use of a third party as or solving conflicts internally and, finally, smoothing or ignoring the conflict.

Since relationship is always created in a situation where there is some level of uncertainty, predictability of the other partner and its operations is a highly valued characteristic. This refers to creating and interpreting attributions about the partner and a self-presentation corresponding to his/her own aims and features. However, a joint language between the attributions and self-presentations may be challengeable to find. (Kelley & Thibaut 1979.)

Generally, as Burt (2001: 34) states, "information circulates more within than between groups". This sets challenges to dyadic information exchange. Möller & Törrönen (2002: 19) define networking capability as one of the critical capability types that relationship actors have to accomplish. It means sharing and supporting the achievement of mutual goals, creating and maintaining multilevel and multifunctional contacts between different actors and existence and use of communication system that supports the maintenance of these relationships. Further, when viewing communication on the level of boundary spanning people, the competence of the "liaison personnel" plays a significant role. As Anderson & Weitz (1989: 315) state, it is vital that their competence and performance is considered as competent by the other party. If this is not the case, the decrease in communication between the partners may be possible. Additionally, in assessing communication quality, messages and their contents

play an essential role (Monge & Contractor 2003: 183), which indicates to the need of taking the boundary spanners as individual communicators into account.

  f.   Commitment / interdependence / power

From an organization's perspective, commitment is seen as accepting organizational values, willing invest one's time and effort behalf of the company, as well as wanting to maintain the relationship with the organization (Porter, Steers, Mowday & Boulian 1974: 604). Further, commitment in the relationship is linked with valuing the relationship with the partner as such important that the partner is willing "to warrant maximum efforts at maintaining it". (Morgan & Hunt 1994: 23). This refers to an aim to maintain the relationship, e.g. the continuity: in a relationship, commitment is "an implicit or explicit pledge of relational continuity between exchange partners" (Dwyer et al. 1987: 19). The importance of the relationship for both partners influences the "stakes" they want to invest in it (Dwyer et al. 1987, Anderson & Weitz 1989). The continuity in the relationship and how it is perceived by the partners is critical. Anderson & Weitz (1989) list factors that support continuity as mutual trust, power balance, a joint (positive) history and significant stakes invested in the relationship.

   Mohr & Spekman (1994) list interdependence, information sharing, persuasion, smoothing, domination, harsh words and arbitration as factors not included into elements of a success. Although they (Mohr & Spekman 1994) did not find interdependence as a success factor, it is necessary to study dependence as one element of relationship, because partnerships indicate interdependence. As Anderson & Narus (1990) define it, there is a relative dependence existing in relationships and the interdependent nature of relationships plays a vital role. Spekman et al. (1998) find that interdependence, explained by the transaction cost theory (Williamson 1971, 1987) and the social exchange theory (Emerson 1962), has a complex nature: buyers do not necessarily regard suppliers as essential as they should be which may reflect the unwillingness to recognize the interdependence between them. This refers to a power-dependence relationship and the possible denial of dependency on the other actor (Emerson 1962).

   In partnerships, friendships can emerge. According to Pfeffer & Salancik (1978: 146), "[T]he more each becomes enmeshed in the social networks of the other, such that there are overlaps in friendship networks and other business acquaintances, the more binding their friendship becomes, and the more stable and predictable it is likely to be". More specifically, Gligor & Autry (2012) conclude, that personal relationships between the actors had a positive impact in communication: personal relationships influenced the message sharing as easiness in communication, increased frequency in contacting, communicating and in implementation of different ways of contacting. Additionally, personal relationships enabled actors to create contacts on different organizational levels and increased communication performance and accuracy in interpretations. Further,

personal relationships supported the message integrity (as honesty and confidentiality) and decreased tension between the actors. However, as Gligor and Autry (2012) state, buyers (contrary to sellers) may be discouraged to form friendships.

g. Equity

Based on Kumar et al. (1995), a level of power is related to bilateral communication, including the concept of fairness. Fairness can be divided into concerning relationship outcomes and related to processes in the collaboration. It is seen as an exchange agreement, where values received from the relationship are proportional to the level of investments in the relationship. Perception of fairness is especially crucial in the early phases of the relationship, as well as under conditions of environmental uncertainty. Kumar et al. (1995) consider fairness linked with processes as more critical when relationship quality is concerned.

Equity, as Ring and van de Ven (1994) define it, does not mean that results are equally divided between the partners. Jap (2001) underlines that the ability to define the input both parties invested in the relationship is one of the keys in relationship quality. This refers to the ability of understanding equity between the partners, but also illustrates the complexity of the concept of equity and how it is realized in relationships.

h. Trust

Anderson & Weitz (1989) underline the vital link between trust and communication: "[T]rust facilitates communication and in turn communication builds trust". Further, it increases understanding of the accomplishments reached by both parties together (Anderson & Narus 1990).

Trust can be seen from the perspective of its contribution to the relationship: it can be considered as a result, as evidence coming from operations that have been implemented accordingly (e.g. promises that have been kept, honesty, and lack of opportunism) (Frazier et al. 1988: 62). Trust is linked with a feeling of confidence in the partner (Moorman, Zaltman & Deshpandé 1993): that the partner is reliable and conducts the business with integrity (Morgan & Hunt 1994).

Companies can describe the relationship as partnerships, although there is not any: previous relationship, based on vertical networks and competitive bidding, is challengeable to develop into a partnership. Better communication, trust towards the suppliers and taking the sustainability and profitability of suppliers into account enable partnership creating. (Liker & Choi 2004.) The partnership characteristics form a complex whole of elements including characteristics of the actors themselves, the organization, the supply chain and the surrounding networks and environment in general. Naturally, each relationship has its specific features characteristic of the partnership in question. Simultaneously, partnership characteristics influence the outcomes in collaboration.

Therefore, they can be considered as partnership success factors, contributing competitive advantage for the partners.

3.3   Exchange and dependence in Relationships

As partnership characteristics were in focus in a previous chapter, the social exchange continues focusing on "properties in interpersonal relations and social interaction" (Blau 1964: 4). According to Monge & Contractor (2003: 219), "the theoretical mechanisms that generate most network organizations are exchange and dependency relations". Respectively, network organizations can be referred to a complexity of relations that reflect exchange and dependency (Monge & Contractor 2003: 219). This refers to a need for focusing on concepts of exchange and dependence more specifically.

3.3.1   Exchange as a basis of the relationship

Social interaction has been the core in theories concerning exchange in relationships. The social exchange theory and more specifically relational view, as well as network exchange theory all underline the social element existing also in business operations.

   a.   Social exchange theory clarifying the interaction creation

In social exchange theory, exchange and cooperation have a social dimension, as the social behavior is seen as an exchange. Human beings enter and create new social relationships based on the assumption that they receive some kind of a reward. According to the social exchange theory, a relationship is created when exchanges of material, information assets and resources (supply and demand) are conducted. In an exchange, an individual is looking for maximum profit from the exchange which is why s/he is comparing values and costs that take place in the exchange. (Blau 1968, Homans 1958, 1974.) The basis of the theory is that the social exchange analyzes behavior with goals that are socially mediated. Originally, this meant face-to-face interaction. (Blau 1964, 1968.) As Homans (1958: 606) states, "propositions about the dynamics of exchange can begin to generate the static thing we call 'group structure'", referring to emergence of more complex group and society structures (Blau 1964).

   In a relationship, each actor or organization has a certain level of comparison or standards that should be met when assessing the relationship outcomes. Also, there is a comparison level for alternatives which the comparison level is com-pared to. In other words, the standards must exceed the outcomes that are potential from other sources; otherwise the relationship is in danger to expire. (Kelley & Thibaut 1979: 8-9.) However, the potential options may be limited: "[T]he partner with fewer alternative opportunities tends to be more dependent on and committed to the exchange relation than the other" (Blau 1964: 99). This

creates a power relation, especially when the difference between the standards and the other alternatives is significant (Blau 1964). Blau (1968) argues that when rewards are received, the relationship actor is obligated to return the benefit for the other partner. This creates reciprocity between the partners. However, the satisfaction with the reward received is not automatically related to the value the reward has (Homans 1974).

Further, the inducement for the interaction is social attraction towards the potential partner which leads to social exchange. Processes, conducted by individuals and subgroups consist of social integration (group formation), differentiation (defining status and roles, group cohesion), organization and opposition formation, group members implementing social control as well as social approval. (Blau 1964.) Interestingly, although a return is expected and reciprocity is created, Emerson (1976: 347), simultaneously criticizing the theory status of the social exchange theory finds that "empirical instances of purely unilateral reward will be extremely rare and transitory in nature". This indicates the influence of a power relation to the relationship.

In an exchange relationship, there is a power and dependence relation (Emerson 1962, Kelley & Thibaut 1979), contributing challenges of authority, leader-ship, conformity and role definition (Homans 1974). The interdependence refers to dependence of one actor that creates a basis for power for the other. As Kelley and Thibaut (1979: 102) state: "[E]ach person has power over his partner to the extent that the partner is dependent". Except for interdependence there may be dependence (one partner being dependent on the other) or independence (neither of the partners being dependent) existing in the relationship. When considering the relationship outcomes, the actors have several options they can choose: they can maximize their partner's outcomes, their own and their partner's outcomes or they can solely maximize their own benefits from the relationship. (Kelley & Thibaut 1979.) According to Blau (1968), in exchanges, taking place in economic situations obligations are negotiated and agreed upon simultaneously. However, the social exchange approach has a long-term view: partners, creating the outcomes expect that relationship contributes value in a long run and therefore can tolerate inequality over a short period of time. (Kelley & Thibaut 1979.) This can be interpreted that the relationship outcomes (benefits and rewards) can be realized differently for the partners (in various points of time) and a certain level of inequality, accepted by both parties can exist in the relationship. Also, since relationships are evolving slowly, relationship building and maintaining requires trust (Blau 1968).

Emerson (1976) sees studies of Homans, Kelley & Thibaut and Blau as focusing on elementary social processes in a dyadic relationship. The theory is considered to refer more to individual decision making without an economic but solely social perspective (Cook & Emerson 1978). Emerson (1976) calls for extending them to a macro level in larger social structures. Network exchange theory answers to this call.

b. Exchange relations and network exchange theory

According to the relational view, competitive advantages are found from inter-firm elements (Dyer and Singh 1998). In other words, the scope is extended outside one organization into relations between different organizations (parallel to relationship marketing). Dyer and Singh (1998) state that interfirm linkages, as in forms of coordination, cooperation and communication can result competitive advantages: interfirm knowledge-sharing, governance mechanisms as well as concentrating on resources that complement each other can act as a basis for profit rents (returns). An exchange forms the basis for the relationship and a starting point for relationship development. The relationship consists of benefits, as exchange efficiency, social satisfaction and minimizing uncertainty. As Dwyer et al. (1987: 14) state: "Foremost is the possibility of significant gains in joint – and consequently individual – payoffs as a result of effective communication and collaboration to attain goals".

When managing supply chains, governance of structures is constantly discussed. Governing structure can be seen as governing rules of exchange that are informally or formally conducted. Relations can also be governed: relational governance strategies refer to relational norms, defined by both parties of the relation. (Heide 1994, Zhang et al. 2003) Also, norms are considered to be a key governance mechanism in exchange relationships between organizations (Zhang et al. 2003). Respectively, norms are also culturally bound: Griffith & Meyers (2005) find, that in global supply relationships, where supply chain governance strategies are implemented, it is beneficial (from the point of view of the supply chain performance) to aim at fitting the governance strategies to the relation norm expectations, that are culturally -based and therefore relationship specific.

The social exchange theory has been developed into a network exchange theory, where investments and benefits, or costs and returns gained in a network, dictate its usefulness. Positions actors can influence the final result, as well as frequency of links can define the value of the network. This refers to the use of the social exchange theory: in studies of power, trust, leadership, resource dependencies and inter-organizational relationships (Monge & Contractor 2003: 210).

3.3.2   Key resources in the center in conducting business

One of the main reasons for organizations to form collaboration relationships is receiving resources that they lack and complete their own sets of assets, while contributing their resources to the use of a partner. When exchanging resources, that may be tangible or tacit, the quality and characteristics of linkages between relationship actors become significant. The ways how an organization succeeds in exchanging critical resources and in operating in exchange relationships define an organization's survival and success.

According to the resource dependency theory, organizations are influenced by their environment that is dynamic with constant changes that again

affect the organizations. Companies try to protect themselves in the business environment by either creating alternative relationships with new network actors or forming alliances or closer relationships with others. In this way they influence their exchange partners and the level of dependency on them. (Pfeffer & Salancik 1978.)

Simultaneously, this creates a power relation: one actor or a coalition has power to control resources the others value. Dependence has two important elements: dependence is based on one actor's "motivational investment" in goals that the other actor has and is proportional to the possibilities to receive the same goals from somewhere else (Emerson 1962: 32). In other words, the theory is about resources, their exchange in the relationship and their availability outside the relationship. The dependent organization may try to increase its autonomy in some way. It can reduce the uncertainties with several tactics, using or restructuring its power, for example, by co-opting the partner with socially valued ways or absorbing others partially or completely. The resource dependence reflects two dimensions of power in the relationship: the power relation (the imbalance causing power that one actor has over the other and the mutual dependence or interdependence (balance or imbalance) in the dependence relationship). (Emerson 1962, Pfeffer & Salancik 1978, Pfeffer 1981b, Casciaro & Piskorski 2005.)

Heide (1994) states, that the resource dependency theory does not contribute to the strategic level e.g. ways of governing relationships. Similar to transaction cost economics, both theories try to find solutions for decreasing uncertainty and dependence between and around the partner organizations, which does not support partnering. Williamson (1999) finds similarities in transaction cost and resource-based approaches. Based on Mahoney & Pandian's (1992) work of isolating mechanisms (explicating rents and their sustainability), he concludes that asset specificity and bounded rationality form the theoretical basis in both theories. Blomqvist, Kyläheiko & Virolainen (2002) criticize the transaction cost as well as the resource-based view on inter-firm collaboration. They see the approaches are typically static and based on cost-based comparison of competencies and capabilities. Additionally, Casciaro & Piskorski (2005) criticize the lack of reciprocity in studies based on Resource Dependency Theory (RDT): for example, constrains absorption is often viewed only from dependence of one party on the other.

RDT underlines the influence of the external environment on the organization by defining organizational effectiveness as emerging from the external requirements of partners and other actors whom the organization and its outcomes concern. The internal definitions of how activities are conducted refer to the organizational efficiency, e.g. the organizational performance. (Pfeffer & Salancik 1978.) Although the emphasis of partnership creation and value received from partnering is missing, the enactment between the organization and its environment is important to take into account. Further, the concepts of effectiveness and efficiency are vital in order to create understanding on the performance in a dyadic relationship in a supply chain environment. Hillman, With-

ers & Collins (2009) support the resource dependence view by stating that organizations enact by designing different strategies in order to minimize the influence of the environment, that is, the interaction between organizations and their environment is clear in the current business world.

In general, resource-based views offer strategic choices that are made based on the assets of the organization has, but also the assets it can acquire. Also, Teece et al. (1997) stresses the contribution of the views for strategic management especially in acquiring new capabilities, e.g. intangible assets that provide competitive advantage. More recently, intangible resources have been presented as divided into three, human, organizational and relational capitals (Pike et al. 2005). To cover business operations as a whole, intangible resources are integrated with physical and monetary resources, and in order to be able to specify their influence, they are divided into subdivisions clarifying the elements of each group of resources. Relational resources exist in relations and are defined as external: an organization needs them or is influenced by them and by their owners, as suppliers, customers, regulators and partners. (Pike et al. 2005) This indicates to the vital role of relationships and underlines that the competitive value produced by the assets owned and acquired is impossible to create alone. Since power and dependence are critical elements of the resource-dependence view as well as significant relationship elements in general, it is necessary to view them more specifically.

3.3.3   Power and dependence in relationships

Castells (2009: 10) emphasizes the relational capacity of power: it exists in relationships, being "conditioned, but not determined, by the structural capacity of domination". Power can be analyzed and defined from different perspectives in networks. The gate keeping characteristic, existing in networks, is connected with a level of power and its relation with other networks and network actors. Castells (2011) defines four forms of power that exist and are exercised in and through networks: networking power (possessed by network organizations or network actors, relative to those not existing in the same networks), network power (emerging from the power to define and manage the interaction in a network), networked power (power the actors have over the other in the network) and finally the network-making power (the power to create and modify networks and to connect network actors in them, as programming and switching). Also, he states that different networks of power are "networked among themselves" instead of emerging with each other: they simultaneously exercise cooperation and competition, create networks and change partners. Further, when simplified, each network defines its power relationships that emerge and depend on the goals the network as set. This indicates to a complex nature of power and power relations and their existence in networks.

a. Defining power and power holders in a network context

When defining power more specifically, the emphasis of the context (as a supply chain or networks) and the relation to other actors become important issues. In a business context, in dyadic relationships, we can see power as "firm's potential to influence on the other firm's beliefs, attitudes, and behaviors (Frazier 1999: 227). As Pfeffer (1981b), similarly to Emerson (1962) states, each actor (a company or a person) is powerful or powerless only in each context (in each relationship), but not generally. More specifically: "power is a property of the social relation; it is not an attribute of the actor" (Emerson 1962: 32). In other words, power can be understood as existing in a relationship e.g. referring to the characteristics of the relationship.

Power (linked with the dependency) can be defined as a possibility to access other potential resources than the resources available and a level of interest other network members have in the resources in question (Emerson 1962). Power can be gained based on several factors: role/position, location/structure (e.g. centrality, closeness, betweenness, accessibility to resources) or based on the amount of links or relations in a network. For example, power is based on the position (also called "betweenness") and in that way the possibility of resource control, referring to a certain amount of dependence of another party. (Pfeffer 1981b, Emerson 1962, Cook & Emerson 1978, Carroll & Teo 1996, Freeman 1977.) Further, power can be divided into dimensions whether it exists in resources, processes or meaning. Power of resources relates to information, expertise, and control of vital issues (e.g. money, rewards), whereas power of processes concerns decision-making processes and power of meanings covers power existing in language, symbols and rituals. (Hardy 1996.) As a fourth dimension, Hardy (1996: S8) points out the importance of the power in the system, embedded in organizations themselves. The management must be aware of power dimensions, in order to be able to mobilize them and through this influence the strategic policies of the organization.

Anderson & Narus (1990: 43, 56) define dependence as relative (relative to its partner's dependence on the relationship in question) and, simultaneously, as a "significant antecedent of influence in the working partnership". Dependence can be seen as a company's need to maintain the business relationship in order to achieve the goals (Frazier 1983), in other words, the value of each actor and the irreplaceability of an actor become significant indicators of the level of dependence (Kumar, Scheer & Steenkamp 1998). Power-dependence relations are influenced by the power network, existing outside the actual relationship. For example, creating new relationships in the network has an effect on the relationship, e.g. "the internal features of one relation are nonetheless a function of the entire network" (Emerson 1962: 36).

Gulati & Sytch (2007) point out two dimensions of asymmetry of interdependence - dependence and joint dependence (a total sum of dependence in the relationship) and underline that joint dependence can provide benefits by reducing the potential uncertainty and improve partners' performance. This is

similar to Emerson's (1962) definitions of cohesion (joint dependence) and pow-er ad-vantage (asymmetry in dependence). Gulati & Sytch (2007) extend the concepts by supporting the idea that embeddedness, when interpreted as a higher level of joint dependence boosts improvement in performance of the re-lationship. This is realized via improved joint actions and increased information exchange. Ozcan & Eisenhardt (2009) criticize Gulati & Sytch's (2007) approach, and in particular elements of dependence and embeddedness in dyadic rela-tionships, as fixed and deterministic. They (Ozcan & Eisenhardt 2009) suggest that taking execution of ties, agency and strategic action into account as ways of relation-ship and network formation and development would help organiza-tions to reach for high performance.

Casciaro & Piskorski (2005), when refreshing the resource dependence theory, find that while dependence (existing mutually) supports the integrating activities and partnership formulation (as far as into mergers and acquisitions), the power imbalance acts as a barrier in the same situation, as "the dependent organization is more motivated, but less able to absorb constraint" (2005: 4). This implies that when having a distinct imbalance in power relations, the inte-gration is considered more difficult by the dependent party. Differently from Pfeffer & Salancik (1978), Casciaro & Piskorski (2005) emphasized the existence of relationships, where power imbalance exists with mutual dependence (in-stead of power-balanced, mutual dependence relationships, e.g. reciprocal de-pendencies). Interestingly, Emerson (1962: 34) states that although there is a power balance between the actors, it does not neutralize the existence of power, since the more powerful actor can start exerting its power again. However, Em-erson (1962: 34) sees an imbalanced relationship as unstable by enabling the use of power over the other actor.

The location of power holders can be seen from many perspectives. Cas-tells (2004, 2009) defines two types of power holders, switchers and program-mers. While the programmers have the ability to program and reprogram net-works' goals, the switchers are able to connect networks, their goals and re-sources with each other. Instead of being individuals, power holders can be seen as networks. Therefore, power holders, are created by several actors who constitute a network. Power and its role are also connected with forms of con-ducting business. In a strongly authoritarian relationship with no or weak price mechanism (market-based prices not existing), the role of the main contractor as a controller and guider may increase. This can decrease the level of trust and community. Further, experiences of reasonability have been determined as an element valued in supply chain relationships. Perceptions concerning the rela-tionship are influenced by the dependence and commitment of the relationship: highly de-pendent or committed actors may state more critique and are keen on more open communication. Furthermore, commitment is connected with the attitude towards steering and authorial nature of the relationship. (Kohtamäki 2005.)

The use of power can also be seen as a tool, empowering relationship ac-tors to successful operations and better performance, e.g. the power holders in

the relationship are in a key position to create an effective supply chain (Maloni & Benton 2000). Equity can emerge from other sources besides a direct power relation (balance or imbalance): Benton & Maloni (2005: 4) describe supplier satisfaction in a supply chain as "a feeling of equity with the supply chain relationship no matter what power imbalance exists between the buyer and seller dyad". Interestingly, they (Benton & Maloni 2005) did not find any results supporting performance as one of the drivers of supplier satisfaction, but the quality of the buyer-supplier relationship, instead, influences the supplier satisfaction. That is, the nature of the relationship is the key in the level of supplier satisfaction and relationship-driven strategy can better be used as a management tool than performance based strategy. This points out the critical role of supplier satisfaction as supporting the relationship emergence and development, as well as highlights the importance of finding out suppliers' views on power relations, feeling of equity and relationship quality.

In a supply chain relationship power is linked with concepts of uniqueness of the partner, which is why it is necessary to view the network in a wider scale. The possibility to replace the actor, invested resources in relationship and the dynamics on the market define, among others, the dependence and the relation of power in the relationship. The existence, the nature and amount of current relationships may also affect the way actors behave in the network (Håkansson & Ford 2002: 135).

Cox (2004) presents a power matrix where buyer and supplier as power holders possess different attributes. For example, the interdependence exists when switching costs of both parties are high and the supply has highly unique characteristics, while in an independence relation, there are many suppliers and buyers in the market with low switching costs and standard offerings. The buyer dominates the relationship if there is one-way dependence and the buyer can switch the partner easily, as well as suppliers' product or service is regarded as common. In a supplier's dominance relationship, the supplier has many alternative partners with low switching costs and unique products. In other words, the market and its competitive situation, partners' position, existence of other potential supply chain actors and the offering itself define power and dependence relations significantly. Respectively, decision making is tightly bound with power relations: its use depends on several conditions and their existence (e.g. inconsistency in partners' goals, scarcity of resources, ability of coping uncertainty or irreplaceability and other social aspects in the relationship). (Pfeffer 1981b). All these factors emphasize the concept of the organization as an entity of social "units" or persons, whose relationships with each other and the contents of each relationship provide the situation as a whole, where power exists, is exerted or shared.

b. Power in positions and in communication

Power lies in relationships. As Lambert et al. (1998: 3) find, "…whoever has the relationship with the end user has the power in the supply chain". A power

status can be associated with the position of network actor in a network or in a partnership. Practically, when viewing its networks and network relationships, a company may regard itself as a center of a network, which on one hand makes all network structures unique (Vesalainen 2006: 10), but on the other hand complicates the understanding of power relations. Therefore, depending on the party that describes the positions of network actors, the comprehension of power balance may be biased. Analyzing a network from a company-centered view may prevent seeing all dynamics, opportunities and challenges existing in the network (Ford et al. 2002). In order to act successfully in the network, each actor should view the relationships from its counterpart's position (Håkansson & Ford 2002: 137), for example a network actor may get a biased view of the network world and assumes that it is able to control the network or owns the network (Ford et al. 2002).

Generally, it's said that information is power. An organizational form can define possibilities for adaptiveness and possibilities for information flows. In a formal organization structure, lower organizational levels recognize possible changes in the surrounding environment more rapidly than higher levels (Fukyama 2000: 204).

Mohr et al. (1996) integrate power (expressing the influencing ability of an actor over another [Gaski 1984]) with control (resulting from power and when succeeding in influencing partner's behavior [Anderson & Narus 1984]). Interestingly, Mohr et al. (1996) found that in relationships where levels of integration - varying from independently operating to owned by one of the actors - or manufacturer control is considered as high, the role of collaborative communication is lower than when integration levels or control being low. In partnerships when the power relation is not equal the elements of collaborative communication i.e. frequency, bidirectionality, formality and content of influence attempts [Mohr & Nevin 1990]) do not have such an important impact. However, manufacturers' high level of power and control can be seen as positive by the dealers, too: dealers may consider it as supporting and improving their performance (Mohr et al. 1996: 112).

c. Symmetry and asymmetry influencing on the relationship

A dyadic level of network relations can be symmetric, asymmetric or null. A symmetric level indicates to ties that actors have to each other, whereas in asymmetric relations the link exists only from one side to another. In symmetric links, relations are mutual and reciprocal. In dichotomous / binary relations mutuality can be absent or present according to symmetry of the links, and in valued relations mutuality can be determined as similar values of the relations between to nodes. (Wasserman & Faust 1994.)

Asymmetric channel dyads have been found to be more dysfunctional, less stable and less trusting than symmetric dyads (Heide 1994, Kumar, Scheer & Steenkamp 1995a). In asymmetric relationships lack of trust, short-term ex-

plicit contracts, competition based on pricing and search for potential partners are dominant (Kumar, Scheer & Steenkamp 1995a: 350).

In asymmetrical relationships there is a greater influence of one actor over another (Castells 2009: 11). Power (a)symmetry is understood as the relative level of power the relationship members have (one actor is having more, an equal amount or less power than the other) (Brown et al. 1995: 366). The ability to control and to administer resources is a basis for asymmetric relationship (Möller & Wilson 1995: 36), and the firm that has the more powerful advantage can act opportunistically (Frazier 1999: 227).

The symmetric or asymmetric characteristic of a relationship plays a critical role, when power is concerned. According to Brown et al. (1995: 364), "the (a)symmetry of power determines the extent to which the use of certain types of power is appropriate". They (Brown et al. 1995) integrate commitment (either normative or instrumental) with the ways of power is used (mediated or non-mediated). Further, they argue that the (a)symmetry of the relationship influences the ways of power that have been used, and, through this, also the type of commitment existing in the relationship. By the ways of power used they (Brown et al.1995, similarly to Maloni & Benton 2000) refer to mediated ways (with the aim of creating direct activities via rewarding, coercion or legally legitimating) or nonmediated ways (including more relational ways of expertise, referent, traditionally legitimating or information). Also, they (Brown et al. 1995) summarize, that if one actor has more power over the other, its use of mediated power over the other is more acceptable, whereas in a symmetric relationship ways of nonmediated power use are more acceptable. However, as Brown et al. (1995: 383) conclude, use of mediated power decreases the normative (e.g. "genuine", as Maloni & Benton 2000: 55 state) commitment, whereas commitment is increased when nonmediated ways of power are used, similarly, the partner views positively the performance of the other actor when nonmediated ways are used in an asymmetric relationship.

In this study, power is defined as an influence on the other organization, based on the environment, network and supply chain factors (position, structure, market, product/service related characteristics) as well as the characteristics of the supply chain actors. Power is a complex concept with several related themes, as trust and commitment all share an important role in supply chain communication.

3.3.4   Role of trust in a relationship

Trust has many definitions as well as functions supporting its role and importance in supply chain communication. Trust has been referred to as "willingness to rely on an exchange partner in whom one has confidence" (Moorman, Zaltman & Deshpandé 1992: 315). In other words, interaction forms the context for trust to be created: "trust in the goodwill of other parties is a cumulative product of repeated past interactions among parties through which they come to know themselves and evolve a common understanding of mutual commitments" (Ring & van de Ven 1994: 110). Respectively, trust can refer to an

expectation that the other party acts "in a mutually acceptable manner", without any aims of exploiting the partner (Sako 1992: 89, similarly to Zaheer, McEvily & Perrone 1998).

On the other hand, trust can be seen as a factor that supports the creation of interaction (Vesalainen 2006: 122, 156-157). Trust reflects the confidence of the partners for each other and their reliability and integrity (Zhang et al. 2003: 554). Dyer (2002: 88) includes reliability, goodwill and fairness into the basic elements of trust. A significant factor in defining trust is consistency: it refers to a belief of consistency in partner's behavior (Spekman et al. 1998: 634). Further, satisfaction is related to existence of trust: satisfaction with joint results in past collaboration enhances the feeling of trust of the relationship actors (Ganesan 1994).

In a trustful relationship, there is a willingness to solve conflicts (Dwyer et al. 1987 based on Sullivan & Peterson 1982) and it is related to commitment in the relationship (Dwyer et al. 1987). Trust, commitment and their interrelation is argued by several authors. Whereas Morgan & Hunt (1994) see that they exist and operate at individual levels, Narayandas & Rangan (2004) state that trust is created between individuals in the relationship, but commitment is created inter-organizationally. Also, the causality is seen differently: according to Morgan & Hunt (1994), it is possible to go both ways, whereas Narayandas & Rangan (2004:12) see that trust enforces ("drives") commitment.

The different concepts below are integrated in Sako's (1992a, 1992b) categorization of different types of trust: contractual, competence and goodwill trust. The contractual trust refers to general moral norms and conducting business according to the contract, whereas the competence trust covers the idea of possessing the capabilities and skills to carry out the agreed operations, based on the standards and requirements existing in the area. In goodwill trust the core is in the concept of fairness, whether there will be a commitment to act in order to receive a win-win solution, contrary to one partner's benefitting from the relationship. Sako (1992a: 89) states that there is a development path in creating trust, starting from the contractual trust towards the goodwill in the relationship. Further, Sako (1992a) argues that the goodwill trust influences the performance the most, since it includes also the idea of joint learning and development.

Zaheer et al. (1998) emphasize the importance of separating two different levels of trust: interpersonal and inter-organizational. Interpersonal trust refers to the level of trust of the boundary spanning people, whereas inter-organizational trust is seen as "trust placed in the partner organization by the members of a focal organization" (Zaheer et al. 1998: 142). They (Zaheer et al. 1998) see that it is vital to clarify the existence of multilevel trust and point out a vital role of boundary spanning people and their routines with the partner in a process of trust creation, since via routines and processes the interpersonal trust gradually develops into a more institutionalized level of trust (and vice versa). However, according to Sako & Helper (1998), inter-organizational trust, espe-

cially when regarded as a governance mechanism, remains vague because of its intangibility and informality.

a. Trust creating benefits in the relationship

Trust and its value in network relationships have been widely argued. Trust increases satisfaction with the partner and therefore willingness to continue cooperation in the future (Anderson & Narus 1990). In a trustful relationship, the probability of continuity and long-term relationship, as well as two-way communication between the partners increases (Anderson & Weitz 1989). Trust (seen more as inter-organizational by Zaheer et al. 1998) reduces negotiation costs and conflicts: it is possible to conclude contracts more rapidly and easily, also information change and discussion is opener (Zaheer et al. 1998, Dyer 2000). It increases client loyalty and unwillingness to supplier changes (Foster & Cadogan 2000) and reduces perceived uncertainty, facilitates risk-taking behaviors and fosters a cooperative and constructive orientation (Morgan & Hunt 1994: 22). Contrary to Morgan & Hunt (1994), Knemeyer & Murphy (2004) found that effective communication with the partner does not provide a higher level of trust, although communication was seen to influence positively directly to the level of performance. In other words, the performance perspective of Knemeyer & Murphy (2004) emphasized the role of communication when outcomes, e.g. performance is considered, but when the behavior and the level of trust was in a focus, communication had not such an strong effect on it.

Zhang et al. (2003) integrate performance and (direct and indirect) influence of relational norms on it, while trust acts as a mediator between them. One way to operate efficiently is efficient problem solving: in a trustful relationship there is a willingness to solve problems in a trustful and positive way (Sullivan & Peterson 1982). The level of trust, measured in the relationship, is based on relationship actors' previous activities: whether commitments and negotiated results have been followed, as well as whether a partner is keen on taking advantage of the other (Dyer 2000: 50-51).

b. Trust in business relationships and networks

Through increasing trust the formalities, for example, contracts, lose their meaning, that is, contractual conditions are not needed in every case (Gulati 1998). According to Brass, Butterfield and Skaggs (1995, in: Monge & Contractor 2003: 214) the visibility and observability of network actors and their operations supports maintaining the trustful way of working in a long-term relationship.

Morgan & Hunt (1994: 23) define commitment as "an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it". Interestingly, chain actors' level of commitment is influenced by perceptions concerning the efficiency and equality (for example, the commitment for tools used in a partnership can be high if these are seen to enable efficiency and equity in the relationship) (Zablah et al. 2005).

Trust can be interpreted as enhancing equality in the relationship. The role of trust and dependence is acknowledged, but the level of trust and dependence and their effect varies according to the level of (a)symmetry. In asymmetric relationships where dealers (as a main contractor) find themselves as less dependent than their suppliers, the trust in suppliers has the highest positive effect on a dealer's relational behavior. Interestingly, according to Yilmaz, Sezen & Ozdemir (2005), trust has not such significance in a high and symmetric interdependence as it has in a less interdependent relationship. Under uncertain conditions (because of the loose interdependence), trust can act as supporting factor encouraging to share risks and decrease opportunism. In other words, as Yilmaz et al. (2005: 244.) mention, "trust may facilitate the relational behaviors of more dependent members of asymmetric dyads".

Repeated transactions between fewer actors create several benefits: transaction costs can become lower because of the increasing cost of opportunism of the supplier because of the higher volume of exchange and expectations for partnership continuity. Similarly, long-term cooperation can increase symmetric information sharing, when inequities in activities can be corrected in following transactions. Also, the costs of information sharing can decrease, because the cost of each unit decreases in a higher level of exchange with the same partner. Information symmetry, openness and sharing the detailed information also reduce the opportunism and in that way the transaction costs. (Dyer 1997.) As Dyer (1997: 546) states, in repeated relationships there are more options to correct possible inequities. Therefore, the increase of transactions can support the development of a deeper and longer-term relationship. Simultaneously, actual transaction costs may decrease: "credibility of a firm's promise to behave cooperatively increases as transactors: 1) demonstrate through behavior a commitment to future interaction, 2) increase the amount of information sharing 3) employ self-enforcing safeguards to govern the relationship" (Dyer 1997: 550). An increase in credibility or trustworthiness decreases transaction costs and increases the probability of actors to invest in the relationship with investments specific to that relationship.

In a supply chain relationship, trust underlines the understanding that each party is contributing equally in the relationship. However, when a level of trust increases, the vulnerability in the relationship rises, as well. This refers to a need for carefully assessing the investments and their level in the relationship and finding a point where too high investments cause too much vulnerability that exceeds the potential benefits from the relationship. (Cullen, Johnson & Sakano 2000.)

Many partnership characteristics, when existing and conducted in the relationship, enhance trust creation and maintain: Sako & Helper (1998) conclude that long-term commitment, joint cooperation by offering technical assistance for the partner, two-way information exchange and customer reputation support creating and maintaining trust in a supply chain relationship. Similarly, Kwon & Suh (2004) emphasize the role of the same elements as critical, includ-

ing the level of commitment to the existence and the level of trust in supply chain relationships.

The strength of the relation refers to the level of trust, as Burt & Knez (1996) conclude. Interestingly, trust is seen as a social phenomenon where "trust is significantly amplified by third parties" (Burt & Knez 1996: 83). This relates to strong relationships where third parties influence positively the level of trust, whereas in weak relations, their effect is opposite. The result can refer to the time continuum and its effect in trustworthiness: since the level of trust develops slowly, it requires time and effort in order to prosper. However, existence and the level of trust are highly connected with social relations between relationship actors and the network surrounding them. Interestingly, although trust is built based on social relations, Granovetter (1985) emphasizes that social relations do not guarantee trust creation and trust as providing benefits in the relationships. In trustful relationships, there is a risk of malfeasance. Therefore, it is important not to take trust and its positive relationship outcomes for granted but to remember, that no relationship automatically provides values that would improve the competitive advantage of the supply chain relationship.

3.4   Social capital in relationships

Relationships can be seen as a form of capital, through which the alliance is realized and implemented. As Cullen et al. (2000: 224) state "the alliance cannot optimize performance without adequate relationship capital". Social capital can be defined as the core of human activities: it is created, built and shared in interaction with other people, thus it exists in relationships. The traditional view of markets as an opportunistic place, where transactions are carried out in a cost-based manner ignores the existence of social capital and the existence of the social community. (McGrath & Sparks 2005.) However, the social capital contributes the glue that supports creating the collaboration (McGrath & Sparks 2005:48), which enables the realization of different network relationships in practice. Also, social capital and its increase in relationships can provide similar benefits that are looked for according to, for example, transaction based view: it can provide additional (e.g. competitive) value to relationship actors and costs and resources can be optimized. Further, it enables relationship actors to respond to market changes with flexibility and speed. (McGrath & Sparks 2005.)

Nahapiet & Ghoshal (1998) divide social capital into three separate, although interrelated, dimensions:

- structural dimensions, e.g. patterns of connections and linkages between network actors ,

- relational dimensions, meaning the "assets created and leveraged through relationships" (1998:244) and

- cognitive dimensions, referring the intellectual capital (e.g. "knowledge and knowing capability of a social collectively, such as an organization" [1998:245]).

Ahuja (2000) integrates different capitals in defining the incentives for creating collaboration relationships and possibilities for forming those relationships based on the organization's current position in the network. According to Ahuja (2000: 335) "the results indicate that possession of technical, commercial, and social capital – three tenure-related advantages – significantly influence both the linkage formation inducements and opportunities facing firms". Moreover, social capital is activated both in an individual and a group level: the way of individuals investing in social relationships reflects the social capital they are building, possessing and sharing, whereas groups create and develop social capital as a collective resource that influences their activities (Lin 2001a). Thus, social capital has an individual and collective aspect: individual actors create the relationships from which the benefits are received. Respectively, tangible or intangible good received from the relationships can benefit a wider group, community or organization. (Putnam 2000.) Therefore, embeddedness in social relations can also create a social dilemma: whether the aim is to increase an individual actor's or network's benefits, how information is shared and realized (Kalman, Monge, Fulk & Heino 2002). Further, social capital can be realized in a form where a group is more inward looking, creating possible constraints (aiming for homogeneity) between the group and its external environment, or a group can be more outward looking, building relationships with representatives of other groups. Both directions have their benefits and disadvantages. (Putnam 2000.)

3.4.1 Gaining capital from embedded relationships

The origins of social capital are in social networks: as Lin (2001a: 3) states, "social capital is captured from embedded resources in social networks". Economic actions in relationships in networks can be seen as embedded social situations and interaction (Granovetter & Swedberg 1992: 6-10). Although a traditional market-based view excluded social capital, this theory can be seen to fit to theories of self-interest (Monge & Contractor 2003: 142), where a benefit and its possibility steers people. People, aiming at gaining benefits from social opportunities, invest their skills, knowledge, and position in social situations that are embedded in networks. Structural holes provide opportunity to gain more knowledge and integrate different actors in the network, receiving more control and information as a result. (Burt 2001, Monge & Contractor 2003.)

According to Putnam (2000: 19), the concept of social capital has been redefined many times during the 20th century, in every case focusing on the emphasis of social capital providing benefits and productivity that come by social relationships and social ties. Lin (2001b: 29) defines social capital as "resources embedded in a social structure which are accessed and/or mobilized in purposive actions". Further, social capital is about investing in "social relations by in-

dividuals, through which they gain access to embedded resources to enhance expected returns of instrumental or expressive actions", instrumental referring to resources that the individual does not own and expressive to resources that the individual possesses (Lin 2001a: 17, 19). In other words, social relations are invested in since relationship actors have an aim to gain some returns from them (Lin 2001b). This refers to outcomes that are expected from the relations: (from an individual actor's point of view) social capital can facilitate the flow of information and provide potential to influence the issues and operations taking place in the relationship. Thirdly, social capital can provide social credentials, reflecting the status or the position of a relationship actor, and finally, social capital enhances the identity of an individual and enables public acknowledgment of individual's resources and relationships. (Lin 2001b.)

Resources or outcomes can be achieved in different ways. Trust and its emergence in embedded relationships are acknowledged (Putnam 2000). Via embedded relations it is possible to gain power or access to critical resources (Lin 2001a, Lin 2001b). In supply networks the position of an actor is relevant: when "filling" a structural hole, the competitive position compared to other sup-pliers may become better. When there are structural holes, an actor who creates a bridge between two parties, receives the benefit. When there are holes in communication, Burt (1992) defines three forms of information benefits that are potential: access, timing and referrals. Access is considered as getting selected information (not available for others), timing refers to receiving selected information in an early phase in order to benefit from the point of time, and referral is considered when a bridge builder is looked for based on the mutual benefit it will produce.

The diversity of networks defines the level of social capital an individual has (Burt 1992). Potential to benefit from information in networks can be found in weak ties. Granovetter's (1973, 1983) theory on the strength of weak ties refers to the use of one's weaker communication links (especially, when bridging weak ties between different parts of a network) to receive some unique or exceptional information (in contrast to communicating with people regularly, who were considered as strong ties). Similarly, according to Duysters et al. (1999), weak ties can open accesses to new innovative networks, since innovations are mainly created based on new combinations of previous skills and knowledge.

3.4.2 Social capital and embeddedness in supply chains and networks

In addition to defining structural and relational potential (structural holes and weak ties), the nature of network relationships as embedded relationships plays an important role when analyzing the social capital in network relationships. Network relationships are dependent on social relationships and they are embedded in social relations (Granovetter 1985). Further, according to Gulati (1998: 308) and Gulati et al. (2000), "[T]he extent to which an alliance is embedded is likely to influence its performance", particularly because of the greater trust

and confidence in each other and their operations. This refers to a significant influence of social networks in partnership relationships.

Casciaro & Piskorski (2011) interpret embeddedness as relationship actors being able to solve problems concerning opportunism and uncertainty. This is achieved by conducting cooperation and reciprocity and reducing the value of formal contracts between the actors. They (Casciaro & Piskorski 2011) state that embeddedness as a dyadic phenomenon complements the network level concerned in the resource-dependence view. However, embeddedness has also a characteristic of limiting opportunities: as Ahuja (2000) states, organizations that are highly embedded, may lose their interest in creating and managing new linkages. On the other hand, if an organization is embedded only at a low level, it does not attract other organizations and potential partners, since one of the factors embeddedness reflects is the level of reliability. Therefore, embeddedness can be seen as a complex concept where equilibrium is looked for.

Uzzi (1996, 1997) found many social elements in embedded relationships: they are information rich and consist of high levels of trust and problem solving abilities. Although similar elements were found in arm's length relationships as well, according to Uzzi (1996), embeddedness enables actors to operate and survive in markets better. However, Uzzi (1997) sees the challenges that embeddedness can have: a risk of overembeddedness, if main network actors are able to exit from the network unexpectedly or if institutional changes steer markets rationalizing.

Social capital is seen to decrease transaction costs and it is found (not automatically but with certain requirements) to support innovative cooperation and increasing trust in relationships, for example, towards more high-trust manufacturing (Fukuyama 2000: 18, 205). Similarly, according to Walker, Kogut & Shan (1997), organizations that are more embedded are not as vulnerable to opportunistic behavior as those with a low level of embeddedness. This indicates the high benefits that would be received from social capital in supply networks and supply chain relationships. However, the structural holes theory has sometimes been integrated with more market-based transactions, being more applicable in a market-based environment (Walker, Kogut & Shan 1997).

There are two sides of a social capital that have to be active; otherwise the capital will not be realized: the core competence and the desire to use that competence with the partner in order to achieve the mutual added value (Vesalainen 2006: 18, summarizing literature on social capital). Nahapiet & Ghoshal (1998) point out the importance of different "capitals" received in networks. The "intellectual" capital of the partnership is seen as a result from commitment and knowledge / competence. If one of them is zero or very low the intellectual capital resulting from network is very low, as well. This is called an existence of a "dual context", when an individual sees her/his role in benefiting both his/her own company and the network. That is, there is a motivation to work, producing benefit for the both parties.

Social capital is, when simplified, a set of informal norms and values that are shared by the participants of a group. The aim of the group is to conduct

cooperation, and norms and values make the cooperation possible. In cooperation, if honesty and reliability are expected, there is a possibility of trusting each other, which increases group efficiency. (Fukuyama 2000: 16.) In other words, social capital refers to an importance of shared values, their existence and acceptance among the cooperating members, as well as emergence of trustful relationships, based on shared values and norms. According to Burt (2001: 32), "social capital metaphor is that the people who do better are somehow better connected". This refers to the necessity of analyzing both supply chain relationships and networks they are located in. In other words, people are connected with each other with a certain level of trust and dependency, possessing certain relationship positions (Burt 2001). Also, Burt's (2001) statement refers to a higher level of performance among better connected people. Therefore, the elements existing in relationships and networks, the relationship and network structure and the outcomes and the performance play a significant role in analysis of supply chain relationships.

3.4.3 Main theories in the related literature

In this study we focus on dyadic relations between the main contractor and its suppliers in a supply chain in a networked environment. First, Table 6 provides a broad overview of the main theories analyzing the main contractor – supplier relationships more specifically in practice (see Table 6 below). Next, Figure 4 connects this to the different organizational levels, which allows to further clarify the theoretical focus of this thesis.

TABLE 6   The main theories in the related literature.

Theory	Definition	References
Theories on industrial, social and strategic networks	- network structure, actors' position, links and their characteristics - views on several theories concerning networking - networks as consciously built, capabilities	IMP group, Håkansson & Ford 2002, Burt 1992, Gulati 1998, Brass et al. 1995, Brass et al. 1998, Jarillo 1993, Doz & Hamel 1998, Vesalainen 2006, Möller et al. 2009
Social capital	- social capital in embedded relationships providing competitive advantage	Nahapiet & Ghoshal 1998, Lin 2001a, 2001b, Granovetter & Swedberg 1992, Burt 1992, Granovetter 1973, 1983, Uzzi 1996, 1997, Walker, Kogut & Shan 1997, Fukuyama 2000
Resource-dependency theory	- dependency on each other's' resources and its influence on organizations - switching costs and their role - power in focus	Pfeffer & Salancik 1978, Emerson 1962, Pfeffer 1981a, 1981b, Cook & Emerson 1978, Carroll & Teo 1996, Freeman 1977, Frazier 1983, Mohr et al. 1996
Resource-based view	- role of assets defining competitive advantage - heterogeneity between organizations	Penrose 1959 /1995, Peteraf 1993
Interaction theory	- adapting business activities to partner's operations - creating basis for relationships and their development	Möller & Wilson 1995, Håkansson & Ford 2002, IMP Group, Ford et al. 2002
Social exchange	- reciprocity, trust, commitment - social behavior in focus of exchange in the relationship	Emerson 1962, Blau 1964, 1968, Homans 1958, 1974, Kelley & Thibaut 1979
Transaction costs	- make or buy - role of transaction costs, bounded rationality and opportunism	Coase 1937 Williamson 1971, 1987, 1991, 1999
Relational view	- inter-organizational relations defining competitive ad-vantage, trust, commitment	Dyer and Singh 1998, Dwyer et al. 1987, Morgan & Hunt 1994, Heide 1994, Zhang et al. 2003
Knowledge-based view	- sharing implicit and explicit knowledge - knowledge and its utilization	Nonaka & Konno 1998, Teece 1998
Dynamic capability view	- core competencies, defining competitive advantage	Hamel & Prahalad 1994, Teece et al. 1997
Relationship marketing view	- dyadic relations and factors influencing them	Croom 2001, Gummesson 2002, Holmlund 2008, Möller & Halinen 2000, Morgan & Hunt 1994, Nuojua & Tähtinen 2013

Theories on industrial, social and strategic networks provide the setting for network level and networking, covering network characteristics, network structures, chains, organizations' positions in them etc. The resource-dependency view is applicable because of its value to characterizing the nature of the relationship in supply chain partnerships as well as describing the challenging environment where the supply chain relationships and networks exist. The transaction costs view highlights the dilemma of vertical and market based operations in business, where networks serve as a third (hybrid) alternative. The social exchange theory enables us to view relationships and their elements more specifically from the perspective of trust and mutuality. Similarly, the interaction theory focuses on relationships and their contents, also highlighting the strategic elements that guide the business operations. The theory of social capital emphasizes the embeddedness of relationships, where norms and values exist, as one tool against opportunism. Simultaneously, capitals realized in supply chain relationships become explicit. When joint R&D and an aim to increase innovative operations are in focus, the knowledge-based view supports the discussion of relationship characteristics. This is also based on various resources, owned or looked for by the relationship partners and contributes the competitive advantage in the supply chain relationship. Therefore, resource based and dynamic capability views are included. Overlapping with the social exchange theory, the relational view underlines the relationship elements that can be keys in success in collaboration. Relationship marketing as describing the cooperative perspective of actors in business, covering elements of communication (especially trust and commitment [Morgan & Hunt 1994]), when dyadic relationships, their contents and the relationship quality are studied is critical to be included, as well.

The theoretical views listed above, show supply chains and their dyads from different perspectives, overlapping, but also emphasizing different elements of communication in dyadic relationships in supply chains in networks. Monge & Contractor (2003: 45-46) state that social theories, when explaining networks and relationships, are complementary but also competing and even providing "contradictory explanations". Not one of them explains them extensively and exhaustively, which means that it is critical to use a set of theories helping us understand the way of operating in supply chain relationships. In other words, each approach provides a partial view on the dyadic relationships that exist in the supply chain in a network.

In this study, the final focus is on dyadic relationships between organizations in supply chains (and – finally – between representatives of the organizations in a dyadic relationship). Therefore, the network level being in the background, it is vital to concentrate on theories, concerning to some extent the chain and primarily dyad levels. In Figure 4 below, the main theories of the literature and how they relate to the main level they refer to are presented, modified from Möller et al. (2009: 215-216, who modified Vesalainen 2006). Although the theories are presented as being linked with one or two levels only, it is relevant to notice that theories from upper level flow to lower levels too: their in-

fluence can be seen in lower levels of networks, supply chains and relationships. Many theories can be interpreted as a dyadic and inter-organizational level: for example, social capital with structural holes and embeddedness can be analyzed in a dyadic relationship but it can be viewed from the network perspective, as well. Strategic management as a main idea can be seen travelling through the levels.
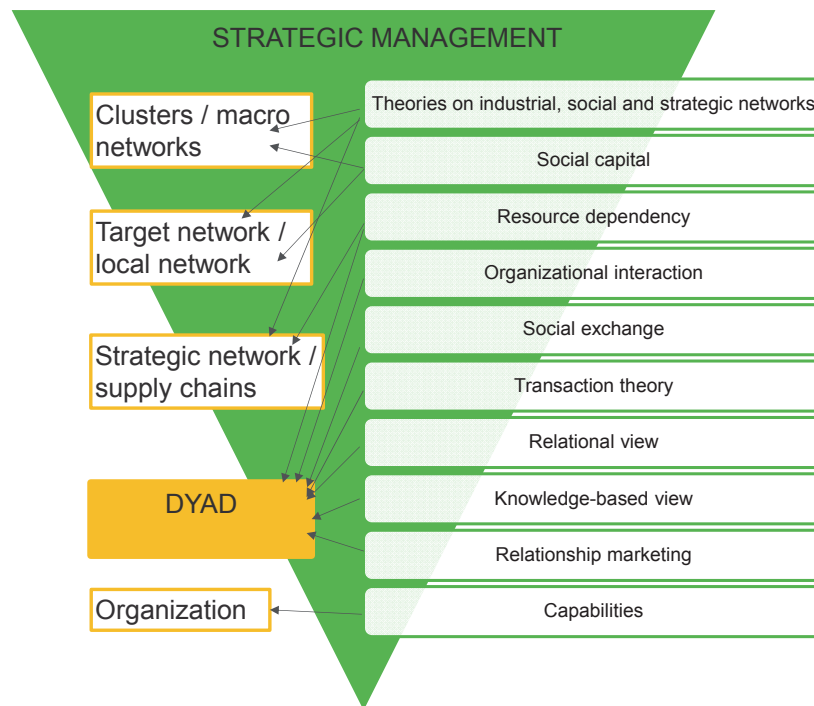
FIGURE 5   Main theories of the literature integrated with the levels in networks (Modified from Möller et al. 2009: 215-216, who modified Vesalainen 2006).

As seen in Figure 5, studying supply chain relationships covers a variety of theoretic perspectives. As an "umbrella" above these theoretic views is a context of strategic management: theories are applied to an analysis of dyadic relationships with the main idea of strategic management as a background. Since an organization is not seen as an isolated unit, but a part of a wider chain(s) in network(s), it has to outline its strategic policies according to its surrounding conditions, organizational structures, chains and networks. And vice versa: an organization can also be seen as a starting point, designing its strategic policies that influence other chain and network members in its environment.

Monge & Contractor (2003: 21-25, 63-64), presented a set of social theories on communication networks (their emergence and evolution). The theories and their contents can be applied to the area of supply chain relationships, although

they are excluded from the theoretical emphasis of this study. More specifically, theories on mutual interest and collective action consist of the idea of providing mutual benefit and contagion theories can be in focus when considering relationship creating and building. Further, the role of proximity may play an important role when analyzing the meaning of a physical location of an organization. The homophily theory, can provide an explanation for relationship building with relationship actors with similar characteristics. Also, the coevolutionary theory becomes significant when competing from scarce resources (personnel, business partners, materials, etc.). These theoretical perspectives can complement theories and views represented in Figure 4 and may provide an even more detailed analysis on relationship actors. However, limitations and choices on emphasis have to be done, in order to be able to draw a bigger picture of supply chain relationships.

Since the focus of the study is a dyadic relationship and factors in the communication between the main contractor and its suppliers, after the theoretical view it is relevant to introduce the focus organization, representing the main contractor. Also, since the environment factors play a critical role in supply chain relationship building, it is necessary to take a look at the developments of the business area in question.

4   METSO AND DEVELOPMENTS IN THE SECTOR

The focus of this study is one main contractor, Metso Corporation (currently, Valmet Corporation), and its suppliers. More specifically, we will take a look at Metso Paper Ltd (currently, Valmet Ltd.), its one business line and supplier relationships, when Finnish and European suppliers are concerned. Based on the literature, presented in the previous chapter, supply chain relationships consist of a complex set of factors that have a significant impact on the way of operating. Therefore, it is vital to take a look at one unit (here: the business line) more closely, in order to be able to discuss factors with a greater detail. Additionally, since organizations are affected by the societies and economies they are located in, it is necessary to view megatrends globally and contemplate the effects they have on organizations.

In this study, the main contractor is addressed as Metso. Although it is currently known as Valmet Corporation, the material that is referred to in this study, concerns information on the organization called Metso at that moment of time.

4.1   Megatrends influencing the industrial sector

The megatrends defined in the beginning of 21st century included globalization, transition of the economic focus to Asia and new developing economies, increase in environmental thinking and general uncertainty, as well as rapid technological development, and in Finland changes in the population development (ageing population and decreasing amount of employees). Respectively, industrial networks were in a significant transition period. In Finland, there was a pressure and potential to create industrial networks that would provide greater concepts to main contractors. Suppliers had to gain more growth and develop themselves towards a more complete supplier that conducts activities that their clients have outsourced. Also, each supplier company had to analyze

its position in supply networks, in order to find its competitive advantage and role in a more global competition. (Hernesniemi 2007.)

In 2001 the Federation of Finnish Technology Industries conducted a research among Finnish technology organizations by asking the aims of networking. From 22 criteria the 5 most important were: utilizing the capacity more effectively, increasing the flexibility and adjustability of the production process, decreasing the costs per unit, increasing operational reliability and maintaining the status in product development. However, compared to their foreign competitors, Finnish companies had started this development process slowly. Especially in the engineering and metal industry, companies did not regard communicating internationally and networking skills as their strengths and competitive advantages, whereas technology, innovations, product knowledge and product quality were regarded as success factors. (Teknologiateollisuuden TRIO –toimenpideohjelman suunnitelma 2004-2009.)

The major changes in the economic situation in 2008 brought many challenges that have their impact on the technology industries especially:

- developments in China: property bubble, overcapacity in many industry sectors

- prices of raw material decreased, which influences negatively countries that depend on raw material exports and China's demand and

- in Europe, debt crisis and a decreasing amount of export orders.

The year 2008 has been defined as a historical turning point for the Finnish economy. Besides the economic crisis globally, there were many factors nationally influencing the major economic change in Finland: volumes of mobile phones (exported from Finland) plunged, as well as amount of exports in mechanical engineering and exports of goods and services. Respectively, research and development suffered from a decline. Challenges in competitiveness and lack of export activities increased national debts. Equally, Finnish labor costs have increased. By autumn 2012, the number of personnel in Finnish industries (engineering, metals, electronics and industries) had been reduced by 35 000. (The Federation of Finnish Technology Industries 2012.)

In 2012, the technology industry employed 290 000 individuals (including 1 600 companies with 30% of the Finnish workforce). The technology industry shared 80% of Finnish private-sector R&D investments and formed 60% of total Finnish exports. The personnel in mechanical engineering (including Metso) in Finland covered 131 000 employees. (The Federation of Finnish Technology Industries 2013a.)

Regarding the megatrends that globally influence the business environment, Metso defines four trends to be the most critical from the company's point of view:

- globalizing economy

- rise of emerging economies

- demographic changes and

- sustainability and climate change.

The company outlines its strategic goal to "achieve a significant presence in emerging markets and to grow by actively expanding our installed equipment base". In developed markets Metso concentrates on extending service business in order to maintain its current position. It defines it has to reach for new business opportunities and to adapt to highly fluctuating market situations. (Metso Corporation 2013a.) This refers to a growing need for enhancing supply chains and partnerships in emerging markets and maintaining and developing them in developed markets. Also, in order to meet the requirements the organization faces, it is vital to improve agility, which emphasizes the role of dynamic supply networks.

The impact of the globalizing economy refers to growing economies in BRIC countries, as well as in Latin America and Southeast Asia and their increasing need for paper, board and minerals, which is strongly connected with Metso's business. Changes in markets create possibilities to new entrants in the area. The company underlines the development of local supply chains in these areas where production-based business is strong. In developed countries, Metso has to defend its position against new competitors from growth countries, which, according to Metso, requires focusing on development, R&D, design, brand and, especially, service business. (Metso Corporation 2013b) Again, this is a direct message for policies concerning the SC development.

In emerging markets, social structures are changing as a result of the growth of new middle-class and its new consuming habits. Simultaneously, growing competition sets new requirements for cost-effectiveness. In developed markets, Metso is targeting at R&D especially, relying on its established position in markets. (Metso Corporation 2013c.) Demographic changes, especially in urbanization in emerging markets, require a new infrastructure, which means increase in demand for minerals. Respectively, the aging work-force in developed markets sets requirements for outsourcing activities to emerging markets and competition for talent in that area. (Metso Corporation 2013d.) Also, in both emerging and developed markets, sustainability and climate change require new technology solutions, emphasizing eco-efficiency and energy efficiency. (Metso Corporation 2013e) This development is congruent with Metso's business targets and technology, but, again, it sets requirements for supply chains and their technologic solutions. The megatrends defined by the MC act as a baseline for supply chain development: in order to adapt to market requirements, it is vital to create a setting for close, agile and reactive partnerships that provide innovative and efficient solutions and that way help the main contractor and its supply chains surviving in global competition. In the current situation, it is especially critical to maintain the competitive advantage that can boost the business in global markets.

4.2 Metso Corporation

Metso Corporation is a global supplier of technology and services with net sales of 7 504 million EUR in 2012. The company operates in process industries, including paper and pulp, power, mining, construction, recycling and oil and gas. It employs 30 000 people in over 50 countries, operating in three segments: Mining and Construction, Automation and Pulp, Paper and Power. (Metso Corporation 2012a.) Three segments consist of 10 business lines:

- Mining and Construction: Minerals Processing Solutions, Crushing and Screening Equipment, Services

- Automation: Process Automation Systems, Flow Control, Services

- Pulp, Paper and Power: Paper, Fiber, Power, Services (Metso Corporation 2012b).

The focus of the case study is Pulp, Paper and Power segment, more specifically, Paper business line. In the whole segment, net sales in 2012 were 3,014 mil-lion EUR, of which the Paper business line reached 876 million EUR of net sales. In the Paper business line, the main products cover paper making lines, machines and rebuilds, maintenance and expert services and spear and spare parts, and the main competitors are Voith, Andritz and Acelli (in services more fragmented with local, regional and global competitors). (Metso Corporation 2012c.)

In its annual report in 2012, Metso states that the Pulp, Paper and Power segment has faced challenges that result from decreasing demand for paper machines (moving towards lower-cost products and solutions), growing competition and a decrease in demand for foundry products. However, the service business is growing. Additionally, the aim to be closer to customers and their operations requires acting more intensively in local networks and understanding local environments. Also, new biotechnologies provide ways to find new business possibilities in the Pulp, Paper and Power segment. (Metso Corporation 2012d.)

In this study, the concept of the main contractor refers to the Paper Business line, but a more specific focus will be in the area of procurement, sourcing and quality in the two biggest Finnish units. Respectively, when analyzing the data, suppliers are considered as companies and representatives of companies that cooperate with Metso, however, not only with the Paper Business line, but other business lines and segments, as well. In other words, suppliers in question usually provide products and services for a various number of Metso's operative units, competitors and clients. The supply chains that are referred to in the study cover a variety of actors locally, regionally and globally. Although the focus of the study is a part of the Metso Corporation, it will be further referred to as Metso, a main contractor (MC) or Paper Business line.

During the year 2013, Metso Corporation announced that the organization would be divided into two independent companies that continue operations of

the previous Metso and its organizations. This means that previous Metso Paper Ltd. would be a part of a new company called Valmet Corporation that will continue pulp, paper and paper processes. Respectively, Metso as a company will continue providing products and services in the areas of mining, construction and automation businesses. The demerger was justified by being able to provide concepts for customer more efficiently and agilely, in order to gain stronger growth and higher profitability. (Metso Corporation 2013f.) The demerger taking place in the beginning of 2014 clearly points out the need for further operational effectiveness and organizational development, in order to succeed as a new organization. Simultaneously, it refers to a recreation of new networks, since, for example, some operations may have been implemented jointly by functions that will now locate in different business organizations. In other words, there is a challenge to manage the relationships that have been created inter-organizationally and the relationships that have now become from internal into inter-organizational. In any case, a demerger means refreshing or creating policies that concern new organizations and their supply chains.

4.3 Field of forces

Since effective management of supply chain relationships is defined as aligning or fitting the organization and its activities with environment (Zajac et al. 2000), it is necessary to take a look at outside the organization, the field where it conducts its business and the actors that have an impact on the organization's performance. In order to understand the environment and how an organization is located in it, it is useful to describe the field of forces. The description is essential when understanding the level of intensity and attention each actor in the field needs from the organization. The field of forces refers to the necessary relationships that the organization has and related developments in the societal context. Although it is not stable, it gives a clearer view of factors influencing the organization's operations and vice versa. The changing environment calls for a dialogue of the organization with its relationship groups. (Vos & Schoemaker 2004: 22.) This is especially vital, when viewing supply chain relationships and the dialogue between the main contractor and its suppliers.

According to Metso, its stakeholders cover:

- existing and potential customers

- existing and potential employees

- suppliers and subcontractors

- shareholders and investors

- media

- non-governmental organizations, authorities

- research institutes, universities and vocational schools and

- local community.

The company finds it "actively engages its stakeholders in sustainability-related topics, among them the development and implementation of energy and climate policy, legislation and regulation, and R&D activities in environmental technology". The organization wants to encourage the stakeholders into dialogue groups, especially from the perspective of sustainability. (Metso Corporation 2012e.)

Requirements, emerging from the global environment, end-customers as well as pressure groups influence policy design in organizations. With the help of the following policies and principles Metso aims to answer the challenges existing in global markets:

- Metso Code of Conduct: principles and practices for all assignments (consisting of, among others, integrity, compliance with laws and regulations, fair competition and compliance with anti-trust legislation, transparency and openness, suppliers' ethical standards etc.) (Metso Corporation 2013g.)

- Metso Anti-Bribery Policy: to improve personnel knowledge of the anti-corruption policy and to define clear guidelines and procedures when employees are interacting with different stakeholders

- General global principles: UN Global Compact, OECD Guidelines for Multinational Enterprises, ILO's declaration of Fundamental Principles and Rights at Work and International Chamber of Commerce Business Charter for Sustainable Development and

- Metso's promise to Green Growth to promote a sustainable economy in Finland (Green Growth program is an initiative of the Ministry of Employment and the Economy in Finland and the Finnish Funding Agency for Technology and Innovation Tekes). (Metso Corporation 2012f.)

The policies and principles listed above refer to the influence the actors have in the field of forces. In addition to the stakeholders that Metso has defined, political actors, as governments and for example, the European Union, have also a significant impact on Metso's business operations. Also, customers of Metso's clients and their choices influence substantially Metso, and, finally, the consumers with their choices, for example, in preferring digital media from printed media, dictate the development curve of Metso's business in the long run. Therefore, when extending the field of forces, it is noteworthy to take these actors into account. Below, there is an extended field of forces, when Metso as a main contractor is concerned. In the picture, special but simultaneously vague positions of suppliers and subcontractors have in the field is emphasized: whether they are a separate actor and a stakeholder or partly belong to MC's internal operations.
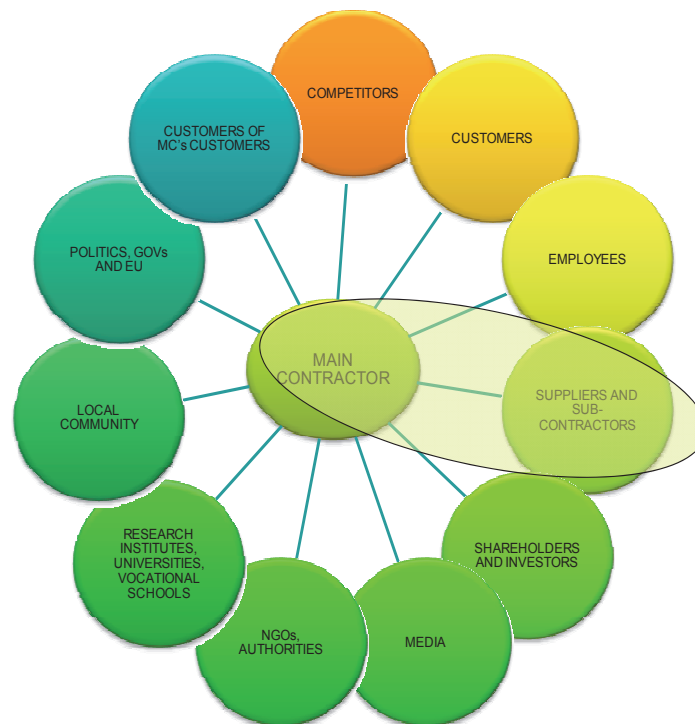
FIGURE 6   Field of forces: case Metso as a main contractor (modified from: Vos &
                    Schoemaker 2004, 22 [citing Keuning & Eppink 199:1])

Instead of being a static overview on stakeholders, the field of forces reflects the
dynamic relationships that different stakeholders can have. Economic devel-
opments have made the quality of the relationship of the main contractor with
its supplier and subcontractors even more important.

a.   Existing and potential customers

Metso states that it keeps an active interaction with its clients through com-
municating in several ways: in addition to direct customer contacts and joint
projects, a dialogue is conducted via seminars, web-based tools (extranets, cus-
tomer satisfaction surveys), supplier certifications, and industry organizations.
Customers have expressed their expectations for Metso to improve the sustain-
ability work, among others, in supply chain management, product safety and
sustainability strategy development. (Metso Corporation 2012e.)

Especially, Metso wants to strengthen its global presence, to be closer to
customers. The geographical location plays a role, and it is linked with the loca-
tion of supplier network, as well. On the one hand, operating near customers
requires the MC to move its activities to currently main market areas, e.g. to
BRIC countries (Brazil, Russia, India and China). However, rebuilds and ser-

vices, as well as product development remain in traditional market areas, in Europe and North America. (Metso Corporation 2013h.)

    b. Existing and potential employees

Every organization is dependent on skillful and professional personnel. Metso has created global people management processes that cover training and development, performance management and remuneration. With the help of surveys employee engagement and performance are analyzed continuously. (Metso Corporation 2012e.)

    c. Suppliers and subcontractors

As a basis for cooperation Metso defines operational profitability, long-term collaboration, development opportunities, growth, operational reliability and networking. According to the MC, there are regular ways of communicating with suppliers (meetings, direct contacts, projects, training and development events, supplier audits, electronic databases and an extranet). (Metso Corporation 2012e.)

    Since relationships with suppliers may be very close and actors may operate in deep partnership relations, the boundaries between the main contractor and its suppliers are vague. Additionally, although separating suppliers and the main contractor as different organizations, the supply chain (suppliers and the main contractor together) can sometimes be interpreted as one actor. Therefore, in describing a field of forces, surrounding the main contractor, it is possible to include the supply chain partly inside the MC.

    d. Shareholders and investors

Metso shares are traded on the NASDAQ OMX Helsinki exchange. In March 31st in 2013, 47, 8 % of shareholders were nominee registered and non-Finnish holders, whereas 25, 7% were Finnish institutions, companies and foundations. The state of Finland had a 11, 1% share and Finnish private investors 15, 4%. (Metso Corporation 2013i.)

    Shareholders and investors are informed and communicated with in several ways, among others, in official meetings (Annual General Meeting, investor and analyst meetings, investor events), via reports and press releases, web-based conferences and online investor pages. (Metso Corporation 2012e.)

    e. Media

According to Metso, the main features of its communications are openness, honesty, equality and activity. It follows Finnish and EU legislation, the NASDAQ OMX Helsinki Ltd's regulations, the Finnish Financial Supervisory Authority's guidelines and corporate governance principles. (Metso Corpora-

tion 2012e.) Metso is investing greatly in its brand reputation and employee image. As its competitive advantage, the company names the eco-efficient products that support the global aim for energy efficiency and environmental thinking. (Metso Corporation 2012g.)

f. Non-governmental organizations, authorities

Metso wants to acknowledge its role as a responsible corporate citizen and a tax payer. According to company's web sites it is in a communication relationship with trade and civic organizations and actors who participate in legislative work. (Metso Corporation 2012e.)

g. Research institutes, universities and vocational schools

According to Metso, it cooperates with 30 universities and research institutes globally by creating and maintaining research and development partnerships. (Metso Corporation 2012e.) Especially in Finland, there has been a lack of personnel, qualified in skills needed in engineering in the metal industry. Also, employing people from Eastern Europe and other areas in the EU is a strategy that the metal and engineering industry uses. The area of industry has traditionally been employed by men: now the goal is to attract more women to get interested in and apply for jobs. (Hernesniemi 2007.) The Federation of Finnish Technology Industries (2013b) has defined as its strategic themes in 2013-2014 new breakthroughs in know-how and excellence. This means that vocational schools, universities and universities of applied sciences should boost the competitiveness of SMEs in Finland. Additionally, new business models (new concepts, export orders through networks, digital technology) should support the growth and competitiveness, especially in SMEs. (The Federation of Finnish Technology Industries 2013b.)

h. Local community

Metso wants to contribute its share in local and regional well-being, for example, by providing employment possibilities in the area. (Metso Corporation 2012e.)

i. Politics, government(s) and the EU

As a global actor, each country's government and politics influence on conducting business in the area. In Europe, EU's legislation determines the activities and policies of the main contractor and its supply networks. For example, the EU's chemical regulation (REACH) requires manufacturers, importers and users of chemicals to inform about the supply chain of substances. (Kemikaalineuvottelukunta 19.11. 2007.) The main contractor has also a responsibility to

communicate requirements to its supply chain, as well as to ensure that its partners are following the required regulations. (Teknologiateollisuus 2008.)

j. Customers of Metso's clients

In addition to stakeholders, listed by Metso, two groups of actors that affect its policies and operations are customers of Metso's clients and Metso's competitors. Although they may be implicitly regarded as other groups of stakeholders (for example, in clients as an extended concept or in suppliers, some of them being simultaneously competitors of Metso), it is important to recognize them and their position in a field of forces.

As an example of customers that Metso's clients have, newspapers, magazines and printing offices play an important role when defining the quality of the paper. This has a direct impact on the paper production process, that is, on the paper machinery and its technology. Also, the electrical and virtual environment that enables obtaining information without producing paper can change the market of newspaper, magazine and printing organizations. Environmental thinking increases demands among this relationship group, as well: in Central Europe, papers are produced from 100% recycled pulp. (Värränkivi 2007.)

k. Competitors

According to Metso, it is one of the leading players in mining and construction technology, metal recycling systems and paper and fiber technology. However, the market environment is highly fragmented: it has global competitors in providing machines and production plants as a whole, but when it comes to separate products, there are many smaller local and regional competitors. (Metso Corporation 2013j.)

The field of forces allows us to take a look at the relationships from a helicopter perspective. When describing the field of forces, relationship groups become explicit. It provides an explicit context from which it is clear to move to a closer analysis of one stakeholder group, suppliers and relationships between them and the MC.

4.4 Expectations and roles defined by the main contractor

Through outsourcing operations, responsibilities and supply chain roles change significantly. The role of the 1st level suppliers is becoming more comprehensive, whereas the main contractor aims at reducing its control over the supply chain as a whole. Simultaneously, expectations towards suppliers increase: global, environmental and social perspectives are included.

a. Supplier selection process

After deciding on a new supplier search, the main contractor (MC) conducts a multi-phased selection process with pre-studies and surveys covering several potential suppliers, supplier visits and a supplier evaluation process. Assessment and evaluation tests have a significant role in the decision making process. The final decisions are made after trial orders and follow ups. A supplier is required to follow and apply to, among others, Metso's general requirements for suppliers, Metso's sustainable criteria and its general purchase conditions and other criteria and tools required in the collaboration. (Metso Supplier's Handbook 2013.)

b. Expectations for suppliers and supplier networks

Sustainability as one of the current key concepts in business operations is emphasized in requirements for supply chains, too. Suppliers (and their suppliers) are required and expected to follow the same policies and general guidelines Metso is committed to. Additionally, the main contractor has provided a sustainability handbook for suppliers. The handbook consists of criteria and standards for supply operations. In 2013 the MC aims for improving suppliers' sustainability performance. Also, in 2013 a Metso-wide supplier sustainability policy and a self-assessment questionnaire will be created to suppliers with high- and medium-risk suppliers. (Metso Corporation 2012h.)

The Sustainable Supply Chain Management handbook (Guidelines for Metso's suppliers) defines the expectations Metso has towards its suppliers when social, environmental and financial responsibilities are taken into account in everyday business operations. Metso launched the Sustainability Criteria for Suppliers in 2010. They consist of the following themes: integrity, compliance with laws and regulations, quality and excellence, fair competition and compliance with anti-trust legislation, transparency and openness, human rights, equal opportunities and non-discrimination, intellectual property and company assets, rejection of corruption and bribery, occupational well-being and safety and protection of the environment and abatement of climate change. Based on the handbook, for example, suppliers are required

- to implement risk assessments to minimize risks in health and safety environment management

- to allocate resources and competencies adequately in order to reach cost-efficiency and continuous quality improvement

- to ensure and support the well-being of their personnel and social responsibility in business and

- to follow the universal employee and human rights. (Sustainable supply chain management handbook 2013: 4, 14, 16-17, 19.)

In addition to the Handbook, emphasizing supplier criteria from the sustainability perspective, several criteria for supplier and their operations are defined via assessment tools, used when assessing and auditing Metso's suppliers. Also, expectations and guidelines for suppliers' operations are presented in other tools, used in SC relationships (for example, a Supplier's Manual, consisting of information on quality policies, instructions in different phases of production, delivery etc.). (Metso Supplier's Handbook 2013.)

c. Revised roles of the MC and the supplier networks

What makes Metso Paper's procurement especially challenging, is that parts that have been previously outsourced, are procured based on each project ("project-specific") or product ("one-off manufacturing"). In other words, the supply chains must have a high-level knowledge and know-how concerning the products and Metso operations. Additionally, Metso as a main contractor encourages its suppliers (Finnish suppliers especially) to specialize either in manufacturing parts or in building a position as a first-level supplier, that is, a system supplier with a complex set of services or products. This sets a need for creating a competent and vast supply networks with specialized supply chain actors. According to Metso, the current situation (collaborating with fewer suppliers that have a system supplier status with the supply networks of their own) has caused an emergence of new employers in Finland who act as system suppliers employing a significant amount of people. (Metso Corporation 2013k.)

The role of procurement has changed from buying separate parts and products towards comprehensive procurement operations that have a strategic policy background and are systematically managed. This development process supports the need for strategic management and planning also in the area of communication and relationship performance. Further, according to Metso, this development, leading for global contract manufacturing calls for "an obligation to assess the ways of operating, the quality and the local impact of collaboration partners". (Metso Corporation 2013k.)

d. Examples of supply chain actors' roles

During the first decade of the 21st century, there was a significant change in the structure of the MC's supply chains. Suppliers were expected to define their identity and position in revised supply chains. An example of this is shown in Figure 7 below (from Paper and Fiber Technology segment, presented in supply chain development seminars in 2004-2008) highlights the roles of each supplier level, as well as the possibility of cost efficiency or, in case of SC actors failing, inefficiency.

LEVEL III		LEVEL II	LEVEL I	MC

Firm 1	Firm 2
60 km	150 km

Firm 3	Firm 4
7 km	4 km

Firm 5	Firm 6
300 km	25 km

Firm 7	Firm 8
5 km	5 km

Firm 9	Firm 10
3 km	5 km

Firm 11

0,5 km

Firm 12

320 km

Firm 3

220 km

Firm 14

7 km

System Supplier

Main Contractor:

- procure-ment

- quality assurance

Transpor-tation

Engineering office

CUSTOMER - transportation from the harbour

LEVEL III: Suppliers are chosen by the system supplier, based by criteria: price, availability and quality

LEVEL II System supplier and main contractor choose the suppliers together. Criteria: quality, supplying reliability, collaboration capability and

LEVEL I: System supplier is chosen based on auditing and tools used by the main contractor, measuring networking ability and collaboration

SHARE OF COSTS ON EACH SUPPLIER / MC LEVEL:			
46 %	*27 %*	*18%*	*9%*

FIGURE 7   Metso's supply chain – an example (internal material, used in internal seminars in 2004-2008).

The Figure 7 is an example of providing a product and the cost structure in a supply chain. Kilometers refer to suppliers' destination from the main contractor's unit. In this example, suppliers were located very close to each other and the MC. Percentages refer to the share of costs in the network. Costs consist of all the costs that are formed when providing the product for the client. The share of costs on levels III, II and I are significant, creating the biggest part of the total costs. Therefore, in order to gain operative efficiency and cost reductions, all supply chain actors play an important role. Additionally, the table shows the responsibilities of the system supplier (1st level supplier) concerning the supply chain below it: it takes care for third and second level suppliers. This refers to a significant responsibility of the system supplier during the production, delivery and development processes. However, the main contractor wants to influence the selection of the second level suppliers, by creating selection criteria together with the system supplier. As suppliers are becoming more specialized and gain skills critical to the MC, it wants to ensure that no critical supplier would act opportunistically and that it follows the expectations of the upward supply chain.

As seen above, different suppliers have different level of criticalness in the supply chain, based on their location and responsibility. In a partnership relationship, people conducting business in the organization interfaces possess a critical position. The procurement department and personnel who buy services, material and products operate in the interface with suppliers very intensively and are critical as boundary-spanning people in the relationship between two organizations. In Figure 8 (below), a group of people from a new emerging industrial network (consisting of Metso and its suppliers) was interviewed in 2005, in order to find out the key persons in the new network. A group of 3 supply companies (managing directors and key people of the relationship in question) and representatives of MC's procurement (4), production (1) and R&D (1) were interviewed by mapping a key person who should be aware of all the activities and operations conducted in the relationship in question. The results refer to a strong and visible role of the buyer in MC's company. This way, buyers can be called as relationship owners who are responsible for the relationship itself. From the suppliers' point of view, the key people were managing directors, since the companies were small. (Also, the network building was in an early phase, which underlines the role of the managing director as a relationship builder).
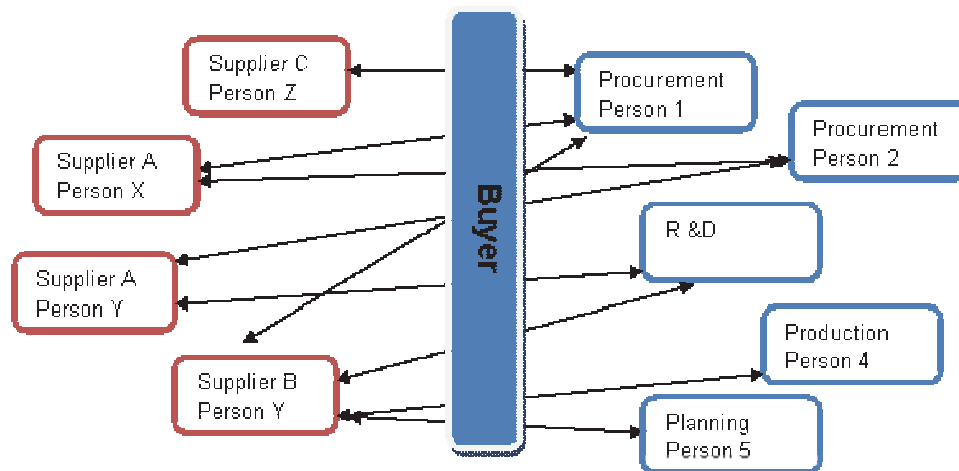
FIGURE 8   Example of small network and its key actors. (Internal material, used in internal seminars in 2004-2008).

The arrows refer to a simplified description of everyday two-way activities, communication, operations, information exchange and other operations in the relationship. The suppliers were acting as one network towards the main contractor, although not one of them played a role of an intermediate or a system supplier. The aim of the development project (in which the author was one of the organizers and interviewers) was to build a new network that would operate as a system supplier for the main contractor. According to the respondents, the buyer had the critical status of "owning" the relationships and had to be

aware of all the activities and information exchanged. Building the network was strategically a key task to the main contractor, since the further aim was, when the network operates consistently, to transfer new technology and skills to the network in question.

The examples show the critical role of each supplier in the network, as well as the critical task of the boundary-spanning people. Therefore, relationships between the chain actors become vital in successful operations. Since collaboration and partnerships are considered as a key area in strategic supply chain development, it is beneficial and based on strategic thinking to view and assess the characteristics of relationships between the main contractor and suppliers more closely.

4.5   Metso's strategy and strategic guidelines

The relevance of including an organization's strategy into the analysis becomes clear when viewing the complexity of the external and internal factors that influence the dyadic relations. In addition to external factors affecting dyadic relationships (global markets, megatrends etc.), rapid organizational changes internally, in both the main contractor's and its supplier organizations set many challenges to the survival of deep, long-term partnerships. The strategy defined by the MC, sets the main purpose for the existence of dyadic relations between MC and suppliers. More specifically, it defines the direction where participants of the dyads are moving, in other words, it sets the basis for the development of dyadic relations. Therefore, it is vital to take a look at the strategy of the the main contractor.

4.5.1   The strategic outlining of Metso

Metso's strategy is designed regarding the organization's values, purpose, vision and code of conduct (former ethical principles) as a framework for strategic guidelines. The mission stated emphasizes sustainability, when the organization helps its customers processing materials and resources into products. In Metso's vision ("Working as one to be Number One"), the collaboration perspective and an important role of stakeholders are visible: being a number one requires providing the added value in a close relationship with its stakeholders. Additionally, stakeholders are strongly linked with the values, since values define the ways of working with the stakeholders externally and internally. (Metso Corporation 2012i.)

The idea of being number one means achieving and maintaining a leading position as a technology and service provider in all businesses. Metso bases its future success on its vision, mission, leadership principles, values and five strategic "must-wins" that are the center of the strategy. The five-must wins are the ways how the company implements its strategic goal in practice. The key strategic opportunities Metso sees in services, growth countries and technology.

The operating model and people act as an enabling factor to fulfill the opportunities. The five (common, group-level) must-wins cover following areas:

- services: growth in services and solutions that is reached via full-scope offering and services centers and hubs

- growth countries: focus on China, Brazil and India with successful entry into the mid-market(s)

- technology: portfolio supporting services business and sustainability, simultaneously fit-for-purpose solutions for the mid-market

- operating model: securing supply chain excellence globally with cost efficiency and focus on sourcing and procurement

- people: developing a working environment that provides and supports the business success
(Kähkönen 2012.)

The values (driving customer success, seeking innovation, performing together and respecting each other) and the code of conduct (the ethical principles) complete the platform on which the company builds its operations. (Metso Corporation 2013l.) These building blocks are essential, since they create the framework for everyday actions and provide the joint base for joint organizational culture.

The key capabilities bringing the business performance are defined as industry-leading technology, deep understanding of customer success, global sales network close to the customers, business skills and compelling services offering, high quality products and project management know-how. (Kähkönen 2012) These customer oriented capabilities can be transferred into the challenges and requirements for the supplier network and supply chains of Metso. Especially, in the position of 1st level supplier, the knowledge of customer's products and operations is vital. Also, the supply chain actors have to "tune in" their technology and operations to the level to meet the qualifications of Metso's end customers. Through this, the corporate strategy converts into practical requirements that are set for the procurement function and this is the case for supply chain actors, too.

4.5.2   Main contractor's procurement strategy

When looking at the company as a whole, global procurement has been identified as a new initiative. Advantages that can be reached through an efficient procurement are profitability and cost competitiveness. In 2012, Metso purchased 5,020 million EUR (in 2011 4,319 million EUR). 74% of the purchases covered components, raw materials and sub-contracting. Although the market focus has moved to emerging countries, the biggest increase in purchases took place in more traditional areas (USA, Finland, Sweden, Brazil and Australia). Interestingly, Poland was one of the most significant purchase areas. In Finland, being still the top purchasing market, the main contractor purchased 1,388 million EUR. (Metso Corporation 2012j.) According to Metso's Annual Report 2012,

"an effective sourcing strategy and procurement model is a key business enabler for our business success from the perspective of competitiveness, profitability and new business models". (Metso Corporation 2012k).

In a functional strategy (revised in 2012) of Paper and Pulp procurement, the procurement is seen as "an integrated part of the supply chain contributing sustainable world adding value by developing the supplier base to achieve competitive cost, on-time delivery and quality with low impact on environment". Again, sustainability and environmental approach is clearly emphasized. Simultaneously, the expectations for supply chains are placed: it should provide cost-efficiency, high quality and time sensitivity. (PAP procurement strategy 2012.) Respectively, in strategic priorities that are defined for the year 2013, the role of supply chain development is obvious: global SC operations development continues, procurement development has a significant role in reaching for synergy and cost advantages, and value chains will also be strengthened, when local chains are taken into account. (Metso Corporation 2012k.) Partnerships will be strengthened, although the network the MC is aiming at consists of alternative suppliers that could be chosen according to the needs of each project. Especially in Finland and Europe, one of the strategic foci is shortening lead times. (Metso Corporation 2013k.)

Based on the revised strategy (PAP procurement strategy 2012.), the strategic change launched in 2012 means pooling the MC's procurement units and personnel: in 2013, procurement and sourcing activities are divided into category teams of larger product concepts, each team taking care of a supplier group of the product in question. The transition from former model of location specific procurement teams into more extensive teams with greater responsibility and members from several locations is reflected many ways in collaboration with supplier networks. When taking a collaboration perspective, the strategic change may mean:

- fewer relationship actors (representatives of procurement, buyers etc.) involved with each of the supplier,

- a greater opportunity for suppliers to receive larger orders (when bigger components and needs of many units are discussed)

- increase in competition among supplier networks (when fewer suppliers will be given larger orders),

- intensified collaboration (with needs for agility, increasing innovation and development processes)

- and a more intensive supplier participation in and involvement with international SCs (while customers are located globally and needs for finding suppliers from cost competitive countries increase significantly).

4.6 Need for a comprehensive strategy map

The strategy map of Kaplan and Norton (2004) integrates four views (economic, customer, internal and view of learning and growth) into one map, which enables us to see the strategic guidelines and integrate them into everyday operations. The following strategy map (see Figure 9 below) is modified from their model and integrated with the procurement strategy of the Paper Business line and the general strategic policy of Metso, in order to suggest the key areas of MC's procurement, especially in ways of operating and developing the operations in the near future. When viewing the organization's strategy as a map, it provides a clear direction where to go and how to reach the organization's vision. Also, it is useful to analyze the strategic map from the point of view of the different operations, such as procurement.

When analyzing the strategy map of Kaplan and Norton (2004), the strategic goals of Metso can be divided into two groups: customer satisfaction oriented goals and internal goals that refer to operational excellence. When operating according to internal goals, the personnel have to keep the client oriented goals in mind and understand the linkage between them and the targets related to their internal operations. Simultaneously, with the help of the strategy map it is possible to create a balance between different views, not only emphasizing the financial elements. This gives valuable information and a comprehensive view on the organization as a whole.

Metso's vision: *Working as one to be Number One*

Economic view: shareholders' gain

Improving the competitiveness

Metso's strategy: *creating the best possible value with 5 must-wins*

Simultaneous growth

corporate citizenship, based on sustainability

efficient use of available capital

Agile organization, adapting to and benefiting from megatrends

Strong position in services

A strong brand with a leading technology

Customer view: realizing the vision

Services: Growth in market share and profitability locally

Growth countries: reinforcing local presence and growth – mainly in BRICS

Technology: maintaining technology leadership through cost efficiency, sustainability and fit-for-purpose products

People: developing a working environment, enabling the business success

Strategic Must-wins

SUSTAINABILITY *guiding operations*

CUSTOMER PROMISE: EXPECT RESULTS

Internal view: operating model

Operating model: securing supply chain excellence globally through cost efficiency

Operating model: focus on sourcing and procurement

Strategic Must-wins

Operating model from procurement's perspective

Enabling strategic must-wins

CATEGORY DRIV-EN PROCURE-MENT PROCESSES

COST-EFFICIENT PROCUREMENT PROCESSES

MANAGING SUP-PLY CHAIN DE-VELOPMENT

MANAGING PARTNERING AND SUPPLY CHAIN RELATIONSHIPS

Learning and growth: people

Leadership: global, multicultural perspective internal mobility

Capabilities: review process, basis on business strategy

Performance: review process, performance-driven culture

Resourcing: efficiency in recruitment, long-term view

Learning and growth from procurement's perspective

SUPPORTING INTER-NAL ORGANIZA-TIONAL CHANGE TOWARDS CATEGO-RY MANAGEMENT

IMPROVING IN-NOVATIVENESS IN SUPPLY CHAIN RELATIONSHIPS

IMPROVING COLLABORATION AND NETWORK-ING SKILLS

ASSESSING THE SUPPLY CHAIN PERFORMANCE

Metso's Values & Code of Conduct

Metso's purpose: Contributing to a more sustainable world

FIGURE 9   MC's strategy map. The map is modified from Kaplan & Norton (2004), Metso's general presentations (Metso Corporation 2012l, Metso Corporation 2013m) and Procurement strategy of paper business line of the pulp, paper and power reporting segment of Metso Corporation (2012-2015).

4.6.1 Integrating the general strategic policy with the procurement strategy

In its group (e.g. corporate) strategy, Metso will concentrate on improving its competitiveness and growing at the same time. The main contractor recognizes the challenging environment around the company by emphasizing the growing need for sustainability, adapting to global megatrends and creating an identity of corporate citizenship. The strategy is divided in 5 must-wins, characterizing the customer and internal view of the strategy map. In order to understand the strategic goals better, it is vital to list the strategic themes of MC's procurement (in the Paper Business line). This way it is possible to define the necessary activities to be organized within supply chain relationships.

According to Brewer and Speh (2000) (citing also Davis [1992] and Hammel & Kopczak [1993]), the main goals in SCM can be divided into waste reduction, time compression, flexible response and unit cost reduction. Waste reduction refers to the need of integrating operations and systems, improving and enhancing quality and reducing possible overlapping operations, existing in supply chains. Reducing the time, used in the order-to-delivery cycle, is tightly connected with the speed of "cash-to-cash cycle", that is, the financial performance of the whole chain. The flexible response consists of ways of understanding, customizing and fulfilling customers' needs efficiently, and the unit cost reduction highlights the balance between the level of cost and the level of performance.

These goals point out the critical elements of collaboration and partnerships: especially, waste reduction requires a skillful management with a thorough strategic framework, the aim in time compression sets requirements for information exchange and communication, whereas flexible response underlines the significance of a deep partnership (understanding and receiving customer's unique requirements) as well as the role of chain agility. Also, unit cost reduction sets requirements for whole chain performance, and the level of service. These goals create benefits for customer (analogous to customer view) in quality, timelines, flexibility and value. It sets requirements for SCM development (analogous to learning and growth) especially in managing partnerships, sup-porting and enhancing information flows, as well as creating innovative solutions and assessing the market environment sufficiently. With these SCM goals and end customer benefits, it is possible to gain financial benefits (financial view) with increased cash flow, return on assets, revenue and profit margins. However, benefits are not automatic and it requires efficiency and effectiveness in all chain actors in all processes.

Based on the general strategic policy statement, the general guidelines of procurement strategy in the Paper Business line and the main SCM processes, based on the literature, the operating model is suggested to be divided into four main areas of operations, underlining the main strategic themes: category driven procurement processes, cost-efficient procurement processes, supply chain development management and partnering and supply chain relationships management.

a. Category driven procurement processes

A transition into category driven procurement operations requires pooling procurement personnel into category teams. Category teams organize and take care of bigger components and suppliers than in previous operating models. This can be interpreted as an important organizational change internally that necessitates a clear view, for example, on procurement target setting, ways of operating, tools used and roles the relationship actors have. Simultaneously, other processes have to support this and vice versa.

b. Cost-efficient procurement processes

Efficiency is often aimed at reducing costs. The category driven approach that is applied by the main contractor is reaching for a significant cost-efficiency. When viewing costs, arising from both internal and external processes, they cover activities as below:

- deciding on the material, product or service needed

- activities concerning the material / product / service: making orders (in long-term relationships aiming to reduce calls for bids and having constant supplier choices), receiving, checking and possibly returning the delivery, transferring it (logistics) internally, stocking, disposal and recycling of unnecessary units

- planning, carrying out new revisions, launching them into the supply network, taking care of possible new deliveries

- delays due to overdue supplies, compensations and activities to inhibit the possible shutdowns (due to delays), paying for material, product or service needed

- manufacturing and pre-assembly and

- packing, shipment, assembly, services needed by the client (presence of the main contractor or supplier on site, assembly and start etc.), after sales (requiring procurement's role). (Kaplan & Norton 2004, Vesalainen 2004, 2006.)

As an example above on (a part of) costs related to procurement processes, it is seen that there is a great deal of competitive advantage found when cost-efficiency is reached. Simultaneously, in all activities listed above the role of communication is critical when aiming at a decrease of costs.

c. Managing supply chain development

Supply chain development management refers to long-term investments in time and resources. It calls for a clear strategy. In supply chain development, the themes that characterize relationships and supply chain communication are explicitly included. As an example of day-to-day management, the supply chain development can cover several activities:

- auditing suppliers, setting a joint vision, strategy and measurements for partnership development

- defining criteria and action plan for supply chain development (roles, mutual expectations, decision-making process, short- and long-term goals, tools, action plans concerning projects etc.)

- interaction: meetings, contacting via different tools, sharing information

- co-managing networks with the system supplier

- risk management

- launching forecasts for suppliers' use (flows of orders, global trends)

- handling with possible problems or conflicts, emerged in cooperation and

- quality assurance (Kaplan & Norton 2004, Vesalainen 2004, 2006).

d. Managing partnering and supply chain relationships

Communication has several roles in partnering and supply chain relationships management. Efficient day-to-day communication requires tools that integrate information channels as well as production controlling systems. It is vital to make sure that the tools are available for and used by both parties. For example, the tools can consist of:

- electronic systems to assess the efficiency of activities, such as activity-based costing

- electronic databases for handling (delivering, making, sharing, modifying and storing) orders, drawings, contracts and other documents, for controlling the delivery and manufactory process

- tools enabling interaction via different channels: e-mail connections, telephone, faxes, virtual meetings, video conferences and

- templates for mutual documenting, contracts and other documents needed (Vesalainen 2004, Möller et al. 2009.)

The general and the procurement strategy reflect the nature of the relationship the main contractor has with its suppliers. Communication is a basis for consolidating and developing global and local networks. In strategy-based and systematic partnering, the role of relationship assessment becomes critical. When building long-term operating models, efficiency in supply chain relationships is looked for. Therefore, it is essential to concentrate on the performance that supply chain relationship actors are providing.

4.6.2 People as drivers for a change

Brewer and Speh (2000) created BSC to SCM from logistics performance measures. The logistics was not enough to measure the supply chain performance, which brought the need to add the BSC elements into the framework. They stated, that "internal perspective of the scorecard is expanded to include both the 'interfunctional' and 'partnership' perspectives" (Brewer & Speh 2000: 84). However, it is useful to proceed further and to view the supply chain performance from the perspective of collaboration in partnerships.

The main capabilities that the main contractor has listed (industry-leading technology, deep understanding of customer processes, global sales network close to our customers, business skills, compelling services offering, high-quality products and project management and know-how, Kähkönen 2012) underline skills that the dynamic business environment requires. In Metso's leadership principles, the multicultural emphasis in management is explicitly presented. Performance and the importance of assessing it globally and systematically are also ranked as targets in HR development in 2013. Further, fulfilling customer expectations and being able to adapt to the dynamic market context, for Metso it is critical to have effective recruitment practices. In all targets concerning HR development, the link to business goals and business context is vital. (Metso Corporation 2012l.)

Based on the strategic map it is possible to draw conclusions on development issues and potential success factors, existing in current supply chains and supply chain relationships. It provides a guideline, with the help of which it is possible to outline a more specific road map that would enable the MC to see the themes of day-to-day management and development. We suggest that the road map would consist of elements of supply chain performance, collaboration and relationships development as well as, more specifically, tools for partnership assessment. Skills that support creating the category-driven procurement teams are critical. Respectively, in innovation and implementing an innovative approach in supply chain relationships, collaboration and networking, communication and communication skills are the key. The areas that were highlighted in relationship characteristics are strongly linked with possibilities to learn and grow. From procurements perspective, the ways for bringing the performance-driven culture into an organization are, firstly, to identify the factors that characterize the supply chain relationships and, secondly, to assess their impact on the relationship development. Thus, when reaching for supply chain excellence, it is achieved in systematic and efficient ways.

4.6.3 Metso's strategy from the suppliers' perspective

In this study, the main focus lies on supply chain relationships. In this chapter, the emphasis of the analysis is in MC's procurement, its strategic policy and operations. However, it is important to take the suppliers' position into account. Since the suppliers were interviewed as anonymous (in interviews and focus group sessions), the evaluation of the influence of MC's strategic policy on sup-

pliers' operations is conducted only on a very general level without any specific references to any specific supplier or their strategy contents.

Based on a revised strategy, MC's procurement is looking for global supply chains that operate with a high level of cost-efficiency with close collaboration (enabling innovativeness and agility). Suppliers have to answer to other expectations the strategy setting, as well. Suppliers have to face an increasing amount of demands that have emerged as a result of organizational and global changes in the economy. Because of outsourcing, made by the MC, they are responsible for a greater portion of operations. Also, based on current megatrends (aging population in Europe, growth countries in Asia) they are expected to be a part of global supply chains that are located near new customers. Simultaneously, a requirement of creating long-term, strong and efficient relationships with the MC means a systematic approach in strategic supply chain development from the suppliers' side, as well. From the relationships' perspective, the current strategic policy emphasizes collaborative relationships but simultaneously tightens the competition in a way that a supplier company has to balance between deep, innovative partnership relationships and an awareness of possible rapid changes in relationships, due to global competition in supply networks.

5 METHODS

As Miles and Snow (1986: 65) state, "in order to understand all of its ramifications, the dynamic network must be viewed simultaneously from the perspective of its individual components and from the network as a whole". In this study, the more comprehensive picture of the network as a whole will be left in a minor role, but individual components of the network will be concentrated on. In other words, actors (the main contractor and its suppliers) operating in the network and relationships existing between them will be in focus. Simultaneously, factors, emerging from the supply chain and the network structure, are taken into account.

5.1 Different views of science and the nature of this study

The researcher has to decide on his/her way of understanding the world around. In that way, the researcher makes a choice what kind of worldview is followed and accepted when investigating the object of the study. Guba & Lincoln (1994: 105) define research paradigm as "the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways". They (Guba & Lincoln 1994) separate research paradigm and the research method: the method questions are secondary to the paradigm.

The paradigms can be evaluated by stating questions concerning their ontology (what is real, how the focus of the study is understood), epistemology (what is the relationship between the researcher and the focus of the study) and methodology (in what ways can the researcher collect the data). Additionally, it is possible to contemplate the logic (if causal relationships are available) and the teleology (what the study is for / how the knowledge is increased) when evaluating one's choices in research. (Guba & Lincoln 1994, Hirsjärvi, Remes, Sajavaara 1997.)

Guba & Lincoln (1994) represent positivism, postpositivism, critical theory and constructivism as paradigms that can be chosen and from which the questions mentioned above can be asked. In the Table 7 (below), the main contents of each paradigm are presented.

TABLE 7   Research paradigms and their evaluation (modified from Guba & Lincoln 1994: 109).

	positivism	postpositivism	critical theory	constructivism
ontology	"the received view/the way things are"	critical realism	historical realism	realities are local, being dependent on individuals / groups
epistemology	researcher and the object are independent, "one way mirror"	"guardians of objectivity", findings "probably true"	interaction, findings "value mediated"	interaction, findings created
methodology	experimentation, manipulation, hypothese	more natural conditions, manipulation but modified	dialogue	hermeneutical and dialectical

In positivism the researcher and the object of the study are two separate things and the object should not be influenced by the researcher in any ways. Because of this, the findings are regarded as "true" which calls for a need to have very controlled conditions that enable to researcher not to influence the object of the study. Simultaneously, this can be seen as a major challenge, as well as the lack of possible theory-fact relationship in the research. (Guba & Lincoln 1994, Lincoln & Guba 1985.)

In postpositivism the critical approach that the reality never is a perfect one is emphasized. This paradigm acknowledges that the researcher and the object cannot be totally separable, but calls for "guardians" as to protect the objectivity of the study. These "guardians" can be critical traditions or communities (editors, peers etc.) that protect the findings. The methodology is controlled, but carried out in more natural environment, collecting, for example, data that can be situational, explaining meanings of the actions. In this approach, more qualitative methods are used. (Guba & Lincoln 1994.)

In the critical theory paradigm, the reality has evolved, for example, via social, economic, cultural and politic themes, and the researcher acts in interaction with his/her object. In this way, the outcomes are influenced by the researcher e.g. this worldview is subjectivist. The research is realized in a dialogue with the research object. (Guba & Lincoln 1994.)

In constructivism, the realities are relativistic e.g. realities can be "multiple, intangible mental constructions, socially and experientially based, local and specific in nature" (Guba & Lincoln 1994: 110). These constructions are changing, depending on the individuals and groups in question. The researcher acts

in interaction with the research object and the findings are created in that process. The findings are received in a dialogue, trying to create something that is shared by the researcher and the object (consensus) and that is "more" than the previous constructions. Hermeneutic techniques are used in constructivist paradigm e.g. the object of the study is interpreted by the researcher who tries to find a context for specific (single) problems and by finding solutions for single questions simultaneously creates and modifies the interpretation of the whole construct. Simultaneously, the researcher uses different theoretic approaches as a tool by solving and interpreting the problems. (Haaparanta & Niiniluoto 1998, Guba & Lincoln 1994.)

The focus of this study, the dyadic relationships and the actors in them, are seen as active, creating the reality via their operations, decisions and views. The findings are created in interaction with the foci of the study, the dyads and their actors. In other words, the reality is created by the individuals and groups, existing in these dyadic relationships and being involved and in focus when creating meanings for relevant themes. Through this it is possible to analyze the relationship characteristics as they are seen, valued and prioritized by the actual relationship actors in partnership relationships. Therefore, the research paradigm in this study is primarily constructivism and the methodology is based on hermeneutic techniques, interpreting separate factors and modifying the whole context based on them and vice versa. In this qualitative study, the case study method is used. Postpositivist elements can be found where in the study factors are identified that may facilitate further development of dyadic relations of main contractor and suppliers.

5.2   Research questions

The purpose of this study is *to better understand the characteristics of dyadic supply chain relationships, in particular, between the main contractor and its suppliers in industrial networks.* The case study describes current relationships of one main contractor and its suppliers in one business line. The focus is on critical factors in relationships of the main contractor and its suppliers that may help analyze performance, and clarify factors that support or prevent relationship development in dyadic relationships. This helps indicate preliminary contents for a model of assessing and analyzing the relationship performance that facilitates reflection on relationship quality. The main research question of this study is: What are the critical factors in dyadic relations of main contractor and suppliers in industrial networks? Table 8 presents an overview of the research questions, the methods used and the chapter where the results are reported.

TABLE 8 An overview of the research questions, the methods and chapter/s where the results are reported.

RESEARCH QUESTION	RESEARCH METHOD	FINDINGS REPORTED IN
1. Characteristics of MC – supplier relationships		
RQ 1.1 What are the relationship characteristics in the case organizations (main contractor and suppliers)?	interviews with representatives of the main contractor and its suppliers	Chapters: 6. FINDINGS I: RELATIONSHIP CHARACTERISTICS AND THEIR MEANING 7. FINDINGS II: TRANSFERRING RELATIONSHIP CHARACTERISTICS INTO ENABLERS AND BARRIERS 8. FINDINGS III: FOCUS GROUPS COMMENTING ON RELATIONSHIP CHARACTERISTICS
RQ 1.2 What is the interrelatedness and the weight when prioritizing the relationship characteristics in question?	interviews with representatives of the main contractor and its suppliers	Chapter:: 6. FINDINGS I: RELATIONSHIP CHARACTERISTICS AND THEIR MEANING
RQ 1.3 Which characteristics may enable and support and which may prohibit the relationship development?	interviews with representatives of the main contractor and its suppliers	Chapter: 7. FINDINGS II: TRANSFERRING RELATIONSHIP CHARACTERISTICS INTO ENABLERS AND BARRIERS
2. Assessing and analyzing relationship performance		
RQ 2.1 How are the relationship characteristics evaluated by MC's management level and MC's suppliers	focus groups interviews with representatives of the management level of the main contractor and the key boundary people representing MC's sup-pliers	Chapter: 8. FINDINGS III: FOCUS GROUPS COMMENTING ON RELATIONSHIP CHARACTERISTICS
RQ 2.2 How are the relationship characteristics prioritized by the focus groups (MC's management level and MC's suppliers)?	focus groups	Chapter: 8. FINDINGS III: FOCUS GROUPS COMMENTING ON RELATIONSHIP CHARACTERISTICS

The theoretical part of the study provides a view on the environment and the contents of relationships in supply chains in networks, e.g. the theoretical views according to which collaboration is realized. Interviews consist of information on relationship characteristics that can be categorized according to their importance and value, and whether they interrelate with each other. Also, they can be processed according to their enabling or prohibiting nature when relationship development is concerned. Thereby, the RQs 1.1. and 1.2. will be answered when defining outcomes from interviews, conducted with representatives of the main contractor and its suppliers.

The answers to the RQs 2.1 and 2.2 will be indications to the contents of the relationship assessment analysis, providing information on the mutual relationship and its current status. The focus groups interviews with representatives of the management level of the main contractor and the key boundary people representing MC's suppliers, will comment on the relationship characteristics, their categorizations and priorities and argument patterns, covering the critical elements of relationship assessment in everyday business operations. Including and involving both parties in the development phase increases the usefulness and the acceptance of the relationship model in practice.

5.3 Potentials and limitations of the research

The study is a qualitative research. The contents and the nature of the theme requires deeper understanding of supply chain communication factors, which provides the reason for using qualitative methods. Meanings, perceptions and behavior are analyzed, and the reality and its contents are created through observations and their meanings. A qualitative method is conducted in a process of two phases: simplifying more complex observations and solving a riddle. When simplifying observations, the data is processed and explained based on theoretical approaches that have been chosen and different observations are integrated with each other in order to create a simplified but a comprehensive set of factors. In the riddle solving phase, the main interpretations are made, based on the collected data. However, the interpretations are not considered as final outcomes, but they provide clues that lead behind the observations, to actual findings. (Alasuutari 2011: 38-41, 44, 78.)

When studying meanings, a dialogue with each actor is fundamental. In a dialogue the influence of the researcher and the group (when conducting a group interview) comes inevitable, which has to be noticed when assessing the validity of the study. (Alasuutari 2011: 151-154.) However, meanings have to be explained, which requires a dialogue, rechecking and confirming, whether the expression of a meaning has been understood according to an actor's reality. Therefore, in this study interviews and focus groups sessions are used in order to confirm the validity of the relationship characteristics and to further process them to a tool that correspond to the reality of the relationship actors.

This study is a case study, where the "focus is on contemporary phenom-enon within some real-life context", when "the boundaries between phenome-non and context are not clearly evident" (Yin 1994: 1, 13). This refers to the dy-adic relationships as a focus with the contexts of supply chains and networks. Silverman (1993) has listed the characteristics of a qualitative research. They are as follows:

- the use of everyday context rather than experimental condition

- subject's perspective

- emphasis of time and process

- a preference for "unstructured" research designs

- avoiding concepts and theories at an early stage

- a use of inductivist methodology which avoids the premature testing of hy-potheses and

- a concern of micro features of social life (a single setting or social life).

The focus of the study requires exploring the everyday context and actors' views on their realities. Interviews were implemented at an early stage of the research process, before finalizing the theories and building the final concepts. Perceptions, views and interpretations of individual representatives were col-lected, which gives us a description of the current situation in the relationships in question. The validity of this study is enhanced through repetitive evaluation of the data: the data, based on the interviews, was reprocessed after defining the relationship characteristics, in order to specify the enablers and barriers in a more detailed way. Further, interviewees covered a representative sample of actors (of suppliers and the main contractor), operating in dyadic relationships. Furthermore, the study provides information from both parties in a dyadic rela-tionship, that way showing valuable data from both perspectives of the dyad.

According to Alasuutari (2011: 48-49), the more the researcher has clues concerning the riddle that needs to be solved, the more confident the readers and the researcher him/herself can be of the outcomes and their validity. The author has participated, planned and organized several seminars, courses and projects in Metso Paper, where themes concerning networking, collaboration and supply chains have been covered on a practical level. When designing training programs and development projects, the author has had an opportuni-ty to participate in supplier audits, collaboration meetings and different ses-sions, where supply chain relationships dominated the agenda. The sessions include seminars and meetings among different representatives of metal indus-try and technology in Finland. Therefore, there is a great amount of experience and extensive data that serves as background information for conducting the research interviews.

In this study, the level of analysis is a dyadic level, although a problem of dyadic atomization may exist (Granovetter 1992). Because of the focus on dyadic relations, the influence of network and its structure cannot be explained totally (Jones et al 1997: 912). Generally, network studies are conducted from one-level perspective, creating a myopic approach, instead of multi-level perspective with various research foci (Monge & Contractor 2003: 293-294). However it is necessary to start with dyads: it is not possible to assess chains or business networks before understanding the influence and characteristics of dyadic relationships. Although the focus is in dyads, the data will consist of information on supply chains and networks as a whole: the interview included questions related to the supply chain and networked environment.

When trying to find out the preliminary contents for an assessment model, it is necessary to point out, that assessments have their limitations: as Wathne & Heide (2004: 75) find, assessments "provide evidence about a contractor's particular skills or abilities". In other words, there is no proof that the contractor will utilize the skills or abilities in question. However, if an assessment model is used repeatedly in a long-term focus and based on joint results and experiences on the collaboration, it is easier to point out the skills or abilities that have been used. Also, as Storey et al. (2006: 767) emphasize, in designing metrics for a specific function, there is a danger in focusing only on the functional level in question. That way, it is possible that the other parts of the chain are ignored, providing a biased result on the level of the performance. Therefore, it is vital to include different parts of the chain into the actual assessment process, in order to guarantee outcomes that reflect the reality of the relationship as a whole.

When contemplating the quality of the research, the construct validity, internal and external validity and reliability can be defined according to the criteria for the quality assessment (Yin 1991). Lincoln & Guba (1985) and Guba & Lincoln (1994) present credibility as similar to Yin's (1991) internal validity, whereas the concept of transferability refers to external validity, dependability to reliability and confirmability to objectivity.

When analyzing the construct validity (identifying the operational measures that are correct for this study), it can be concluded that in this study precise data collection procedures were followed. Company visits and preparation for the interviews were organized carefully. The questionnaire was made based on the theoretical insights gained and the preliminary interviews of the informants (specialists) operating in the specific area in question. The interviews followed the structure of the questionnaire, yet allowing the informants to express their other views on the subject, too. When using interviews (individual and focus group interviews) as a way to collect data, naturally, the classification of the data and summarizing the findings are based on the personal judgment of the author. However, in the two-phased process, where the focus group (of specialists of the specific field) is commenting on the previous data, the multiple sources of evidence and that the data have been reviewed in focus group interviews increases the level of the construct validity. Also, mindmaps

and group work techniques were used when carrying out interviews and processing the data.

The internal validity (credibility by Guba & Lincoln 1994) is realized in the data collection method, when interviews were recorded and later transcribed according to the recorded data. Also, the informants and especially the members of the focus groups were able to comment the data and findings of the interviews. However, no comments or views that would be in contradiction with the findings of the author were found. Also, explanations and patterns concerning the content of the data were made, which improves the internal validity.

The external validity (transferability by Guba & Lincoln 1994), explaining the possibility to generalize the findings is realized in the potentiality to use the findings (mainly, the argument patterns) of this study in other dyadic relationships in supply chains. Although this has not yet been carried out, the argument patterns, generalizing the enablers and barriers, cover elements that can be found and discussed in such other relationships, too. Particularly the applicability in other supply chains and dyadic relationships is seen as one of the implicit aims of this study. Also, since theoretic data is the background of the study, the level of external validity is improved.

The dependability (reliability by Guba & Lincoln 1994) covers the ways of replicating the findings in other studies. The use of focus group interviews reduces the possible bias in the findings, as well as interviewing both parties of the dyadic relationship.

Guba & Lincoln (1994) present also the authenticity of fairness, consisting of ontological, educative, catalytic and tactical authenticity as the main criterion for a qualitative study. The ontological authenticity refers to individuals' or group's conscious experience of the world and whether this has become more informed and sophisticated. This study and its results increase information on the dyadic relationships which enables the relationship actors to discuss the relationships with a greater detail, simultaneously improving the understanding of dyads. Respectively, this refers to the educative authenticity, allowing relationship members to increase their awareness and understanding of the subject and other actors. The catalytic authenticity refers to the possibility to stimulate actions based on this study: based on the findings and by using the argument patterns, it is fully possible by the target groups or other researchers to launch new research projects and/or assessment procedures.

Additionally, the study can empower actions by arousing the relationship members to investigate and discuss quality and performance of their dyadic relationships.

5.4   Data collecting methods

The first method of data collecting was interviews among the MC and its suppliers. The informants cover the procurement management, sourcing and supplier collaboration of the MC, and suppliers who had 3-10 years of experience

with the main contractor. The interview process covered several different phases, where the data was processed further. The last phases were realized in focus group interview sessions, were the previous results were further refined towards the elements of a relationship model. As Alajoutsijärvi (1996) has shown, different people, representing different organizational levels perceive relationships differently, which is why in the interviews it is critical to include informants, representing different perspectives concerning the dyadic relationships in question.

5.4.1   Phases along the data collecting process

The Table 9 shows the phases of the data collecting during 2005-2012

TABLE 9   Phases of data collecting methods

Time	Data collecting methods
2005-2006	- two pilot in-depth interviews with the procurement personnel: to define the general business context, current challenges and the current supplier networks - a pilot in-depth interview with a representative of procurement of Metso Paper: to define the characteristics of the procurement business - a pilot in-depth interview with a representative of a potential supplier of Metso Paper: to define the requirements the main contractor is looking for, it was useful to conduct a pilot interview with a potential supplier - four in-depth interviews from representatives of procurement of PFT segment, Paper and Board business line: some of the interviewees operated as "product owners". All of them were operating closely and intensively with suppliers who were interviewed - 11 in-depth interviews from suppliers of Metso (PFT), from the following countries: Germany (3), Austria (1), Russia (1), Italy (2), Spain (1) and Finland (3). With the exception of two Finnish companies, all of the companies were acting globally, providing products and services in Europe or around the world. Also, some of them were long-term partners of the main competitor of Metso (overlapping supply networks). Interviewees were operating as sales managers, managing directors or key account managers of their company.
2006-2009	- in-depth interview with a MC's vendor manager, who, at the same time, represented the management of the PFT procurement - in-depth interview with a MC's manager, responsible for quality (supplier assessments, measurements and tests) in the Paper and Board business line
2012-2013	- two focus group interview sessions: one with MC's procurement managers (four participants) and one with supplier representatives (seven participants)

In Figure 10 (below) the research process is shown step by step. After a literature review, the in-depth interviews (except in-depth interviews with a MC's vendor manager and with a MC's quality manager) and the data analysis followed. Since the focus was on organizations, existing in dynamic business en-

vironment, it was necessary to update the situation in the business in question and to carry out the interviews with MC's vendor manager and quality managers. Furthermore, after an extending literature review and focus group meetings, it was possible to finalize the research.
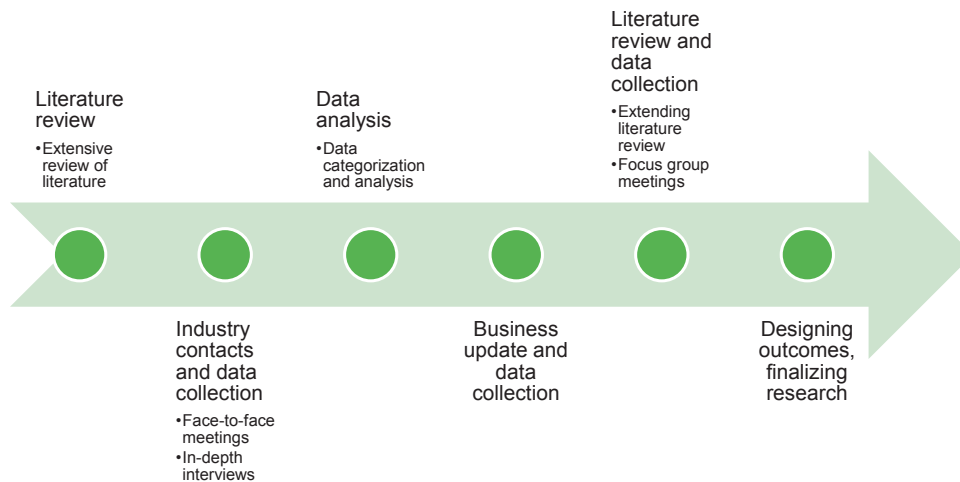
FIGURE 10   Research process.

Interviews (except in-depth interviews with MC's vendor manager and MC's quality manager) were conducted in Finnish, English and one in Russian during the summer 2005 - spring 2006 in Finland. The selection of informants was performed based on the following criteria:

- current suppliers of the products in question (two products were chosen in order to limit the amount of potential informants)

- (some) suppliers with whom there was a pilot project on-going (with the aim of creating a partnership relationship)

- suppliers who have had a long experience with the main contractor (and are interpreted as partners)

- suppliers who visited Finland during their projects in 2005 and 2006

- MC representatives who worked closely with the suppliers in question

- MC representatives who were responsible for supply chain management, outsourcing and performance (quality) of supplier collaboration.

The criteria above shows that decisions on informant selections were made based on factual criteria but also a random factor existed: a supplier (of the products in question and with whom there was an aim to create or maintain a partnership relationship) who was visiting one of Finnish units during years

2005-2006 was chosen as an informant. This increases the objectivity in inform-ant selection, since any of the suppliers may have been chosen to participate in the study. The questionnaire, used in in-depth interviews was made based on the theoretical background concerning operating in networked environment in supply chains, concentrating on themes that cover collaboration. The main themes that the interview questions are based on, are mentioned in the Appen-dix I.

The in-depth interviews with MC's vendor manager and MC's quality manager were conducted during the years 2006 and 2009, in order to update the current business context and to receive the updated information concerning the quality measurement in PFT, after many organizational changes within the or-ganization. The questionnaire in Appendix I was used in these questions, too, but in a way of generalizing the actors as supply chains and the partners as a whole. Also, in these interviews, the current challenges, trends and develop-ment areas of the supply chains and partnerships were discussed. Based on the in-depth interviews, the key role of Finnish suppliers (with 33% of all purchases Metso conducted in 2008) supports the fact of having a bigger share of Finnish interviewees. As 66% of all purchases are conducted in Europe, it is critical to interview European suppliers. As one of the aims of procurement strategy of Metso is to move emphasis from Finnish to international supply chains, it is necessary to interview foreign potential suppliers.

The focus group interviews were organized as two group interview ses-sions. Firstly, MC's procurement (four participants) had the possibility to dis-cuss and prioritize findings, collected based on the in-depth interviews. Second-ly, the same procedure was carried out with the focus group consisting of sup-plier representatives (with seven participants). The materials, used in the focus group interviews consisted of the lists of argument patterns, shown in the Ap-pendix II. The task for the focus groups was to rank the areas of themes and to check the specific arguments based on their relevance to the current supply chain environment and partnerships. The precise views of the focus groups are presented in Chapter 8.1.2.

5.4.2   Interviewees of the study

The MC's representatives represent the business segment of Paper, Fiber and Tissue, more specifically, the Paper and Board business line. The suppliers in-terviewed in this study provide products and services to the Paper and Board business lines, some of them cooperating with other business lines of Metso, as well. Some of the representatives are referred to as "product owners", that is, they are responsible for the management and operations in a cooperation rela-tionship with suppliers providing their components and services to a certain product of Metso. Also, starting from 2008, Metso has nominated vendor man-agers, who are each responsible for a certain supplier relationship. The defini-tion vendor manager refers to management of the supplier relationship, and operational activities are conducted by different employees, buyers and repre-sentatives of procurement, quality, production, R&D and engineering. In this

study, one vendor manager was interviewed as a background and to support the interviews of product owners.

As the focus of the study is in dyadic relationships between Metso (PFT) and its suppliers, data from both partners are collected, in order to receive the full view on the relationship characteristics. Some of the suppliers are competing with each other in the same product or services. The suppliers had similar aims in the MC in relationship development: they are aiming for a long-term partner-ship which refers to a strong strategic commitment that both partners share. Two products and their suppliers and potential suppliers were chosen as a focus of the study. In this way it is possible to define more specifically relationship characteristics of the case organization with a certain business line and certain products. Also, one product in question has traditionally been manufactured in Finland and the supply network is strongly located in Finland. Now, as there is a pressure to create more global networks, also other potential suppliers were audited by the MC. During the interview period, there were several suppliers, with whom the MC had had pilot projects and preliminary cooperation. Also, some of the European suppliers had already had a long-term relationship with MC in other products or services.

5.4.3   Conducting and analyzing the interviews

In interviews in phase I a questionnaire with open-ended questions was used. The interviewees and their ways of sharing the info steered the order of discussion topics. So the questionnaire itself served rather as a checklist of critical topics. In MC's interviews, the respondents were asked to answer both with respect to specific supplier relationship and some topics on general level concerning the suppliers as a whole.

The location for the interviews was set according to the interviewees' needs, either in MC's or suppliers' facilities. Interviews were recorded. The length of each interview varied from 2, 5 to 4, 5 hours, being mostly 3 hours. Therefore, it was possible to open up and discuss the themes thoroughly with a variety of examples, experiences and stories related to each topic. The interviewees were keen on having long sessions and wanted to present many examples and practical cases. During the interviews it was possible to have some refreshments and take pauses, if necessary, which helps in concentration and keeping the focus.

In order to create a basis for the arguments found, it is necessary to gather a substantial amount of data. The interviews were transcribed and anonymized, and codes for MC/supplier were added. Furthermore, the in-depth interviews produced 326 pages of single spaced data. After collecting the interviews (phases I and II), a content analysis was conducted. Transcripts were categorized based on the main themes emerged. The main themes and comments related to them were imported into excel, in a data extraction table where it was possible to process the material further, to create subcategories and more specific areas of themes. This categorization produced a list of main topics with a variety of comments linked with each topic. After the categorization process, the data was

analyzed with the help of the Mind Manager Program that enables creating mind maps representing relations and weight of the themes found previously. The program has been used in business environment, where it is possible to explicate themes or organizations that are interrelated, especially when developing business networks. The analysis resulted in the interconnectedness (relations and links with other themes) and the weight (importance) of the main themes and clarified the contents of the subgroups, as well.

The researcher, when interviewing informants, has a challenge in creating a trustful relationship with the interviewed: the situation is described as moving behind to the door of happiness (Kortteinen 1982 in: Alasuutari: 1994: 80). The interviewee wants to give a positive interpretation from him/herself, which influences his/her answers. This provides that the researcher has to notice, what is left not to be said. Especially in situations, where potential suppliers want to create a good relationship with the MC, based on which they want to emphasize only facts that are beneficial for them. Also, the interviewer, his/her personality and professionalism effects on the results of an interview. The interviewer has to remain objective and, although building a close relationship with the informant, s/he/ has to maintain distance from the interviewed informant. The ideal situation would be that the interviewer was an insider and an outsider at the same time. In this case it came true: the author had been involved with the previous projects of Metso Paper and worked together with two representatives of the main contractor but the study did not concern the projects in question. During the phase I interviews, the author represented a university (employed as a researcher), simultaneously working for an organization that was considered as a supplier of Metso Paper. Through this, suppliers interviewed in this study may have found the author in as equal as a position as they are. Also, in the beginning of each interview the author informed about her objectivity concerning the main contractor's interest or benefits from the study.

After analyzing the data, it was important to collect experiences and views of the MC's and suppliers' representatives on the results found. This increases the validity of the final research results, since they have been discussed and analyzed by the groups that are daily involved with the themes and apply the results to their ways of conducting business in supply chain relationships.

5.4.4 Focus group interview sessions

Focus group discussions are organized to focus on perceptions and views of the target group concerning certain solutions, services, opportunities etc. in a socially-oriented research (Krueger 1988). In this study, it provides a possibility to receive explanations and insights into current themes that dominate the area of supply chain management and MC – supplier collaboration, including factors that are considered to be the most critical in supply chain relationships. As a tool in focus group sessions, the lists of argument patterns, consisting of 153 arguments, are used. The argument patterns were created as a result from data collection and the data analysis. Furthermore, open-ended questions, as well as individual and group assignments and discussion are used. The use of a variety

of methods reduces the problem of a researcher in focus groups, having less control in a group interview and in group interaction. As a possible limitation or shortcoming for using focus groups, group-thinking may occur. (Krueger 1988: 46-48, 165-166.) For example, if a customer and a buyer or a superior and his/her employee(s) are participating, they may modify their views according to a more influential group member. In this study, two separate sessions were conducted, one for suppliers and one for the representatives of Metso procurement and sourcing. This way the possible power bias issues are minimized. However, in the suppliers' group, some of the participants may have a client-customer relationship in other areas of industry. In order to receive both individual and group views, the meetings consist of an independent assignment (writing down personal views on the ranking order of argument patterns concerning relationship performance), after which the topics are jointly discussed.

In addition to the possibility to receive perceptions on current themes and views on previous outcomes in this study, a focus group provides unique information on themes critical in SCM. According to Krueger (1988: 42), "people open up in focus groups and share insights that may not be available from individual interviews, questionnaires or other data sources". That is, participants contribute their experience and knowledge in a unique situation. Also, due to the hectic rhythm in business operations, it serves as a possibility to share views openly and confidentially with representatives of the same area.

In this study, focus groups interviews are executed, in order to receive an updated status of supply chain management policies (in strategic level and in practice) and to analyze the current situation concerning critical relationship factors between supply chain members. Therefore, focus groups meetings act as an aid:

- firstly, to receive support and reinforcement for a view on most significant indicators concerning relationship performance and interrelationships between them (ranking order and value), and,

- secondly, to interpret relationship indicators in the current business and supply chain environment, that is, to understand the outcomes in the bigger picture of Metso and supply chain policy contents.

Organizing two separate focus groups interview sessions provides a possibility to gather views and suggestions from both sides of the partnership interface. In separate meetings, it is possible to discuss openly without considering the partner's interpretations on possibly delicate issues. Therefore, focus groups interviews enable the author to update the views and the situation of the main contractor and suppliers on relationship factors as well as to consider the current changes in the surrounding market environment (and its influence on the relationship elements found previously) and in the industry in question. According to Krueger (1988: 112-116), the researcher, when analyzing the data, must take words, context, internal consistency (possible reversing positions after joining a discussion with others), specificity of responses and the big ideas found in data into account.

Therefore, during the data categorization process it was necessary simultaneously to mark and to define especially the elements of the context, and the changes in the business, relating to MC's supply chain development that may have influenced the comments of the members of the supplier organizations focus group. After the focus group interview sessions, a content analysis was conducted. The sessions were transcribed and, again, the main themes were categorized. The analysis focused primarily on the similarities and differences in the weight given to different topics in the two focus group interviews.

6 FINDINGS I: RELATIONSHIP CHARACTERISTICS AND THEIR MEANING

In this chapter, findings part I will be presented and interpreted. This chapter will answer the first research question of this study (R.Q. 1.1.): *What are the relationship characteristics in the case organizations (main contractor and suppliers)?* In this chapter, relationship characteristics are analyzed and gathered into clusters of themes. Also, as RQ 1.2. states, it is vital to *assess their interrelatedness and weight when prioritizing them more specifically*. Therefore, the final clustering was created based on the emphasis of the themes, as well as the depth and the frequency each topic was discussed by the interviewee. The topics that were asked but weakly stressed in the answers will be mentioned in each cluster they relate to, as well.

6.1 Relationship characteristics defining the main contractor – supplier relationships

In the data collected in interviews with the representatives of the main contractor and suppliers, several relationship characteristics surfaced after careful analysis. In the first analysis round similar topics that were mentioned in different interviews were brought together in theme clusters. Next, the contents of the clusters were further categorized. This was done with the help of several mindmaps. Also, in mindmaps it was possible to connect the theme clusters that were related to each other. The analysis process, explained in section 5.4.3, made it possible to regroup the data and find the main relationship characteristics that mostly were emphasized and discussed in the interviews. This clarified the views of the interviewees on relationship characteristics in dyadic relations of main contractor and suppliers.

The analysis process resulted in various theme clusters, each containing a variety of topics linked with the theme in question. The theme clusters that surfaced in the interviews were: information flows, trust, power balance, partner

characteristics, distance, operating in supply chains. Foremost, all interviewees emphasized the importance of topics that were related to communication. Interestingly, factors concerning organizational characteristics and supply networks (for example, factors relating to technical or structural solutions) were not the main focus of the discussion. The theme cluster that was considered most important was information flows, after which clusters, explaining trust and power and dependence followed. Naturally, the clusters are overlapping but having a different weight in discussions. Especially the difference in the emphasis of themes was clear when discussing topics related to partner characteristics, distance between partners and supply networks as a whole. These themes played a significantly smaller role.

As mentioned before, each cluster consists of several topics. In the following paragraphs, the topics are described in the order based on their weight, how often they were mentioned and how deep they were elaborated on by the interviewees. Each topic may have either a negative or a positive value in discussions. The concept of a main contractor refers to all the representatives of the main contractor, although the definition is used in singular. Suppliers are referred to in a plural form. Although the topics are represented as lists in each theme cluster, it is important to notice that many of them are interrelated and overlapping. Also, some of the topics have a significant value in almost each cluster. For example, the weight of the theme covering power and dependence was visible in almost every cluster.

6.1.1 Information flows

The theme cluster covering topics related to Information flows consisted of a variety of topics that were categorized in order to be able to analyze them further. Information flows were discussed from different perspectives. Ways of information sharing, information contents and the strategic perspective were discussed. More specifically, delivering information and its timing, meetings, formality, information sources and communication strategy were categorized as more specific categorizations.

In the following Table 10, the themes are listed, starting from the topics that were weighted and mentioned mostly and found as the most significant when analyzing the mutual relationship. The topics are divided into two categories defining the level the topic relates: the corporate/strategic and individual actor level. By defining two different levels, to which each topic is linked, it is possible to process the data more extensively: it is relevant to point out the focus of development and to see whether the matter is related to the strategy contents or if it provides, for example, that the skills of a single actor should be developed or a role of an individual actor is emphasized (parallel to Mainela & Tähtinen 2007). Topics on the individual actor's level may also indicate insufficient strategy design or strategy implementation, or the strategic focuses are not communicated to employees effectively enough. Additionally, some topics can be interpreted to belong to both levels, but the classification is made according to the meaning of the concept the interviewee had and stressed. Table 10 pre-

sents the topics that were linked to information flows in the relationship. In the table, C/S refers to corporate / strategic level and IA to individual actor level.

TABLE 10   Main topics concerning information flows between the main contractor and the supplier.

SUPPLIER	MAIN CONTRACTOR
1. Meetings C/S: influencing, investing time in meetings IA: problem solving, sharing experiences, updating	1. **Delivering information** C/S: steering and controlling information flows IA: informing about changes and revisions, reporting, giving feedback
2. Delivering information C/S: one-way information, controlling info flows IA: giving feedback, reporting, informing about changes and revisions	2. **Meetings** C/S: creating mutual language, motivating IA: giving rules, detailed information
3. Timing in delivering information C/S: role in resourcing and planning IA:(both): delays in deliveries	3. **Formality** IA: informal information has a significant role
4. Formality IA: informal and formal information and their role	4. **Information sources** C/S: lack of resourcing time and effort in e-tools as info sources IA: personality and frequency in meetings the key info source
5. Information sources C/S: lack of resourcing time and effort in e-tools as info sources IA: personality and frequency in meetings the key info source	5. **Timing in delivering information** C/S: simultaneous IA: (both): delays in deliveries
	6. **Communication strategy** IA: individual communication skills and methods instead of a strategy

Although the topics were quite similar with both parties, the emphasis and the contents varied. All interviewees acknowledged the growing need for receiving more information from the partner compared with the previous history and current situation. The suppliers found receiving information and a proper timing in information deliveries very critical: lack of information and the possible delays and incorrect timing in receiving it cause severe problems in planning and decision making, especially on resources in the near future and potential future projects. In addition to the lack of info flows at the organizational level, this problemacy depends also on the individual actor (person) with whom they are cooperating: some representatives of the partner organization communicate more effectively and actively than others. At the same time, the information that a supplier is sharing with its MC is highly valuable and both parties can benefit from it.

Supplier04: "I told that to engineers that their drawings are too exact. They can save time, there are too many information inside the drawings, so please check if you need it, we don't need that and that and that. You can save time when you make it in another way. I talked with engineers before and they say ok, I will talk with my boss and I will be happy when I save time. Maybe you learn from us now."

Supplier06:"In general, that there are orders coming and so forth. If you think about the history that for 10 years you have been asking for the available information, you have to ask even though it is repetitive."

Main contractor02:"It is not a systematic feedback but rather owned by different individuals and [they] can have a different image of the issue."

The direction of information was seen as one-way only, coming from the supplier to the main contractor, referring especially to the lack of feedback, whereas the MC expressed their need to receive more reporting and systematic documentation from the suppliers. According to this, two important elements of partnerships may be missing: the two-way communication as well as the intended equality in the relationship. Although the concept of partnership indicates to a more equal relationship, the MC found controlling information flows and their contents as a better way to control (to wake up, to update and to remind the supplier), steer and motivate its suppliers. The common discussion on the lack of efficient two-way information sharing is confirmed by the fact that no communication strategy was used in relationships, which refers to the growing need of communication management at the organizational level. The role and the meaning of communication strategy were found as rather insignificant or were not recognized at all, whereas the individual communication skills of managing and delivering information were found very relevant in a successful relationship. In addition, the level of openness and confidentiality was considered problematic: both parties found it difficult to decide on "the right" amount and contents of information. This result also suggests the call for a comprehensive communication strategy in the relationship.

The role and the functions of the joint meetings varied: the MC saw meetings have a strategic role, especially when learning the same language (e.g. understanding and interpreting terms and aims in a same way), whereas the suppliers found meetings critical when updating the situation and especially when problems occur. They stressed and looked for the significance of the two-way communication in problem solving, as well as in sharing each other's skills, experiences and expertise, in order to develop the operations, products and services together. Both parties shared a view on the importance of informal meetings in gathering and sharing information, innovating and developing operations as well as creating and maintaining relationships as a whole. Personal contacts and regular and frequent contact personally were seen as the best source to receive and share information. Tools that are electronically based and used were considered secondary and lacking the personal characteristics and emotions existing when communicating with each other.

It is especially interesting that in many topics the results indicate the MC sees its' role as being the only responsible one for the "management" in the re-

lationship: by delivering or not sharing the information it finds it can steer, control and motivate suppliers better and also create a joint language and a "joint atmosphere". Steering, controlling and economizing the amount of information shared may be seen contradictory to the idea of partnership. This may refer to the traditional supply chain management in a more vertical supply chain model. Even more importantly, the possible power imbalance has a major impact on the communication and the information sharing: both parties would like to see the relationship more equal, where they both have the possibility to support the partnership development. In addition to the vague concept of management with the problemacy of power bias, without the strategic communication tool the aims and ways lack the joint acknowledgement and discussion: they are interpreted only according to the individual's own experience and interpretation on his/her task description.

One realization of power lies in information sharing and in the lack sharing and delivering the sufficient information. From the suppliers' point of view, the MC is seen to exert its power when reducing the amount (or contents) of shared in-formation (inadequate timing, insufficient contents, one-way directed info sharing, or lacking the strategic core, for example in joint R&D). The monopoly on knowledge and control over information as a source of power is contradictory with the strategic goal of partnership in networks, where the joint outcome depends on the level of collaboration, among others, on the level of sharing, delivering and creating knowledge together. The insufficient information sharing points out the necessity of a communication strategy designed by both parties jointly and equally, where both parties commit themselves to follow agreed ways of communication in the relationship. This is similar to Rajagopal, Zailani & Sulaiman (2009) who suggest, that in supply chain partnering, managers should view and use the existing information flows (inward flow, the "intelligence", and outward flow, the organizational communications), in order to enhance the relationship activities, as well as to thoroughly find out aims and values the partner carries in the relationship. However, different target groups can gain variously from information sharing: Vereecke & Myulle (2006: 1179) conclude that distributors and wholesalers benefit it the most, whereas with retailers the outcome may not be as positive.

6.1.2 Trust

Trust had a very significant role in discussions of both parties during the interviews. The contents of the main topics in discussions were quite similar, but their rank and contents varied. This theme cluster was divided into categories covering specific characteristics of a trustful partner, culture and its role, length of the relationship, control reflecting power in the relationship, friendship and its impact and the role of visits, contracts and feelings in the relationship. Again, the categorization into the corporate/strategic level and individual actor level is made according to the emphasis of the interviewees, although, for example, the characteristics of a trustful partnership can be linked with both levels (e.g. fair-

ness can refer to an organization and an individual etc.). In the table 11 (below), C/S refers to corporate / strategic level and IA to individual actor level.

TABLE 11   Main topics concerning trust in the interviews.

SUPPLIER	MAIN CONTRACTOR
1. Characteristics of a trustful partnership C/S: consistency, commitment, fairness, transparency IA: openness, correctness, directness	1. **Characteristics of a trustful partnership** C/S: consistency, fairness, commitment, fairness IA: skills, flexibility, confidentiality
2. Culture IA: Finnish and German - trust	2. **Length, time** IA: long- term, joint experiences, role in the beginning
3. Length, time IA: long relationships, role in the beginning, changing trust	3. **Control** C/S: distrust, benefits IA
4. Contract C/S: role IA: following contract	4. **Culture** C/S: - IA: Italian and Russian - distrust
5. Friendship IA: equality, length	5. **Feeling** IA: role of emotions
6. Feeling IA: role of emotions in trusting	6. **Contract** C/S: formal role
7. Meetings, visits C/S: frequency in visits IA: personality in visits	

Both parties saw the long-term relationships as the aim, which supports build-ing the trustful partnership. The most significant gap between the main contrac-tor's and the suppliers' opinions was in characteristics of a trustful partner. The MC considered too open a partner as a sign of distrust. When the openness was interpreted as an open dialogue, where problems and challenges can be solved together, the openness was found positive, although it was also interpreted as "talking too much" or "talking all the time". If a partner, especially in the be-ginning of a relationship, is contacting too frequently with long talks, emphasiz-ing its own positive characteristics, the main contractor found it "fishy" or un-trustworthy. They interpreted this as "trying to get too close". This can refer, again, to the possible power imbalance (the MC wants, as it was traditionally used to, to maintain the distance with the supplier, especially in the beginning of the relationship) or to cultural differences among suppliers and between them and the MC.

> Main contractor04:"X speaks with you till you die, he called today, too, and there was a lot of talk...tried to make business and often talked very much and criticized the others you can say so, it kind of started repeating itself the story too, that a chatty

> fellow he is and that one can talk about an hour or hour and a half with him. He is a bit keen on talking rather about his own stuff and is not listening."

The suppliers emphasized openness as a synonym for fairness, when organization's statistics (open books) or problems are presented and discussed openly and honestly. The consistency in the partnership was valued as the most important factor, characterizing the trustful relationship. Signs of a consistent partnership were found to be linked with logical activities and systematic operations, minimum changes in plans on operational level as well as receiving information that is not contradictory about what has been promised. What is important to notice is that a "fragile" moment, where the trustful relationship may be broken, is when the key people change in suppliers' organization, which requires the need for sufficient support in building a new relationship with a newcomer. Interestingly, the ways the conflicts are solved and the willingness to solve them that is increased by the higher level of trust was not recognized. Also, trust was slightly seen more as a one-dimensional phenomenon by the suppliers: they saw they can be trusted, but trusting the main contractor was seen as a more complex issue, whereas the MC found trustful relationship mainly two-dimensional. This is contradictory to the concept of mutuality, the "bilateral" nature of the relationship is in focus. However, despite the long-term aim in the relationships, the current market environment creates threats for the hoped-for consistency and thus it can influence on the trust level the suppliers have towards the MC's activities. Especially the MC found the rapidly changing global economy as a factor inhibiting the realization of long-term partnerships and restricting possibilities to launch new projects with partners.

> Main contractor02:"In one thing you can [trust]: that Metso pays its bills. That's where we're good at, the bill we pay. When everything is ok, money comes to your account. Whether you can rely on the talk of Metso people it is a kind of riddle how much you can trust…"

> Main contractor04:"I guess suppliers can trust Metso in a way that we have been involved with this and have continuity like the history shows..."

> Supplier03:" They [MC] surely have to suspect all the time if we are a right partner and we provide evidence for it."

According to the interviewees, the organizational level (if the company can be trusted) had a greater role in the early phase of the relationship, whereas the personal trustful relationships with the partner were found critical very soon after collaboration has started (similar to the process perspective of individual interaction by Mainela & Tähtinen 2007). Although the interviewees were aware of the critical role the trust has in a MC – supplier relationship, the outcomes the trust brings (as Morgan & Hunt [1994: 22] state: efficiency, productivity and effectiveness) had remained unobserved.

The cultural background was tightly linked with the definition of trust, when Finnish and German cultures were compared with Russian and Italian cultures. The task-orientation was seen as positive. From the suppliers' view-

point, friendships and personal visits were considered as vital. The difference existed also in views on contract and its meaning: whereas the main contractor valued the contract and considered it as one sign of a consistent partnership, some suppliers interpreted it as a sign of distrust: a person cannot be trusted, if the contract has to be signed and more importantly, if it has to be quoted in any circumstances. As the aim is to reduce control in agile partnerships, the main contractor found control as a sign of distrust; however it was found beneficial when the MC saw it as a way to influence the suppliers' operations. This, again, is linked with the complex concept of management together with partnership building.

The company reputation was hardly mentioned as a sign of trust in the relationship: only in the early phase of relationship building, the image, as well as the reputation the organization had in the market had some role, after which personal contacts were considered to define the level of trust in the relationship in general. Although the business is seen to be conducted according to the economic terms and circumstances, the interviewees emphasized the importance the personal feelings and emotions when analyzing the level of trust and especially in decision making when new projects and potential collaboration initiations were concerned.

6.1.3 Power and dependence

Power and dependence as themes were visible in almost all theme clusters. In this theme cluster, power and dependence covered a variety of topics. Equality, dependence in the relationship, contents of negotiations, development and innovation and information delivering as ways of influencing, partner's status, personal relationships and carrying out favors reflected different aspects of power and dependence relations. The topic categories are divided into two tables, since the interviewees discussed thoroughly the elements referring to either supplier's power or to the MC's power. When discussing the power the suppliers have, the topics listed in Table 12 below were discussed. In the table, C/S refers to corporate / strategic level and IA to individual actor level.

TABLE 12   Main topics concerning suppliers' power in the interviews.

SUPPLIER	MAIN CONTRACTOR
1. Negotiations C/S: key role of price and volume/size IA: key role of positive atmosphere	1. **Equality** C/S: existence and learning via partnership with suppliers
2. Dependence C/S: network role's different interpretations, dependence based on the turnover	2. **Dependence** C/S: network role and dependence on 2nd wave, suppliers influencing significantly MC's actions
3. Development, innovations C/S: reduced role in development, reduced possibility to influence	3. **Status** C/S: risks if not important to supplier, gaining more power together in front of the end customer
4. Personal relationships IA: critical when changes in relationships	
5. Delivering information C/S: one-way	
6. Favors C/S: different interpretations	

Dependence appeared to be one of the most significant elements when defining power and power balance between the parties. According to the main contractor, due to outsourcing, joint R&D and other shared operations, as well as increased expertise the partners have reached, current suppliers can influence on operations and relationship development more they consider to be possible. The suppliers saw a very limited prospect to influence the MC, which reflects the existing power bias. Both parties linked power with the level of dependence. The main contractor saw there is a high level of dependence between it and suppliers, existing either with the system supplier (1st level supplier) or with the 2nd level supplier. As very significant to the MC, the 2nd level supplier can influence the whole chain greatly, if it chooses to act opportunistically by selling directly to the end customer or by placing other chains as primary to the chain in question and through this is able to exert even more power over the MC. Therefore, the MC was keen to participate in decision making together with the 1st level supplier when the 2nd level suppliers were selected or when issues concerning the 2nd level suppliers were on the agenda. In other words, both parties saw that the dependence level depends on the network role: company's location in the network (as 1st or 2nd supplier) and the level of specialization (critical task in the chain, involvement in R&D etc.). Also, the share of the suppliers' turnover with the main contractor dictates the level of dependence significantly: 20% (turnover coming from the MC) was seen as a reasonable share of the turnover, but as some of the suppliers had 80-99%, it was considered as critical and worrying.

In the main contractor's views, there were some contradictory interpretations concerning the power and the dependence. According to the MC, the supplier's feeling of being superior can cause failures and reduce the level of active cooperation (too satisfied a supplier – a "sleeping beauty").

> Main contractor01:"...that you nominate a supplier for a year so then you nominate a loser of the following year."

This was acknowledged also by the suppliers. In addition, the main contractor emphasized the importance of being in "the same front" when meeting the end customer: sharing the power with the suppliers shows that the main contractor trusts its suppliers. This increases the possibility to secure a more equal partnership from the suppliers' point of view, when they are invited to the joint planning sessions together with the main contractor and the end customer. Also, this may refer to the MC's interest in 2nd level suppliers and creating a joint front with them when facing the customer (in order to avoid the potential opportunistic behavior from the behalf of the 2nd level suppliers). That way, the possibility to influence on operations increases. Also, by sharing power with the suppliers the main contractor saw an opportunity to learn and develop more effectively together, which was referred to the higher quality of the end product and services. Additionally, this refers to the significant partnership element: the partners (MC and suppliers) can be interpreted as "one actor" from the end customer's perspective. The concept of a partnership (of three partners instead of two) may require a revision, when suppliers are extending their relationship towards the end customer together with the MC.

The elements of the power the main contractor has over the suppliers, was analyzed in the interviews according to the topic categories in Table 13 below. In addition to the previous topic categories mentioned in Table 12, control as a way of managing relationships, fairness, discipline, asymmetry in relationships, reputation, consistency, freedom and forcing as topic categories reflecting power and dependence in the relationship were discussed. In the table, C/S refers to corporate / strategic level and IA to individual actor level.

TABLE 13   Main topics concerning the main contractor's power in the interviews.

SUPPLIER	MAIN CONTRACTOR
1. Fairness C/S: responsibilities not fairly shared IA: squeezing	1. **Control, management** C/S: trying to reduce excessive dependence, creating strategy by controlling dependence IA: influencing other suppliers by collaborating with one, sharing responsibilities
2. Equality C/S: equality not necessarily needed IA: feeling of unequal	2. **Personal relationships** IA: too personal and too familiar connections risky, aim to circulate actors in interface
3. Discipline C/S: MC's role to exert discipline	3. **Asymmetry** C/S: recognition of the asymmetry and imbalance
	4. **Delivering information** IA: differences in interpretations
	5. **Reputation** C/S: failing and joint reputation, benefits when contacting end customer together
	6. **Consistency** C/S: economic situation and role of power, lack of consistency
	7. **Forcing** IA: dictating as one of the means
	8. **Freedom** C/S: delegating responsibilities to suppliers, commitment as the key

MC's power status, exerting its power and reducing or increasing dependence was one of the most important topics in the interviews on the whole. Compared with suppliers' views, the main contractor saw more power elements in its roles and activities and had an extensive discussion on power and its elements in the relationship. As mentioned before, contrary to the general concept of partnership (e.g. equality), the MC saw exerting power over the suppliers as an important element of partnership management. Controlling and "tighter" management over the suppliers was seen especially beneficial in the beginning of the relationship, during the economic depression or if decreasing the dependence on the supplier is needed. For example, a big supply, divided among several suppliers, may need more control, but with several suppliers the MC is able to keep a lower level of dependence on each of them and to reduce the possible risks that may rise from too high a dependence level. Therefore, the control and

tight management can be seen as positive (when more suppliers benefit from the situation and potential risks can be reduced) or as negative (increasing one party's power over another, keeping the biased power status).

In addition to the traditional vertical idea of supply chain management, the MC found the asymmetry concerning company sizes as one factor that supports the biased power balance. However, the company size can be an irrelevant factor, for example, when a small supplier masters highly specialized skills and knowledge that is critical to the whole supply chain. This refers to the core criteria why the partnership exists: when each party concentrates on the core business it owns and contributes it to the value chain, which also increases dependence relationships among the partners.

MC's power emphasis, perceived by both parties, was mentioned in discussion frequently: it exists in delegating responsibilities, committing suppliers, even in dictating terms or ignoring the consistency in the relationship. The suppliers found negotiations and responsibilities sharing complicated, which refers to the vague decision making policies in the relationships. According to Pfeffer (1981a: 274), "decision making discretion is the result of a political contest for control within organizations". Although the partnership aims to joint decision making and power sharing, the main contractor may be keen on keeping the power elements to itself as an "artificial" sign of power holder. The suppliers stated fairness as the most important topic when discussing the power the main contractor has.

> Supplier06: "But in that sense one has to say that Metso has been quite fair, that what you have heard is the kinds of main contractors out there are quite like Attila the Huns out there."

> Main contractor05: "…but in general, who is wagging the tail, the dog itself or the tail is wagging the dog. And here is a bit like this problem that the tail is wagging that dog. And there are already visible signs, that this is nothing new. Know-how is vanishing from the house, you know."

This means that fairness is eroded by vague responsibilities (who has the power, information and the responsibility in decision making, which is to blame when problems occur) and even possible squeezing. As fairness was strongly associated with the concept of trust, it can be suggested, as Morgan & Hunt (1994), that power has a negative influence on trust.

Being dependent on each other is mainly seen as a risk by the informants, which leaves the profits of dependence (commitment, open discussions, possibility for deep joint development) utilized.

> Supplier04:".. when a big customer of us tries to use another supplier, that will be a problem for us. We try to be not too much dependent on other customer. I think 20% is ok but everything higher is too high for us."

The higher level of dependence correlated positively with a lower power level: the more dependent partner was seen as having limited power over the more independent partner. Parallel to Casciaro & Piskorski (2005), informants in this

study, having identified the power imbalance and high dependence, were more reluctant to integrate the relationship further. The situation was seen as a "shotgun marriage", instead of a potential path towards a deeper partnership. However, they wanted to focus on "constraint absorption" by negotiating a long-term contract, tightening the social relationships with the partner, sharing information and asking for the partner to join their R&D (which draws an analogy to Emerson's (1962: 39) description of cooptation of a less powerful actor). These cases are critical to recognize, since the higher-power partner would have a big responsibility to follow and to join the constraint absorption attempts of the other party, in order to get the partnership flourishing again. Also, the concept of power advantage (Emerson 1962: 34) should be viewed more comprehensively by the interviewees. Although, in some relationships, the power balance may exist, but the supplier may have a power advantage, for example, in the form of deep relationship with MC's competitor, who may bring more useful and accessible knowledge that the supplier can utilize in the relationship with the MC.

According to the suppliers, the lack or existence of power balance was also considered to be clearly visible in negotiations, in personal relationships and when innovating and developing together. A more relaxed atmosphere and possibilities to discuss equally in negotiations refer to an equal power relationship. Equality in general and fairness in all joint activities were linked with the power balance, whereas squeezing and using competitive bidding (when the relationship has been jointly agreed upon to be a partnership) were seen as signs of the biased power balance. The MC saw possible in some cases to exercise competitive bidding among the partners and found it to be included to the idea of partnership. Also, it found that wrong exceptions and interpretations can lead to a feeling of the power bias, which stresses the importance of communicating strategic policies and jointly agreed rules efficiently.

As Casciaro & Piskorski (2005) state, a high mutual dependence increases the stakes in negotiations, since both parties do not have the possibility to exit the relationship easily. This is also parallel to the relationship actors in question, who find the information sharing, learning and joint innovations increased in the relationship with high mutual dependence. In some cases the other party may not have identified clearly the dependence status, which may lead to "old habits" in negotiations like squeezing and dictating the terms. Mainly all the informants were calling for increasing the information sharing, which is a critical sign of a need for a communication strategy. Especially, the partners in a relationship with high mutual dependence but with power imbalance should take an active role in information sharing, since the power imbalance may hinder the conflict resolution (and thereby reduces the information exchange) (parallel to Lawler and Yoon 1996) and the higher-power actor may not involve information sharing and seeking changes as actively as the lower-power partner does (as in: Keltner & Robinson 1997).

Whereas, like suppliers, the MC found personal relationships in many situations positive and supporting the joint relationship, it was worried about too

close relationships that can inhibit objective decision making and operations. From all the topics of the theme clusters, the results and perceptions on power and its realization varied the most between the MC and the suppliers. Similarities were found when discussing responsibilities: when giving more responsibilities to the suppliers, both parties found that this is a significant sign of sharing power and reaching for a power balance. The MC was willing to commit with the supplier in cooperation, due to joint results of failure or success: it found, that when the supplier fails, it means the main contractor has failed together with the supplier. Although this refers to the feeling of shared responsibility, in some cases it was interpreted (by the suppliers) as shifting problems and responsibility to the supplier.

In communication, the power and the way it is exerted is visible in the use of language and symbols (Pfeffer 1981b). However, as Pfeffer (1981b: 184) states, "language and the ability to use political symbols contribute only marginally to the development of the power of various organizational participants; rather, power derives from the conditions of resource control and resource interdependence". The concept of power is tied with the communication realized in the relationship, but the basis and its core lies further in ownerships or in control of resources over another partner. Based on the collected data, the MC exerting power over its suppliers is seen and heard in the way of communicating to them, in spite of the fact, that dependence in relationships may even have become reverse: the MC may be now more dependent on the supplier than vice versa. This refers to a need to keep the "status quo" as it was (with the help of communication and symbols) instead of acknowledging the equality or even a status of dependence on the supplier in question.

Beyond the power imbalance relation that was found to exist during the negotiations, the style and the personality of a negotiator had a great influence. The cooperative, instead of competitive style creates a willingness to increase flexibility and a socially positive atmosphere for negotiating (De Dreu & van Kleef 2004). Based on the data, the behavior of the higher-power partner in negotiation appeared to be the key to positive outcomes: if s/he acted cooperatively, negotiation procedures and results were seen more positive and the power imbalance factor had a minor role in discussion.

6.1.4 Partner characteristics

The theme cluster of partner characteristics consists mostly of company criteria and organizations' features. More specifically, supplier's characteristics, reasons for partnership creation, partners' roles and responsibilities, values, partner organization's image and joint tools were discussed. The main topic categories are listed in Table 14 below. In the table, C/S refers to corporate / strategic level and IA to individual actor level.

TABLE 14   Main topics concerning the partner characteristics in the interviews.

SUPPLIER	MAIN CONTRACTOR
1. **Supplier's characteristics** strengths, C/S: size, assets, experience, commitment, familiarity, network, flexibility weaknesses, C/S: size, capacity, location, price weaknesses, I/A: language	1. **Reasons for creating partnership** C/S: learning & development, network, price, product concept, location, controlling other suppliers, tools IA: person, feeling
2. **Reasons for creating partnership** C/S: reference, competition, markets, network, long-term relationship	2. **Supplier's characteristics** strengths, C/S: size, assets, experience, location, flexibility, network weaknesses, C/S: network, inflexibility, passivity, consistency, price, size
3. **Roles, responsibilities** C/S: clarity IA: skills	3. **Values** C/S: familiarity, role, supplier's values
4. **Values** C/S: main contractor's values, role, familiarity	4. **Joint tools** C/S: contract, integration of systems
5. **Image** C/S: value of the image, main contractor's and suppliers' image	5. **Roles, responsibilities** IA: honesty C/S: focus
6. **Joint tools** C/S: integration of systems, contract , other tools	

The suppliers emphasized the influence of their company characteristics on the relationship. Especially interesting is that, despite the opportunity, the MC's characteristics at company level were not discussed nor mentioned hardly at all, whereas suppliers' characteristics were deeply analyzed. Both parties found the supply company size can be either a potential strength or a weakness: small size was referred to as agility but fragility, whereas a large size of the supply company was found convincing and efficient but bureaucratic and looking for turnover more than profit (that many times can be the aim of the small actor). The suppliers linked the company size with the clarity of roles and responsibilities inside the company. They found that they as smaller actors had clearer roles, e.g. the key contact people relative to the main contractor are clearly stated and visible. Continuous changes among the MC's key people were considered as a significant problem and inhibiting everyday operations, especially when rapid problem solving and decision making were needed.

Supplier weaknesses differed: the suppliers stressed commitment and familiarity (familiar with the market and the main contractor) as strengths, when the MC listed location as one of the most important suppliers' characteristics

(the closer – the better). The preference of a close location is contradictory to the general assumption of global, long distance supply chains. Although supply chains can be very international, the language barrier (unable to speak fluent English) was seen as a significant weakness by the suppliers. The MC found the lack of sufficient networks as an important weakening factor: many suppliers had small or no supply networks of their own and operations were very centralized into few or one organization.

Both parties stated various reasons for partnership creation. Since the suppliers emphasized a positive image of the main contractor that had a relevant importance especially in the beginning, they found the relationship with the MC as a reference and thereby as an access to potential new markets. Also, the sup-pliers wanted to reduce the dependence on other clients by creating new relationships in new networks. The MC saw more reasons, why to create partnerships: joint R&D, waking up other suppliers who have become more passive (partnership choices as a management tool with other suppliers), previous personal contacts and positive features concerning the price, the product / service or the used tools. These factors refer to various drivers the partners may have when establishing a relationship. The existing personal relationships with the supplier and the feeling of trust were also mentioned as factors influencing positively on supplier choices. Although joint tools were rated as important, more integration of systems is needed. Some suppliers found electronically based tools as insignificant: surprisingly, simultaneously emphasizing the importance of personal contacts and continuous personal communication they did not find virtual communication tools supportive when operating with the partner on a daily basis. In addition to the low enthusiasm and undefined usage of virtual tools, the contracts, their status and their utilization in the relationship were found some times vague: detailed partnership contracts were hoped for by the MC.

The organizational values, stated and communicated by the company, were considered vague and unimportant when collaborating in the relationship. The main contractor assumed suppliers to be aware of its values, but they had remained as insignificant and not recognizable for the suppliers. Contrary to the general concept of partnership (were partners establish and share joint values), both parties found officially stated organizational values irrelevant in the relationship.

6.1.5   Distance

When analyzing the distance (physical or mental) from the partner, the topics can be categorized into two subgroups: the role of the cultural background (mental distance) and the meaning of the physical location. Distance as a topic was not emphasized nor mentioned as frequently as other themes (information flows, trust, power and partner characteristics). Therefore, the discussion contents concerning distance are explained briefly below.

The differences in cultures were seen as a challenge by the suppliers, who found that Finnish suppliers benefit significantly from the same cultural context

and characteristics as the MC. They saw the Finnish background is preferred in supplier choices. Although the Finnish background was positively valued by the MC, they found its role not as significant as the suppliers think it is. The only cultural challenges the main contractor saw were in Italian culture that was linked with a lower level of trust (that was expressed as uncertainty and vagueness) and sometimes lack of following joint rules (for example, in delivering information systematically).

Views on location and its meaning varied: in the suppliers' opinion, the longer distance was referred to the challenge of maintaining the trustful relationship as well as increasing problems among partners. Closeness was considered as a significant benefit. Contrary to views concerning partnership characteristics (where closeness was valued), the MC didn't find closeness beneficial in the current situation: they saw the role of local Finnish suppliers is decreasing. This is explained by the current procurement strategy and the increasing need for global suppliers, which, on the other hand, implies that Finnish suppliers are not considered as global (not possessing global supply chains of their own or not being involved in global chains sufficiently enough). Again, referring to the power element, the MC saw one of their main tasks as "waking up" the Finnish suppliers by showing the changing circumstances in partnerships (need for global partners) and by this increasing the proactivity of Finnish suppliers (increasing willingness to the global market). However, the MC did not see new openings in Europe only as positive, since creating new relationships and operating effectively requires time and resources. There are significant risks involved when searching for partners, both internal (a change in previous relationships, possible resistance by the personnel internally) and external risks (reputation perceived by competitors and other partners, possible financial loss etc.), if new operations do not succeed. Interestingly, the MC saw the importance of the location significant in the beginning of the relationship, after which its role and meaning is diminishing.

In addition to previous strategic aspects the location and the distance have, both parties found the meaning of the current market environment significant: very often an end customer's market location defines suppliers' location, too (closeness to the end customer as a preference). Again, other characteristics can influence the importance of the location: the nature of the product or the service and the need for close physical cooperation with the end customer can dictate the criteria of the supply company location.

Based on the previous analysis, the concept of location and distance is multifaceted and has several dimensions:

- from the network perspective: the location in a supply chain can act as a competitive advantage or a threat to the rest of the chain (when consider-ing the network role of a 2nd level supplier and the threat of its opportunistic behavior)

- from the power and dependence perspective: the MC may be keen to act as a power holder in order to control 1st and 2nd level suppliers and that way to be able to maintain the vertical order in chain, as well as to act as a gatekeeper in the direction of the end customer

- from the cultural perspective: the similar cultural background can pro-vide benefit (Finnish suppliers with the Finnish MC) or can turn against (Finnish suppliers lacking global supply chain connections) and

- from the global economics perspective: the location of the final customer can dictate the supplier's location and influence on decisions on choosing a part-ner (suitable supplier in the area in question).

Although the concept of location and distance in general seemed secondary, it increases its value when considering its impact from different perspectives. In addition to that, it shows how relationship actors may not have absorbed the possibilities of social exchange in the relationships. The opportunistic behavior (related more to the transaction cost way of conducting business) may be de-creased by the strengthened social elements in the relationships: the MC may need to develop a deeper partnership relationship that extends from the 1st lev-el to the 2nd level supplier, as well as to allow the joint approach towards the end customer, where both supplier levels are involved (in order to reduce the willingness of the 2nd level supplier to approach the end customer alone). Fur-ther, this could reduce MC's pressure to manage supply chains one-dimensionally instead of allowing and supporting a more equal partnership development.

6.1.6 Operating in supply networks

The last theme cluster consists of views on supply networks and the network environment. Compared to other topics, the interviewees paid less attention to the issues concerning operating in supply chains in networked environment. The topics in question are of strategic level and consisted mainly views on managing networks (suppliers managing their supply networks and network roles) and collaboration among suppliers.

The suppliers saw a critical role they have in their network: for example, delays accumulate and cause problems to the MC, too. The chain must operate in agile and flexible ways. Collaboration with other suppliers was viewed as beneficial, because it enables new possibilities, access to new markets and im-proves the competitive advantage. Also, the suppliers acknowledge the need for networking with one's competitors, in order to maintain the competitive advantage in current markets. However, in many cases, the networking was still on a theoretical level: many suppliers had centralized operations and oper-ate without a broad supply network of their own. They found not being ready for collaboration, since they associated competition and even tough fighting with the collaboration with other suppliers. Also, potentials in networking were not yet thoroughly analyzed by the suppliers: they were unaware of other sup-pliers' characteristics and companies. One way to receive access to other net-works was old friends, which they find reduces risks when building relation-ships.

The MC expects suppliers to network and sees many added values emerg-ing from new networks (especially in the field of R&D). Nevertheless, they also

saw the risk of losing control in supply chains, when networks are expanding: the risk of losing confidentiality, not seeing the whole chain clearly and the increased strength of the supplier's network (growing dependence on supply networks) were seen as main threats. This refers again to the complicated concept of power and exerting it over suppliers: collaboration among suppliers can bring many competitive advantages, but it complicates the MC's ability to observe the supply chains on the whole.

6.2 Relationship characteristics reflecting enablers in dyadic relations

The next order of analysis is defining the relationship characteristics more specifically. From the interviews two different kinds of main groups arose: theme clusters concerning the dyad between the MC and the supplier (mainly internal factors) and theme clusters referring to the organization, its network environment and the business context (mainly external factors). The categorization is shown in Figure 9 below.

The categorization found consists of elements that are analogous to elements of the Partnership Model established by Lambert et al. (1996): themes, relating to factors surrounding the relationship itself, are called as partnership facilitators, environmental factors supporting the partnership development. Comparing with their study, facilitators similar to environmental factors are corporate compatibility, mutuality, symmetry, managerial philosophy and techniques, physical proximity, shared end user and prior joint history. Respectively, the data in this study did not cover the facilitators of exclusivity (focusing solely on certain partner, establishing a separate division etc.) and shared competitors (when both partners face the same competitor). The facilitators are especially critical in assessing the potential for a partnership. Further, elements found by Lambert et al. (1996) that are analogous to the dyad level (communications, trust and commitment) are defined as partnership components, which refer to the significance of the dyad themes, since the components "determine the type of relationship that is actually in place" (1996: 10).

In the Figure 11 the clusters of themes are listed (in the ranking order, according to their weight and frequency in discussions). As mentioned before, three main theme clusters reflected the topics related to the relationship and communication (dyad), whereas the rest three of theme clusters represent topics explicating the environment surrounding the relationship.
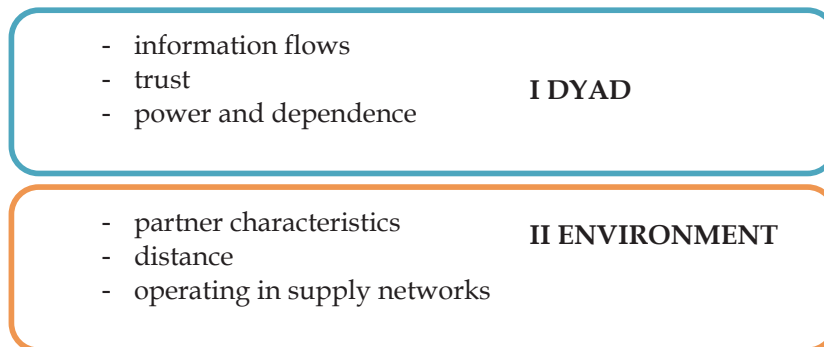
FIGURE 11   The theme clusters found regarding the main contractor – supplier rela-
                   tionships.

Splitting the groups of theme clusters into two, internal (relationship) and ex-
ternal (environment) factors may seem artificial because many themes can be
interpreted to cover both categories (as partner characteristics and information
flow). However, categorizing enables us to see the critical weight of the internal
factors pointed out in the data, since the most important theme clusters all con-
sider the mutual relationship instead of the factors coming from outside the
relationship itself. This refers to the significance of the "bilateral" factors that
exist and are formed by the actual relationship actors, the organization repre-
sentatives who conduct the everyday business in the relationship. Interestingly,
for example, factors indicating the ways to operate in supply networks, that are
also considered to increase the competitive advantage significantly, were found
quite unimportant.

        This is visualized in Figure 12. The figure shows the most important
theme clusters, information flows, trust and power and dependence that are
displayed in green, representing themes related to communication and more
internal factors of the supply chain relationship. The three theme clusters, cov-
ering more external factors of the relationship, e.g. characteristics relating to
business characteristics of the partner (size, technical solutions, production pro-
cess etc.), distance between the partners and supply networks and their features,
are displayed in orange.
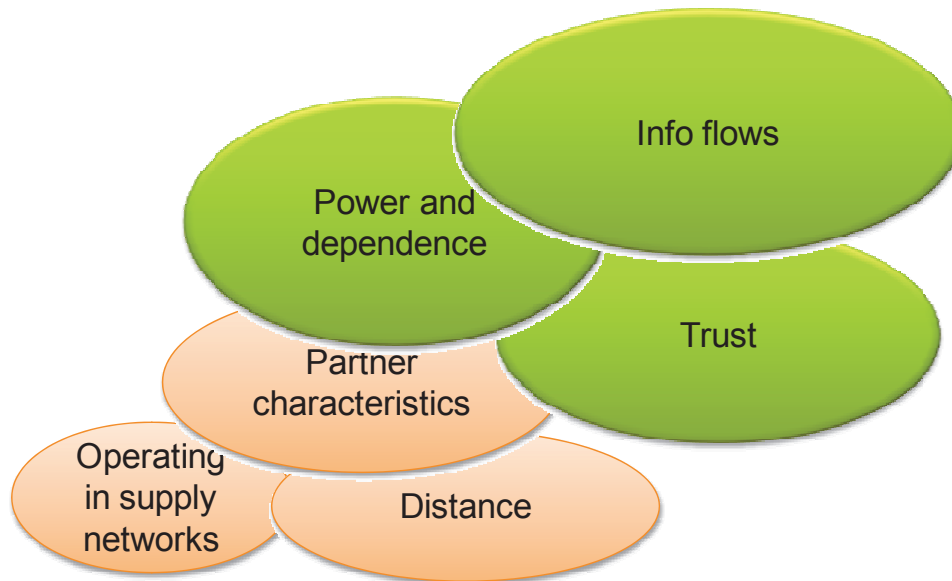
FIGURE 12   Weight and main overlaps of theme clusters.

The clusters reflect the *critical factors* existing in the communication in supply chains: the factors concerning relationship, bilaterally and internally inside each relationship are weighted as the most important and relevant in supply chain relationships. These critical factors come from daily business operations, reflecting the strategic basis of the organization. In other words, the categorization made based on interviews reflects the most important relationship characteristics, e.g. the potential success factors that can be found and processed in supply chain relationships. Partnership characteristics that were defined in Chapter 3.3.4, had similarities to the characteristics found based on the data. Commitment, coordination, trust, communication quality, participation and joint problem solving were weighted and transparent in the answers, as well as dependence, information sharing, flexibility and the consistency (length) of the relationship had a major role in the relationship analysis. However, the data in this study contributes an extended view on relationship and its characteristics, as it enables us to process relationships and their characterizing factors more specifically on different levels. Therefore, instead of calling them as partnership characteristics, in this study, it is relevant to use the definition of relationship characteristics, covering a variety of theme clusters that explicate relationship and its environment. This is especially critical when assessing the success factors in partnership relationships in greater detail. Because of their multidimensional nature, the relationship characteristics found can provide insights into different levels concerning:

- organizational policies and their support to the relationship development and implementation (strategic level)

- planning and implementing operations in relationships (tactical and operational level)

- an individual actor's role as a relationship actor (individual level)

- factors surrounding the SC relationship (supply chains and networks) and in the market environment (global economy) (contextual / environ-mental level).

Relationship characteristics found refer to the determinants in collaboration in supply chains in a networked environment, e.g., the forms and the ways supply chain collaboration takes in relationships. Relationship characteristics are like networks: interconnected and overlapping, which makes the analysis more complex. In order to gain tools for deeper relationship assessing, it will be useful to process the characteristics further.

The results on the relationship characteristics imply the relevance e.g. the critical role the strategy has from the viewpoint of supply chain actors. Many challenges the supply chain actors meet are linked with the strategy concept and strategy implementation: as an example, a possible lack of strategic guidelines when operating in supply chain relationships, a variety of interpretations on strategic outlining or different (not negotiated, even ad-hoc) ways of working. In addition to describing the relationship characteristics, it is critical to view them from the perspective of strategic decision making, as, for example, issues concerning the development of dyadic relationships between the MC and its suppliers.

7 FINDINGS II: TRANSFERRING RELATIONSHIP CHARACTERISTICS INTO ENABLERS AND BAR-RIERS

In the previous chapter, the relationship characteristics were represented and categorized (R.Q.1.1). Also, they had certain interrelatedness and weights that were defined (R.Q. 1.2.). The findings point out valuable information on factors characterizing current dyadic relationships, but it is necessary to assess them and their meaning more specifically. The relationships characteristics provide a good foundation in supply chain relationships assessment. From the perspective of a procurement management, the relationship characteristics presented show the main themes that influence in dyadic relations between the MC and its suppliers. However, more specifically, what is needed is to open their meaning when dyadic relationships and development of dyadic relationships are concerned. That way it would be possible to address the actual factors behind the themes, such as, for example, the level of trust, the effectiveness or ineffectiveness of information flows etc. Therefore, it is necessary to examine *the supporting or prohibiting role of the relationship characteristics in the development process of supply chain relationships* (R.Q. 1.3.).

7.1 Levels and positions, necessary to include for further analysis

Managing supply chains effectively is considered to be strongly linked with better firm performance that is the focus of strategic management. The strategy research studies individuals, organizations and environment, when aiming to define the reasons for outperformance. (Ketchen & Giunipero 2004.) The realization of strategic issues should be the basis for all the actions that take place in supply chain relationships. In order to find the main elements, characterizing, enabling or prohibiting the relationship performance and development, the factors at individual, organizational (that is, strategic) and environmental levels are necessary to be taken into account.

Since the strategy sets requirements for all the levels covering supply chain relationships, it is necessary to analyze its meaning and implementation in partnerships. The received knowledge on relationships and their status reflects the ways how the strategic message is delivered and received. In other words, since the strategy means different activities at different organizational levels and is interpreted variously, it is important to take all organizational levels into account: the strategic, tactical and operational levels.

It is critical to analyze the relationship characteristics from the point of view of strategic design and the planning level (that is, directors of the business line or business function of the organization), of tactical planning and the implementation level (e.g. the management level, procurement managers, sales managers), as well as from the viewpoint of the operational level (buyers, sellers, etc.). If all the necessary levels are not included in the analysis, results received will remain irrelevant and unconnected to the strategic development inside the organization and between the partners in question.

Figure 13 below displays the levels that are necessary to be taken into account when analyzing relationships. In addition to the three levels (strategic, tactical and operational) in relationship analysis, it is critical to assess individuals (relationship characteristics related to individual actors and their activities), organizations (relationship characteristics related to organizations and organizational level) and the environment (relationship characteristics related to supply networks and challenges in global economy). As a result, they provide valuable information on relationship elements.

FIGURE 13   The levels critical when studying dyadic relationships in supply chains.

From the organization's point of view, a strategy forms the core, surrounded by other levels: tactical, operational and the environment around the strategic unit, e.g. the organization. Importantly, every layer interacts with each other: environmental factors significantly operate as a changing force when the company's strategic level is considered, for example, which markets the organization will focus on. On the other hand, buyers and sellers have direct effects on environmental issues, if concentrating on green supply chain management, when deciding on logistics etc. In an organization, communication, planning, strategy design and other processes should be bottom-up as well as top-down, e.g., different levels interact in constant process with each other.

In addition to the levels presented above, it is important to return back to the supply chain levels and to view more closely positions the chain actors have. The 2nd level supplier has reached a strong position and has become more critical than before. The 2nd level supplier can, if acting opportunistically, break the network structure and partnership by providing its segmented and critical services directly to MC's end customer. Therefore, a partner selection made by the 1st level supplier concerns the MC significantly, as well as the way of working of the 2nd level supplier in the chain in general. This refers to a need for being aware of the chain actors, starting already from the 2nd level supplier and ending to the MC's end customer. Interestingly, according to Fawcett & Magnan (2004), few companies have mapped their supply chain, as well as considered the role of "suppliers' supplier(s) or customers' customer(s). This is a critical target for development, which provides valuable information on competitive advantages of supply chains and would support the strategy designing and updating processes (whether the strategy fit could be improved). As Fawcett and Magnan (2004: 68) find, mapping would help the chain understand:

- "the nature of channel costs and profitability

- critical success factors throughout the chain

- existing and emerging technologies

- important customer linkages

- as-is value-added roles and

- should-be value added roles."

As mapping would bring more rationalized knowledge and competitive benefits, it would be the first step for further characterizing the chain and assessing the performance in the chain. Especially, in the chains where the 2nd level supplier has a strengthened position (for example, a unique asset the supplier is providing or a biased, one-directional dependence relationship), it is vital to invest in deeper collaboration from the MC's point of view. Respectively, successful downstream firms conduct assessing and development activities (score-

cards, benchmarking diagnostics, business reviews) to be able to communicate, assess and develop their operations upstream (Fawcett & Magnan 2004).

In other words, mapping the "extended" supply chain is highly beneficial in order to acknowledge actual and potential competitive advantages the supply chain has as a whole. In this study, the focus stays in dyadic relationships, more specifically, in partnerships between the MC and its key suppliers. By analyzing and anatomizing the relationship characteristics further, it is possible to point out success factors that can be identified (and some possibly even duplicated) throughout the supply chain.

7.2 Transferring relationship characteristics into enablers and barriers

Based on current challenges and the complexity of factors surrounding organizations, the relationship characteristics have become even more important by helping reflect the factors the supply chain actors face in everyday business. They provide information vital for updating the strategic targets in procurement (or in sales, from the suppliers' point of view) and link strategic level into operative activities by describing the reality in relationship collaboration. However, in order to process relationship characteristics further, it is useful to analyze them from the point of view of performance. Therefore, the RQ 1.3 is written as follows: *Which characteristics may enable and support and which may prohibit the relationship development?*

Previously, relationship characteristics were defined and categorized according to their contents (RQ 1.1) and their level of individuality or corporate/strategic content, as well as according to their interrelatedness and weight (RQ 1.2). Further, it is necessary to identify relationship enablers and barriers, according to their helping and supporting or preventing nature, when performance and development are considered. Defining relationship enablers and barriers helps chain members analyze their current relationship status systematically and with a practical but simultaneously strategically justified view. In other words, with the help of defining relationship enablers and barriers, it is possible to reframe critical factors in communication in dyadic relations. Reframing, that is, defining them more specifically allows us to focus on currently critical issues: it provides a possibility to take a systematic look at concrete dyadic relationship situations, to find the development foci and, if necessary, to redesign current strategic policy background.

Although collaboration and partnerships are mainly seen as providing added values and benefits for supply chain actors, some researchers (Burnes & New 1997, Boddy et al. 2000) have stressed the negative or insufficient results of supply chain collaboration or lack of competitive advantage of supply chain collaboration as a whole. As a result, a set of barriers in SC collaboration have been identified. Collaboration in supply chains and partnerships are not an au-

tomatic system of win-win cases and joint positive results with long-term bene-
fits. Therefore, it is necessary to create a list of main factors enabling or prevent-
ing supply chain performance and relationship development. Also, this clearly
shows the evidential need for systematic performance assessment in order to
tackle the possible barriers and to boost the available relationship enablers.

Since the aim in defining enablers and barriers is to receive more
knowledge on ways of strengthening and increasing success in dyadic relations
in supply chains, it is critical to remember the threat of an egocentric view, pre-
viously pointed by Håkansson & Ford (2002). If the process of development is
purely seen as activities conducted only by the MC, the view and the ways of
development may be biased. Also, the influencing possibilities the MC has con-
cerning the network around it may be exaggerated. Therefore, it is vital to stress
the two-way communication and joint development. In other words, when ena-
blers and barriers are concerned, it is critical to find out factors that especially
involve both parties.

Enablers and barriers as concepts refer to the dynamic development of re-
lationships and factors that influence relationship performance. Akkermans et
al. (1999), when considering organizations' goals in international supply chain
management implementation, have used a categorization of barriers and ena-
blers as synonyms to roadblocks and roadblock removers. Barriers inhibit goals
to be realized, whereas enablers are regarded as "alternative techniques", uti-
lized by the operational management. This is analogous to this study, since the
concept of a partnership and collaboration can be seen as a common road where
to proceed, while enablers and barriers provide an enabling or blocking impact
on collaborative activities. The strategy, showing direction for the partnership,
works as a context for enablers and barriers that can be interpreted as realiza-
tions of strategy implementation along the road.

7.2.1   Levels critical when presenting relationship enablers and barriers

Relationship characteristics were divided into strategic/corporate level and in-
dividual level characteristics. Leveling factors gave implications on what to
concentrate on when aiming for relationship improvement and development.
When analyzing characteristics further, factors emerging on an individual level
can either be a consequence of a vague or insufficient strategy implementation,
it can reflect the dyadic relationship, or it can relate to skills and competencies
the individual actor possesses or is lacking. Therefore, the division into indi-
vidual actor and organizational levels when establishing relationship enablers
and barriers was found to be irrelevant, not providing any added value for fur-
ther development and analysis. The individual level issues will mostly be found
on operational level, when the dyadic relationship and two parties, also as indi-
viduals, are concerned. Additionally, the theme category of Skills and Compe-
tencies of supply chain actors cover the individual actors' level, when compe-
tencies and resources are concerned.

Levels are strongly interconnected: strategic level issues are necessary to
be discussed and accepted at the operational level, which enables that "different

forms of relationships can exist at these different levels" (Burnes & New 1997: 12). In following chapters relationship enablers and barriers are categorized according to the levels, existing in business management in general. The strategic, tactical and operational levels clarify the level each factor represents. The strategic level refers to issues that have to be considered when defining the main business idea, strategy and elements behind the success of the relationship in the long-term scope. This can refer to the supply chain management strategy (or, from the supplier's point of view, the company strategy, sales strategy etc.), relationship strategy or other strategic elements critical when viewing supply chain relationships. The tactical level focuses on annual aims and operations that are implemented based on the strategy and according to the annual planning and budgeting. The third level, the operational level covers everyday actions needed, in order to conduct business in supply chain relationships.

When listing relationship enablers and barriers, the level of environmental factors appeared to be multifaceted. Factors emerged in the surrounding business environment and the global market concern strategic level and strategic level actors critically. For example, the quality and quantity of Finnish suppliers and their meaning in partnering is a factor that needs to be taken into account when designing strategic level principles. Likewise, current trends in global markets, threats of possible recession and organizational changes are in the strategic focus. Therefore, the environmental level and its' enablers and barriers are integrated with the strategic level issues.

The dyadic level has also multifaceted features. Dyads as partnerships relate to relationships and collaboration as a whole. It is the context where relationship enablers and barriers exist. Also, the dyadic level can be interpreted as operational level activities: the concrete activities between two actors, two individuals. As Table 15 below summarizes, in this study, a dyad as a definition of a separate, operational level will be excluded, since it would not contribute any added value to the analysis. The dyad or a dyadic relationship will remain as a framework where roadblocks and roadblock removers are located.

TABLE 15   Levels critical in supply chain assessment and their correspondence with levels shown in following tables of enablers and barriers.

Levels in the literature	Levels in the thesis	Levels in the literature		
Strategic	Strategic			
Environmental	Strategic	Organizational		Dyadic / Dyad
Tactical	Tactical			
Operational	Operational			
Individual	Operational			

As a result, the discovered enablers and barriers highlight the possible success factors (supporting elements) or failing points (inhibiting elements) on strategic, tactical and operational levels.

7.2.2 Enabler and barrier categorizations leading to the strategic development

Enablers and barriers are critical factors influencing performance as promoting or complicating successful performance in supply chain relationships. Especially, when aiming for partnerships, relationship development (from coordination into deep collaboration) becomes a critical "area of performing". Akkermans et al. found that many barriers were "embedded in the organizational structure". This refers especially a short-term view in general perception, failures of top management and visible or invisible silos between different functions. Also, they stress the systemic nature of roadblocks: they become stronger when they are active and can strengthen other roadblocks, as well. (Akkermans et al. 1999: 579-580.) However, the same can be considered to happen with enablers, which is why it is essential to activate and boost the available enablers existing in relationships. In this study, enablers and barriers emerge from the dyadic relationship and partnership analysis, whereas Akkermans et al. (1999: 580) approach the theme from the level of international SCM implementation, describing an "initial exploratory theory" and lacking empirical testing. Despite different approaches of the same question, challenges or possibilities lying in relationships relate to the relationship's success.

Many researches focus on explaining the phenomena of creating alliances or describing partner characteristics and the outcome has remained at a very conceptual level (Doz 1996). Therefore, it is necessary to view enablers and barriers more closely and analyze them further. Mapping relationship enablers and barriers, existing in a supply chain relationship, helps supply chain members focus on necessary areas of development. Respectively, it gives affirmation of factors that the success is based on. Enablers and barriers give indications on themes that have to be included when evaluating the joint performance in a relationship: these themes constitute the joint performance, that is, they indicate the targets of evaluation, critical in supply chain relationships. Through this defining relationship enablers and barriers can act as a starting point when creating a model of joint performance assessment.

In the following chapters, the outcomes concerning Metso's and its suppliers' relationships and literature on supply chain relationships and performance drivers and challenges are integrated into tables of enablers and barriers of supply chain relationships. By using the same theme clustering as when representing the relationship characteristics in chapter 6, tables present enablers and barriers relating to:

- Information flows
- Trust
- Power balance or bias and dependence
- Partner characteristics
- Network environment.

The theme clustering presented emphasizes the factors critical in relationships (when working in or aiming for partnerships) and acts as a logic continuation. It maintains the focus in relationships covering the essential themes of analysis when considering relationship development and performance in general, from dyadic relationships as far as to network and business environment.

Since the theme clusters covered a variety of enabling and challenging factors, it is beneficial to further divide the themes into two groups:

- Relationship Management

- Supply Chain Management.

By providing the division above, it is possible to "anatomize" enablers and barriers from the management point of view. This is especially critical in a networking environment in deeper supply chain relationships. Hallikas et al. (2004: 51) point out that "as the development of networking has led to an increase in the size of the responsibilities of the primary suppliers, they quite often have to face new management challenges, as well". Respectively, with deeper relationships the main contractor experiences new challenges when managing the supply chain and especially the relationships it is more dependent on. Vesalainen (2006: 123) emphasizes the importance of relationship maintaining and development that should be visible in strategic decision making, as well: in partnerships, it would be beneficial to have a "relationship owner" who would focus on relationship management especially. Therefore, the aspect of relationship management and its elements have to be taken into account.

Thus, categorizing provides tools for further relationship analysis and strategic contemplation. In the following chapters, relationship management covers factors referring to skills and competencies owned by the relationship actors (or not possessed as a barrier), as well as communications, existing (or lacking) in the relationship. Enablers and barriers in supply chain development have been studied from different viewpoints: from the chain's perspective (viewing a greater part of a chain: Barratt & Oliveira 2001, Fawcett & Magnan 2004, Brewer & Speh 2000, Gligor & Holcomb 2012) and from a dyad's or a relationship actor's point of view (examining the relationship, mostly between the main contractor and its suppliers: Cooke 2003, Hallikas et al. 2004). In lists of enablers and barriers, the theme of Supply Chain Management covers factors related to procurement, resources available and needed in the supply chains, as well as partnering and networking. Relationship management issues can be interpreted to be included in (or are overlapping with) the area of SCM, but the focus is mainly in managing requirements (prerequisites) for a successful relationship.

The following enablers and barriers are a result of returning to detailed analysis of relationship characteristics (interviews, their outcomes, mind map categorizations based on them) that was further analyzed from the viewpoint of the effect on the performance in supply chain relationships. The author aims to present the factors as reflecting both parties. However, the categorization is

partly based on viewing issues from the MC's point of view: for example, enablers and barriers may be included under a paragraph of supply chain management, which usually refers to the requirements the main contractor has. Despite the categorization, it is important to notice, that activities can be interpreted to belong to the supplier, as well. For example, asymmetry can be used as a source of power balance on behalf of either MC or the supplier, although it is categorized under SCM (in the table of enablers and barriers caused by power balance / imbalance).

In the analysis, it is important to pay attention to the contents of each enabler and barrier. They may also turn into the opposite factor, from an enabler to a barrier or vice versa, if they are not strategically and practically well implemented or realized. For example, if a lack of communication strategy will be blocked by designing a thorough and professional strategy but its implementation stays incomplete, it does not provide the desired value and may complicate everyday operations further. Everyday operations have to reflect the strategic policies chosen in the relationship. In other words, it will be too simplified an interpretation if transferring a barrier into an enabler will automatically remove the roadblock and enable actors to reach for a better result. Boosting the enablers or tackling with barriers require comprehensive work on all occasions. There is always a need for analyzing reasons of existence of each barrier or enabler; otherwise it is not possible to utilize the valuable information provided by them.

7.2.3 Information flows enabling or prohibiting collaboration

The following tables present the factors, which, in the relationships in question, would support or inhibit the relationship development further. It is important to notice, that many factors below have "the other side of the coin" as an opposite: for example, as one-way information flow reflects a significant barrier in the relationship, the two-way information flow acts as a factor enabling effective information sharing. The categories are not presented in a ranking order of any kind. Also, enabling and inhibiting factors relate and are overlapping to other categories and themes. Table 16 below represents factors that can support or prevent information flows in MC – supplier relationships.

TABLE 16   Relationship enablers and barriers relating to information flows.

ENABLERS	BARRIERS
1. RELATIONSHIP MANAGEMENT *strategic level* - well-defined relationship management strategy - well-defined human resources strategy - clear communication strategy *tactical level* - skills needed in negotiation, problem solving, relationship building - planning communication activities based on sufficient strategy *operational level* - creating mutual language - mutual learning - fluent information channels in forecasts, changes in supplies or demands etc. - sufficient communication activities with sufficient tools: with better measurement data a realistic and accurate updating	**1. RELATIONSHIP MANAGEMENT** *strategic level* - lack of a well-defined relationship management strategy - lack of a well-defined human resources strategy - lack of a clear communication strategy *tactical level* - lack of skills needed in negotiation, problem solving and relationship building - steering, controlling information *operational level* - low level of reporting, documenting, feedback - delays in information flows, inaccuracy - lack of openness - vagueness in using e-tools
2. SUPPLY CHAIN MANAGEMENT *strategic level* - clear strategic decisions on communicating with suppliers and communication tools used in procurement - sufficient communication strategy in partnering and target setting *tactical level* - investing time in meetings - investing in informal meetings - investing in joint e-tools - jointly communicated long-term views with stakeholders - investing in team-focused organization *operational level* - clear instructions and availability of tools in communications - sufficient amount of meetings in order to follow strategic decisions - building cross-functional, inter-organizational teams	**2. SUPPLY CHAIN MANAGEMENT** *strategic level* - rapid, unexpected organizational and/or global changes - strategic aims not communicated to and with partners *tactical level* - rapid, unexpected changes in roles, responsibilities, key personnel - focus in short-term planning - remaining in functional silos *operational level* - vagueness in using e-tools - unclear and changing assignments - lack of joint information sharing concerning aims in partnership - "fire-fighting"

Steering and controlling information flows act as a barrier, when it inhibits sharing the information critical for one party or the other. Also, the lack of a systematic approach in reporting, documentation and giving and receiving feedback is preventing efficient information sharing. This refers to a need for an open and systematic dialogue and consistent use of communication tools. The strategic level sets a foundation, from where individual actors should be able to receive support to everyday situations in partnerships. The communication strategy provides a valuable aid, giving individuals the necessary principles and rules to share and deliver information. As one of the main gaps can exist in timing and steering information, as in deciding on the sufficient information contents, the existence and use of a communication strategy will replace a significant barrier existing currently in supply chain relationships.

Power balance or bias can be seen as a significant factor in relationship characteristics, which is linked with all clusters of themes on some levels. The lack of information sharing is connected to steering and controlling information as a sign of maintaining the power bias that may have existed in more vertical supply chains. As Brewer and Speh (2000: 89) find, "the extent to which companies in a supply chain are sharing vital information sets is an important indicator of the extent to which firms are actually practicing SCM". The possible communication strategy and systematic information sharing would clearly reduce the fear and the feeling of an unequal relationship. Additionally, team building cross-functionally and inter-organizationally is an enabler of successful partnering: teams in collaborative improvement, problem solving, supplier development etc. indicate success in joint operations, as well as measuring performance concerning the probable success of collaborative initiatives (Fawcett & Magnan 2004: 71-72). This reflects a high level of trust in the partnership, since inter-organizational teaming requires a high level of knowledge sharing and allowing access to necessary information. According to Fawcett & Magnan (2004: 73), information sharing takes place in a comfortable and confident atmosphere, where people rely on appropriate use of information shared.

SCM principles, implemented by the procurement department, define resources (financial and other) that are spent on partnership collaboration: the share of working time, spent on travelling, meeting partners and organizing visits, equipment available etc. On the suppliers' side, the area belongs to the management (generally or in sales). As relationship building and maintaining requires especially much time and effort, it is important to decide on adequate and efficiently targeted resources.

In addition to the challenges in resources and communication, organizational changes, due to the status of the global economy, for example, a recession or structural changes internally can create challenges in relationship building. They can cause either changes in personnel or wider in the whole supply chain, which in both cases effects the decisions in supply chain management or in supply organizations. The SCM or the general management level, deciding on budgeting (resources) and participating in strategic design process, have a critical role as supporting or inhibiting relationship activities at operational level.

Unexpected or even constant changes in personnel and in positions may cause challenges and problemacies in partnering and fluent information sharing. Organizational changes cause practical problems in finding and contacting new boundary spanning people, discussing responsibilities in cases in product revisions, schedule delays etc. This reflects the need for a clear channel from the strategic level (decisions made) to the MC-supplier interface (practical solutions of timing, number of revisions etc.).

Despite the possibly strengthened organizational communication contributed by the communication strategy, the need for personal contacts and personal communication remains critical; defining key boundary spanning people (and "rooming-in" the new key people in organizational changes) clearly would increase the effect of systematic personal communication as one of the enablers in the relationship. It is necessary to clarify the contact building, especially in a networked structure, where relationships are diversified and complex. For example, decreasing the total amount of relationships is often considered as one benefit of partnering, as the main contractor is considered to be in contact only with the 1st and the 2nd level suppliers. Along with the decreasing the quantity of relationships, the quality of the remaining relations with the chosen partners becomes critical. Therefore, in order to avoid randomness in relationship building and contacting, it is essential to include a relationship analysis as one of the factors supporting positive joint performance.

The competence of collaboration actors in key positions becomes critical: individual skills in negotiating, creating a positive atmosphere and in contacting have a vital effect. This requires competence mapping, defining current competence levels and consistent training of skills that are most critical in partnership activities. This refers to a need for a human resources strategy from a SCM's point of view in relationship development.

Akkermans et al. (1999: 572-573) suggest a preliminary model of "virtuous and vicious cycles" that can frustrate or support strategy implementations in international SCM. A vicious cycle, produced by low levels of communication and trust in international SCM: initially, partners may not have common aims and targets (sometimes caused by functional silos thinking in organizations), which influences the level of openness in communication. If the level of trust remains low (not sufficient in order to exchange the information critical in the relation-ship), it leads to insufficient communication and lack of synchronization when exchanging key information. Further, this may lead to "fire-fighting" mode, where the supply chain is operating only in short-term focus. (Akkermans et al. 1999: 572-573.) As a result of this vicious cycle, from a MC's point of view, the fire-fighting mode can appear in ways of managing the supply chain (if collaboration with suppliers is realized mainly as a need to put out the most critical fires, caused by the supplier). From a supplier's point of view, the fire-fighting mode can mean contacting the MC only in cases of urgency. On the whole, pointing out enablers and barriers clearly shows the need for strategic approach with several different themes.

7.2.4   Trust enhancing and enabling the relationship existence

Trust has various interpretations and realizations when discussing collaboration in supply chain relationships. It is strongly connected with the cultural concepts that define untrustworthy and trustworthy characteristics. However, the concept of trust has to be included and further explained in strategic policies. Table 17 below displays factors supporting or preventing trustful supply chain relationship.

TABLE 17   Enablers and barriers strengthening or decreasing the level of trust in supply chain relationships.

ENABLERS	BARRIERS
1. RELATIONSHIP MANAGEMENT	**1. RELATIONSHIP MANAGEMENT**
strategic level	*strategic level*
- sufficient relationship management strategy - long-term orientation and consistency in relationship and communication strategy	- lack of human resources strategy, focusing on increasing cultural awareness (cultural stereotypes when reducing trust) - vague (or no) communication strategy
tactical level	*tactical level*
- skills needed in relationship building - relationship building with systematic and open communication - guidelines for relationship management and contacting	- lack of sufficient training investments and planning - lack of consistent communication planning (decisions on informing and contacting)
operational level	*operational level*
- personal contacting in critical situations - friendship enhancing equality - joint experiences - openness enhancing dialogue - transparency in activities, informing partners sufficiently	- biased views on cultural characteristics - lack of positive jointly reached results - in contacting: too open a communication as a sign of distrust
2. SUPPLY CHAIN MANAGEMENT	**2. SUPPLY CHAIN MANAGEMENT**
strategic level	*strategic level*
- aiming towards consistency, commitment and fairness - creating and enhancing stakeholder confidence - strong commitment and participation at the management level - jointly created basis for partnership	- lack of strategic tools that support the long-term view - lack of strategic commitment with the partner - lack of sufficient trust and support from stakeholders and top management - lack of commitment, interest and vision
tactical level	*tactical level*
- investing in meeting - contract as a sign of consistency - congruent planning on budgeting and operations (shared by both partners)	- vagueness in the meaning of a contract - controlling partner – a sign of distrust - lack of sufficient cost awareness and realistic budgeting
operational level	*operational level*
- frequency in visits - partner's flexibility - strong joint confidence in future success, based on jointly acknowledged benefits	- hasty and vague decisions, competitive bidding without following the contract - management's message concerning goals and reasons of existence to partner company's personnel is insufficient - vague and fractured ideas of reasons and benefits from partnering - little or no confidence in future success in the relationship

Analogous to enablers and barriers emerged in information flows, the factors prohibiting and supporting relationship building relating to trust reflect the critical role of communication strategy. There can be a variety of interpretations substituting for organizational guidelines and strategic policies. For example, the frequency in communication can even be interpreted as a sign of dishonesty (by trying to "patch up" holes that were caused by possible delays or other problems in production) and the constant contacts made by the supplier can be found irritating and reducing the feeling of open and honest relationship. Contrary to this, suppliers may consider intensive contacting as a way of working that is valued by the MC. The example possibly reflects cultural differences but shows the importance of jointly discussed and set rules in communication, based on strategic principles. As Akkermans et al. (1999: 571) state for international supply chain management: "confidence in the other party's best intentions was seen as a critical prerequisite for successful ISCM as well". The vagueness decreases the level of trust, shown by stakeholders in the supply chain performance. This is connected with existence of confidence concerning joint future operations: the long-term scope should be communicated and shared with the chain members and other stakeholders, in order to enhance the trust in joint performance and success.

In this case study, many elements of communication strategy are visible in everyday collaboration: the emphasis of long-term activities together with the partner, informing partners on possible future projects, acting transparently and openly towards the partner. However, these enablers can relate to individual and personal ways of working and thereby not the jointly decided ways of partnering that would support the partnership development. Positive atmosphere supports the feeling of friendship that can, on the other hand, be interpreted as a barrier (for example, when making decisions on financial issues). Relationship building is connected with the frequency in visits and with the tactical level in decisions made in budgeting when deciding on resources used for partner visits. The phase of the relationship (starting the partnership or having a long joint history) and the status in the production process (critical points in interpreting revisions, applying new techniques, finishing etc.) influence the frequency and amount of face-to-face visits. This underlines the diverse sources where the sense and level of trust can arise and the vital role of partners' support in critical moments in operations.

The lack of commitment and trust from the personnel's point of view is critical, whether it is committed with the joint goals of partnership and supply chain management. As Akkermans et al. (1999) point out, the lack of analysis, support and contribution of the top management to sufficient SCM analysis (costs, goals and benefits) creates a distinct threat in partnering. A lack of goal congruence and insufficient analysis concerning benefits and goals in partnering is a fundamental barrier to effective supply chain performance, which underlines the critical role the top management has as a trust and commitment holder especially in the partnering phase. From the suppliers' point of view, the way the trust is communicated, is significant, also among suppliers who are not

considered as 1st tier partners. Suppliers, ranked currently in lower levels in the chain, can in the future emerge as potential and vital partners (Fawcett & Magnan 2004). This emphasizes the need for fairness and transparency with all chain members.

The theme of trust was found to be one of the main clusters in relationship characteristics. It shows the importance of cultural knowledge that every actor should possess in different levels covering the relationship development and maintaining. In addition to the individual level of knowledge, the activities and decisions made by the procurement management support or inhibit the actors' feeling and level of trust. For example, the way contracting and its contents are communicated, interpreted and implemented. The role of a contract for each party varies which is why it is important to clarify its purpose and contents. That way contracting can act as a significant enabler that strengthens the trustful relationship and increases the mutual feeling of fairness and ability to approach problematic situations in the relationship. In other words, again, decisions on ways and contents in contracting at strategic and tactical level have a direct link to enabling the operational interface into better results.

7.2.5 Power balance or bias and dependence as enabling and inhibiting factors

Power as one of the main theme clusters can clearly be seen as an enabler or in many cases prohibiting genuine partnership creation. Views on biased power relations, still existing in the industry, conflict with the aims of creating a true and trustful partnership. Also, power bias acts as a barrier in networking by delaying or prohibiting the true network creation. As mentioned before, the history of vertical supply chain structures can create challenges in power relations. Table 18 below represents the enablers and barriers that relate to power relations in supply chains.

TABLE 18   Power and dependence supporting or preventing supply chain relationship performance.

ENABLERS	BARRIERS
1. RELATIONSHIP MANAGEMENT *strategic level* - clear human resources strategy, including partnering skills - sufficient and proactive people management - clear communication strategy: increasing transparency, supporting the beginning of the relationship - creating a joint reputation - promoting fairness in all strategic decisions *tactical level* - investing in training of partnering skills - enabling joint communication planning *operational level* - positive atmosphere, supporting the feeling of equality and supplier satisfaction => relationship driven approach - providing influencing possibilities during negotiations - common terms and language in avoiding different interpretations	**1. RELATIONSHIP MANAGEMENT** *strategic level* - lack of strategic decisions focusing on partnering skills - ignoring the critical role of personnel in power balance development - nonexistent or vague policies in communication strategy: no focus on partnerships with equal and open communication *tactical level* - lack of investments and planning in skills needed in collaboration - lack of joint communication planning *operational level* - squeezing and competitive bidding as main skills and methods in collaboration - ignoring communication principles promoting power balance - not communicating customer expectations and respect to partners
2. SUPPLY CHAIN MANAGEMENT *strategic level* - mutual dependence enhancing joint learning, information sharing and innovating (in R&D, engineering etc.) - inter-organizational risk analysis (Hallikas et al. 2004) - defining clear partner selection criteria: reasonable share of dependence, in - turnover, operations etc. *tactical level* - sharing power as a sign of mutuality and trust (in R&D, engineering etc.) - strengthening existence and learning via partnership, increasing power balance *operational level* - jointly approaching the end customer - sharing and giving responsibilities equally - creating joint activities from the beginning	**2. SUPPLY CHAIN MANAGEMENT** *strategic level* - asymmetry used as a source of power imbalance - power imbalance creating distrust and fear of opportunistic behavior - critical network role when the partner is behaving opportunistically - unidirectional dependence reducing equality and ability to influence *tactical level* - control as a sign of biased power balance and opportunistic behavior - lack of joint planning in partnering development *operational level* - individual and separate initiatives towards the end customer - vague responsibilities and squeezing reducing fairness and equality

The levels of information sharing and open communication are linked with the level of power balance, which clearly shows the interconnectedness of relationship characteristics. Communication efforts can prove to be insufficient and negative, if the relationship is not found as equal and fair. In addition to strategic tools of communication strategy and its implementation, the atmosphere existing in relationships either promotes or inhibits efficient communication: a feeling of joint efforts, joint reputation and influencing possibilities of both parties enhance the positive atmosphere and willingness to collaborate.

Since the fear of opportunistic behavior acts as a significant barrier in partnership development, there should be jointly stated targets supporting commitment and inputs from both partners. A higher level of mutual dependence can also support relationship development and reduces the fear of "cashing in". As Hallikas et al. (2004: 51) state: "as the suppliers make investments to satisfy the main contractor's anticipated demand they also carry part of the demand risk of the main contractor". Transfer of risks is a cause emerging from deep collaboration. Also, as Hallikas et al. (2004) find, it is critical to assess the risks arising from partners' own organizations and environment surrounding the SC relationship, both individually and jointly.

Joint reputation in front of end customers nurtures joint problem solving and R&D in customers' favor. Further, feeling of equity in the relationship (emerging based on power balance or despite the power imbalance) is a clear enabler towards successful relationship development and provides a higher level of supplier satisfaction. Supplier satisfaction has traditionally been ignored when considering supply chain relationships. However, it should be a critical theme when analyzing performance in supply chain relationships.

Fawcett & Magnan (2004: 73), emphasizing the role of personnel as bridges to collaboration, find "proactive people management" as one of the success factors as decreasing the level of willingness to inhibit supply chain development and initiatives. This relates to power relations, too: people with an insight into benefits and added-values emerging from power balanced partnerships promote equal relationship activities in everyday operations.

Sometimes reasons for partnering and collaboration appear to be vague. The ability to compete in industrial networks provides acknowledging and defining reasons for partnership existence and partner selection criteria. The level of dependence and its one- or bidirectionality (especially in cases of asymmetry) can clearly enable or prohibit the positive development in relationships. The SCM policies have a critical role in enhancing or decreasing the power bias when deciding on ways of operating: whether to control and stress the possible asymmetry or to find collaborative ways reflecting the willingness to reach the power balance. A strong enabler to diminish the asymmetry is a clear manifestation of mutual dependence and fairness in stating that partner's strengths create a vital part of other partner's success. Communicating the main enablers clearly with the partner can significantly reduce the power bias that has in many cases emerged due to lack of sufficient partner discussions.

7.2.6 Partner characteristics as enablers and barriers

Partnering and defining the required characteristics that partners must fulfill is a challenging process. Traditional companies with a long history in the market may have problems in adjusting and adapting to the agile way of performance that the networking and effective supply chains require. Enablers and barriers that refer to partner characteristics are represented below (Table 19).

TABLE 19   Enablers and barriers concerning partnership characteristics.

ENABLERS	BARRIERS
1. RELATIONSHIP MANAGEMENT *strategic level* - strategic decisions on core competencies - innovative newcomers creating and updating added values and SC performance - clear comm. strategy consisting of benefits both partners gain - communication as a vital part in business culture - thinking collaboratively in one's own organizational culture (Cooke 2003)	**1. RELATIONSHIP MANAGEMENT** *strategic level* - lack of strategic discussion on needed competencies and skills of personnel - non-out-of the box thinking - lack of sufficient communication strategy
tactical level - cross-functional collaboration in investment and budget planning - communication as a part of long-term planning in relationship building	*tactical level* - functional planning (inside the silos) - no investments in communication
operational level - fresh ways of approaching the partnership operations - cross-functional career paths - communicating with clearly defined responsibilities and partner benefits	*operational level* - operating strictly in silos without innovating with partners - vague and inconsistent communication - ignoring the importance of emphasizing partner's strengths and reasons for collaboration in the beginning in communication
2. SUPPLY CHAIN MANAGEMENT *strategic level* - strategic decisions clear and possibly jointly made - partner selection criteria: partner's strengths that support reaching the benefits in the partnership - jointly discussed reasons for partnership	**2. SUPPLY CHAIN MANAGEMENT** *strategic level* - strategic decisions not covering partnering and partnership building - lack of partner selection criteria: partner's weaknesses if critical when gaining the benefits in the partnership - vagueness in reasons for partnership
tactical level - clearly defined responsibilities for both parties - investing in integrated information and production systems - networking included in planning and investments	*tactical level* - vague / not detailed contracts, different contracts on different levels - no emphasis in partnering and networking in financial decisions
operational level - operating together in front of the end - customer (gaining more power) - personal views supporting strategic choices - networking as a natural way of conducting business	*operational level* - lack of integrated systems, vagueness in using them - vagueness in responsibilities and tasks - lack of analysis and discussion on partner's characteristics (personal views as basis for relationship building, lack of strategic approach)

Changes and new challenges in partnering may appear as threats and enhance the ways of keeping inside one's own silos and prohibit the new, innovative approaches available. Akkermans et al. (1999) emphasize the role of newcomers in innovations and fresh ideas in international SCM, as well as the increased cooperation with the customer are requirements that must be fulfilled in order to success in SCM. Customers can be the source for defining new demands or forcing the supply chain to change, unless it does not "exuviate" itself. Also, one way to tackle inside-the-box thinking, arising from traditional working in silos, is to create cross-functional career paths. This concerns also the ways of rewarding and measuring the performance (Cooke 2003). The findings emphasize collaborating closely to keep up the competitiveness outside the company, as well as the necessity of turning over the invisible barriers inside the supply chain and partnerships to create a space for innovative and creative performance.

The enablers related to partner characteristics repeat the enablers creating the power balance, especially in the area of communications: defining strengths the both parties benefit from the partnership enhance the joint understanding on reasons for partnering and support the feeling of mutual dependence. This is connected with the partnering and the partner selection criteria as an enabler: with the criteria clearly stating strengths and possible weaknesses that do not inhibit the aimed results from the partnership. Also, as task division and clear definitions in responsibilities act as a supportive factor when partner characteristics are concerned, it has a balancing effect when power bias is aimed for. These elements help partners create a joint base for mutual understanding and a clear guideline for conducting business in the relationship. Lack of contracts or vaguely stated contents are also repeated in this theme, in addition to their emphasis in power elements in previous chapters.

In this case study, interestingly, when discussing partner characteristics, no personal or individual features of any parties were mentioned. Partners' individual characteristics were mentioned when other relationship elements (trust, info flows and power) were discussed, but partner characteristics were strictly linked with the organizational level and features emerging from partners' activities. Both parties converted the question of MC's strengths and weaknesses into stating reasons for creating relationships instead of actual characteristics. However, reasons for relationship building were based both on personal and organizational matters. Further, this may imply the complexity of defining net-working strategy and basis for networking (based on personal views or on organizational factors). Also, barriers relating to partner selection show a vital need for a more systematic approach when contemplating potentials and features the partner has. Thus, a sufficient partnering strategy is needed.

Reasons for creating a partnership can be considered both as strategic choices and added values wanted from the relationship. Some reasons for partnership can be interpreted as indirect (suppliers: receiving reference, access to new markets), which can raise a question of what is a true enabler in the rela-

tionship. If a benefit coming from the relationship is linked with the satisfaction of a third party and is a supplementary benefit, it may not support the positive development of the actual relationship between the MC and its supplier. In other words, if the relationship relies only on added values that are gained because of another customer or supplier, the existence of the relationship may be challengeable. However, it is important to notice that enablers may be realized within different time spans in the actual relationship, as well as barriers can "be activated" in different phases or have different emphasis in a different state in the relationship. This underlines the importance of sufficient communication between the partners, in order to be aware of the aims reached for at each stage in the relationship.

7.2.7 Network environment bringing enablers or barriers in relationships

Enablers and barriers relating to network environment are factors referring to organizations' location, distance between relationship actors and supply networks they have. In Table 20 below, enablers and barriers covering network environment are listed.

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TABLE 20   Enablers and barriers on the partner's location and supply networks.

ENABLERS	BARRIERS
1. RELATIONSHIP MANAGEMENT *strategic level* - cultural stereotypes when supporting relationship building - supporting networking strategy in competence mapping - cultural awareness as an element of a communication strategy: similar cultural characteristics and context supporting partnership - global environment and status of current and potential supply chain actors in focus	**1. RELATIONSHIP MANAGEMENT** *strategic level* - biased cultural awareness: cultural stereotypes, inhibiting creating the relationship - lack of cultural awareness and a clear communication strategy: differences in cultural context - insufficient communication on network and surrounding environment
tactical level - transferring experiences, knowledge and skills - investing in communication and its planning especially in the beginning of relationship	*tactical level* - lack of investing in skills supporting relationship building - insufficient planning and budgeting, not covering communication
operational level - joint training and competence development sessions - balanced and realistic information on cultural issues as a basis for partnering and partner selection - scanning supply chain and network environment as a part of everyday business	*operational level* - lack of sufficient information needed in partner selection and relationship building - fear of losing face or reputation if failing in partner selection - insufficient knowledge on global and supply chain operations
2. SUPPLY CHAIN MANAGEMENT *strategic level* - SCM goals clearly stated and acting as a basis for collaboration - keeping agility in networks in strategic focus (Gligor & Holcomb 2012) - partner selection criteria: closeness of location as a benefit - collaboration and efficient management of supply networks (access to partner's competitors' networks)	**2. SUPPLY CHAIN MANAGEMENT** *strategic level* - lack of efficient SCM in Finnish companies - role of company's location in strategic choices too significant a factor - nationality as a criteria (from Finnish to global chains) - arm's length distance as a partner selection criteria - collaboration as a threat (confidentiality risks) - lack of suppliers' own network - lack of supplier strategies
tactical level - emphasizing long-term investment and planning with partners - investing in relationship creation	*tactical level* - ad hoc decisions without long-term scanning in planning and investments - considering collaboration as losing control, increasing control in supply networks

operational level	operational level
- long-term assignments concerning the relationship development - personal contacts enhancing networking (as a risk reducing factor)	- awakening / teaching via global supplier choices - challenges in trust building and relationship maintaining - networking on theoretical level (competing, tough fighting) - too complex network structures causing challenges in coordinating operations)

In enablers and barriers concerning the distance and location of partners from each other, nationality and the cultural background may act both as enablers and barriers, which makes relationship development more complex. Increasing cultural awareness is the matter that should be included in all strategic policies that concern supply chain operations. With cultural training it may be possible to create positive circumstances and potential for relationship building: a positive preconception on culture (for example, from Finnish MC's point of view, efficiency and a high level of performance in business culture) can create a positive starting point for first joint projects. Surprisingly, nationality can act as a criterion for partner selection. Nationality, also sometimes used as a synonym to a location, can be a significant factor: depending on the location of the end customer and the product provided, the supplier may need to locate close to the end customers facilities. In this case study, nationality is sometimes been mixed with the actual organizational characteristics, that is, the networking ability and lack of global networks (Finnish companies are not considered as globally networked) or other skills, missing in partner's business behavior (if MC sees the need to "teach" its Finnish partners that may lack the proactivity needed in a new competitive business context).

Enablers and barriers, related to the network environment, imply the need for a clear and comprehensive procurement strategy (from the suppliers' point of view: company strategy, sales strategy or customer relationship strategy), where the partner selection criteria, including the meaning of a national supplier and its location are carefully analyzed. Contradictory to the idea of virtuality in networks, location can become a vital barrier: distance can inhibit efficient collaboration and partnership building and closeness can provide various benefits, although, as mentioned above, global suppliers can be ranked as priority partners only based on their location. In networks that are very often virtual closeness as an enabler may lose its importance. In addition to these characteristics, global environment in general and supply chains have to be in a focus of review regularly: this supports the ability for proactive activities and agility in supply chains.

Besides the problematic of the partner's location, the complex structure of supply networks can act as a significant barrier to efficient collaboration. This creates challenges for coordination and logistics operations (Fawcett & Magnan 2004: 70). Regardless, the complexity of networks also offers a considerable number of possibilities and potential, but keeping up the constant changes and

new openings in the surrounding market environment requires resources. Additionally, in relation to the supply chain's agility Gligor and Holcomb (2012: 304) suggest, that "managers should expend effort to improve and enhance communication and coordination capabilities with their supply chain members. The results indicate that these capabilities can enable supply chains to quickly adjust tactics and operations in response to changes."

In an analysis of enablers and barriers concerning supply networks, the networking strategy becomes critical from both points of view. The emerging barriers refer to suppliers and their ability to manage networking and supply chain development, whereas the enablers emphasize benefits that are reached as a result from the partnership. Interestingly, partnering criteria, from the MC's point of view can act as a barrier (MC's fear of losing control – remains from the traditional vertical network structure), but it can serve as an enabler, when realizing the possibilities lying in partnering and trying to diminish fears by intensifying collaboration as well as communicating systematically and transparently on partnering decisions.

Power and the dependence on the partner is an issue, emerging explicitly or implicitly in all theme clusters: a power imbalance is recognized or interpreted to exist in many cases, in some relationships with a high mutual dependence and in some with low. If the MC is seen as exerting power over the supplier, one strategy the supplier uses in order to reduce the power impact is to form coalitions with other suppliers, as well as trying to access the network formed by MC's competitor. This is parallel to power restructuring operations, when coalition forming outside the dyad itself may bring benefits in the focal relationship and reduce the possible power imbalance existing in it. Also, because of the nature of the networked environment, it is critical for every organization's survival to build an agile and a lean network. However, by contrast to the network approach, some suppliers are still exercising highly centralized operations without a sufficient network of their own, which was seen as a critical barrier. Additionally, suppliers' active networking in some cases can be seen as risky and creating a threat for the MC's status as a power holder, which reflects the contradictory feelings the partners may have concerning networks' benefits and added values.

Lambert et al. (1996: 4), when analyzing the partnership development and designing partnership model, has found elements of partnerships, overlapping with enablers and barriers in this study. However, he divides them into drivers (reasons for partnering), facilitators ("supportive corporate environmental factors which enhance partnership growth and development") and partnership components (including operations and processes, supporting partnership building and maintaining) (Lambert et al. 1996: 4). The facilitators overlap in some points with this study, being, however, on a very general level and not covering the comprehensive list, designed in this study. Their (Lambert et al. 1996: 7-8) main similarities are found in shared values, mutuality, close proximity, corporate compatibility, shared end user and symmetry. However, in this study, for

example, close proximity, mainly appeared to act as a barrier (from the MC's point of view).

It is interesting to notice that factors rising from relationships cover many strategic areas in organizations. They are overlapping and with relation to each other, but based on main categorizations, it is possible to see the relevance of strategic thinking especially in the areas of communications, supply chain management (concerning resources, procurement, partnering), human resources as well as in corporate strategy as a whole. Additionally, this requires intensive cooperation internally between organizational functions and a clear vision of strategic issues, in order to implement them correctly to the everyday activities in the supply chain environment.

7.2.8 Enablers and barriers – back to the main questions

By summing up the main themes provided by relationship enablers and barriers, it is possible to point out the main strategic and managerial questions relationship actors have to answer and solve in their relationship development. That is, Figure 14 below represents questions and choices the relationship actors have to face and solve in order to survive and prosper in main contractor – supplier relationships. The questions represented need strategic tools to frame the main ideas at strategic level.

The boxes in Figure 14 below represent main theme clusters of relationship characteristics found in this study. They are not presented according to any weight or ranking order. Importantly, the clusters are overlapping and topics listed in each theme cluster interact with each other. Respectively, the strategic questions should be discussed and analyzed by taking the other clusters simultaneously into account. The topics provide the base for analyzing the critical success factors in supply chain relationships: how these factors are realized and acknowledged by the management, how they are reflected in supply chain performance, and if the topic needs further processing with a strategic, tactical or operational update (which effect tactical and operational levels in collaboration, too). The questions in Figure 14 below represent the main questions for management, from the perspective of enablers and barriers found in this study.

Again, solving strategic questions can either strengthen or decrease relationship success. In the theme cluster relating to trust and its existence, main questions cover relationship building and maintaining and themes that strengthen it. This refers to the fundamental nature of trustful relationship: trust is seen as the basic and conducive factor and requirement for a collaboration relationship. Contacting and engaging dialogue covers a variety of topics, starting from personnel skills and ending to ways of using partnering tools (contracts, communication tools etc.).

The strategic issues concerning power and dependence relate to the problemacy of power balance or imbalance and its reflections in collaboration. Equality as a characteristic that is generally assumed to be in partnerships may not exist, although the relationship can be interpreted as fair and power balanced. However, equality (fairness) promotes successful collaboration. Com-

munication that is based on equality requires investing in the relationship: without the feeling of mutual dependence it is rarely possible to share knowledge and information openly and trustfully. Further, open communication and a high level of trust are connected with the feeling of equality in the supply chain relationship. Joint operations, where both parties are strongly involved, promote the feeling of equal partners and shared experiences. Information flows as a part of communication, relating to sharing formal and informal information, knowledge, skills and everyday details, is a significant critical factor when looking for success in relationships. Relationship management that is also in core when analyzing the level of trust and power relations is strongly connected with analysis on information flows. Also, relationship management has to be analyzed and possibly revised: joint collaboration has to be extended to other levels of the supply chain: the partnership can include a third party in joint collaboration, for example, when building relationships with the end customers (by involving the 2nd tier supplier into the collaboration, too). This problemacy creates a wider, extended concept of partnership, where instead of two partners and their mutual dependence, trust and power relationship, a third party is intensively connected with them, requiring open communication and involvement, equally participating in decision making and partnership development.

When considering strategic issues in partner characteristics and supply networks, both theme clusters cover similar topics, based on the main questions of networking: reasons and criteria for relationship building and partnership existence become central. In a way, these questions set a frame for trust, power and dependence relations and information flows to take place: without a set of criteria and conditions each organization has for partnering (for example, financial benefits, win-win solutions, integrated production systems etc.) the relationship cannot operate. On the other hand, minimizing vagueness (clarifying parallel views on intended benefits and aims, open and sufficient analysis on partnering criteria etc.) is one of the main questions of a partner characteristics cluster, which requires constant openness in communication and a high level of trust, in order to be realized. That is to say, these two theme clusters can on some level be interpreted as a context that can promote other topics to be realized, but simultaneously they are strongly "interwoven" into other "relationship fabrics". These five theme clusters create a complex set of questions that the management level has to solve when promoting relationship success and partnership development, as the following Figure 14 shows.
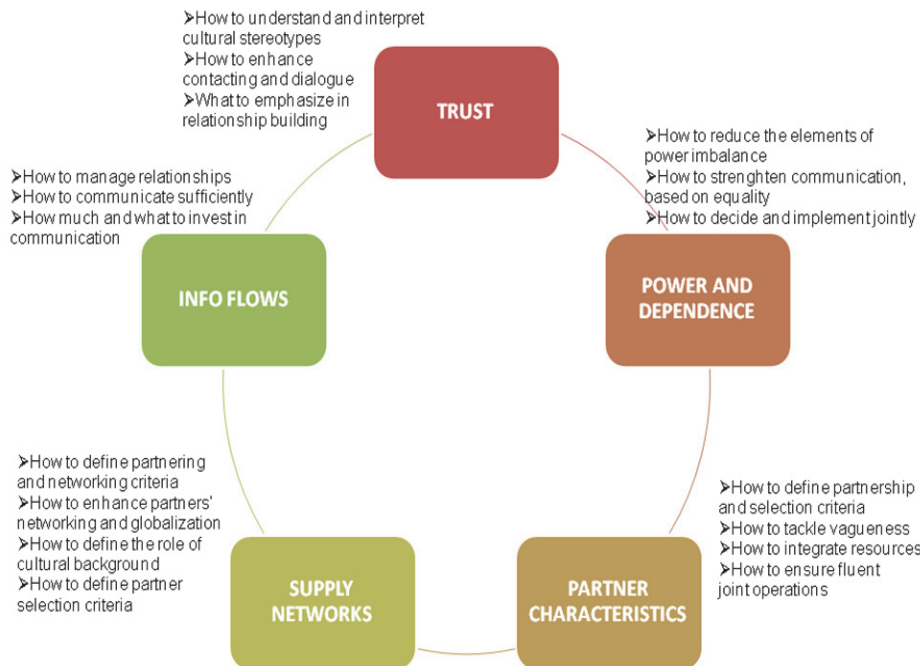
FIGURE 14   Main questions for management emerged from enablers and barriers.

The balance between enablers and barriers can differ according to the emphasis and the development path each relationship element has in a relationship in question. However, it is possible to present the most critical enablers and barriers that define an organization's success or failure in the current competitive networking environment. The next Figure 15 below shows the main enablers and barriers that are represented from the strategic perspective in supply chain relationships.

As Figure 15 below reflects, when a communication strategy, emphasizing relationship management, covering also relationship development is lacking, the relationship value can remain vague with ad hoc strategic and operative decisions. Surprisingly, although supply chain management consists of various strategic elements, one of the most important tools is a contract and its use. It indicates the level of trust, clarity and openness in the relationship (if acted according to it or ignoring it), the degree of success and outcomes in everyday operations (if roles and responsibilities are clearly stated and followed) or the level of involvement and dependence of both parties (if many contracts are used simultaneously and one upon the other, if a contract is written on a short-term basis or not providing win-win solutions).

The main threat in an incomplete partnering strategy lays in vague criteria definitions: in insufficient or unrealistic reasoning for the existence of the partnership. Reasons for partnerships may turn to be incoherent and based on traditional, previously existing organizational relationships that are "converted" into

partnerships. Partnering criteria and characteristics looked for from a partner are justified by the benefits and goals both parties reach in the relationship. Respectively, if partnering criteria remain vague, the reasons for networking as a whole can equally stay unclear. Further, deficiencies in relationship management strategy can reflect in various ways in the level of communication, trust as well as in power and dependency issues.

Separated organizational functions with independent silo-thinking (procurement, HR, communications, production, planning, etc.) can greatly prohibit positive relationship development, for example, if competence mapping of personnel as boundary spanning people is lacking or incomplete. Skills and knowledge shared by supply chain members directly influence the level of outcomes in relationships. In other words, different strategies should be in line with each other covering the main principles used in partnerships, although designing strategies and creating them congruent does not guarantee success, if implementing them is incomplete or insufficient.

The enablers can be seen as contradictory to barriers presented in the previous paragraph. However, when considering the success factors that especially enable relationship development, certain elements become visible: the "extended partnership" is applied to supply chain relationships, as well as main elements of successful and trustful partnership communication, transparency and fairness are in evidence. In successful relationships the role of efficient communication is acknowledged and invested in. A powerful supply chain management strategy repeats the elements that are wanted to be communicated in successful relationships: consistency, clarity and commitment in the relationship. Further, resources (tangible and intangible), when directed successfully into correct elements, provide a maximum value to relationship actors. This supports the out-come that also elements of joint collaboration are capitalized positively with maximum result.

BARRIERS

- Lack of or incomplete communication strategy
- Insufficient SCM strategy: need for clarifying contracts, their role and contents
- Lack of or incomplete partering strategy
- Relationship management ignored or inadequate
- Functions and their operations not congruent
- No emphasis in critical SC skills development
- Implementation of strategies not completed

ENABLERS

- Concept of an "extended partnership" acknowledged and adopted
- Transparency and fairness realized in relations
- Communication stated as central and valued in partnership operations
- All benefits from joint collaboration "capitalized"
- Successful resource investments (tangible and intangible)
- SCM strategy reflecting consistency, clarity and commitment

FIGURE 15   Summarizing barriers and enablers from a strategic point of view in supply chain relationships.

Summarizing barriers and enablers as a short list of factors is informative, yet a more comprehensive tool for relationship development is needed. The barriers and enablers, shown in the Figure 15 (the summary), together with the more precise lists of enablers and barriers, presented in this 7th chapter, were written down as a form of different arguments. It is necessary to view them from the perspective of relationship actors (the main contractor and the supplier) in the dyad, and to write them in a way that the argument is understood by both parties. In other words, the contents of the tables of enablers and barriers are separated into forms of arguments that describe the dyadic relationship from both perspectives of relationship actors.

Based on the figures above (Figures 14 [managerial questions] and 15 [enablers and barriers]), the idea of strategic planning and its implementation is emphasized in performance in supply chain relationships. Interestingly, factors, existing in the relationship of two persons who are conducting business in a dyadic supply chain relationship, reflect the issues critical in strategic planning of the relationship in question. However, the strategies designed by management, are not necessarily visible or acknowledged in everyday business actions in relationships. This repeats the vital but often missing link between the strategies and supply chain relationship realities.

Since the relationship enablers and barriers provide indications on factors that support or inhibit successful supply chain performance, it is essential to

include them into the process of assessing the performance in a supply chain relationship, as it is shown in Figure 16 below. Respectively, results of joint performance assessment (when assessing MC – supplier relationship) indicate how strategic guidelines have been implemented in the supply chain relationship: whether the current strategic policies are recognized and visible in supply chain operations and vice versa, whether the business is conducted according to given strategic policies. If the link between strategy policies and supply chain operations is fragile or missing, the threat of vagueness in relationship is evident and it is critical to contemplate the possibilities to revise the strategy contents or to sharpen up the strategic message to the actors in the supply chain relationship. If this is necessary, it could be necessary to return to relationship enablers and barriers and to analyze them based on the revised strategy.
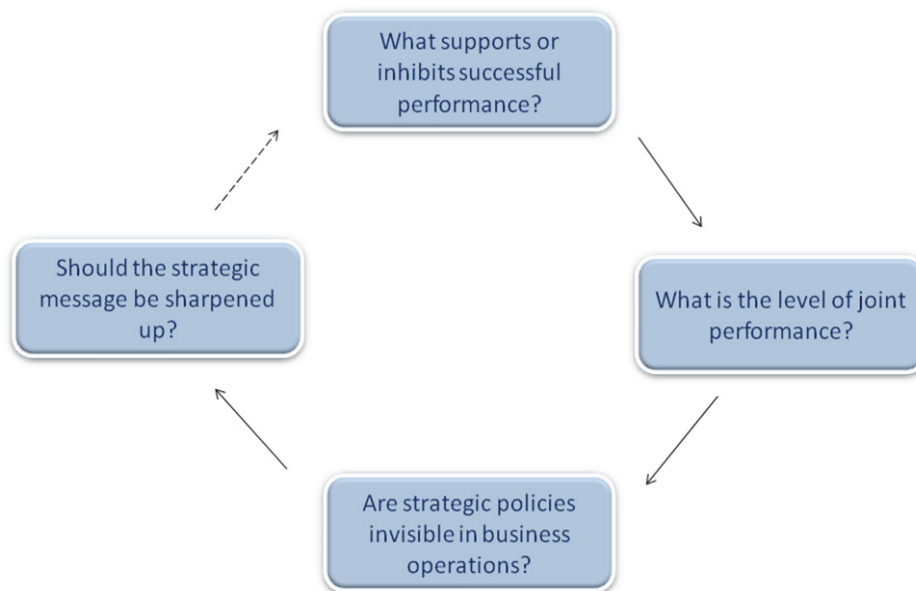
FIGURE 16   Defining relationship enablers and barriers as a part of the organizational strategic development process.

The ways to tackle the barriers may mean minimizing their effect in everyday business (if they are impossible to eliminate, as factors in the surrounding environment) or increasing the effect of enablers (providing compensatory influence) or even, if possible, transferring barriers into enablers. Prioritizing has a vital role in relationship development: which barriers are seen as most critical to interfere and which enablers as providing benefits the most. Thereby, in addition to analyzing the possible enablers and barriers, it is critical to consider their weight and prioritize them in order to further decide on operative actions.

8 FINDINGS III: ARGUMENT PATTERNS AND THEIR USE IN PERFORMANCE ASSESSMENT

It is a long way to travel from a strategic policy level to an implementation of strategic elements in supply chain relationships. Lists of enablers and barriers (that were categorized based on the main relationship characteristics) provide valuable information on factors supporting and inhibiting successful performance, but it would be beneficial to further contemplate their value and use from a viewpoint of real business life dyadic relationships. Also, since they form a complex set of critical issues, it is necessary to find a way for deeper understanding of their existence and interpretations. Enablers and barriers can contribute a skeleton for a performance assessment process: when they are transferred into forms of arguments, describing and assessing dyads e.g. dyadic supply chain relationships, it is possible to analyze the relationship characteristics of real life MC – supplier relationships.

When designing a road map, providing guidelines towards successful collaboration relationships, it is vital to keep them as close to real business life context as possible. To facilitate this process, the current study discusses assessment and analyzing of supply chain performance. Based on the outcomes of the empirical studies and the literature preliminary contents for a model are constructed, in which relationship characteristics could be utilized for an assessment tool in relationship development. Transferring enablers and barriers into preliminary model contents provides a starting point for analyzing the relationship status and its performance perceived by relationship actors involved in the dyad in question. In order to ensure the applicability of the assessment tool contents in real life, it is necessary to state the following research question (RQ 2.1): *How are the relationship characteristics evaluated and prioritized by the focus groups (MC's management level and MC's suppliers)?* That is to say, based on focus group discussions it is possible to analyze relationship characteristics in a current organizational and environmental business context. Since there are several themes that relationship characteristics cover, it is important to put a research question (RQ 2.2) as follows: *How are the relationship characteristics prioritized by the focus groups (MC's management level and MC's suppliers)?* In order to create prelimi-

nary contents that can be utilized as efficiently as possible, it is necessary to contemplate their value and ranking in the current business environment.

8.1 Focus groups commenting on argument patterns

Focus group meetings form a valuable environment to receive updated information on current business trends, environment and more specifically, the current situation in supply chains and supply chain management. Also, the meetings serve a valuable basis for processing the argument patterns further as an assessment tool. However, this study does not extend the focus to designing a more specific assessment tool, since it would require a wider theoretic approach consisting of theories on assessment tools and assessment process in a more detailed way.

8.1.1 Focus group members and material used in meetings

Focus group meetings were implemented in November 2012 and January 2013 in Jyväskylä at the facilities of Metso Paper Rautpohja. Both meetings lasted for 2 hours. Participants of focus group I were invited by a procurement director of Metso Paper (Paper and Board business line). Participants for the first session were MC's managers (four participants) in procurement and global sourcing. The criteria for invitations to the focus group were the position and current tasks and responsibilities (managers or directors deciding on issues concerning partnering, supply relationships in general and relationship development) as well as the availability (those who were available at the time in question). Members for focus group II were chosen randomly: from the list of 30 top supplier organizations (years 2010-2012, according to the share of the total supplies in Metso Paper Inc., in Pulp and Paper businesses globally, excluding China's operations) 10 organizations were chosen at random, to whom an invitation for a meeting was sent by mail. Seven representatives of 7 organizations (key account managers, sales managers or key contact people in collaboration with MC) participated in the meeting.

Enablers and barriers had been transferred into patterns of arguments, describing themes of enablers and barriers in a more detailed way. These statements are in the main focus in focus group meetings. The themes of argument patterns were as follows:

I Patterns of arguments describing own or partner's performance (81 arguments):

1. information sharing (34 arguments)

2. skills, competencies and resources (13 arg.)

3. organization, network role and position (22 arg.)

4. cultural characteristics (12 arg.)

II Patterns of arguments describing joint performance in the dyad (72 arguments):

1. meetings and contacting (14 arg.)

2. power and dependence (25 arg.)

3. trust and commitment (17 arg.)

4. long-term orientation, development and partnering (16 arg.)

Views and perceptions of focus group members were asked and collected: they evaluated argument patterns and each specific argument according to their perception on the level of their criticalness in current supply chain dyads. The statements describe either one's own (=O) or partner's (=P) performance. For example, arguments concerning information sharing can be in the form:

1. We receive sufficient amount of information. (P)

2. We deliver sufficient amount of information to the partner. (O)

Naturally, one dyad can be as a focus at a time. Further, some of the arguments may be duplicated but expressed differently in another theme category. Argument patterns were written in Finnish and in English, with perhaps some translation differences. Since all participants were Finnish, both groups wanted to evaluate the Finnish versions. Mostly, arguments concerning one's own or partner's performance are presented two-way. Additionally, there are themes where it is more complex to separate the actor creating performance or the value (result of the performance). When performance is carried out in "bilateral" interaction, neither party separately created the final performance: it has been realized from the viewpoint of the relationship. For example, it would be possible to estimate the level of commitment one party has to another, but it is more beneficial to view and analyze commitment as a result of the "bilateral" action, the level of commitment parties have in the relationship. Also, exerting power over another can be interpreted as one party's action towards the other and could be assessed two-way, but it is more beneficial for partners to discuss the power relations from the "joint" perspective. Therefore, the second group of argument patterns consists of themes that can be evaluated from the mutual, relationship point of view (joint performance = J). They are presented as follows, for example, in the theme of power and dependence:

1. The relationship is equal. (J)

2. In the relationship, one party exerts power over another. (J)

3. Recommendations and suggestions presented by the partner are usually followed. (J)

Evaluating argument patterns provides knowledge of perceptions on one's (organization's) own performance, on the partner's (partner's organization) performance and on joint performance in the relationship. This way it is possible, firstly, to anatomize the themes, after which as a result from the assessment process a joint view on the relationship performance of the supply chain relationship is received, as it is shown in Figure 17 below. (Appendix II: Argument patterns).
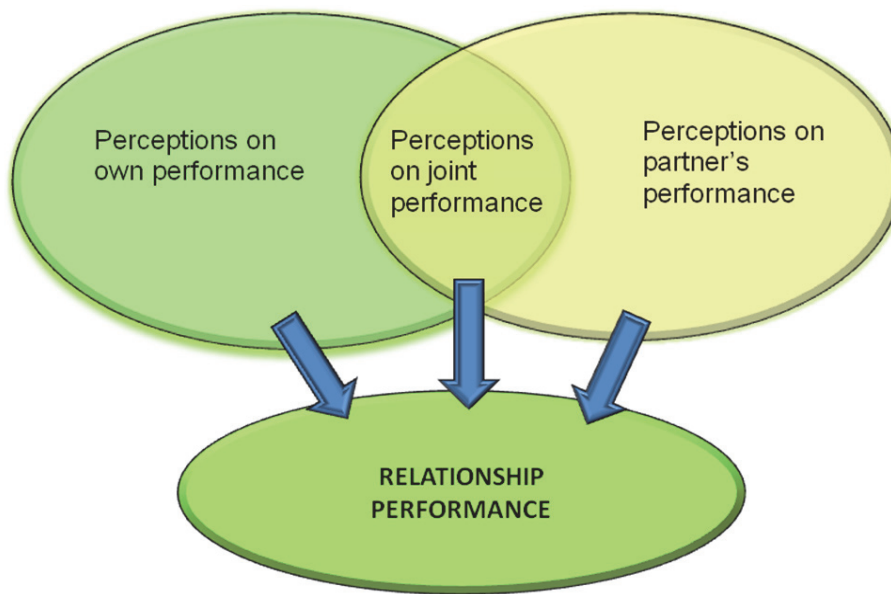
FIGURE 17   Result, emerging from the preliminary assessment model.

Although the argument patterns, gathered based on the three perspectives (company's own, joint and partner organization's views) reflect the relationship performance (respectively, the relationship characteristics) as a whole, it is necessary to discuss their contents and their priority, seen by the relationship actors of the supply chains. Therefore, it is relevant to process the outcomes further together with focus groups.

8.1.2   Process and received results in the focus groups sessions

In both focus group sessions, the thesis contents (background, method, research process, main themes and ideas) were shortly introduced. The group members were asked, firstly, to give individually a short oral report "what is up right now" in collaboration relationships, as well as what goes well and efficiently or creates challenges and problems in current SC relationships (focus in Metso – supplier relationships). Secondly, focus group members had the possibility to comment on main relationship characteristics and their value in the current

supply chain collaboration. Thirdly, participants were asked to read the patterns of arguments and to select those covering the most critical and important issues currently in relationships (relationships were considered as partnerships or strategic supply relationships). Arguments that were considered as currently irrelevant were also asked to be marked. In order to save time, each group member analyzed one theme group, after which the theme was jointly discussed. This way, it was possible to discuss the complete list of argument patterns. Finally, participants were asked to comment on the meeting as a whole and make suggestions for themes that the arguments patterns were not covering.

The fragile economic situation during the winter of 2012-2013 and the anxious atmosphere, dominating in the EU area, Asia and America due to recession threats, was clearly reflected in focus group meetings. Especially in the current situation, the nature and the quality of relationships and their level of performance are factors that can boost competitiveness and strengthen the ability to agile reactions to coming changes.

Especially suppliers found the meeting as a unique situation to share views with other Metso suppliers, since for most of them it was for the first time in the whole history of their Metso collaboration. In their focus group, organizations that would be in a direct competitive relation with another were not present. This increases the willingness to share openly experiences and views on joint matters.

Discussion in groups was intensive and very active, emphasizing main relationship characteristics in especially challenging current circumstances. In the Metso managers' focus group, discussion revolved around the presented preliminary results concerning enablers and barriers and their influence and significance in the current business situation and environment. The group members were very active to comment on enablers and barriers, simultaneously integrating them with current challenges, targets for development and success factors that exist in supply chains. In the suppliers' focus group, participants focused their active discussion especially on challenges and efficiency of current supply chain relationships with the MC. The concept of a strategic supplier was greatly discussed.

a. The transition period in MC's procurement: from partnerships and competitive biddings into strategic suppliers

The need for intensifying relationship development with supplier networks comes from future needs and changes the main contractor has to face: global, competitive and challenging business environment requires both organizational changes internally, especially in procurement, as well as in relation with suppliers and their collaboration. Organizational changes are implemented based on a revised strategy and category management approach.

While previously in the 21st century, the aim was to create intensive, long-term partnerships in the current situation the main contractor has revised con-

cepts of collaboration and partnerships. Previous partnerships are and will be transformed into "strategic supplier relationships". According to the MC's focus group, many partnerships appeared to end in a "deadlock", with the feeling of opportunism or growing dissatisfaction concerning the benefits that both parties would gain from the relationship. Ways of conducting business changed radically towards a more competitive bidding style. Now, after a period of strict competitive bidding and more market-based operations, strategic partnerships are and will be strengthened. They should be based on long-term development, high level of commitment and joint innovation processes. This development curve shows that both very intensive partnerships and pure competitive bidding have not produced the results that have been looked for.

According to the updated strategic policy, supplier categorization is divided into three main groups: strategic suppliers, constituting less than 1% from the supplier group, key suppliers or contractors with less than 20% from suppliers and the third group, consisting of suppliers that have been approved for cooperation. The strategic suppliers correspond closely to former concept of partnerships, with the exception of implementing currently more competitive bidding also among strategic suppliers. Thus, strategic partners are regularly competing with each other in the same product concept. The second group of key contractors is continuously put under competitive bidding: for each project or product in question, there are few (from 2-3) contractors who are made aware of each other and are put under joint competitive bidding and are informed about their share of the whole business operations. With the group of approved suppliers, there is cooperation when needed according to business operations. Finally, there is one group that overlaps three supplier categories: suppliers with whom the MC is in close collaboration with a high dependence relation that have a monopoly status in some supply operations.

b. Information sharing

There is a clear and current need for specific tools collecting suppliers' and MC's experience and perceptions on performance in supply chain relationships. Only a few systematic inquiries from the suppliers' side had been conducted, collecting mainly information on customer satisfaction. With some other partners, suppliers have had positive experience in joint commitment and target-setting to a specific development theme that have been chosen based on the results of customer satisfaction analysis. Suppliers' feedback or their satisfaction in the collaboration was hardly ever asked or collected. During supply chain projects, feedback concerning technical information, immediate problems or results is exchanged and sometimes wrote down. However, there is no systematic tool available that would collect information on the level of joint performance and perceptions from both parties.

Consistency, transparency and joint planning for future operations are in key position when implementing the updated strategy in relationships. Consistency in operations can turn out to be problematic: for example, it was inter-

preted to mean the ability to forecast and inform about upcoming projects (within the limits the organization may have), but due to global economic insecurity, it is highly challenging to forecast long-term progress. This creates problems in preparations, budgeting and procurement conducted by suppliers, and can lead to spot trade. According to suppliers' focus group, spot trade is found to increase inefficiency in the suppliers' own supply chain, by not being able to use benefits emerging from larger volume of orders. Further, it may decrease the level of commitment suppliers have towards their MC.

The different levels of communication inside the organization appear to act simultaneously as enabling and preventing information flows in supply chains. Many suppliers have linkages with different levels in the MC's organization and the communication contents may vary outstandingly, depending on the organization level that is dealt with. The operational level and everyday communication in the supply chain interface is experienced as very efficient and positive. However, the most distinct gap concerning information flows and parallel information contents exists in information received from the strategic and the tactical level. That is, a long-term view with strategic issues in relationships is discussed and agreed with at the strategic level, but contractual negotiations, ways of operating and operative instructions, given by the tactical level can be strongly contradictory with the issues provided by the strategic level. In addition to the lack of parallel message, there is a clear need for presenting and discussing the MC's strategy policy with partners. Analyzing the strategy contents and their meaning to the MC's partners is vital and a basis for mutual understanding in the relationship.

Networking and linkage building throughout the MC's organization seemed to have benefits but many challenges, as well. Both parties can benefit from multilevel and efficient two-way info flows through several functions, but this can mean insufficient and disintegrated information as well as lack of management of critical information, leading to inefficiency in operations. Therefore, procurement defines its position as a key information deliverer towards suppliers and inside its own organization: in this way all suppliers receive an equal position concerning information contents. Building a network inside the MC's organization can also be seen as bypassing the critical relationship actors from procurement and conflicts with the idea of integrated procurement and category teams. However, providing explicit information to all suppliers requires proactivity from the suppliers' direction, as well. From the suppliers' point of view, they see multilevel communicating as an effective way to receive updated information and to share knowledge needed strategically and operationally. This raises a question, whether it is possible and necessary to map the critical info flows and key relations existing in each MC – supplier collaboration. Through this it is possible to identify the critical links and info contents as well as the actual network, and mapping would support the efficiency assessment process.

The criticality of two-way sharing in knowledge, experiences, information and documents constituted one of the main topics that repeatedly came up in different patterns of arguments. According to both focus groups, there was not

enough joint sharing and communicating in current relationships. As this is one of the cornerstones of partnership or strategic relationships, there is a clear call for relationship development. Especially interesting is, that both parties acknowledged the need to receive significantly more information on partner's satisfaction in the relationship. The need for feedback, especially from suppliers (found by the MC) came up several times in different themes: for example, experience and knowledge sharing was interpreted as the need for receiving valuable information on how partners see the collaboration with the MC.

c. Skills, competencies and resources

Since knowledge sharing and exchange has become as critical competitive advantages, supporting activities in joint innovating and ideas exchange are especially important. However, ways of boosting innovativeness and knowledge sharing can be found as problematic: a partner's competitive position in some areas of market, possible negative experiences in previous partnering operations or lack of resources, needed in joint innovating process may eliminate the development possibilities.

When discussing skills, competencies and resources with the MC, the importance of contracting skills (suppliers' skills to interpret and discuss contract documents and their contents) was mentioned as highly critical. They found that in SMEs there is a need for updating and increasing current skills and the level of knowledge.

d. Organization, network role and position

Solid, long-term relationships can cause new problematic situations when due to possibly decreasing amount of orders the suppliers are looking for extending their share in other market areas, for example in service operations. If both MC and suppliers are trying to reach for greater shares, they can found themselves in a competing position against each other. This creates complexity to the concept of strategic partnerships or contractorship and was clearly acknowledged by both partners. In order to be able to act as a partner and simultaneously to compete in the other business area, it is vital to negotiate and agree with boundary conditions. Boundary conditions clarify rules concerning everyday problem solving at operational level (especially in information and knowledge sharing) and point out the areas where it is possible to develop the collaboration further.

Suppliers acknowledge more critical issues in the theme of the organization's role and position. Interestingly, for example, role of location, global reliability and knowing a partner's values were ranked as critical issues by suppliers, but they were not regarded as highly significant in the MC's discussion. When it comes to a suppliers' possibility to contact the MC's final customer, the MC found the argument is highly irrelevant: it is the MC's role to maintain relations with the final customer. This is slightly contradictory with previous results (the

necessity of meeting the final customer together). However, the suppliers' focus group did not comment on the argument at all. Both focus groups stressed the importance of building and maintaining relationships and investing in it.

e. Cultural characteristics

The role of culture and its influence on supply chain relationships remained very little in discussions. Both parties see supply networks as a positive source of new, innovative solutions. There have been positive results in knowledge sharing (modifying knowledge acquired from other client contexts into the relationship). This means different applications or adapting skills to the business context in question. However, suppliers do not necessarily question current ways of operations or make new suggestions to replace the MC's ways of operating and technical solutions. Power bias that is based on cultural characteristics may reduce the willingness to provide improvements and it has been recognized by the MC's representatives.

f. Meetings and contacting

In meetings, more informality was not called for, but the current ways when not underlining any status or power positions was found to be the proper way. Virtual contacting was found irrelevant by the MC, due to the lack of virtual meetings: both parties lack either skills or equipment in order to communicate more virtually. It was found important but currently irrelevant as an issue. From the suppliers' side, this was ranked as significant and providing efficiency already, although the lack of opportunities to communicate virtually was understood by them, as well.

The ways of communicating in negotiations and meetings created active conversation. From the suppliers' point of view, increasing spot trade operations and strict negotiations, covering price, terms of delivery etc. underlines the more traditional role procurement has had: their role in strategic relationship development has remained in the background. The competitive bidding style has underlined the cost-based view, due to which it is problematic to "switch" the style. However, meetings and contacting covering other issues, for example, technical details and instructions have been regarded as positive by both parties. Therefore, other positive experiences in everyday operations can promote the desired change in relation to the procurement in general.

g. Power and dependence

The current concept of a strategic relationship consists of elements of both the partnering and competitive bidding approach. Suppliers had various experiences in current changes: previous partnerships and the transition into competitive bidding style were experienced as highly demanding, and the latest change with the emphasis of strategic supply relationship development is strongly

waited for and welcomed. However, due to negative experiences in competitive bidding and a feeling of biased power relations, a new transition is taken with suspicion. Proof of strategic supply relationships is looked for in practice. From the other hand, signs of deeper joint development activities are seen: joint planning for future and greater joint concepts have been launched, too.

Dependence has created challenging issues in supply chain relationships: the MC hesitates in supplier categorizing, when it comes to the suppliers who have a monopoly status. They are excluded from the group of strategic suppliers. This reflects the role of dependence in partnership thinking: dependence is seen mainly challenging, creating a monopoly and risky situations, where the partner has very limited possibilities to influence the relationship. Its existence is not found to promote any benefits in the relationship. The current global economic situation influences business relations, especially, if a company is highly dependent on its partner. In 2012-2013 there are still many partner and contractor suppliers that are significantly dependent on the MC. Also, Metso is strongly dependent on some companies, but it is more concerned about its suppliers that can have even 80% dependency on the partner company. This is generally, even in positive economic circumstances, too risky for both parties. The MC encourages its suppliers to divide their business share among several clients, in order to be able to react to possible changes that their clients may face.

In focus groups, negotiations and their contents are interpreted as one important culmination of power relation and relationship status, especially, if supply chain members have not been sharing the possible benefits found in operations (win-win not necessarily realized). For example, demands of substantial price reduction or increase or unexpected changes in pricing (if a possibility comes up) were considered as especially opportunistic and trust reducing: if a partner has a benefit or an advantage that has not been communicated earlier and comes up in price negotiations as a significant factor influencing the total price. This was perceived especially by the MC's representatives. Therefore, fairness that is realized particularly in consistency in all operations (for example, no sudden price changes) and transparency (the ability to forecast a partner's ways of working) are underlined as critical relationship characteristics.

The MC's focus group members found that the strictness they show in negotiations can be interpreted as beneficial to suppliers as increasing consistency towards every actor in chain. Strict negotiations and conditions should be interpreted as high quality, consistency and beneficial to all involved in supply processes. However, communicating this to suppliers is highly critical and may have remained insufficient. Further, the atmosphere in negotiations reflects the level of the relationship: whether the negotiation results are clearly biased and favor only one partner (win-lose), the partnership element becomes purely a theoretical concept without any practical value in relationships. This was especially found problematic by the suppliers. Negotiations may end in dichotomy and coercion where one party has to give in aims it has found critical. This appears to leave a clear breach in the relationship in future operations.

The main reason for not favoring partnerships anymore appeared to be the feeling of opportunistic behavior: if one party has had a chance of taking advantage of the other, it has often used the possibility. Both parties acknowledge that these cases have had long-term consequences and have influenced relationships as a whole. The main reasons for opportunism were considered to locate in possibilities of sharing received benefits unequally. However, some technical issues may also cause the feeling of opportunism: the lack of skills when negotiating a contract, benefits reached in collaboration may lead to a feeling of win-lose position. Managing a contract and the relationship as a whole in every circumstance appear to be important in successful partnerships. Supply chain members have high expectations towards collaboration, but the ability to express and communicate the expectations and to operate according to them seems to have become a significant challenge.

When discussing the argument patterns in more detail, while suppliers stressed the importance of equality, the MC's focus group would remove the argument as irrelevant (based on the assumption that a relationship is never entirely equal). Squeezing and dictating were not preferred as ways of negotiating, but it was found as a critical issue by the suppliers' group. The MC's focus group stressed the concept of fairness by jointly negotiating roles and tasks (contradictory to the irrelevancy of discussing roles & responsibilities in information flows), by keeping up the positive atmosphere and following the rules. The arguments concerning dependency were found irrelevant, since there would always be unequal relationships with one actor more dependent than another. Dependency and its influence were found as a critical topic by the suppliers' focus group. Additionally, the MC is interested in transparency and opportunity to influence (if necessary) their partners' supply chains. Suppliers are required to develop their supply chain management in the future, but they also benefit by being able to use the MC's price conditions, warranties and terms of payment in their supplies, which is reflected as an added value in the chain. This underlines the MC's multifaceted interpretation of power as inequality and dependency, but with fair ways of operating and negotiating with, despite a deep relationship, regular competitive bidding practices.

h. Trust and commitment

In long-term, solid relationships the transition period into a new way of operating can be problematic. The high level of trust and fixed ways of operation can generate a myopic view on supply chain relationships. According to the MC's focus group, it can prevent the readiness to react on surrounding global changes. A higher level of trust with a low level of two-way communication can influence the ability to react or proreact: supply chain members may trust that circumstances will not change. From the suppliers' point of view, financially positive years and the positive atmosphere of that time have been associated with ways of operating. Therefore, the relationship as a whole has been found to be positive, although challenges, similar to the current situation, have existed

even then, too. In other words, characteristics, embedded in supply chain relationships, may be difficult to identify. Also, there is a threat of myopia in long-term relationships. This is partly acknowledged and the MC is concerned about suppliers' financial sustainability in the current changes.

In discussion on trust the problemacy of friendly relations came up in the MC's focus group. Friendly connections are seen as barriers to equal and business-based activities. However, good relations with partners are considered as supporting joint aims and enabling openness, for example, in problem solving situations. Otherwise both focus groups found activity, high motivation and not letting the other party down as most critical issues.

Openness and high trust as enablers have especially a significant role when there are challenges with delivery and timing. Their role as critical relationship factors was acknowledged significant and looked for by both the MC and the suppliers. They are realized when both parties are aware of potential problems in time and can react by extending the timetable or modifying other conditions. In this way openness in communication and trustful relations create flexibility and agility in everyday operations, they can minimize additional costs and also enable partners to maintain prompt and realistic expectations towards their partner.

i. Long-term orientation, development and partnering

A division into category teams and collaboration with fewer suppliers requires personnel commitment in the MC's organization. The change may prove to be a significant challenge internally, because of solid and traditional relationships the procurement has had with a high number of suppliers. Simultaneously, there has to be an intensive search for potential new suppliers in new areas. The learning curve together with new strategic partners may become long, until a joint understanding and jointly agreed ways to operate are realized. In the beginning, challenges with inconsistent quality or delivery times with higher production costs may emerge. When cost reductions are looked for, intensifying current relationships by joint development and innovating may create improved solutions and lower price development.

Again, when discussing long-term orientation, development and partnering (and their value in collaboration), a joint aspect to all development goals was underlined. Currently, both parties are eager to find new and innovative ways to decrease product based costs, and suppliers are expected to share innovative solutions. One of the most important relationship characteristics discussed was the ability to create ideas and drafts for innovations and to communicate them to the partner. From the MC's point of view, this requires skills to integrate suppliers better with the partner and, respectively, suppliers should develop the ability to produce and communicate potential ideas to the MC (and vice versa). However, current economic circumstances and the transition period in collaboration relations prevent both parties to openly share their knowledge. The ability for joint innovating and communicating outcomes two-way are

linked with challenges of generating tacit knowledge into explicit form. Both approaches (search for potential partners or deeper innovation process with current supply chain members) call for a set of tools that can be used repetitively and consistently as part of the quality assessment process.

Most of the themes and issues, related to argument patterns were covered in focus group discussions. Views from both focus groups are included in Table 21 below. As mentioned, the whole list of argument patterns consists of 153 arguments (presented in Appendix II), but Table 21 consists of main themes and more specific issues of arguments that were found critical or irrelevant. Issues that were found either irrelevant or critical by both parties are marked in bold type. Although the focus groups ranked arguments, they would not have wanted to remove any of them. Therefore, in the Appendix II all arguments are presented, but in this chapter, the differences in the relevance and value of the arguments are discussed.

TABLE 21   Perceptions on own, joint or partner's performance.

PERCEPTIONS ON OWN OR PARTNER'S PERFORMANCE			
Theme	**Issue**	**MC**	**Suppliers**
Information sharing	Need for receiving feedback from suppliers	critical	
	Receiving sufficiently information (two-way)		critical
	Information sharing open enough		critical
	Delivering detailed information		irrelevant
	Collecting regularly information on partner satisfaction	**critical**	**critical**
	Informing the partner on revisions and changes		critical
	Reporting, two-way	**critical**	**critical**
	Informing partner on organizational changes	irrelevant	
	Discussion on roles and responsibilities, if they are similarly understood.	irrelevant	
	The partner's activity in giving instructions and suggestions concerning effective ways of working.	**critical**	**critical**
	Receiving and offering help in problematic situations		critical
	Updating information (from the partner) on current competitors and their supply chains		critical
Skills, competencies, resources	Need for sufficient negotiation skills	critical	
	Sufficient skills and tools for using e-tools	critical	
	Sufficient skills to build and maintain relationships	**critical**	**critical**
	Sufficient communication tools as info sources	**critical**	**irrelevant**
	Investing in relationship	**critical**	**critical**
	The partner's skills in contracting	critical	
Organization, network role, position	Enabling suppliers to have access to the final customer	irrelevant	
	informing the partner on adjustments due to organizational changes		critical
	Significance of the SC role		critical
	Equality in relation with other suppliers		critical
	Knowing the partner's values		critical
	Location plays a role in relation-		critical

	ship		
	Globally reliable partner		critical
	Need for global supply chain		irrelevant
	The partner should have collaboration with the SC of the other party		irrelevant
Cultural characteristics	**The importance of cultural background and challenges emerging from it**	**critical**	**critical**
	Importance of cultural background and benefits emerging from it		critical

PERCEPTIONS ON JOINT PERFORMANCE

Theme	Issue	MC	Suppliers
Meetings, contacting	Experience and knowledge possessed are shared by both parties	critical	
	Nature of meetings as informal, free and easy	irrelevant	
	More informal meetings needed	irrelevant	
	Sufficiently ways to contact virtually	**irrelevant**	**critical**
Power	**The relationship is equal.**	**irrelevant**	**critical**
	The partner's recommendations and suggestions are usually followed.	critical	
	Squeezing as a proper and used way when negotiating	**irrelevant**	**irrelevant**
	Squeezing is used when negotiating		critical
	Task and responsibility distribution jointly negotiated	critical	
	Dictation a proper way when negotiating		irrelevant
	One partner exerts power over another		critical
	One party controlling the other		irrelevant
	Atmosphere supporting problem solving	**critical**	**critical**
	If rules not followed, issue is solved jointly.	critical	
	Communication flows are two-way	**critical**	**critical**
	There is a mutual or biased dependency in the relationship or in the supply chain	**irrelevant**	**critical**
	Asymmetry means risks in the relationship	critical	
	Joint problem solving in case of a failure	critical	

	Competitive bidding practiced in the relationship	critical	
	Opportunism in the relationship	**irrelevant**	**irrelevant**
	Both parties can influence		critical
Trust, Commitment	**High level of motivation**	**critical**	**critical**
	All issues can be discussed in the relationship	**irrelevant**	**critical**
	Mutual trust	**critical**	**critical**
	One party is more motivated than the other		irrelevant
	Risks emerging in the relationship are dealt with together		irrelevant
	Neither party ever lets the other down	**critical**	**critical**
	Both are active	**critical**	**critical**
	Transparency and consistency	critical	
	Friendly relations	irrelevant	
	Joint reputation in front of the customer	irrelevant	
Long-term orienta-tion, development, partnering	**Joint development projects**	**critical**	**critical**
	Joint innovating processes	critical	
	Commitment in relationship development	**critical**	**critical**
	Long-term orientation	critical	critical
	Positive reasons to maintain rela-tionship	irrelevant	
	Providing positive image for both parties	irrelevant	
	Both parties providing strengths and competitive ability		critical
	Either party providing weakness-es		irrelevant
	High level of joint competitive advantage	**critical**	**critical**

Since the focus was mostly centered on the current challenging situation and requirements directed at the current relationships, it shows that the assessment tool is highly needed and waited for among both parties. Naturally, the tool is hoped to be clear and simple, easy to implement repeatedly and to modify according to the needs that have been emerged based on a previous assessment process. As a whole, Metso's management level acknowledges the growing need of assessment models and tools that would support implementation of chosen strategic policies. Suppliers find a tool that has a "bilateral, two-way" approach very critical, promoting the possibilities for relationship development and survival in tightening competition among strategic and new potential part-ners.

8.2   Assessment tools in current supply chain relationships

The relationship characteristics provide a base for an assessment that would help relationship actors evaluate current supply chain relationships and receive information on further relationship development. The focus groups have evaluated (RQ 2.1.) and prioritized (RQ 2.2.) the relationship characteristics after which it is possible to suggest elements for an assessment model. Before constructing the elements, it is relevant to take a look at the existing tools and evaluation structures used by the main contractor in assessing supply chain relationships and their performance.

8.2.1   Previous trials in supplier assessment

In the beginning of the 21st century, several research projects where conducted at Metso (in the Paper Business line in 2003-2005), in which there was a need to focus on defining collaboration elements between Metso and its suppliers. Based on the data (in-depth interviews) a pilot measurement tool, a "barometer of collaboration" was developed and implemented. Barometer indicators consisted of two-way assessment of the following factors (with 40 items): communication, commitment, trust and the nature of the collaboration. The barometer was analogous to Harland's (1996) mismatch tool that shows gaps in perception between the interface actors (perceptions of requirements and performance of both parties and the possible mismatch between them). The pilot tool was implemented for two suppliers and the key boundary-spanning people from Metso's and supplier's sides conducted the assessment. However, the use of the tool remained limited: it was piloted and used on a short term basis in one unit in the paper business line and was not standardized as a strategic assessment tool used by procurement. Due to a limited amount of users, a lack of long-term testing and repetitive use, as well as lack of integration with the procurement strategy and other tools used by procurement, the collaboration barometer remained as a trial version.

A more comprehensive assessment tool, consisting of collaboration indicators, is a supplier analysis tool, used by the procurement of the Paper Business line in 2003-2006. The tool was created based on a rating tool, consisting of networking ability indicators (the tool was widely used in Finnish SMEs and implemented by Employment and economic development centers in Finland) and customized to Metso's requirement and internal material. The rating tool is divided into six areas of assessments (business idea, strategic development, process management, realized results, assessment and development to profitability and risk management), where elements of collaboration factors with 4 indicators are included:

- assessing the depth of cooperation with other companies

- participating in joint R&D operations

- transparency and delivering information in processes and

- developing of collaboration capabilities. (Ruohomäki et al. 2003.)

The customized Metso's tool (with 32 indicators) was modified by adding indicators concerning process management and emphasizing organizational values and vision. The tool was used by a limited group of the Paper Business line. Although this tool was valid based on its academic background (tool of network operating capability), its use remained limited. The collaboration barometer and supplier analysis tool have been good starting points in supplier assessment, but it did not become more than pilots and trial versions in use.

8.2.2 Current assessment tools

When considering current tools used by the MC, Metso assesses and develops its suppliers, with the aid of several tests, starting from the supplier selection phase. For example, the 7M test, in which personnel (men), machinery, materials, methods (processes), measuring (quality assurance), milieu (environment) and money (financial situation) are analyzed. The 7M test serves as one precondition for supplier selection. (Metso internal material: PAP Procurement Process Flow.) 7M test is used especially when subcontractors, casting and forging suppliers, erection work providers and engineering subcontractors are evaluated, whereas product samples or references are used as evaluation criteria in other supplier selections. In cases when a supplier is lacking a certified management system, the 7M test is conducted. (Metso Supplier Selection and Evaluation at PAP.) Also, an evaluation report can be used in supplier assessment. The key areas in evaluation are management, employee development, quality management, procurement, process management, operational framework and environment and safety. (Metso evaluation report.)

Suppliers are expected to have certified standards that are widely used in business operations. According to the Handbook of Sustainable Supply Chain Management, standards that are used by Metso are ISO 9000 (series of quality management system standards), ISO 31000 (international standards for risk management), ISO 14000 (standards of environmental management) and OHSAS 18001 (standard for occupational health and safety management systems). (Sustainable supply chain management handbook 2013: 24.) For example, when viewing the quality management principles that the ISO 9000 series are based on, one of the 8 main principles is mutually beneficial supplier relationships. When following this principle, it can lead to benefits that are usually found in deep partnership relationships (long-term view, expertise and resource pooling, clear and open communication with information sharing and future focus, joint development etc.). (ISO 9000 2012.) The quality standards provide a foundation for partnership-focused SC operation, but, again, they lack a two-way approach and actual SC assessment elements.

In addition to the tools mentioned, statistical information, gathered from Metso's own databases is used as a basis for assessing suppliers' performance.

Information coming from databases of claims, delivery reliability, spend analysis etc. are viewed regularly. Also, supplier assessment annual plans are conducted, in which delivery projects are discussed. Based on the results suggestions for improvement and development are given.

In the test and evaluation tools mentioned, different areas of business operations are widely covered and the emphasis is on assessing suppliers' characteristics (main information on the company), facilities and competencies they provide. The relationship characteristics assessment would complement current tools and would benefit both parties by providing useful information on the relationship status and indications on possible development areas in the long run. In addition to pilot projects, mentioned previously, no two-way assessment tool has been used. Feedback concerning suppliers' experiences on the relationship and joint operations as a whole has been traditionally collected in a suppliers' day event (a one-day meeting, organized every 1-3 years for suppliers). The results provide only a short-term view and are not systematically comparable with each other, because the inquiry contents vary according to the goals of each meeting.

The following Figure 18 consists of tools used in supplier cooperation by Metso.

Guidelines, manuals
- Metso values, code of conduct
- Metso strategy, procurement strategy
- Sustainable Supply Chain Management handbook
- Supplier's Handbook

Tests, certifications
- 7M and othe evaluation tools
- Standardized certifications (ISO 9000, ISO 31 000, ISO 14 000, OHSAS 18 001)

Other
- Contracts, agreements, general purchase conditions
- Joint electronic databases
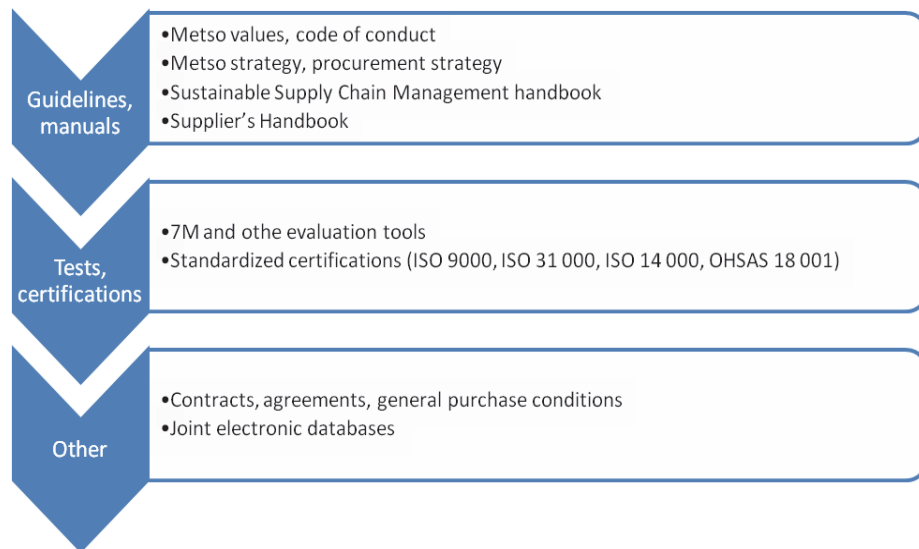
FIGURE 18   Current tools used in supplier cooperation by Metso.

Based on the information received in interviews and focus group meetings, many suppliers collect systematically feedback from the main contractor. Few of suppliers had a consistent system of assessment with the suppliers of their own, which may be due to the possible new network and chain structures or even the small size of the company (when systematic assessment tools are rarely in use and assessments are mainly based on individual perceptions). The in-

formation collected by the suppliers from the MC includes business operations and some elements, overlapping with relationship characteristics (mainly information flows). However, the supply chain relationship is not assessed in more detail from the point of view of collaboration by any of the parties.

Two-way assessment practices would support the partnership focus, as they would provide information on activities from the point of view of the partner. Also, it would support the strategic goals in managing supply chain development, partnering and supply chain relationship management. By using a two-way relationship assessment tool, it would be possible to evaluate the relationship performance extensively, and for the first time in the history of Metso's supply chain relationships.

8.3   Assessing the relationship performance

Since supply chain efficiency is the key to surviving in tightening competition among global supply networks, efficient performance and a systematic performance assessment has a vital role in supply chain collaboration. One of the aims in this study is to construct preliminary contents for a model, in which relationship characteristics could be utilized for an assessment tool in relationship development. In order to be able to assess the relationship and its performance as a whole, it is critical to include the assessment possibility for both parties in the relationship. Since one idea, forming the basis of supply strategies and SCM, is to find competitive advantages from interlocking relationships, it is vital to create a more comprehensive tool to find the success factors existing in relationships, as well as to point out the targets of the development in question.

8.3.1   Need for a performance assessment model

Harland (1996), summarizing research in dyadic relationships, states that although the scope has slowly extended into behavioral elements and softer relationship factors, only in a few studies the elements have been applied to cover relationships in chains and networks. He has found out the possibility of the Forrester effect also in softer performance elements in upstream organizations. (The Forrester effect has indicated the value of the chain position, chain volatility and increasing "noise" when moving upstream the chain. Traditionally, the Forrester effect has referred to logistical information received from the chain. [Forrester 1961.]) Harland (1996: S77) states that "…misperceptions between parties in relationships worsened in upstream relationships. Also customer dissatisfaction increased upstream". In other words, the gaps between the perceptions of what the customer requires and receives and what is provided appeared to increase significantly. Similarly, Stank et al. (1999) conclude that implementing and assessing relational performance is challenging. This refers to a need for analyzing perceptions of dyadic actors in upstream more comprehensively, in order to define and characterize relationship performance. Addition-

ally, since the upstream has more challenges in performing, the MC's end customer and the ways of approaching it become critical.

Only few studies cover an iterative, dyadic way of assessment, and, for example, the inter-organizational trust would be one of the critical foci in future research (Wagner 2006). Additionally, it is critical to note that traditional ways of assessment (suiting for example, in more market-based relationships) can hardly be applied to relationship assessment in network relationships (Doz & Hamel 1998). Therefore, a two-way model, assessing relationship performance in a networked context when relationship characteristics are concerned, is required. In Vesalainen's (2006) study on 115 Finnish business relationships, he has created an assessment tool (Partnership Monitor) that is based on similar theoretical background. However, in his tool, relationship characteristics were only included as one part of the monitor with a significantly smaller emphasis, compared to this study, e.g. he created a general overview on different assessment elements. Additionally, lists of themes and assessment questions have been presented that cover, for example, strategic alliances (Doz & Hamel 1998), but still lacking with a thorough set of question patterns that concern relationship performance from relationship characteristics point of view.

Vereecke & Muylle (2006) find that there are few empirical studies on relationships between customer-supplier collaboration and performance improvement that are based on field data. They found only weak empirical support between collaboration and performance progress. Performance improvement takes place when collaboration is increased, although the effect is minor. Vereecke and Muylle (2006: 191) also agree that when assessing the relationship between supply chain collaboration and performance, a model consisting of barriers and supply chain collaboration conditions needs to be developed. This shows that collaboration in a supply chain is not an automatic system providing successful results. The status of the relationship, the nature of the business and networks, level of investments in collaboration, partner characteristics, collaboration tools available, etc., there are many factors influencing the level of relationship performance. Therefore, in order to be able to tackle problems arising from collaboration and joint performance, a joint tool for performance assessment is needed.

The balanced scorecard of Kaplan & Norton (2004) provides a base for performance assessment in the area of supply chains. Regarding the revised strategy map and the elements of SCM and procurement integrated with it, Brewer and Speh (2000) presented a modification of the balanced scorecard (BSC). They integrated the SCM framework to BSC's elements of customer satisfaction (customer benefits from SCM), financial performance (financial benefits from SCM) and learning and innovation (as SCM improvement). As a fourth element, the BSC's internal view of processes was converted into SCM goals (partnership management and information flows as two from the main areas). This way, the performance measurement system was linked with the framework of supply chain management, which enabled the creation of metrics to assess performance in the supply chain, as well as to view the supply chain as an important part of

the organization's performance assessment. However, the critical factors in supply chain communication and relationship characteristics found in this study remained undefined and were not included in the elements of assessment. Also, a study provided an overview without a deeper insight into SCM framework elements.

One of the most important benefits of BSC is its wide use in organizations, as well as integrating different views (economic, financial, process and learning and growth) into a whole view of an organization's performance. However, few studies cover the use of BSC in the area of SCM and it has not yet been adopted widely in the supply chain environment. Another approach in measuring performance from the view of supply chain partnerships is based on EFQM (a model developed by the European Foundation for Quality Management). The modification, created by Kim et al. (2010) is proposed to be used in supply chains, as well as in partnership dyads within the chain. The EFQM model consists of five enablers explaining what and how an organization does: leadership, people, strategy, partnerships & resources and processes, products & services. The four results in the model describe what an organization achieves: people, customer, society and key results. Results are created by the enablers, and enablers are influenced by using the feedback from results. Together these 9 criteria create a prescriptive and holistic way to self-assess the organization's performance. 9 criteria are based on 8 fundamental concepts, describing characteristics or attributes of an excellent organizational culture. (EFQM Model 2014.)

Kim et al. (2010) propose a model with 10 critical areas for assessing the supply chain partnership. Based on a literature review, they list the 7 enablers (leadership, commitment, coordination, trust, communication, conflict resolution techniques and resources) that influence three areas of results (cost efficiency, output and flexibility). The enablers are partly overlapping with the contents of the theme clusters in this study (for example, with resources consisting of similar issues as the partnering criteria in this study), but in their article, the elements are listed without a deeper analysis or case studies in supply chains. However, this underlines the important task the management has, as well as the critical elements emerging from collaboration and the need for assessing the performance from their point of view. The key in performance measurement is that many elements that should be assessed are intangible. As mentioned before, Pike et al. (2005) underlines the role of intangible outcomes as key drivers of innovating and R&D by creating a core value in a new economy. This, however, has remained as in a minor role in the research of supply chain partnerships (Kim et al. 2010). The tangible performance elements (outputs) that in most cases are discussed and measured, as price, quality and delivery are integrated with intangible outcomes by Kim et al. (2010), and the study concludes with a suggestion of success factors. However, it will be necessary to extend and deepen the assessment of intangible elements in partnership performance.

The assessment models cover a variety of areas in business management and operations. The emphasis on relationship characteristics would provide an

added value that would significantly benefit supply chain relationship actors in their aims for developing competitive and agile supply chains.

8.3.2 Designing an assessment model

Based on the relationship characteristics and argument patterns in this study, it is possible to design preliminary elements of an assessment model. These elements include target groups, assessment process and suggestions for a model structure and model contents. However, this study does not cover the actual planning and designing a precise assessment tool, but gives guidelines for preliminary contents of an assessment model. Therefore, the discussion on possible assessment tool and its theoretic background is excluded from this study.

Since successful relationship management and communication is a vital part of a high level relationship performance, the assessment outcomes provide valuable information. When relationship characteristics are concerned, the main purpose in assessing them is to find out the status of a dyadic relationship. The main idea is to evaluate the level of collaboration from the viewpoint of information flows, power and dependence, trust, distance, partner characteristics and supply networks. This way it is possible to assess potential strengths and weaknesses of the relationship from the perspective of both partners.

Relationship performance assessment can be carried out as a part of a more extensive assessment process (in a supplier selection process, in audits, development projects concerning the operations as a whole etc.) or it can be conducted as a separate, limited study (in a specific development project, when a certain area of development is concerned etc.). However, in order to be able to see the progression of the chosen development issue, it is important to repeat the assessment (as a part of regular assessment practices) and always to contemplate its connection to the organizational strategy, procurement strategy, strategic policies existing in the supply chain relationship etc.

a. Target groups

A target group for assessment implementation is relationship actors in supply chains, mainly people who are managing, developing and operating in supply chain relationship in both companies. It is recommended to have relationship actors involved who have a long-term experience in practical operations with the partner in question (if partners share a joint history or have conducted co-operation before the assessment). The amount of people evaluating the performance and ranking the arguments depends on the amount of the critical relationship actors involved: however, it could be recommended, that there are people representing different operations (for example, production, planning, procurement, logistics, sales etc.) that are vital in the relationship in question. It is important to be able to provide a more extensive view on the performance, in order to find the areas of development critical for the relationship. Also, the specific aim how the assessment will be used defines the people who have a critical role in the assessment (whether there is a specific project that limits the

assessment goal or if the assessment is conducted to chart a more general view on the relationship performance).

b. Assessment process

As mentioned, in order to maximize the benefits gained from the assessment model, it is important that the relationship performance assessment is "embedded" with the strategic policy and strategic decisions conducted by the supply chain partners. A strong link with strategic guidelines ensures a long-term view and a high value of the assessment process. A systematic development requires regular and repetitive assessment. Also, when implementing the assessment, it is vital to take care of all the steps included in the process. As an example, an assessment process can consist of:

- background and needs analysis (why assessment is conducted, what is/are the main aim(s) in it, why it is important, where possible gaps exist, possible discrepancy between views on relationship failures, lost cases)

- selecting the themes most critical in the relationship in question (based on the needs analysis, depending on the level of generality or specificity)

- conducting assessment (method depending on the tools used, facilities and circumstances)

- analysis and feedback meetings (can be implemented as separate and/or joint meetings, seminars, workshops etc., analysis can be conducted by a third party or development actors jointly)

- deciding on further steps and linking the outcomes with strategic development (outcomes have to realized in a way that has a link to short- and long-term development and practical areas of development)

- repeating the assessment process in the agreed point in time.

As an outcome of the process, it is possible to receive information on factors supporting or inhibiting successful performance, that is, an indication on the level of the joint performance. Also, it can be assessed, if the outcomes reflect the strategic policies and whether the strategic message could be sharpened up. Respectively, as a part of the strategy process, it can be estimated which relationship characteristics support the desired strategy development the most.

When planning the assessment process, it is important to notice that there is no single way to implement the process and to use the argument patterns. Maintaining a clear connection between the assessment themes and the strategy in question motivates relationship actors to give their best input in the process. Also, it is vital to pay attention to analysis and feedback, as well as further steps, in order for development steps to be concrete and attainable in the supply chain relationship in question.

c. Model structure

In the focus group discussion, members did not conduct the actual assessment process with a certain assessment model structure. The arguments were discussed and ranked according to their current criticality ("Which of the arguments are critical in current SC collaboration with your MC / suppliers"). As one example of how the assessment model could be organized, is to give partners a possibility to give a numeric value as in Likert's scale (1-5) according to their view on the relationship in question and its current status. In the assessment, partners need to be instructed that they assess the relationship performance from the point of view of the company (their own or their partner's company, depending on the argument). That is, they provide their view and perception on the relationship performance the partners are conducting.

The way of conducting the assessment depends on the supply chain relationship and the tools used in it. For example, the assessment can be presented in a joint database that both parties have an easy access to, it can be facilitated as a paper copy form that is filled in a joint meeting etc. If the amount of arguments is high (153 arguments, Appendix II: Argument patterns), it may be useful to decrease their final amount by, for example, concentrating on fewer themes of development. This simplifies the task of participants involved in an actual assessment. However, in some cases it is useful to receive more detailed information on a specific area of relationship characteristics and extend the depth of the development themes.

d. Model contents and outcomes

The assessment as a part of the development process is emphasized. Also, the model contents are linked with the actual dyadic relationship and the challenges and competitive advantages, existing in it. Therefore, it is necessary to study the relationship in question beforehand.

As mentioned, argument patterns were divided into 8 subgroups (see Figure 19 below). Two main groups of patterns are arguments describing one's own or partner's performance (in orange) and arguments describing the joint performance (in green) in the supply chain relationship in question.
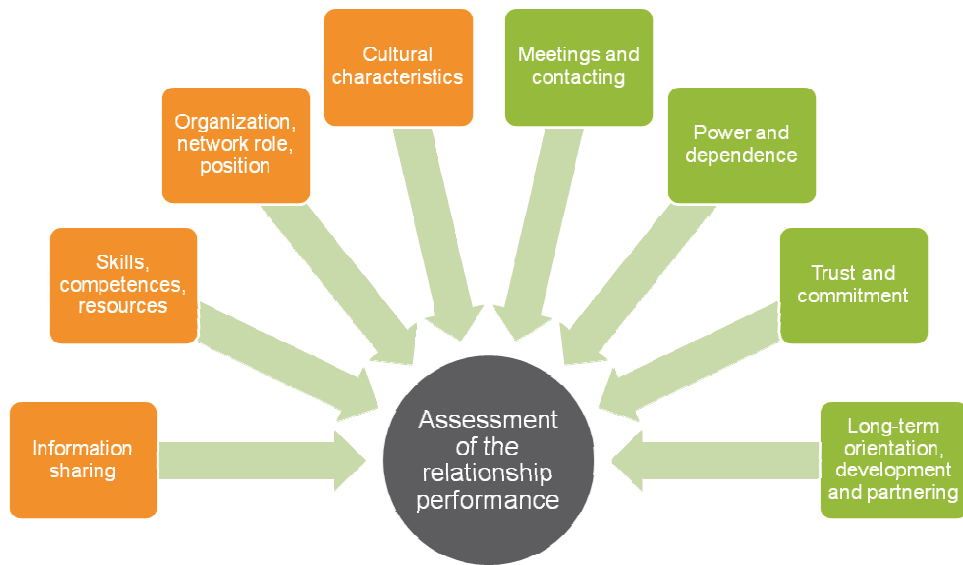
FIGURE 19   Subgroups of argument patterns.

Again, presenting the outcomes depends on the goal of what information is in the main focus of the assessment conductors. For example, a general table (such as Table 22 below) of the most important conclusions can be presented as a main outcome, after which detailed results and indications on further development can be discussed and analyzed with more detailed ways.

TABLE 22   Presenting results in a performance assessment tool – a suggestion of an overview.

Theme	Contents of argument patterns	Result /Level/Outcome	Interpretation, meaning	Suggestions for further development steps
Information sharing	Feedback	(In Likert's scale / How results are interpreted)	(What does it mean in supply chain relationships)	(How to proceed)

When interpreting results, it can be useful to go back to relationship enablers and barriers (tables in the chapter 7.3.) and their detailed descriptions in different organizational levels. Moreover, the value of each development issue can be ranked, in order to chart the time span and the order of the issues that need further operations. The results of joint performance and the role either of the partners has in the development process need to be taken into account. After a general analysis one may proceed in more detailed outcomes.

Besides defining the relationship characteristics in a main contractor – supplier relationship, this study also concerned assessing and analyzing of performance. For this purpose preliminary contents for a model were brought together, in which relationship characteristics could be utilized for an assessment tool in relationship development.

9 DISCUSSION AND CONCLUSIONS

The aim of this study was to better understand dyadic relationships supply chain relationships in industrial networks between main contractor and suppliers. Because of the challenging and turbulent business environment, a strong influence of global economic changes in business structures, it is vital to collaborate with fewer partners. The product life cycle has shortened and via developed communication technology it is possible to transfer and receive new and updated information more rapidly. These factors support transferring from market- and vertically based to network-based business (Möller et al. 2009), where developing, planning and production are carried out simultaneously. This forces companies to concentrate on their core competence and to create extensive network of suppliers to provide the extended concept of product and service providing flexibility, agility and efficiency. In this process, effective operating in boundary spanning interfaces plays a critical role. Therefore, the focus of this study is on defining the critical factors in dyadic relations of main contractor and its suppliers.

The unit of analysis is Metso Paper Ltd. and its suppliers, focusing on the relationship between Metso Paper Ltd. as a main contractor and its suppliers that are defined as partners or are close to a partnership relationship. The data was collected during years 2005-2012 by using different data collecting methods. In-depth interviews were made with the representatives of the main contractor and suppliers. Further, after the data categorizations and in-depth analysis, two focus group interview sessions were conducted, one representing the management level of the main contractor and the other consisting of supplier representatives. There was a great amount of background information concerning both parties and their relationships: the information is based on the author's working experience and participation (during years 2001-2006) in various development projects, seminars and meetings, where the focus was on supply chain relationships of the partners in question, their creation and development.

9.1 Reflecting on dyadic relationships

In this study, different theoretical approaches are integrated into a basis that facilitates an analysis of critical factors in dyadic relations in supply chains. Since all business activities should be based on strategic policies made by the organization, it is vital to include a perspective of strategic management into the analysis. The role of the management in supply chain collaboration has been proved to be critical. It has an important role in supporting the supply chain actors in their communication. Since management can "adjust and alter the social context surrounding the organization" (Pfeffer & Salancik 1978: 20), it has an important role in perceiving and supporting supply chain actors' to perceive the environment, the supply chain and the network. Perceptions influence the strategic decisions conducted by management concerning the supply chain. As Maloni & Benton (2000:67) state, when designing a supply chain strategy, "[F]irms must understand their chain partners in all respects, including the sources, imbalances, and consequences of power". Therefore, it is vital to interview both parties concerning the level of mutual understanding of main relationship elements.

Collaboration in supply chain relationships has to be based on strategic policies, implemented and followed by supply chain partners. In this study, the main contractor and its strategy were in critical focus in carrying out supply chain relationship development. The strategic map of Kaplan & Norton (2004) highlights the different views of the organization, its functions and even its stakeholders, e.g. it helps different groups of interest see elements of the organizational strategy and their meaning in conducting business. Simultaneously, the strategy map of Kaplan & Norton (2004) points out the critical components, defined by Hofer & Schendel (1978): competencies, competitive advantages and synergy between the business scope and competitive advantages.

Supply chain management has currently strengthened its critical role (Storey et al. 2006), growing apart from the traditional position of purchasing. Although the role and the status of the supply chain management as a discipline has been criticized (Storey et al. 2006), it concentrates on issues that are relevant to dyadic relationships and their analysis: interdependence, deeper, long-term, multi-faceted relationships, information and knowledge sharing in supply chains and a more holistic view on the factors influencing on supply chains. Additionally, if SCM provides a more "idealized schemas of optimal routes and quantities for demand fulfillment when considered from a whole-network or chain perspective" (Storey et al. 2006: 760), the data of this study offers a more practical picture of the reality where relationship actors are operating. Further, the data contributes a reality and realistic views on relationship characteristics and their meaning (how they are understood and prioritized) by relationship actors in everyday business operations.

Communication can have several realizations, when analyzing it in dyadic supply chain relations. On the one hand, it connects the relationship interfaces

(Mohr & Nevin 1990: 36) and enables business relationships to be created and developed (this way, affecting the performance and its level [Stank et al. 1999, Knemeyer & Murphy 2004]), and on the other, it can be seen consisting of elements that can be analyzed and perceived based on different theoretical approaches. Communication exists in interaction. Communication reflects power and dependence relations, organizational elements and choices conducted by the management level, joint decisions on rules (or lack of them) and social exchanges taking place in the relationship. Further, it reflects equity (fairness) and the level of trust in the relationship. Therefore, it is vital to include social theories covering relationship and their elements and network dynamics into the analysis, since they all are reflected in communication in supply chain relationships. Respectively, since networks create the environment where supply chains, more specifically, dyadic relations, take place and operate, it is necessary to view them from the perspective of transaction economics, resources, capabilities and knowledge.

9.2 Relationship characteristics and their value in supply chain relationships

Based on the strategy definition by Hofer & Schendel (1978), it can be interpreted that strategy creating process is a dialogue between the organization and its environment. This strengthens the role and impact the stakeholders have in jointly creating the competitive advantage. Based on the data, the supply chain can be seen as one of the critical areas that provide the competitive advantage. High expectations and requirements are targeted to supply chain activities: agility (similarly to Li et al. 2008) and responsiveness (similarly to Gunasekaran et al. 2008) are seen as factors providing the competitive advantage. However, this requires intensive collaboration between SC partners.

In order to be able to define critical factors of dyadic supply chain relationships with a greater detail, it is necessary to find the characteristics of main contractor – supplier relationships. This was the first aim of the study. The interviews conducted to answer research questions 1.1. and 1.2. provide answers concerning the relationship characteristics. The R.Q. 1.1. is stated as: *What are the relationship characteristics in the case organizations (main contractor and suppliers)?* As Granovetter & Swedberg (1992) state, despite the perspective how organizations are analyzed, the essential is that actual and concrete interactions between people, individuals and groups are in a focus. Also, this is the point where different theoretical views are also built. Without an analysis of the concrete situation it is impossible to receive information on relationships existing in the current business environment. Therefore, the interviews identified the relationship characteristics, critical in supply chain relationships. The R.Q. 1.2. is: *What is the interrelatedness and the weight when prioritizing the relationship characteristics in question?* Finding relationship characteristics does not provide the

final answer: it is necessary to prioritize and set values on each of them, in order to understand the meaning of the relationship for the supply chain members. Further, weight of each relationship characteristic helps when categorizing and processing them further.

The main clusters of themes, characterizing the MC – supplier relationships in this study, were defined as (in order of importance):

1. Information flows

2. Power and dependence

3. Trust

4. Partner characteristics

5. Distance and

6. Supply networks.

The first three clusters clearly concern the relationship and its contents, whereas the last three theme clusters include information on organizations, their networks and business environment. Interestingly, although the open questionnaire consisted of questions concerning the organizational characteristics and networks, their value in the interviews were left as minor. This also points out the importance of the relationship contents.

Resources of both partners were clearly defined as factors creating competitive advantage (following Peteraf 1993). Based on the data, the strategic goal of both partners was found to be maximizing the benefits of both parties (similarly to Kelley & Thibaut 1979), simultaneously emphasizing the critical role of the relations have in gaining the benefits (Dyer and Singh 1998, Dwyer et al. 1987). Interestingly, communication on a strategic level (e.g. including it in strategy contents) was not found as relevant or significant in supply chain relationships.

a. Information flows, trust and power and dependence

Supply chain relationships can be seen as relations of exchange and dependency (Monge & Contractor 2003: 219). As one concrete sign of an exchange, information is received, sent and shared. Increase in two-way information flows, timing and information contents were mentioned as critical factors that would improve the effectiveness in the relationship.

Information flows are also strongly linked with power relations. Although according to the social exchange theory, rewards are expected in return in a relationship where something valuable is given, the relationship actors may behave against the social exchange theory expectations. This underlines Emerson's (1976) indication of power in the exchange relationship. For example, although a supplier would expect that it is rewarded by the main contractor when

the supplier shares valuable information (that would change a way of operating), the main contractor may ignore it and may use its power by keeping the situation the same. Although the use of power imbalance may not provide a positive result for the main contractor (in the relationship in a long run) and may even be against the strategic goals defined by the MC, the power imbalance is utilized anyhow. Reasons for using "not rewarding ways" in a supply chain relationship can exist in lack of communication or social relationships between the relationship actors, or if the MC does not regard its dependence on the supplier as significant and does not want to return the favor for the supplier (contrary to Blau 1968 but similarly to Emerson 1976: 347).

The increasing level of dependence was recognized by both parties, with a higher level of commitment to the relation. This is partly similar to Blau's (1964: 99) statement of a higher level of dependency and commitment but partly contrary to it, since dependence was partly interpreted following the ideas of the transaction economics theory (Williamson 1971, 1987, and 1991), underlining the power and dependence of the main contractor over its suppliers. Interestingly, this view was possessed by the representatives of the suppliers, whereas the main contractor's perspective indicated to more dependent relationships on suppliers and interdependency. This is contrary to Spekman et al.'s (1998) statement that buyers may not acknowledge the dependence on their suppliers, e.g. the vital role of suppliers has been considered by the main contractor.

However, the concepts of power and dependence have many realizations. The possible dependence on 2nd tier supplier was mentioned as a significant factor, possibly influencing the willingness to control and manage suppliers in a more traditional way. This follows Lambert et al.'s (1998: 3) statement of a power holder based on the significance of the relationship with the end customer.

Besides the MC's view on interdependent relationships, a need for controlling and managing suppliers (relevant to transaction economics approach) and their operations were found which is contrary to the idea of partnerships as more equal (interpreted as fairness by the suppliers, similarly to Kumar et al. [1995]) and a hybrid of vertical and market based transactions (Williamson 1991, Möller et al. 2009). In general, the main contractor was found to have more power in relationships than the suppliers, that is, the signs of a power holder were detected more often with the main contractor. Similarly to Casciaro & Piskorski (2005), "a shotgun marriage" with a more powerful partner was seen as reducing the willingness to develop the relationship further. In a case of power imbalance, the main contractor has a vital role in creating a climate of equity in the relationship (similarly to Maloni & Benton 2005). In any case, the supplier can act in a vital role of switchers (following Castell's [2004, 2009] definition) by operating in a supply chain of the MC's competitors. This would also provide benefits for the main contractor.

Fairness (following Sako's [1992a, 1992b] concept of goodwill) and an open dialogue and consistency (similarly to Spekman et al. 1998: 634) were considered as signs of a trustful relationship. In the beginning, organizational level of trust played a critical role, whereas when relationships developed, the indi-

vidual level became more important (Zaheer et al.'s [1998] inter-organizational and interpersonal trust). The contract and its function varied between the partners: whereas suppliers considered it more as a formality (taking contract and its conditions into discussion were linked with a lower level of trust), the main contractor referred to it when discussing the consistency of the relationship, e.g. it was found as a positive factor. The main contractor's view on contracts function reflects Sako's (1992a, 1992b) definition of contractual trust. Interestingly, this can be interpreted that suppliers, emphasizing elements of goodwill trust, could be seen as being in a more developed stage of the relationship development, whereas contractual trust (from the main contractor's perspective) would refer to the beginning of the path of the relationship development (following Sako 1992a, 1992b, similarly to Gulati 1998). The potential and benefits that trust could provide remained still not fully implemented by both partners. For example, trust reducing time and costs in negotiation, problem solving and other operations were not detected. Trust referring to equality (Yilmaz et al. 2005) was, however, discussed and valued.

b. Partner characteristics, distance and supply networks

Interestingly, when discussing partner characteristics main contractor's characteristics were not mentioned, whereas suppliers' characteristics were often referred to as partner selection criteria. This may incline the possible power imbalance and its effect on discussion or partner characteristic were identified as features and benefits that influence the partner selection criteria. In defining supplier characteristics, more organizational features were discussed. Interestingly, discussion on partner selection criteria reflected power and main contractor's status as steering relationships, personal contacts and organizational benefits. This way, criteria appeared to be multifaceted. Some reasons for networking and partnership creation were similar to Vesalainen's (2004) list of benefits that can be realized in dyadic relationships (possibilities for supplier to develop their operations, decrease in various costs, participation in R&D etc.). Similarly, when discussing supply networks of suppliers and the need for creating them, the progress was found as decreasing power from the main contractor. Again, the power dimension implicitly existed.

When defining the role of a partner's location and distance between partners, there were some contradictories found. In general, closeness was considered as a benefit, providing also cultural similarities (partly following theories of proximity and homophily, explained by Monge & Contractor 2003). However, while organizational aims (of the main contractor) emphasize globalization in supply chain development and that way distance between partners should not play a great role, suppliers (also foreign suppliers) agreed with the benefits and superior position of such suppliers that are located near the (Finnish) main contractor. In this way, the role of culture was seen as an influencing factor. Again, while the location had a minor role when relationship characteristics were con-

cerned, it can act as an important strategic tool, although the official policy based on organizational strategy differs from it.

The concept of a partnership raised interesting themes concerning its definition and interpretation. It seems that a partnership exists both in contracts and as "a state of mind". When discussing partnerships, firstly contracts were mentioned, but the actual existence of a partnership existed or not existed in views on the actual business situations and their success (or lack of success). Some relationships were considered as a partnership by one or both parties, although it did not fulfill the characteristics of a deeper collaboration relationship. This refers to a significant role of the perceptions of the supply chain actors and a need for explicating perceptions thoroughly and jointly with the partner.

When looking at answers to R.Q.s 1.1. and 1.2. it can be noted, that relationship characteristics can be divided into six clusters of themes: information flows, power and dependence, trust, partner characteristics, distance and supply networks. Based on the outcomes in this study, the main value was found in clusters considering clearly relationship and its contents (e.g. information flows, power and dependence and trust), whereas characteristics connected more to organizational and network features (partner characteristics, distance and supply networks), describing the environment "outside the relationship itself" were not considered as significant as the first three clusters. Further, the relationship characteristics provide a good starting point for processing them into factors that explicate the relationship development with more detail.

9.3 Enablers and barriers indicating factors in relationship development

Relationship characteristics as such provide valuable information on factors concerning the actual collaboration in supply chain relationships. However, it can be seen as a starting point, from where it is necessary to move forward towards the direction of processing them for the use of development and performance assessment. Relationship characteristics indicate factors that influence the development of main contractor – supplier relationships, but as such they do not totally explicate the actual factors that should be tackled with or supported. In other words, there are factors that positively and negatively influence the relationship development. Therefore, the research question 1.3. is: *Which characteristics may enable and support and which may prohibit the relationship development?*

In a revised strategy map from procurement's perspective (Chapt. 4.6), the importance of competence development (e.g. also knowledge sharing) is obvious. The emphasis of learning and growth in an organizational strategy as one of the main foundation for success is reflected also in main contractor – supplier relationships. This follows the theoretical views of dynamic capabilities (Teece

et al. 1997) and knowledge (Teece 1998, Nonaka & Konno 1998). In other words, strategic policies set requirements for relationship actors to develop tools for relationship development and relationship assessment, in order to be able to map the competencies (and their level) existing and not existing in relationships.

Enablers and barriers can be seen as dynamic, changing according to the phase of the relationship. In different phases of relationships they can serve as a list of factors indicating the topics vital to be discussed and assessed. Since development tasks concern every level of an organization, enablers and barriers are divided into three levels: strategic, tactical and operational levels. That way, each level of actors and its representatives are linked with enablers and barriers. Especially, the tactical level is critical, since if development topics are not budgeted annually, their value and implementation remain weak. Further, since enablers and barriers cover a variety of topics, they are divided into factors concerning relationship management (relationship and its contents) and supply chain management (covering especially procurement and resources).

There has to be a multidisciplinary approach, when studying dyadic relations (with the context of supply chains), but it is necessary to choose one "entry", where to view matters that exist in the relationships in question. When searching for material concerning the topic, a diversity of literature was found that also covered enablers and barriers in supply chains and from a perspective of supply chain management. The emphasis in many of them was solely in, for example, logistics or engineering, with some elements of communication and supply chain relationship collaboration included. What distinguishes them from this study is the emphasis. For this research a perspective of dyadic relations was chosen with the notice that logistics, engineering, production, marketing in boundary spanning relationships are operations where themes of communication are realized. In other words, power and dependence relations, information flows and trust take place and exist (or do not exist) in these operations.

Based on Weick's (1979) view on creating a congruent picture, personnel and stakeholders' predispositions on the organization, on its identity and reality, have to be included. This concerns also strategy creating and implementing processes. Simultaneously, it creates a solid ground for relationship building and development. In other words, the critical role of management in strategy design and implement has to be acknowledged as an enabler, and further, especially when planning, building and developing supply chain relationships, the management level has to be strongly involved. In other words, the management level in supply chain management and its involvement and participation in relationship development acts as a significant factor in solving many barriers concerning relationships and their management (similarly to Storey et al. 2006).

Similarly to the dynamic capabilities and knowledge-based views, enablers and barriers consist of multiple factors concerning competencies and their development. Partly, enablers and barriers suggest solutions for better relationship development. For example, need for systemacy in communication (information sharing) requires strategic guidelines in a form (as an example) of com-

munication or partnering strategy. Also, cross-functional teams (similarly to Fawcett & Magnan 2004) may decrease barriers concerning lack of information flows, support joint research and development operations.

Interestingly, friendships and their importance in supply chain relationships divided views of suppliers and the main contractor. Similarly to Gligor & Autry (2012), friendships were acknowledged as boosting positive outcomes in collaboration, but, especially from the main contractor's point of view, they were seen simultaneously as a clear barrier, preventing objectivity in decision making. In general, many enablers and barriers reflect the need for transparent and consistent supply chain behavior (similar to Cousins et al. 2006). For example, defining critical boundary-spanning people, clear responsibilities for both parties, making strategic policies explicit and discussing explicitly benefits that parties contribute and expectations set for the partner (all topics emphasizing the long-term basis) increase the level of consistency and transparency. Respectively, this was linked with fairness (e.g. feeling of power balance), a higher level of trust and commitment.

One factor that did not appear in data very clearly, was Cooke's (2003) statement of collaborative thinking inside one's own organization. It can be seen beneficial to inter-organizational relationships, too. For example, rewarding may often follow the traditional organizational structures, although work is performed in cross-functional teams. In other words, a "collaborative state of mind" can benefit the joint operations. Risk sharing and its meaning in collaboration (Hallikas et al. 2004) were rarely discussed in the interviews, although risk sharing can be seen as one of the strategic benefits in partnership relationships. Although friendships were one of themes in data, individual characteristics of relationship actors were not discussed e.g. all the characteristics mentioned were linked with the organizational level and organizational features.

It is important to notice, that enablers and barriers and their definitions do not define the positive or negative status of current supply chain relationships (in scale good or bad). The tables, defining enablers and barriers, are derived based on the data received in this study, but they do not express the current situation of the relationships. In other words, enablers and barriers are derived from elements of relationship characteristics and point out the potential enablers and barriers that can exist in supply chain relationships.

As an answer to R.Q. 1.3, it can be summarized, that all relationship characteristics can be further derived as enablers and barriers. They emphasize a need for strategic policies (communication, partnering and organizational strategies) and their implementation at all levels (management, tactical and operational). They underline the importance of relationship management and supply chain management as keys for better relationship development. They explicate the necessity of successful definition of and investments in tangible and intangible resources and, simultaneously, create a set of managerial questions that need to be answered. All in all, these enablers and barriers contribute critical elements in relationship development and, further, in relationship assessment.

9.4   Argument patterns providing a basis for an assessment model

While enablers and barriers clarify the topics critical in relationship develop-
ment, they also indicate to factors that could inhibit or support the successful
performance in dyadic supply chain relationships. In other words, they create a
basis of issues that need to be taken into account when assessing relationship
performance. The second aim of this study was to construct preliminary con-
tents for a model, in which relationship characteristics could be utilized for a
basis of an assessment tool in relationship development. In order to answer the
vast expectations, the supply chain management level has to possess tools for
supply chain and relationship assessment. Instead of the traditional, one-way
assessment (Iloranta & Pajunen-Muhonen 2008), the management level needs
assessment tools that express the elements of the relationship, e.g. from the
viewpoint of both partners. Often, supplier development is implemented and
looked for (Krause et al. 2000) (e.g. one-way direction), but, similarly to Chen &
Paulraj (2004) and O'Toole & Donaldson (2002), the author would like to stress
the iteratively (two-way) conducted ways of assessment and concepts of the
relationship performance and relationship development, that refer to joint in-
volvement in development and two-way assessment as one of the development
tools. Since the stakeholders are in a key position (Freeman 1984), influencing
the total value produced in the supply chain, it is vital to include both up-
stream and down-stream perspectives (Mills et al. 2004) in this study. Although
the contents of assessment tools vary, elements referring to collaboration and
communication are included (Ruohomäki et al. 2003) but usually they remain
superficial, not clarifying the essence of relationship characteristics.

Therefore, the research question 2.1 is: *How are the relationship characteris-
tics evaluated by the focus groups (MC's management level and MC's suppliers)?* Re-
spectively, the research question 2.2 can be defined as: *How are the relationship
characteristics prioritized by the focus groups (MC's management level and MC's sup-
pliers)?* In order to find the priorities of the relationship characteristics that re-
spond to strategic policies of the main contractor and its suppliers, it was neces-
sary to organize focus group meetings, where characteristics are further ana-
lyzed. Before focus group meetings, the enablers and barriers were transferred
into a form of arguments that express the contents of supporting or inhibiting
factors in the relationship development. Also, they were categorized and named.

The argument patterns, created in this study, are constructed in a way that
it is possible to collect information on perceptions that both parties have con-
cerning the relationship performance. There are expectations for suppliers that
they have to fulfill. Respectively, in the sense of fairness and equality, it is im-
portant to ask for suppliers' expectations towards their main contractors. Since
the relationship should be two-way with a high level of collaboration, it is im-
portant to ask for and expect that both parties are operating with similar part-
nerships aims. As a result, partners of arguments were categorized as follows:

I Patterns of arguments describing own or partner's performance (81 arguments):

1. information sharing

2. skills, competencies and resources

3. organization, network role and position

4. cultural characteristics

II Patterns of arguments describing joint performance (72 arguments):

1. meetings and contacting

2. power and dependence

3. trust and commitment

4. long-term orientation, development and partnering.

The three dimensions (one's own performance, partner's performance and joint performance) create the relationship performance. Similarly to Kim et al. (2010), tangible and intangible elements are integrated, when assessing relationship performance. Focus group participants evaluated the arguments and, in individual tasks and joint workshops and discussions, discussed their value and importance in the current business environment in current relationships.

As an answer to R.Q. 2.1 the main contractor's strategic foci served as a background in focus group discussions. Arguments concerning information sharing, competence development, power and dependence, trust and commitment and long-term orientation, development and partnering were especially in the center of discussions. Additionally, especially the suppliers' meeting covered topics concerning organization, network role and position. The topic in question may have emerged because of strong aims of creating global supply chains which may complicate operations of current suppliers. The power and dependence was again at the center of discussion and evaluation. Although the main contractor acknowledged the dependence on suppliers, in focus groups, a two-way dependence relationship remained as a delicate topic. Based on the previous data and focus group meetings, it is important to focus on power and dependence relations as one of the main themes in future relationship development and relationship assessment. Also, it is vital to contemplate, how possible previous experiences on power relations could be utilized positively in further relationship development. Also, aims to find out joint benefits from the collaboration relationships make the reasons for partnering more explicit and in this way strengthen supply chain relationships.

In answering R.Q. 2.2, when prioritizing the argument patterns, the following themes were found as critical (by both parties): mutuality (two-way), regularity, proactivity, sufficiency in skills and investments in relationship, role

of cultural background, atmosphere that supports problem solving, high level of motivation, mutual trust and confidence in the relationship partner, joint development and a high level of joint competitive advantage. These themes follow the reasons for networking and simultaneously reflect the desired ways of working and outcomes in the relationship. Although power was seen as one of the central issues, opportunism and arguments concerning it were found as irrelevant by both parties. Respectively, squeezing as one way of exerting power over the partner was not seen as relevant to include in the assessment. Interestingly, equality in the relationship was seen as irrelevant by the main contractor, whereas the suppliers found it as a critical topic. As a summary on argument patterns, they partly reflect the characteristics of more vertical based market operations, but both parties strongly acknowledge and also implement the elements that are vital and base the reasons for creating partnerships in supply chains.

Based on the argument patterns, it is possible to design a tool for relationship assessment that would also serve as a one background information source for assessing the realization of strategic decisions (of the main contractor, for example) in the relationship. The argument patterns that were modified based on the relationship characteristics (theme clusters and enablers and barriers with the strategy context) can be used as contents in different assessment models. An assessment model should be tailored according to the target groups, keeping in mind that it consists of the three elements of assessment (one's own, partner's and joint performance in focus). Also, groups of argument patterns can be chosen based on current strategic priorities and strategic aims that need to be met in the relationship in question. The assessment method, the target group, aims and the purpose of the assessment, as well as the supply chain relationship as a whole define more specific requirements and ways of using the argument patterns. All in all, the groups of argument patterns contribute a valuable basis for further relationship development and relationship assessment.

9.5 From relationship characteristics towards performance assessment

The critical factors, found in this study, refer to ways of working, e.g. rules existing in dyadic supply chain relationships. Simultaneously, they consist of information on actors, performing the rules in question: organizations and individual actors on different organizational levels. In other words, the critical factors indicate to mechanisms existing in supply chain collaboration in dyadic relationships. By pointing out relationship characteristics and processing them based on strategic perspective, it is possible to create systematics from "chaos" (based on Weick 2001), that is, every-day activities between two business partners.

When designing organizational strategy, and, for example strategy in procurement, it is vital to include elements of relationship management with suppliers as a focus. Therefore, when discussing customer relationship management, from the MC's point of view, why not talk about supplier relationship management strategy. This strategy would be based on targets defined for supply chain relationships and, especially, relationship development, as is visualized in Figure 20.
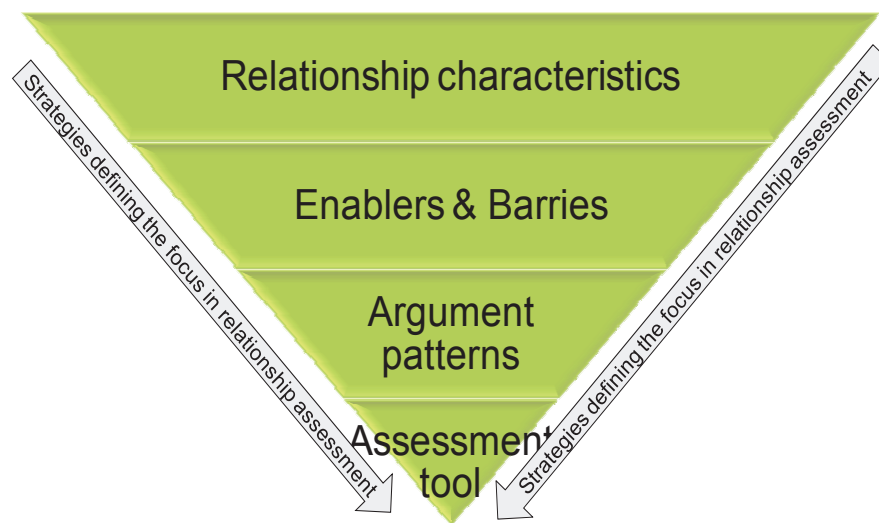

FIGURE 20   From creating relationship characteristics towards relationship performance assessment.

In this study, relationship characteristics have created a basis, from which it is possible to clarify the critical factors for performance analysis, and to arrange them as enablers and barriers that indicate to factors enabling or preventing relationship development. Enablers and barriers were derived from the data and their existence or nonexistence can be seen depending on various factors in dyadic relationships. In other words, they can be seen as changing based on the status of the relationship and of the surrounding business environment and business conditions. They also indicate to elements that need to be taken into account when assessing the relationship and its level of performance. Since they can either support and boost or prevent the successful operation, it is vital to find out whether they exist and how they influence the supply chain relationship. Therefore, argument patterns, based on enablers and barriers, were created. They consist of arguments with help of which both parties can assess their own and their partner's performance. This creates a basis for a two-way assessment tool that, naturally, has to be tailored according to the relationship and conditions in question. As a background, simultaneously pointing direction for the development path in the relationship, acts as the strategy (or strategies) of the main contractor. The strategy or strategies (organizational, procurement and possible relationship strategy) provide the policies that have to be imple-

mented and followed in the relationship. Therefore, the strategies have to contain the elements of the critical factors of supply chain communication, as well.

9.6 Summarizing the contribution of the study

The purpose of this study was to better understand characteristics of dyadic supply chain relationships, in particular, between the main contractor and its suppliers in industrial networks. With the characteristics, it is easier to analyze performance, and clarify enablers and barriers for relationship development. Therefore, the main research question of this study was: What are the critical factors in dyadic relations of main contractor and suppliers in industrial networks?

This study contributes to several areas of research. Firstly, it contributes a communication perspective to the field of management. Especially, the argument patterns, created in this study, enable better performance analysis in dyadic relationships. Also, the enablers and barriers provide information on factors that can either support or prevent successful development of dyadic relationships. The dyadic relationships consist of factors that support collaboration but also simultaneously they contain factors that can, for example, emphasize the competition and operations made on market-based ways of action (respectively, Brandenburger & Nalebuff 1996). In other words, the enablers and barriers clarify the critical questions the management has to answer when developing the dyadic relationship further. Particularly, this study contributes to supply chain management, where communication and its value in supply chain relationships is usually valued but hardly specifically described. Argument patterns provide a practical tool for the management level to describe and assess factors that are traditionally vaguely and little presented when performance of business relationships is evaluated. Therefore, in the area of supply chain management, the argument patterns help actors to recognize, discuss and develop factors that are critical when relationship development in dyadic supply chain relationships is concerned.

Secondly, the study contributes to (inter)organizational communication and, in particular, dyadic relationships in supply chains. To some extent, the results of this study support previous studies concerning the value and contents of dyadic relationships. Based on this study, especially, it is easier to understand the dynamics of dyadic relationships, when the ways of operating in a dyad (aiming for a long-term partnership relationship) are concerned. In other words, the relationship characteristics, enablers and barriers and argument patterns specify factors that help actors operating in dyads to understand communication in these complex relationships and reflect on factors that potentially influence the success of the dyadic operations.

9.7 Implications for future research

In this study, the preliminary contents of an assessment tool, that is, the patterns of arguments, is presented and suggestions for a potential assessment model are made. This can be seen as a starting point, from which it is possible to compile the final assessment model for needs of the dyad in question. The preliminary directions are given, but the target dyad and its needs dictate the actual implementation. Since arguments, designed in this study for assessing partnership relationships are partly static (performance based) in their nature, it would be beneficial to add elements that take the dynamic nature of partnerships into account. Brinkerhoff (2002) calls for necessity to include assessment elements that concern, for example, the relationship development process (which direction the partnership is evolving). However, as Brinkerhoff (2002) states, "[T]he assessment is process oriented both in the sense that it examines the processes by which partners interact and provide goods and services, i.e. focusing on actual operations and internal dynamics, and in the sense that the specifics of the framework design and implementation are themselves the result of process". Respectively, the use of assessment indicators, found in this study, refers to dynamic elements in the sense that the indicators need to be and can be revised based on needs and the status of the dyadic relationship, as well as, when using the indicators in the future assessment sessions, the assessment process should be seen as continuous, including regular and repetitive assessments with a tailored and modified list of argument patterns.

The requirements, set by the market environment and global competition, refer to a need for proactive, agile and innovative supply chain relationships in the future, as well. This can be achieved only in relationships where it is possible to continuously develop the relationship characteristics at its best performance. Therefore, a long-term-oriented approach is a vital part of relationship analysis.

The relationship and its development can be seen as a long-term process where different phases take place. In this study, the data contained mostly suppliers with whom the relationship has been an active partnership for many years, but there were also relationships that have been built only for a couple of years with the aim of creating a long-term partnership. Wagner (2011), using the life-cycle concept in supplier – main contractor relationships, points out that the supplier development has more impact in performance improvement in a more mature phase of relationship. Metso as a main contractor invests resources in relationship development in several ways: from general joint supplier meetings (delivering general info to the whole target group, collecting feedback etc. as Wagner's [2011]"indirect" supplier development) to tailored development actions according to the results in supplier audits in partnerships (as Wagner's [2011] "direct" supplier development). This implicates the implicit adoption of the life-cycle concept and the emphasis in the established relationships development: usually relationships become partnerships over time. In the

permanent, mature relationships phase, when partnership audits take place, tailored development projects are launched and invested in.

However, as Wagner (2011) emphasizes, it would be beneficial explicitly to assess the relationship status (initiation, maturity or decline) and focus on direct supplier development only in the established relationship phase. The long-term approach would provide more information on, for example, power relations and their development in different phases. The MC's role as a power holder may remain, but the location where the power exists may vary. It could be possible that in more mature relationships the MC's control over suppliers' activities (that was explicit in current relationships) may decrease, whereas the interest and the (possibly) more biased power position in it deepened, joint R&D cooperation may be emphasized. In other words, the time continuum and its influence on the relationship will assumingly be part of the focus area in a main contractor's procurement in near future, since the development work among partnerships and their development strengthens. In a new era of new companies, that is Valmet and Metso, the supply chain relationships in general may face changes where collaboration may make a new path easier to start.

The partnership barriers inhibit the actors to create a partnership, where all the added values based on a partnership are utilized, whereas enablers support and enhance creating and maintaining a partnership where both parties benefit from the partnership most. In future research, one of the central questions is, whether it is possible to reduce or minimize the barriers, originating from the relationship or to transform them into enablers in a way that strengthens the existence of the enablers. Also, it is necessary to consider, whether the barriers can be modified or minimized or, respectively, the enablers increased or maximized.

The concept of sustainability has become one of the keys in Metso's strategy. Sustainability reflects the current need for finding out most environmental friendly, ethical, responsible, cost-effective and innovative solutions that provide the best competitive advantage but simultaneously respect and acknowledge resources, communities and social structures where organizations and their employees are located. From the supply chain perspective, social sustainability (Hutchins & Sutherland 2008) exists in, for example, codes of conduct, but its influence in collaboration and, especially, communication has remained in a minor role in research. Similarly, the concept of green supply chain management (Sarkis, Zhu & Lai 2010) and its impacts on supply chain communication is an area that requires more attention.

Since this study provides an insight into the main contractor – supplier relationship, it would be useful to select other dyads in the supply chain into the focus, or even extend the study to concern the whole chain, if possible. Especially interesting would be to continue analysis from the perspective of the end customer: how, for example, the suppliers in the 1st tier are seen by the end customers and their operations, whether the partnership relationship can extend towards the end customer, too. Also, the factors found in this study would be intriguing to implement into other dyads existing in the supply chain, as well.

Naturally, networks and supply chain relationships may have their specific features and contexts that need to be taken into account. However, the focus of the future research, where relationship characteristics are used as a basis for the study, can be any business area where supply chains and supply chain relationships exist, since relationship characteristics consist of themes that are universal in any dyadic business relationships in supply networks.

In this study, in the concept of communication, its facilitating function (similar to Vos & Schoemaker 2011) is emphasized. It exists in dyadic relationships, when they are created, developed and also ended. Communication can make strategic decisions alive or (lack of it) can put it down, it can act as a glue between dyadic relationship actors or it can separate relationship actors, as well. The relationship characteristics open an interesting world to business relationships in a demanding area of business, where performance in networks and dyadic relationships indicate factors of success as a whole. In supply chains of high-tech industry these critical factors can support or prevent the relationship success. Therefore, it is vital to discuss relationship characteristics and integrate them with the strategic planning, especially in the area of assessment. This improves the competitive advantage that is highly valuable in current business environment. All in all, communication as enabling or preventing business relationships is crucial in our current networked, turbulent, and challenging world.

YHTEENVETO

Yritykset ovat kohdanneet suuria muutoksia toimintaympäristössään viimeisten vuosikymmenten aikana. Verkostomainen toiminta, jossa jokainen toimija, yritys, on osa suurempaa ketjua ja verkostokokonaisuutta, on arkipäivää. Samalla globaali talous ja kiristynyt kilpailu asettavat vaatimuksia ja ehtoja yritysten selviytymiskamppailulle: jokaisen yrityksen on oltava tehokas ja kilpailukykyinen osa ketjua, jossa ketjun tavoite, jäsenten rooli ja tehtävät sekä yhteiset pelisäännöt on määritelty ja toimivat tehokkaasti käytännön työssä.

Yritysten välinen yhteistyö luo ja tukee parhaimmillaan kilpailukykyä kiristyvässä ketjujen ja jopa kokonaisten verkostojen välisessä kilpailussa. Tämän vuoksi on tärkeää tarkastella tekijöitä, joita voi löytää toimitusketjujen, tarkemmin sanottuna, yritysten kahdenvälisten suhteiden viestinnässä ja yhteistyössä. Nämä kriittiset tekijät heijastavat potentiaalisia menestystekijöitä: yritysten välisissä kahdenvälisissä kumppanuussuhteissa yhteistyö ja yhteistyön laatu ovat merkittäviä vaikuttimia toiminnan tehokkuuteen. Yhteistyötä on tärkeää tarkastella yrityksen eri tasoilla (strategisella, taktisella ja operatiivisella tasolla), joilla kaikilla on erilaisia haasteita yhteistyön kehittämisessä kumppanuussuhteissa.

Tämän tutkimuksen tarkoituksena oli ymmärtää paremmin kahdenvälisten suhteiden ominaispiirteitä päähankkijan ja sen toimittajien välisissä suhteissa: tavoitteena oli tarkastella kriittisiä tekijöitä kahdenvälisissä suhteissa. Tutkimuksessa keskityttiin yhden päähankkijan (Metso Paper Oy:n, nykyisen Valmet Oy:n yhden business-linjan yhden Suomen yksikön) ja sen kumppanien välisiin yhteistyösuhteisiin. Kohteena oli näin ollen kahdenväliset eli dyadiset päähankkija-toimittajasuhteet. Tutkimus on laadullinen tutkimus, jossa syvähaastatteluilla pyrittiin vastaamaan tavoitteeseen: haastattelujen kohteena oli yhteensä 21 yhteistyösuhteiden edustajaa, päähankkijan ja toimittajien henkilöstöä Suomesta ja Euroopan alueelta (mukaanlukien Venäjä), pääasiassa henkilöitä joilla oli pitkäaikainen kokemus työskentelystä rajapintarakenteissa kumppaniyrityksen kanssa. Haastateltavat edustivat eri toimintoja, mm. hankintatoimen, oston ja myynnin toiminnoista. Lisäksi haastateltavina oli yhteistyösuhteiden johtamisesta ja kehittämisestä strategisella tasolla vastaavia henkilöitä.

Jotta yritysten välisiä yhteistyösuhteita olisi mahdollista ymmärtää syvemmin, oli välttämätöntä määritellä yhteistyösuhteiden ominaispiirteet. Näin ollen tutkimuskysymys 1.1. oli: *Mitä suhteiden ominaispiirteitä on case-organisaatioiden (päähankkijan ja toimittajien) välisissä yhteistyösuhteissa?* Määriteltäessä ominaispiirteitä tarkemmin, on myös esitettävä kysymys 1.2.: *Miten yhteistyösuhteiden ominaispiirteet ovat suhteessa toisiinsa ja mikä niiden arvo, ts. tärkeysjärjestys on?* Ominaispiirteet ja niiden painoarvo määriteltiin syvähaastattelujen perusteella. Jotta suhteiden ominaisuuksia (relationship characteristics) voisi hyödyntää strategisessa johtamisessa ja yhteistyösuhteiden kehittämisessä, ominaispiirteitä oli tärkeä jalostaa syvemmin arvioimaan yhteistyösuhteiden nykyistä tasoa. Siksi esitettiin tutkimuskysymys 1.3: *Mitkä ominaispiirteet voivat*

tukea tai estää suhteen kehittämistä? Tutkimuksessa siis listattiin yhteistyötä tukevia (enablers) ja yhteistyötä estäviä (barriers) tekijöitä strategisella, taktisella ja operatiivisella tasolla.

Yhteistyötä tukevista ja estävistä tekijöistä jalostettiin pohja työkalulle, jolla olisi mahdollista varsinaisesti mitata kahden yrityksen välistä yhteistyötä. Tämän vuoksi, tutkimuskysymys 2.1. kuului: *Miten päähankkijan ja toimittajien edustajat arvioivat yhteistyön ominaispiirteitä?* ja 2.2.: *Miten yhteistyön ominaispiirteitä, niiden välisiä suhteita ja merkitystä arvioivat focus-ryhmät (päähankkijan ja toimittajien edustajat)?* Toisin sanoen, tuloksena työkalun pohjaksi oli sarja väittämiä (argument patterns), jotka kuvaavat yhteistyön tärkeimpiä osa-alueita ja joiden avulla kumppanuussuhteita kehittävät yritykset voivat arvioida omien yhteistyösuhteidensa nykyistä tilaa ja kehityskohteita. Väittämiä ja laajemmin yhteistyösuhteiden ominaispiirteitä käsittelivät kaksi focus-ryhmää (yksi päähankkijan ja toinen toimittajien edustajista koottu), jotka analysoivat ja priorisoivat väittämät vastaamaan nykyisen toimintaympäristön haasteisiin. Tutkimusdata kerättiin vuosien 2005-2012 välisenä aikana.

Tarkasteltaessa toimitusketjuja ja niiden yhteistyötä ja viestintää, on tärkeää yhdistää erilaisia teoreettisia lähestymistapoja. Toimitusketjuissa tapahtuva yhteistyö ja sen tutkiminen perustuu strategiseen johtamiseen: se on ydin yhteistyösuhteissa tapahtuvan toiminnan ymmärtämiselle. Koska kyse on toimitusketjuissa tapahtuvasta viestinnästä, hankintatoimi ja hankintatoimen johtaminen (supply chain management) ovat tarkastelun keskiössä. Kontekstina kahdenvälisille suhteille on verkostomainen toimintaympäristö, joten teoriat, jotka kuvaavat teollisia, sosiaalisia ja strategisia verkostoja (mm. Håkansson & Ford 2002, Burt 1992, Gulati 1998, Brass et al. 1995, Brass et al. 1998, Jarillo 1993, Doz & Hamel 1998, Vesalainen 2006, Möller et al. 2009), toimivat tutkimuksen lähtökohtana. Verkostosuhteissa vallitseva ja jaettava sosiaalinen pääoma (mm. Nahapiet & Ghoshal 1998, Lin 2001a, 2001b, Granovetter & Swedberg 1992, Burt 1992, Granovetter 1973, 1983) ja suhteissa sijaitsevat resurssit (Penrose 1959 /1995, Peteraf 1993) heijastavat potentiaalia jota voi jakaa, välittää ja kehittää toimitusketjujen yhteistyösuhteissa. Yritysten kasvava riippuvuus toisistaan (resurssiriippuvuusteoria: mm. Pfeffer & Salancik 1978, Emerson 1962, Pfeffer 1981a, 1981b, Frazier 1983) on kriittinen tekijä, joka vaikuttaa kokemuksiin yhteistyösuhteen toimivuudesta ja valtasuhteista.

Vuorovaikutusteoria (esim. Möller & Wilson 1995, Håkansson & Ford 2002), sosiaalisen vaihdannan (Emerson 1962, Blau 1964, 1968, Homans 1958, 1974, Kelley & Thibaut 1979) sekä suhteita kuvaava lähtökohta (esim. Dyer and Singh 1998, Dwyer et al. 1987, Morgan & Hunt 1994) korostavat yhteistyösuhteiden tärkeimpiä elementtejä, vastavuoroisuutta, luottamuksen ja sitoutumisen sekä valtasuhteiden merkitystä. Nämä teoreettiset viitekehykset mahdollistavat yhteistyösuhteen tarkastelun syvemmin aina rajapintahenkilöiden väliseen arkipäivän yhteistyöhön saakka. Vastaavasti, suhteita voi tarkastella niiden välisten transaktioiden (Coase 1937 Williamson 1971, 1987, 1991, 1999) perusteella, joka on tärkeä lähtökohta verkostojen ymmärtämisessä mutta rajoittaa mm. luottamuksen ja syvän kumppanuuden analysointia (vrt. opportunismi lähtö-

kohtana yritystenvälisissä suhteissa). Nykyisissä syvissä kumppanuussuhteissa tuotteiden ja palvelujen kehittäminen on yksi elinehtoja. Sen vuoksi suhteita on hyvä määritellä niiden luoman tieto- (Nonaka & Konno 1998, Teece 1998) ja kyvykkyyspohjan (Hamel & Prahalad 1994, Teece et al. 1997) perusteella. Hiljaisen tiedon jakaminen edellyttää usein kumppanuussuhteita, joissa tieto kyetään jalostamaan kumppaneiden käyttöön. Tutkimuksessa käytettäviä teorioita on siis monia, jotta on mahdollista edetä verkosto- ja yritystasolta aina kumppanuussuhteissa toimivien yksilöiden välisiin yhteistyösuhteisiin saakka. Tämä on välttämätöntä, koska yhteistyö ja sen onnistuminen määritellään päivittäin operatiivisella tasolla. Operatiivinen taso on yhteydessä taktiseen tasoon, jossa tehdään suunnitelmat käytännön toteutuksille, ja strategisen tason yhteistyön kehittäminen luo suuntaviivat ja pohjan päivittäiselle toiminnalle. Toisin sanoen, arjessa ja teoreettisesti tarkasteltuna, on huomioitava yrityksen strateginen johtaminen, toiminnan suunnittelu ja sen toteutuminen suhteiden rajapintarakenteissa.

Määriteltäessä yhteistyön ominaispiirteitä, tärkeimmiksi aihealueiksi osoittautuivat tiedonkulku ja tiedon jakaminen, luottamus, valta ja riippuvuussuhteet, yrityskumppanin ominaispiirteet, kumppanin sijainti sekä toimitusverkostot. Tärkeimmiksi tekijöiksi muodostuivat tiedonkulku ja tiedon jakaminen, luottamus sekä valta ja riippuvuussuhteet. Nämä kuvaavat yhteistyösuhteen "sisältöä", kun taas yrityskumppanin ominaispiirtteet, kumppanin sijainti sekä toimitusverkostot kuvaavat suhteen "ympäristöä". Yhteistyösuhteen tärkeimmät elementit sijaitsevat siis suhteen sisällössä, kahdenvälisessä suhteessa.

Yhteistyösuhteiden ominaispiirteet osoittautuivat olevan vahvasti yhteydessä toisiinsa. Esimerkiksi tiedonkulku ja jakaminen sekä valta ja riippuvuus ovat selkeästi kytköksissä toisiinsa. Valtasuhteet saattavat heijastaa perinteisiä vertikaalisia verkostosuhteita, mikä saattaa näkyä esim. yksisuuntaisena tiedonkulkuna (toimittajalta päähankkijalle) tai resurssien ja kyvykkyyksien vähäisenä jakamisena: toiminnan kehittäminen yhteisesti edellyttää osaamisen jakamista ja avointa suhdetta toimijoiden välillä. Toisaalta, valtasuhteet voidaan tulkita vertikaalisiksi toimittajan toimesta, kun taas päähankkija saattaa korostaa toiminnassaan tasa-arvoista toimintatapaa. Kumppanuussuhteisiin panostetaan merkittävästi ja kumppanuus tulkitaan joko nykyisen verkostoajattelun tai vertikaalisen, perinteisen suhdeajattelun kautta. Paradoksina on halu kontrolloida ja säilyttää perinteinen valta-asema tasa-arvoiseksi tavoitellussa yhteistyösuhteessa. Luottamussuhdetta määrittelivät vahvasti reiluuden (vastaava Sakon 1992a, 1992b goodwill) ja avoimen vuoropuhelun ja jatkuvuuden käsitteet (Spekman et al. 1998: 634). Luottamus sijaitsee sekä organisaatioiden että yksilöiden välillä: yksilöiden välinen luottamus ja sen rooli vahvistuu kumppanuuden vahvistuessa.

Kumppanien piirteistä puhuttaessa keskustelu keskittyi toimittajayrityksiin ja niiden ominaisuuksiin, mikä saattaa heijastaa myös valtasuhteita. Toimittajayrityksen sijainnilla ja etäisyydellä kumppanista oli ristiriitainen rooli: suomalaisella toimittajalla nähtiin etulyöntiasema (ulkomaisten toimittajien arvioi-

dessa tilannetta), kun taas ulkomainen toimittaja kansainvälisine verkostoineen nähtiin kilpailukykyisenä ja tehokkaana verrattaessa kotimaisiin toimijoihin.

Jotta yhteistyösuhteiden ominaispiirteitä on mahdollista soveltaa yritystenvälisten suhteiden kehittämiseen, ominaispiirteitä oli jalostettava toiminnan mittaamiseen yhteistyösuhteessa. Datan perusteella tutkimuksessa määriteltiin yhteistyösuhteen kehittämiseen liittyvät positiiviset ja negatiiviset tekijät, ts. kehittymistä tukevat ja sitä estävät tekijät (enablers and barriers in the relationship development). Nämä tekijät vallitsevat strategisella, taktisella ja operatiivisella tasolla ja kuvaavat asioita, joiden tilaa on tärkeä arvioida, kun tutkitaan yhteistyösuhteen toiminnan tasoa (relationship performance). Caseorganisaatiossa ja sen toimittajasuhteissa käytetään erilaisia toimintaa mittaavia työkaluja, mutta yhteistyön elementtien (yhteistyösuhteiden ominaispiirteiden) systemaattinen ja johdonmukainen mittaaminen ja sen pohjalta suhteiden kehittäminen on puuttunut. Tutkimuksessa löydetyt yhteistyötä tukevat ja estävät tekijät osoittavat, kuinka välttämätöntä on verkostomaisen toiminnan peruspelisääntöjen tarkastaminen (mm. selkeät roolit ja tehtävät, vastuut, johdonmukainen toiminta, ongelmatilanteiden käsittely, vaadittavan osaamisen määrittely ja kehittäminen) sekä esimerkiksi luottamuksen, reiluuden ja valtasuhteiden arviointi käytännön yhteistyötilanteissa. Verkostomaisen toiminnan perusperiaatteisiin liittyvän riskien hallinnan ja jakamisen periaatteista (Hallikas et al. 2004) ei datan perusteella keskusteltu. Ystävyyssuhteet ja niiden merkitys heijastuivat sekä yhteistyösuhteita tukevissa että estävissä tekijöissä, ts. niiden olemassaoloon suhtauduttiin ristiriitaisesti.

Kun yhteistyötä tukevia ja estäviä tekijöitä tarkastellaan strategisen johtamisen näkökulmasta, korostuu tarve strategisten periaatteiden (strategic policies) kirkastamiseen: esimerkiksi, millaista viestintä- ja kumppanuusstrategiaa tarvitaan ko. kumppanuussuhteessa. Yhteistyötä tukevat ja estävät tekijät korostavat paluuta suhteiden johtamisen peruskysymyksiin, joissa viestintä ja yhteistyö painottuvat: mm. kuinka määritellä kumppanuussuhde ja kriteerit toimittajavalinnoille, kuinka vähentää epämääräisyyttä ja lisätä selkeyttä yhteisissä toimintaperiaatteissa, mikä on viestinnän rooli ja miten lisätä tasa-arvoa, luottamusta ja reiluuden tunnetta yhteistyösuhteessa jne. Toimittajuuden hallinta on yhtä kriittistä kuin asiakkuuden hallinta. Hankintatoimen johtaminen on tullut erittäin tärkeäksi osa-alueeksi yritysten kilpailukyvyn kehittämisessä, ja toimittajuuden hallinta ja toimittajasuhteiden kehittäminen on avainasemassa toiminnan tehokkuuden parantamisessa.

Jotta kumppanuussuhteiden kehittämisestä tulisi systemaattista ja johdonmukaista, kumppaneiden on annettava kriteerit ja työkalut, joilla mitata yhteistyösuhteen nykytilaa ja sen kehittymistä. Sen vuoksi yhteistyötä edistävistä ja estävistä tekijöistä luotiin alustava pohja työkalulle suhteen mittaamista varten. Kattavaa suhteen mittaamista varten tarvitaan arviointi sekä toimittajalta toimittajan omasta ja kumppanin toiminnasta että päähankkijalta päähankkijan omasta ja kumppanin toiminnasta. Lisäksi on arvioitava elementtejä, jotka liittyvät suhteen yhteiseen toimintaan ja sen tehokkuuteen. Väitteitä, jotka kuvaavat yhteistyön tilaa kolmesta eri näkökulmasta, luotiin datan perusteella 153.

Niiden käyttö mittaustilanteessa on vahvasti riippuvainen mitattavista kohteista, niiden tavoitteista sekä mahdollisista teemoista, joihin halutaan keskittyä tarkemmin. Toisin sanoen, tutkimuksen perusteella ehdotetaan, että väitteistä valitaan osa, jotka kuvaavat ko. kehittämisteemaa, ja mittauksen perusteella arvioidaan syvemmin ko. aihealuetta. Toinen vaihtoehto on suorittaa yleiskatsaus ja käyttää suurempaa määrää väitteitä.

Argumenttilistat voivat toimia vain tukena mutta eivät lopullisena lopputuloksena kehittämistyössä. Ne tukevat keskustelua kehittämiskohteista ja konkretisoivat teemat, jotka usein koetaan yhteistyössä haastavina, ts. ihmisten välisen vuorovaikutuksen ja yhteistyön teemat. Focus-ryhmäkeskusteluissa erityisesti tiedon jakaminen, osaamisen kehittäminen, valta ja riippuvuus, luottamus ja sitoutuminen ja pitkän aikavälin näkökulma suhteen kehittämiseen ja kumppanuuteen olivat vahvasti esillä. Haaste luoda globaalit toimitusketjut korostaa erityisesti näitä teemoja yhteistyösuhteiden kehittämisesssä. Kun suhteen ominaispiirteitä ja tarkemmin väitteitä priorisoitiin, seuraavat teemat osoittautuivat tärkeimmiksi: vastavuoroisuus, säännöllisyys, proaktiivisuus, riittävät taidot ja suhteeseen investointi, kulttuurin rooli, ongelmanratkaisua tukeva ilmapiiri, motivaatiotaso, molemminpuolinen luottamus ja usko kumppaniin, yhteinen toiminnan kehittäminen ja yhteiset kilpailuedut suhteessa.

Tässä tutkimuksessa, tutkittaessa kriittisiä tekijöitä kahdenvälisissä suhteissa päähankkijan ja sen toimittajien välisissä suhteissa, määriteltiin yhteistyösuhteiden ominaispiirteitä. Suhteiden ominaispiirteistä johdettiin yhteistyötä tukevia ja estäviä tekijöitä, jotka tarjoavat arvokasta tietoa, kun halutaan mitata kahdenvälistä kumppanuussuhdetta, sen nykytilaa ja selvittää kehittämiskohteita. Tarkemmin sanoen, yhteistyötä tukevista ja estävistä tekijöistä muodostettiin lista väitteitä, jotka toimivat pohjana yhteistyösuhteen mittaamisessa. Usein yritykset mittaavat laajalti kahdenvälistä suhdetta, mutta viestintään ja yhteistyöhön liittyvät teemat ovat jääneet mittaamisen ulkopuolelle. Korkean teknologian teollisuudessa yhteistyön ja viestinnän elementit saatetaan kokea vaikeasti konkretisoitavina. Tutkimuksessa luodut argumentit lisäävät mahdollisuutta huomioida toimijoiden väliseen yhteistyöhön (niin arkipäivän työssä kuin strategisella tasolla) liittyvät kysymykset ja auttavat ko. käsitteiden avaamisessa. Näin verkostomaisesta toiminnasta ja kumppanuuksista verkostojen ja toimitusketjujen sisällä tulee selkeämmin hahmotettavia suhteita, joita on mahdollista arvioida ja kehittää konkreettisesti ja kilpailukykyä lisäten.

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APPENDICES

APPENDIX I – INTERVIEW QUESTIONS

QUESTION	SUBJECT /supposition
I BACKGROUND **1. Did you have a specific person who takes care of all contacts with the customer? (or was responsible of the contact with the customer?)**	
1. How many suppliers did you have in this order-delivery process?	**networking** **order-delivery process**
2. How many people in your company were in contact with the customer and with whom?	
3. What was your role in this project?	
2. Why do you think you were chosen as a potential partner?	
1. Do you have a SWOT-analysis conducted recently? (concerning the business area in question)	**networking** **core competence**
II BUILDING A CONTACT **3. Did you have any contacts with your customer before this project?**	**building trust**
1. What was your image of Metso Paper / company X?	
4. Before the project X, did you collect information about your customer and its´ expectations to you?	
1. Where did you collect the information from? What?	
5. How did you contact the customer? To whom?	**building trust**
1. Where and how did you have the first meeting?	**information channels, content**
2. Who participated in the first meeting?	**formality**
3. What topics were discussed in your face-to-face meetings?	
4. What kind of information did you want to know in your face-to-face meetings?	
5. How did you feel about the atmosphere in the first meetings?	
6. Do you know Metso´s values and strategy? What do the values mean in your cooperation?	
6. How did you discuss the roles and responsibilities between you and your customer?	**building trust, self-reference**
1. Did you agree with the customer on the roles and responsibilities of both parties?	**information channels, content** **formality**
2. What kind of information did you receive concerning the supply process? Was it enough to start the process?	

7. Why did you choose customer X as your partner?	**building trust**

III STARTING THE PROCESS

8. What kind of a contract did you have?	**contracting vs. trust**

        1. Is there an example of a situation, when you mutually agreed to change the way of working (that was not according to the contract)?

        2. Was the contract adequate enough?

9. How did you discuss the pricing of the product in question with your customer?	**trust** **dependence** **power**

        1. Were there any changes in pricing during the project? Where these mutually agreed?

        2. Have you had misunderstandings concerning the final pricing? In which case? How did you solve it?

        3. Did you receive a win-win situation? How?

        4. Were you satisfied with the discussion and the final decision?

        5. Did you get enough information from your customer to price the product correctly?

        6. When and how was the final price decided?

IV ORDER-DELIVERY PROCESS

10. How were you in contact with your client in different stages of order-delivery process?	**perceived performance** **trust / dependence** **information channels, content** **formality** **cooperation** **power**

        1. Did you use integrated production control systems with your suppliers / client? How?

        2. Did you inform your customer about the scheduling? How?

        3. Did you inform your customer about the updated load situation? How?

        4. How did you handle documents? Did you have integrated electrical systems? Via E-mail?

        5. Did you conduct the procurement of the material together with your suppliers? How?

        6. Did you participate in R&D of the product in question? How?

        7. Where there any unexpected changes in your order-delivery process?

        8. Was your customer flexible in this situation?

        9. How did you reassure that you were working with the latest / updated revision?

        10. Was your customer aware of which revision you used at the moment?

        11. Was the lead-time as agreed in this project?

        12. In which stage did you have face-to-face meetings the most?

        13. Did you keep the agreed times of delivery?

        14. In which cases have you not been able to keep the mutually agreed times of delivery? Why?

11. How did you find the relationship with the customer´s representatives? Why?	**trust / dependence** **perceived performance**

1. Based on which factors?

12. Would you name an example, when the personal relationship with your customer played especially a great role? | **trust / dependence**

13. Did you receive all the information needed for the production process? Example? | **information channels, content formality**
| **power**

    1. Were you satisfied with the information you received?
    2. Did you get it on time?
    3. What contacts did you use at Metso Paper?
    4. During the order-delivery process, did you have informal meetings? When?
    5. Based on this process, how would you develop the order-delivery process and the contacts between you and the customer / suppliers?

V DEVELOPMENT, FEEDBACK
14. During and after the project X, did you discuss your client´s needs and expectations, if there is something to improve for the next project? | **trust**
| **information channels, content formality**
| **power**

    1. Did you ask your suppliers´ opinion about the development of the order-delivery process?
    2. Did you collect feedback systematically from your customer / suppliers? How?
    3. Did you give feedback to your customer? How?
    4. Were you satisfied with the feedback your received?
    5. What were your channels when receiving the feedback?
    6. Based on the feedback, were you able to develop your / your suppliers´ activities? How?

15. In this project, how would you describe the atmosphere between you and your customer? | **trust / dependence**
| **power**

    1. Would you name an example?
    2. Do you find that you invested in the relationship?
    3. Do you think your customer was able to trust you? Why?
    4. Did you lose your trust to the customer at any point? When?

ADDITIONAL QUESTIONS
16. How significant a partner Metso Paper / company X is / would be to you? (% of net sales) | **dependence**

17. Where was the company located?
    1. How did you feel about that?

18. Was the project carried out as you expected?
    1. Was there something that was carried out the way you expected? Example?

APPENDIX II - ARGUMENT PATTERNS

perceptions on OWN PERFORMANCE   (O)
perceptions on PARTNER'S PERFORMANCE (P)
perceptions on JOINT PERFORMANCE   (J))

Own or partner's performance (81):

1. Information sharing (34)

2. Skills, competencies, resources (13)

3. Organization, network role, position (22)

4. Cultural characteristics (12)

Joint performance (72):

1. Meetings, contacting (14)

2. Power, dependence (25)

3. Trust, commitment (17)

4. Long-term orientation, development, partnering (16)

- arguments consider the relationship in question; none of them are general by nature
- arguments can be modified according to the relationship in question: whether there is a partnership or a relationship aiming for partnership etc.
- answers in Likert's scale (1-5)

OWN OR PARTNER'S PERFORMANCE

1. INFORMATION SHARING

1. We receive sufficient amount of information. (P)

2. We deliver sufficient amount of information to the partner. (O)

3. We deliver enough detailed information. (O)

4. Our partner delivers enough detailed information to us. (P)

5. Our info sharing does not lack anything. (O)

6. Our partner's info sharing does not lack anything. (P)

7. Our information sharing is open enough. (O)

8. Our partner's information sharing is open enough. (P)

9. We give sufficient amount of feedback to the partner. (O)

10. We receive sufficient amount of feedback from the partner. (P)

11. We collect regularly information on the level of the partner's satisfaction concerning the relationship. (O)

12. Our partner collects regularly information on the level of our satisfaction concerning the relationship. (P)

13. We inform our partner sufficiently about changes and revisions. (O)

14. We receive sufficient amount of information about changes and revisions from our partner. (P)

15. Our reporting to our partner is in time. (O)

16. The partner's reporting to us is in time. (P)

17. Our reporting is consistent and systematic. (O)

18. The partner's reporting is consistent and systematic. (P)

19. We give enough instructions and consultation to our partner. (O)

20. The partner gives enough instructions and consultation to us. (P)

21. We inform sufficiently our partner on possible organizational changes. (O)

22. The partner informs us sufficiently on possible organizational changes. (P)

23. We always introduce our new key personnel to the partner. (O)

24. Our partner always introduces their new key personnel to us. (P)

25. We update the info on current competitors and their supply chains regularly. (O)

26. We update the info on potential suppliers or newcomers regularly. (O)

27. Our partner updates their info on current competitors and their supply chains regularly. (P)

28. Our partner updates the info on potential suppliers and newcomers (to their own supply chain) regularly. (P)

29. We know our responsibilities and tasks in the relationship. (O)

30. Our partner knows their responsibilities and tasks in the relationship. (P)

31. We are active in giving suggestions to our partner concerning the ways of working more effectively. (O)

32. Our partner is active in giving suggestions to us concerning the ways of working more effectively. (P)

33. We offer help in problematic situations for our partner. (O)

34. We receive help in problematic situations from our partner. (P)

2. SKILLS, COMPETENCIES, RESOURCES

1. We have sufficient negotiation skills. (O)

2. Our partner has sufficient negotiation skills. (P)

3. We have sufficient collaboration skills to work with our partner. (O)

4. Our partner has sufficient collaboration skills to work with us. (P)

5. We have sufficient skills to use e-tools. (O)

6. Our partner has sufficient skills to use e-tools. (P)

7. We have sufficient skills to build and maintain relationships. (O)

8. Our partner has sufficient skills to build and maintain relationships. (P)

9. We have enough communication tools as info sources. (O)

10. We document enough information for our partner's use. (O)

11. Our partner documents enough information for our use. (P)

12. We are investing substantially into the relationship with our partner. (O)

13. Our partner is investing substantially into the relationship with our partner. (P)

3. ORGANIZATION, NETWORK ROLE, POSITION

1. We always inform our partner about the adjustments due to organizational changes. (O)

2. Our partner always informs us about the adjustments due to organizational changes. (P)

3. We always introduce and bring a new employee into the relationship interface. (O)

4. Our partner always introduces and brings a new employee into the relationship interface. (P)

5. We have access to our partner's end customer. (P)

6. We enable our partner to have access to our end customer. (O)

7. We find our role is significant in the supply chain. (O)

8. We find our partner's role is significant in the supply chain. (P)

9. We find we are equal to our partner's other suppliers. (O)

10. We find our partner is equal to our other suppliers. (P)

11. We know our partner's values. (O)

12. Our partner knows our values. (P)

13. We find our location plays a role in the relationship. (O)

14. Our partner's location plays a role in the relationship. (P)

15. We are a globally reliable partner. (O)

16. Our partner is a globally reliable partner. (P)

17. Our supply chain is global. (O – yes/no)

18. Our partner's supply chain is global. (P – yes/no)

19. We should have a global supply chain. (O)

20. Our partner should have a global supply chain. (P)

21. We should have collaboration with our partners' supply chain(s). (O)

22. Our partner should have collaboration with our supply chain(s). (P)

4. CULTURAL CHARACTERISTICS

1. Our cultural background plays a role in the relationship. (O)

2. Our partner's cultural background plays a role in the relationship. (P)

3. We can benefit from our cultural background in the relationship. (O)

4. Our partner benefits from their cultural background in the relationship. (P)

5. The cultural background of our suppliers plays a role. (O)

6. The cultural background of our partner's suppliers plays a role. (P)

7. Our cultural background can generate challenges in the relationship. (O)

8. Our partner's cultural background can generate challenges in the relationship. (P)

9. Our suppliers' cultural background can generate challenges in the relationship. (O)

10. The cultural features our partner's suppliers have can generate challenges in the relationship. (P)

11. Our nationality plays a role in the relationship. (O)

12. Our partner's nationality plays a role in the relationship. (P)

JOINT PERFORMANCE

1. MEETINGS, CONTACTING

1. We have meetings frequently enough with our partner. (J)

2. There is not enough time for necessary meetings. (J)

3. The joint aims are reached in meetings. (J)

4. The meetings are effective and productive. (J)

5. The experience and knowledge that both parties possess are shared efficiently in meetings. (J)

6. We learn from each other in the relationship. (J)

7. Problems are solved jointly and efficiently when meeting and contacting. (J)

8. The nature of the meetings is informal and free and easy. (J)

9. More meetings that are informal and relaxed by nature are needed. (J)

10. More formal meetings are needed. (J)

11. There are sufficient face-to-face meetings. (J)

12. There is sufficient virtual contacting. (Virtual meetings etc.) (J)

13. The ways of negotiating are cooperative. (J)

14. There is a positive atmosphere in meetings. (J)

2. POWER, DEPENDENCE

1. The relationship is equal. (J)

2. In the relationship, one party exerts power over another. (J)

3. Recommendations and suggestions presented by the partner are usually followed. (J)

4. Squeezing is a proper way of negotiating in the relationship. (J)

5. Squeezing is used as a way of negotiating in the relationship. (J)

6. Dictating is a proper way of negotiating in the relationship. (J)

7. Dictating is used as a way of negotiating in the relationship. (J)

8. Decisions are made jointly in the relationship. (J)

9. Distribution of tasks and responsibilities is jointly negotiated and solved. (J)

10. The atmosphere in the relationship supports fluent problem solving. (J)

11. In the relationship, one party has to control the other party's activities. (J)

12. In the relationship, both parties have possibilities to influence. (J)

13. If one of the partners doesn't follow agreed rules, the issue is discussed and solved jointly. (J)

14. Communication flows are two-way in the relationship. (J)

15. There is a mutual dependency in the relationship. (J)

16. In the relationship, one party is more dependent on the other than vice versa. (J)

17. In the relationship, one party is more dependent on other's supply chain than vice versa. (J)

18. Supplier choices and selection criteria (which suppliers the partner will choose) are jointly discussed in the relationship. (J)

19. There is an asymmetry (= one party is significantly bigger than the oth-er) in the relationship. (J)

20. There are risks concerning asymmetry in the relationship. (J)

21. If one party fails, the problem is jointly solved. (J)

22. In the relationship, there is also a joint reputation. (J)

23. Competitive bidding is an effective way of operating in the relationship. (J)

24. Competitive bidding is practiced in the relationship. (J)

25. There is opportunism in the relationship. (J)

3. TRUST, COMMITMENT

1. There is a high level of motivation in the relationship. (J)

2. In the relationship, one party is more motivated than the other. (J)

3. The relationship is open and it is possible to discuss all issues. (J)

4. There is a mutual trust in the relationship. (J)

5. Neither partner ever lets the other down. (J)

6. The relationship is fair. (J)

7. The contract is fair. (J)

8. There is a high level of commitment in the relationship. (J)

9. Both parties are active in the relationship. (J)

10. A partner is a highly important team member. (J)

11. There is a high level of transparency and consistency in activities in the rela-tionship. (J)

12. All issues are discussed openly but confidentially in the relationship. (J)

13. In the relationship, both parties are flexible. (J)

14. In the relationship, the parties respect each other. (J)

15. Relations with the partner are very friendly. (J)

16. Relations with the partner can be considered as friendships. (J)

17. Emerging risks can be managed and taken care of together. (J)

18. The relationship and working together creates a joint reputation in front of the end customer. (J)

4. LONG-TERM ORIENTATION, DEVELOPMENT, PARTNERING

1. There are joint development projects in the relationship. (J)

2. There are joint innovating processes in the relationship. (J)

3. Both parties are committed to relationship development. (J)

4. Both parties are committed to supply chain development. (J)

5. There is a long-term orientation in the relationship. (J)

6. Both parties give and receive feedback. (J)

7. Feedback leads to necessary changes in ways of operating. (J)

8. The partnership consists of long-term oriented development. (J)

9. In the future, the relationship will be further deepened.

10. The contract is adequate at the moment. (J)

11. The contract is always followed by both parties. (J)

12. Both parties provide significant strengths and competitive advantage in the relationship. (J)

13. There can be significant weaknesses provided by either of the parties in the relationship. (J)

14. There is a high level of competitive advantage, provided jointly in the relationship. (J)

15. There are many positive reasons to maintain this relationship. (J)

16. The relationship creates more positive image for both parties. (J)