



Activation of Supply Relationships

**A Study of Main Providers in the Turku
Logistics Cluster**

Monica Nyholm





Monica Nyholm

Born 1960 in Pargas, Finland

L. Sc. (Bus. Admin.), 1996

Lecturer in international business,

Åbo Akademi University, School of Business and Economics

Åbo Akademi University Press

Biskopsgatan 13, FI-20500 Åbo, Finland

Tel. int. +358 (0)20 786 1468

E-mail: forlaget@abo.fi

<http://www.abo.fi/stiftelsen/forlag>

Distribution:

Oy Tibo-Trading Ab

PB 33, FI-21601 Pargas, Finland

Tel. int. +358 (0)2 454 9200

Fax int. +358 (0)2 454 9220

E-mail: tibo@tibo.net

<http://www.tibo.net>

ACTIVATION OF SUPPLY RELATIONSHIPS

Activation of Supply Relationships

A Study of Main Providers
in the Turku Logistics Cluster

Monica Nyholm

ÅBO 2011

ÅBO AKADEMIS FÖRLAG – ÅBO AKADEMI UNIVERSITY PRESS

CIP Cataloguing in Publication

Nyholm, Monica.

Activation of supply relationships : a study of
main providers in the Turku logistics cluster /

Monica Nyholm. – Åbo : Åbo Akademi
University Press, 2011.

Diss.: Åbo Akademi University.

ISBN 978-951-765-624-5

ISBN 978-951-765-624-5
ISBN 978-951-765-625-2 (digital)
Painosalama Oy
Åbo 2011

ACKNOWLEDGEMENTS

A long project has come to an end and it is time to look back and gratefully acknowledge the support from the crowd of people who are needed in order to complete this kind of work.

First of all I express my gratitude to all informants for letting me share their time and knowledge. Without you this work would not have been possible. A special thanks goes to the first informant and to Camilla Arhippainen for fine-tuning the terminology in the discussion guide.

Professor Jan-Åke Törnroos deserves great thanks for patiently supervising my work and for all invaluable advice. I am also grateful to my opponent, Professor Marianne Jahre and my other pre-examiner, Professor Björn Axelsson, for their constructive and thought-provoking comments on my manuscript.

I also wish to thank the many researchers who have provided me with insightful comments on the presentations made about this work in conferences and seminars throughout the process.

The atmosphere at Handelshögskolan vid Åbo Akademi is one of openness and support and I want to thank all friends and colleagues at Henriksgatan 7 for just being there as well as being prepared to discuss even the strangest things. A warm thanks to those of you who have taken care of my courses and other duties during this period and especially to Anna-Greta Nyström for all our discussions on everything that one might possibly consider part of a research process (as well as lots of other things).

I gratefully acknowledge the financial support received from Liikesivistysrahasto, Waldemar von Frenckells stiftelse, Werner Hacklinin säätiö, Turun Kauppaopetussäätiö, Stiftelsen för Åbo Akademi, Turun Kauppaseuran Säätiö Kauppaopetuksen edistämiseksi, Dagmar och Ferdinand Jacobssons fond, Fabian Klingendahls fond and Handelshögskolan vid Åbo Akademi.

Finally I would like to thank my family and friends for their encouragement and support throughout the process and especially Eero and Sara who without complaint have put up with living surrounded with piles of paper for several years.

Turku, November 16th 2011

Monica

Table of content

Part I Introducing and positioning the study	1
1. Introduction	1
1.1. Problem area	2
1.2. Objective and research questions.....	3
1.3. Delimitations	5
1.4. The perspective on the logistics industry	6
1.5. Theoretical departure.....	8
1.6. Methods used in the empirical study	10
1.7. Terms and definitions	12
1.8. Structure of the thesis.....	18
2. Positioning the study	20
2.1. Introduction	20
2.2. Transportation studies, logistics and SCM.....	22
2.2.1. Logistics and management studies.....	23
2.2.2. Research about supply chain management	25
2.3. Providing logistics services	27
2.3.1. A services perspective on logistics.....	27
2.3.2. Channel and chain perspectives	33
2.3.3. Organizational perspectives	35
2.3.4. The focus on co-operation and services	37
2.4. Network research as a theoretical perspective on logistics services	39
2.4.1. Strategic networks.....	40
2.4.3. The industrial network approach.....	41
2.5. A summarizing discussion	44
Part II Theoretical framework	46
3. The network context	47
3.1. Logistics actors, activities and resources.....	48
3.1.1. Actors in logistics	48
3.1.2. An activities perspective on logistics	52
3.1.3. Resources in logistics	55
3.1.4. The dyadic relationship	56
3.1.5. Dimensions of embeddedness.....	58
3.2. Defining the supply net	61
3.3. Roles and positions in logistics networks	63
3.3.1. The functional role.....	64
3.3.2. The main provider and partner roles	65

3.3.3. What gives “position” in logistics?	65
3.3.4. Managing and strategizing in networks	66
3.4. Network dynamics	68
3.4.1. Activation as a trigger for dynamic evolvement ..	69
3.4.2. Relationships between interaction sequences – dormant or not.....	71
3.4.3. Role exchange and implications for network position.....	72
3.4.4. Horizontal co-operation.....	73
3.5. A summary of the network context.....	75
4. The activation process	77
4.1. Defining activation.....	77
4.2. Inside the process	78
4.3. The impact factors	82
4.3.1. “The issue” – activating a relationship	83
4.3.2. The service package	84
4.3.3. Selection criteria	86
4.3.4. The decision maker.....	88
4.3.5. Impact from customer and partner relationships.	90
4.3.6. Time frame.....	91
4.4. The activation model.....	93
4.5. Chapter summary	97
Part III The empirical study.....	98
5. Research approach and method.....	99
5.1. Introduction	99
5.2. Research approach.....	99
5.2.1. Realism as a starting point	100
5.2.2. Research design.....	101
5.2.2.1. A qualitative approach.....	103
5.2.2.2. Abduction	104
5.2.3. Working with concepts	105
5.2.4. The case study approach.....	105
5.3. Methods used for the empirical study.....	107
5.4. The discussion guide and types of data	108
5.5. Choice of informants	110
5.5.1. To find the business units	111
5.5.2. The included business units	112
5.5.3. The individual informants	114
5.6. Data collection by interview.....	116

5.7. Data analysis.....	119
5.7.1. The data.....	120
5.7.2. The analysis method	121
5.7.3. Data reporting	123
5.8. Evaluation of the research process	124
5.9. Chapter summary.....	126
6. The context in time and place - Empirical frame of reference	127
6.1. Introduction	127
6.2. Logistics infrastructure	127
6.3. The economic situation	130
6.4. The service providers.....	132
6.5. Developments during the period	133
6.6. Summary	134
7. Empirical analysis - activation in the Turku logistics cluster.....	136
7.1. Introduction	136
7.2. The main providers	136
7.2.1. Three provider profiles	137
7.2.2. Customer orientation	140
7.3. The network context	141
7.3.1. Supply networks.....	142
7.3.2 People in logistics	143
7.3.3. Social networks	144
7.3.4. The atmosphere in the local cluster	147
7.3.5. Developing the cluster	148
7.4. Supply networks.....	150
7.4.1 Long term co-operation with partners	150
7.4.2. Dormant relationships	153
7.5. Activation	154
7.5.1. The activator – the decision maker.....	154
7.5.2. Defining the package	155
7.5.3. The customer’s influence on the selection of partners	160
7.5.4. The activation work process	165
7.5.6. Choosing the partners.....	173
7.5.7. When does activation take place?	178
7.6. Horizontal co-operation	180
7.6.1. Who are the competitors?	181
7.6.2. Informal co-operation	182
7.6.3. Horizontal co-operation as strategy.....	185
7.7. An analyzing discussion	186

7.7.1. The starting point	187
7.7.2. When activation takes place.....	187
7.7.3. Inside the process	190
7.7.4. Relationships and networks from an empirical perspective.....	192
7.8. Chapter summary.....	195
Part IV Conclusions, contributions and implications	196
8. Understanding activation in a network context.....	197
8.1. General conclusions	198
8.2. Theoretical contribution.....	201
8.3. Implications for practice	202
8.4. A critical review of the study.....	204
8.5. Further research	205
8.5.1. Enlarging the geographical scope	205
8.5.2. Relationship development and network implications	205
8.5.3. The partners	205
8.5.4. Individuals and social networks	206
8.5.5. Activation in other services settings	206
References	208
Appendix I: Transport and logistics in the TOL 2008	233
Appendix II: Selection criteria used in previous studies.....	234
Appendix III: The discussion guide	241
Appendix IV: The letter with a request for an interview	253
Appendix V: The informant organizations.....	254
Appendix VI: The NVivo nodes.....	255
Svensk sammanfattning.....	256

List of figures

Figure 1.1: The activation process in brief

Figure 1.2: The work-flow through three phases

Figure 1.3: Structure of the thesis

Figure 2.1: Positioning a study on activation in the logistics industry

Figure 2.2: A middle-range theoretical frame of reference for SCM

Figure 2.3: The main provider's supply net within a relationship in a supply chain

Figure 2.4: The structure of the flow

Figure 2.5: Organization of a logistics link with a logistics alliance

Figure 2.6: Relationships in a network

Figure 3.1: Activation from a network perspective

Figure 3.2: A business relationship viewed on a time axis

Figure 3.3: Network structures from the main provider's perspective

Figure 3.4: Taxonomy of forms of inter-competitor co-operation

Figure 4.1: Activation in its context

Figure 4.2: Activation as a change agent

Figure 7.1: The activation work process

Figure 7.2: A summarized activation model

List of tables

Table 1.1: The included network levels

Table 2.1: Business net classification framework

Table 3.1: Services provided by three kinds of providers

Table 3.2: A classification of functions of LSPs

Table 5.1: An explanation of an organizational phenomenon

Table 5.2: Main sources used to find the companies

Table 5.3: Background data for the informants

Table 5.4: The analysis method

Table 6.1: Traffic in the port of Turku

Table 6.2: Traffic in the port of Naantali

Table 6.3: International freight volumes at Turku Airport, selected years

Table 7.1: The informants' networking arena

Table 7.2: Reasons for why social networking is important

Table 7.3: Benefits of long-term relationships

Table 7.4: Activities between activations

Table 7.5: Defining the service package

Table 7.6: Summary of the customer's knowledge and skills in defining the service package

Table 7.7: How potential partners are found and contacted

Table 7.8: Information sources used by the informants

Table 7.9: The Informants' selection criteria

Table 7.10: Contents of quality

Table 7.11: How to gain knowledge of service quality

Table 7.12: Reasons for new entries/ activating somebody else than the obvious choice

Table 7.13: Reasons for trying new alternatives

Table 7.14: A summary of informal co-operation

Table 7.15: Co-operation with a strategic angle

List of appendices

Appendix I:	Transport and storage in TOL 2008
Appendix II:	Selection criteria used in previous studies
Appendix III:	The discussion guide
Appendix IV:	The letter with a request for an interview
Appendix V:	The informant organizations
Appendix VI:	The NVivo nodes

Part I Introducing and positioning the study

1. Introduction

The logistics sector is by tradition one of extensive co-operation between various business actors. During the past decades the sector has, however, changed radically with the establishment of global operators as well co-operation becoming formalized through alliances and other forms of structured co-operation. The technological development has enabled the creation of new types of logistics services as well as new ways of providing the services.

From being thought of mainly as a cost-element, logistics is today by industrial companies considered as being of strategic importance (Abrahamsson, 2008) and as a source for competitive advantage (Bagchi & Virum, 1998, Christopher & Peck, 2003). Companies have also become more aware of the importance of the total supply chain and it has been claimed that competition takes place between supply chains and not only between individual companies (cf. Dam Jespersen & Skjøtt-Larsen, 2005). As a consequence, the demands on the logistics processes get more sophisticated and larger parts of them are outsourced to logistics providers. Customers prefer one-stop-shopping, i.e. to be in contact with only one logistics provider (Skjøtt-Larsen 1999, Dobie 2005) in acquiring the services needed e.g. for a certain product or a certain region. This way the demand for logistics services becomes very customer specific and in order to produce the total array of services in-house the logistics company would need specialized knowledge within several different logistics sub-fields as well as financial resources tied into different kinds of equipment (Lieb & Randall 1999).

The logistics companies differ largely from each other concerning size as well as the array of services provided. Companies might be extremely specialized or they might be mega-carriers with at least theoretical possibilities to produce all services in-house (Semeijn & Vellenga, 1995). In most cases, however, producing all services in-house would be inefficient. The involvement of several organizations in the provision of a logistics service package to an industrial customer can hence be considered a part of the general business model within logistics. The logistics provider outsources at least part of the tasks needed within the total service package (created for a customer) to other actors within the industry (c.f. Ford et al., 2003 and Chapman et al. 2003). As in the customer organizations, critical

sources for competitiveness are kept in-house and other parts are being bought and outsourced (Miettunen, 23.3.2004).

In 2010 the Finnish forwarding companies reached a total turn over of 2.4 billion € out of which 1.3 billion € came from freight and other services that were bought into the companies (Statistics Finland, 2011). With this considerable dependency on partners, also comes the need for skills in managing supplier relationships. Since the services provided by the partners form a significant part of the service package which is provided for a customer, the quality of the total service package will depend on the performance of the partners. Also the possibilities for developing new services and enhancing existing services become dependent on the relationships to the partners. At the same time outsourcing also provides benefits, such as the opportunity to become specialized (cf. Schary & Skjøtt-Larsen, 2001). Management of lower tier providers was by Berglund (1997) found to be one of the skills lacking in third-party logistics provider firms and, in a study on the state of logistics in Finland, the development of co-operation networks was, by the practitioners, seen as one of the biggest current development needs (Naula et al. 2006). The partners within the logistics sector are, however, not often mentioned in literature and when they are, they are mainly studied with a focus on the services that they provide as well as the resources needed for these activities. The network of partners, as well as the individual actors within this network, is in that case considered as resources that can be used by the main provider (cf. Jahre et al. 2006).

1.1. Problem area

The supply network of a logistics company consists of both firmly as well as more loosely coupled subcontractors and other partners that the company tends to co-operate with. It is complemented by individual contact networks within as well as outside the supply network. When certain services need to be performed for a customer, those parts of the network that are needed will be *activated* to form a supply net. The supply nets are here treated as intentionally constructed networks delimited on the basis of the characteristics of the goods, the contents of the service package, the relationship between the main provider and the industrial customer as well as the geographical scope of the services needed.

Theoretically the situation could be described as one where the shape

of the supply net is different every time that services are delivered to a customer. In practice we can, however, assume that many partners remain the same over time. Laine (2005) points out that many logistics supply chains are rather rigid and that providers, in order to respond to rapid changes in demand in certain customer industries, should engage in looser supply networks that would enable more flexible changes in the supply chain. As a consequence, main providers would face activation situations even more often in the future.

Within a one-stop shopping assumption, the industrial customer makes only one agreement with one of these providers for a certain part of its logistics processes. The partners on the other hand are in contact only with the main provider and their own subcontractors. Hence the supply net includes *one* focal company, the one that, at the specific moment is the main provider. Until recently there have been rather few studies focusing on logistics companies from a behavioral perspective (see section 2.3.3) and especially concerning the relationships within the logistics sector. The present study is focused on the behavior of the main provider as well as the factors influencing this behavior in a specific situation; activation of relationships to partners for the performance of logistics services within a service package. Also the effects on the network level of these actions, taking place within relationships, are taken into consideration.

1.2. Objective and research questions

The objective of this research is to gain an understanding of the activation process, its contents as well as its links to the network context of the main provider, by studying how companies within the Turku logistics cluster activate partners into supply nets for providing logistics services. By studying what the factors are, that influence activation, and what the consequences of activation might be for the business network, an effort is made to develop a theoretical understanding of the concept of activation as a link between ordinary day-to-day activities and network development over time.

Activation is a term used here for the operational day-to-day task of selecting and engaging partners to a supply net linked to a specific service package. It has not earlier been described in much detail in literature. In order to investigate the implications of the main provider's network embeddedness and the potential links between activation and long-term developments within the business network,

it is important to understand its place in the network context. The first research question is hence formulated as:

1. How can activation of relationships for providing logistics services be described and understood from a business network perspective?

Over time the separate activations performed by a certain main provider form a pattern of activation. It could be seen as a concrete illustration of network dynamics. Even if patterns over time are not empirically investigated, the connection between activation and business network structure will be discussed both theoretically and tentatively empirically following research question two:

2. In what ways can activation and the structure of the network context influence each other?

The network context should here be understood as the various layers of networks that the main provider is involved in, such as the supply net, supply network and business network.

The structure of a network is in this study primarily defined in terms of the roles and positions of the actors within the network. In research question two it is therefore of particular interest to study what effects roles and positions within logistics networks have on activation.

Looking at activation from the inside, places the focus on its content as a work process as well as on the factors affecting this process and its outcome. The third research question hence deals with the activation process, i.e. the activities included in the process as well as its structure.

3. How are the relationships to partners and subcontractors activated for providing logistics activities within a supply net?

Several types of requirements are set on a provider of logistics services, stemming from e.g. the character of the goods, the timetable as well as the geographical setting. These requirements can be understood as selection criteria that will guide the choice of providers. They are studied with the help of the fourth research question:

4. What kinds of selection criteria are used when the main provider chooses the partners and subcontractors that will be engaged into the supply net?

Describing activation theoretically highlights the parts of the process as well as the impact factors in a way that might provide the opportunity to analyse them one by one in a main provider organization. The fifth research question is focused on these opportunities.

5. How can describing and analyzing the activation process from a network perspective help in understanding the partner relationship and supply network developments in a main provider organization?

1.3. Delimitations

The research is delimited to a qualitative case study of *activation* performed by main providers in the Turku logistics cluster (the methods are discussed in section 1.6 and chapter 5). The theoretical elaboration is delimited to business-to-business interaction between actors within the logistics sector, mainly based on the view on industrial networks that originates from within the IMP-tradition¹ (see further in sections 1.5 and 2.4).

The empirical study is *geographically* delimited to main providers in the Turku region. The assumption is that the geographical dimension has an influence on how networks are formed. For this reason a geographical delimitation is considered possible even if the service package includes physical transport and involves actors and activities in other regions. In addition, the geographical delimitation to a region, which is marketed as a logistics cluster enables a wider discussion on possible effects of social networking on activation. It is important to point out that the supply nets that are created through activation do not coincide with this geographical delimitation, see further in section 1.6.

The *companies included* in the empirical study are such that can take the role of main provider towards an industrial customer while organizations such as customs or the port authorities are excluded as are also companies who only sell their services to customers within the logistics industry. That way many small road haulage companies are excluded. In addition, the included companies all work with subcontractors and other partners, i.e. they do not produce all services in house.

¹ Industrial marketing and purchasing group, www.impgroup.org

The *supply net* is in this study delimited to actors that are directly involved in producing and delivering logistics services. Partners that are specialized in e.g. maintenance and repairs as well as those who deliver equipment to the main provider are excluded.

The *service packages* all include handling of physical goods. Co-operation concerning e.g. ICT-solutions is noted only if the partners co-operate also concerning physical logistic service packages.

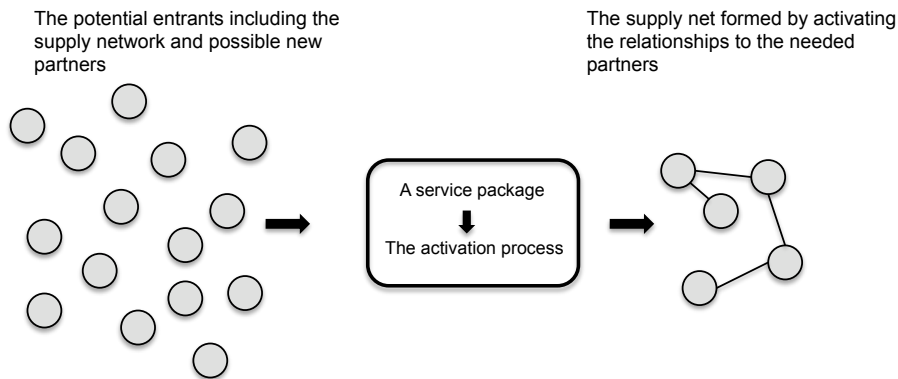
Companies that are *fully owned subsidiaries* of larger organizations such as e.g. global providers, are treated as focal organizations that can serve as main providers. In this way the effects of internal horizontal networks on the structure of vertical networks can be studied. Also in previous studies parts of company groups have been treated as independent if they are individual profit centers (e.g. Korhonen & Lehtinen, 2002).

The study of *outsourcing* within the logistics sector is limited to the first layer. The partners that are activated by the main provider can further outsource parts of the commission to another partner but this potential second layer is not included in this study.

1.4. The perspective on the logistics industry

A theoretical choice has been made to study supply nets as were they formed on the basis of individual specific service packages created to meet the needs of a specific customer, i.e. the criteria presented by the customer are used as a starting point for the activation process, see figure 1.1. Previous studies on logistics networks as well as on freight or distribution channels have more often used a perspective where a structure (i.e. the supply net) has already been created and, is used continuously, either within a distribution channel or, within a certain transport system. The reason for choosing the present perspective is that it provides an opportunity to study potential differences between activation in different settings such as e.g. a liner-type, highly structured network, compared to a network activated by a forwarder-type organization for the needs of one specific customer. Further it provides the opportunity to study potential differences occurring between activation for long-term and short-term or even, one-off (ad hoc) needs.

Figure 1.1. The activation process in brief



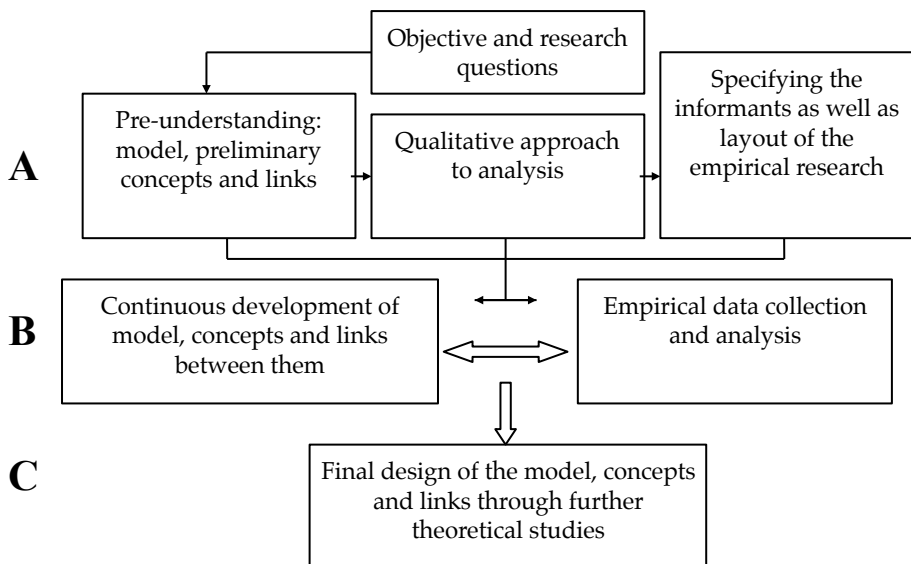
The actor that in this study is called main provider has in previous studies often been called co-ordinator or main operator. The terms reflect the different point of departure compared to previous studies letting the contact to the customer be the starting point. (See also the discussion in section 3.1.1) When using the terms co-ordinator or main operator the emphasis is often put on the stability of the supply net structure with a specific focal actor taking the role of co-ordinator (or main operator) for a longer period in time. In the present setting we take one step back from that situation, focusing more on what happens *when* the focal organization takes on the role of main provider, regardless of whether it is for a long or short period in time. The use of the term main provider also indicates that the service packages are not explicitly limited to the creation of transport chains but can include other types of logistics service packages as well.

Further, some authors (e.g. Cruijssen, 2006 and Najm et al. 2006) consider the main provider's outsourcing of services to partners within the logistics sector as a form of horizontal co-operation (i.e. taking place between competitors). Even if many of the logistics companies can be competitors the regular outsourcing of certain kinds of services are in this thesis considered, not as horizontal co-operation but, as an integral part of the business model used in the logistics sector. The issue of who is and who is not a competitor is in the present empirical study left for the informants to decide. The term horizontal co-operation will, however, be used for expressing other kinds of co-operation between logistics providers than regular outsourcing, (see sections 3.4.4 and 7.6).

1.5. Theoretical departure

To my knowledge activation processes in logistics companies have not been studied in detail earlier and the theoretical framework is therefore built both on the researcher's pre-understanding and on earlier theoretical insights, which need to be derived from several research perspectives. The research process is hence abductive and iterative, letting the framework/model development and the empirical study evolve simultaneously, see figure 1.2.

Figure 1.2. The work-flow through three phases



Some of the logistics companies' most important resources reside outside of the organization, in the network of partners (c.f. Hertz 1996) and hence the use of a theoretical framework focusing on the relationships and external resources within networks would benefit the study. A substantial part of the research previously done on this kind of network issues originates in the IMP-tradition. It is used also here, complemented with services marketing and taking into consideration that the present supply nets are treated as possibly time-limited and include less functional and technical adaption than what is often assumed within the IMP-research.

The theoretical focus of the research lies on the activation process as an act performed by one actor within a business relationship, including factors influencing and shaping the process as well as the potential impact of the process on the network context of the main provider. Also the role of the activation process as a link between strategy and daily tasks is elaborated on. The research takes an *actor perspective* where the focal actor is the main provider who will perform activation in order to form a supply net for the provision of logistics services to an industrial customer. Being a main provider is a role defined in the context of a logistics service package connected to a certain customer relationship. It is not a fixed position in relation to other actors in the sector, but the actor can act as a main provider (A) with a certain partner (B) and even at the same time act as a partner to (B) in connection to another service package. The relationships (dyads) between actors as well as the network levels are considered if and when potential links between the activation process and these levels are revealed. They are, however, seen either as background factors having an influence on the activation process or, as being affected by the process instead of being in the absolute focus.

The industrial network approach stresses the interdependence between an organization and its direct and indirect relationships to other actors within the business network. As pointed out e.g. by Easton (1992), using the industrial network approach indicates that one is interested in studying the network. However, this can also mean that one needs to focus on what happens in the smaller nets or within individual relationships or, what individual actors do within the network setting. This study is to a high degree focused on how an actor behaves when taking on the role of main provider. In order to do this, however, the network interdependencies need to be taken into account. Further the activities of the main provider affect the relationships between partners in a network.

Activation is a term that has previously been used with quite little elaboration on its potential for expressing the content of a process. It is a common expression for starting something or making somebody else start something. The Merriam-Webster dictionary suggests an interpretation that expresses the main meaning given to the term in the present context; "to put (an individual or unit) on active duty". The unit is on hold until needed and activated when needed. This interpretation assumes that a relationship between the main provider

and the partner exists that is on hold (i.e. dormant) at the moment. At the same time it should be noted that the expression activation is here also used in cases where the main provider ends up activating a new partner or a new relationship. However, what this study is more about is the content of that process, what is done in order to put a certain unit on active duty.

This brings us to the issue of, what it is that is being activated - the partner organization or the relationship or even the supply net. An assumption is made that it is the relationship that is being activated. Activation is done separately concerning all the different services within the service package and the supply chain will be the sum of the outcome of several simultaneous activations. The partners that are contacted and commissioned are in general assumed to be actively involved in other relationships as well and it is only the relationship to the main provider that is being worked on in this setting.

Previous studies of logistics companies as well as studies of the relationships between the logistics provider and its industrial customers are used to gain an understanding of the services provided as well as the general business models in the sector. Research on business-to-business services marketing is used to gain an understanding of logistics from a service perspective regardless of whether the research originates within relationship marketing or e.g. the network approach.

1.6. Methods used in the empirical study

As the content of the activation process has previously not been much documented, gaining an understanding of what activation really is, requires a broad approach, not focusing on only a few main providers, but striving for width to catch also possible differences and trying to understand their origin. At the same time, even if the supply nets formed through activation are not geographically delimited, the choice of a geographical delimitation for the empirical research enables a tentative study on the impact of social networks and business environment on activation. In this sense one can treat the study as a case study of activation in a geographical cluster.

A thorough analysis of the impact of activation on the business network and vice versa would, however, require a longitudinal approach where one would follow one (or a few) main providers' pattern of activations over time. The present study is, however, not

longitudinal due to the primary empirical focus on the content of activation.

The informants were selected based on the delimitations presented in section 1.3. All informant organizations must work directly with industrial customers and, all must use a supply network of partners in providing the services for the customers. A list of approximately 50 potential informant organizations was compiled based on listings in the different advertising channels used in the sector. The initial screening and contact to these resulted in 29 interviews being used in the study. The empirical data is analysed with the intention to form a model of understanding of how activation is executed in these companies as well as similarities and differences between them. The QSR NVivo-software is used as a tool in the analysis of the transcribed interviews and the data is presented in the form of a story of activation. Three types of main provider profiles are identified and the profiles are used in order to show differences in activation behaviour stemming from differences in the main services that the companies provide. Taking into consideration that all informant organizations belong to the same geographical logistics cluster, the discussion of the social network as well as the general business environment will frame the story as a case delimited on geographical grounds. It has to be noted though that many of the main provider's supply partners reside outside of this geographical area. The research approach and methods are discussed in detail in chapter five.

A note on logistics clusters

A cluster is a geographical agglomeration of companies with similar or complementary capabilities (Maskell & Lorenzen, 2004). Clusters have been further categorized based on e.g. the amount of functional connections and interdependence between the actors in the cluster (cf. Isaksen, 1993, Maskell & Kebir, 2005). Clustering can enhance the development of weak ties, social trust and "social code books" (Maskell & Lorenzen, 2004) between the actors within the cluster. It evolves over time as a result of interaction between external industry dynamics and the developments within the companies that are located in the cluster (ibid).

When studying clusters of logistics companies, the concept of cluster becomes interlinked with the concept of logistics center in its meaning of a localized network of companies offering logistics services (cf.

Vafidis & Ojala, 1999)². In order to be an advanced level logistics center, functional links should exist between the actors in the cluster so that they together would be able to offer competitive services to the customers, including value-added logistics services as well as providing economies of scale and specialization opportunities for the actors. Hence a logistics cluster of merely closely located actors, e.g. around a port, would not suffice as a definition of a logistics center in its strictest sense (ibid.). The Logicity initiative (see section 6.5) can be seen as an effort to support the development of this kind of centre.

The Turku logistics cluster should in this study be understood as an agglomeration of logistics companies that has evolved at a traffic node, i.e. the intersection of sea and land transport (cf. Vafidis & Ojala 1999) and over time has come to include more advanced services. To some extent one can expect functional connections between actors in the cluster but, according to the informants, their supply networks include a considerable amount of actors located outside the cluster. Hence, the importance of geographical proximity in the cluster is here treated mainly in terms of influences from the local social network.

1.7. Terms and definitions

In this section definitions are given for some of the most important terms that the reader needs to be familiar with in order to follow the presentation. Some of the concepts will be discussed in more detail later. The terminology linked to actors and activities in the logistics sector is presented in chapter three. When it comes to theoretical terms and concepts, especially the interaction and industrial network approaches include an extensive number of concepts that are not always defined in detail by the authors and, are sometimes used in slightly different ways by different authors. Instead of trying to give those terms a specific meaning within this list, some of them are instead discussed in connection to their use in the subsequent chapters.

Activation stands for the process of evaluating, choosing and commissioning partners for the purpose of providing the services included in a logistics service package. The term indicates that the companies in most cases are familiar to each other before hand. A simple way of illustrating the situation is thinking in terms of

² The concept logistics center is also used for e.g. a freight terminal or a distribution center belonging to one actor.

activating a previously inactive, or dormant, relationship. The companies are in many cases already involved in the same supply network. The individual service packages are here treated as the point of departure for creating “package specific” supply nets.

Dynamics: The term dynamics is here used to describe changes in the supply network that are part of the natural development of a network and can therefore not be said to occur unexpectedly, nor do they represent abnormal situations, see further in chapter 3.

External horizontal networks is an expression for contacts between competing companies, i.e. between companies that provide similar services. The term has in literature also been used with a broader meaning such as illustrating the collaboration between logistics providers with complementary services (Jharkharia & Shankar, 2007).

Freight services include mainly transport from A to B as well as supplementary services, e.g. loading/unloading, documentation and possibly storage. The freight service package has a geographical dimension as well as a time frame. It should make the goods available in the right place at the right time in the right condition and to the right price in the right volume. The expression physical transfer services is used by Laine et al. (2003) in a similar way.

Internal horizontal networks are (global) office networks owned by one (global) logistics services provider. The local offices all have the same tasks on their own, geographically delimited, turf.

An *industrial customer* can be a company involved in industrial production or belonging to e.g. the wholesale or retail sector. The expression is used for organizational customers outside of the logistics sector.

A (*logistics*) *cluster* is a spatially defined community (Maskell, 2001) of logistics companies, see also section 1.6. In literature the word cluster tends to be used with reference to Porter (1990). Here it is, however, mainly used due to local custom (cf. FCG Efeko, 2009).

The term *logistics company* is here used for all companies included in the logistics sector even when the company is specialized in a certain sub sector such as e.g. sea or road transport. The use of the term logistics company will not give any indication as to the extent to which a certain company performs the physical activities itself or externalizes them to other actors.

The logistics sector is delimited to include companies that in the Finnish Standard Industrial Classification (TOL) 2002 were included in group I; Transportation, storage and communication. From that group companies that only handled passenger transport were excluded, as were also travel agencies and companies within the telecommunications sector. Within the remaining categories sub groups such as harbours were excluded. Using this classification implies that companies working exclusively with logistics solutions i.e. as integrators not performing any of the physical activities might be excluded. The TOL (2002 and 2008) does, however, not recognize the expression logistics (see Berglund et al. 1999 for a similar observation in Sweden). A company that does not see itself as belonging to one of the more traditional transport-related sub-sectors but instead e.g. prefers the expression consultant will not be able to find a TOL group expressing their area of expertise. Instead they would probably fall under the heading 70220 "Business and other management consultancy activities" (see appendix I for a list of the content of the group "Transport and storage" in the revised TOL 2008). Also companies with a highly diversified service structure would be rather hard to fit into the TOL categories. The expression *logistics industry* is frequently used with the same meaning but will be avoided in this study in order to make a clear distinction between logistics companies and industrial customers.

A *logistics service package* is a combination of different logistics activities that together, but not separately, are an answer to the customer's needs (cf. Stefansson, 2004). Specialized companies can provide the separate services. The service packages are in this study divided into two main groups; freight services and logistics solutions. This kind of separation of packages is, however, not unambiguous (cf. section 3.1.2.).

Main provider: the company that is in direct contact with the industrial customer. The main provider plans the contents of the service package and decides on which potential partners that will become commissioned for the various specific services needed. In the present study the term main provider is used instead of e.g. co-ordinator because the service packages in this research are not explicitly limited to transport chains but can include other types of logistics solutions as well. "Main provider" is a functional role acquired by the focal actor

in connection to a service package when the customer contacts the actor and the activation process is started.

Logistics solutions include larger processes than freight services, have a longer time frame and are highly customized. Many times they are offered in the form of 3PL solutions. (e.g. Stefansson, 2004).

Network context: The actors are assumed to be embedded in a network context that in the study is treated as consisting of several levels (see table 1.1). The levels are further discussed in section 3.2.

Table 1.1. The included network levels

The network context	how it is used in this study
Business network	Actors within the logistics industry, here mainly delimited to the Turku region.
Social network	Individuals within the logistics industry in the Turku region.
Supply network	Partners that the main provider tends to work with (see definition below).
Supply net	The partners that are included to provide services linked to a service package (see definition below).

Partner: The actors working together within a business network are in general called partners. These partners can be customers, suppliers or, other kinds of co-operation partners. In this thesis, however, partners are companies within the logistics sector that, from time to time, might become commissioned by the main provider. In comparison to *subcontractor*, the use of the word partner also tends to implicate a closer relationship with a more even balance of power between the actors while *subcontractor* implies a stronger one-way dependency. Further the use of the word partner can imply that the co-operation is deeper than only involving the purchase of a standard service. In this thesis, however, all actors that are, or might become, commissioned are called partners unless there is a specific contextual need to specify the characteristics of the relationship in greater detail.

Supply nets are intentionally created through the activation of relationships between the main provider and the partners. The actors in the supply net are involved in delivering the services needed

within a service package. The definition of net follows the use of the word within the industrial network approach (see section 3.2).

The *supply network* consists of those partners that the main provider tends to do business with. Most of the partners that are included in a supply net through activation are assumed to already belong to the supply network but also new partners can enter and former partners exit from it.

Subcontractors are companies that are commissioned to perform parts of a contractor's project. The use of the word subcontractor tends to imply an unbalanced power relationship in favor of the main contractor, or in this case, main provider. In this thesis the word partner is in general used for all actors activated by the main provider (see also the definition of partner).

A *third-party logistics company (3PL)* usually provides process-based rather than function-based (or asset-based) services. The services are aimed at the integration and control of a part, or even the whole, logistics process for the customer (Carbone & Stone, 2005). The expression logistics solutions used in this thesis refers to this kind of 3PL-services (see also Berglund, 2000).³ As compared to more traditional types of logistics outsourcing, 3PL relationships can be described as deeper, focused on long-term co-operation and wider in scope. Berglund et al. (1999) call 3PL companies a separate industry that is creating value for their customers both in economic terms as well as in developing the customer's business processes. 3PL companies themselves outsource the logistics activities to partners in the logistics sector. The use of the term 3PL is, however, overlapping (Selviaridis & Spring, 2007) and has been used to describe many different kinds of arrangements. This has to be kept in mind e.g. when reading articles about 3PL companies, some of them can also be about issues related to transaction-type relationships between carriers and shippers. E.g. Patterson et al. (2010) uses 3PL (third party logistics companies) "for companies that are hired to organize shipments on

³ An integrated European definition for 3PL has been suggested within the EU project Protrans, 2001:

"Third-party logistics (3PL) are activities carried out by an external company on behalf of a shipper and consisting of at least the provision of management of multiple logistics services. These activities are offered in an integrated way, not on a stand-alone basis. The co-operation between the shipper and the external company is an intended continuous relationship". (Skjøtt-Larsen et al. 2003, p.4)

behalf of other companies". The expression "Third party service provider" has been used in order to avoid confusion with 3PL (cf. Stefansson 2002). On the other hand the term could also be misunderstood as describing just any "functional support company" (cf. Berglund, 1997) providing services within a supply chain, regardless of the nature of the services.

The *Turku region* (fi. Turun alue) is here used as a general term for the geographical area where the empirical study is executed. Even though the main part of the presentations (e.g. in chapter six) concerns areas within the city of Turku, the use of the term Turku region is used to some extent and requires further definition. The concept of *district* was in 1994 introduced in Finland as a level above the municipal level referring to functional urban regions (FUR) (Antikainen & Vartiainen, 2002). The Finnish districts are defined on the basis of commuting patterns as well as co-operation between municipalities (ibid). In Southwest Finland the mainly Swedish speaking archipelago has been considered a separate district (Åboland). Accordingly, data concerning companies and establishments in the town of Pargas⁴ has not normally been included in the statistics for the Turku district (fi: Turun seutukunta) even if commuting to/from Turku is extensive and geographical distances can be shorter than the ones within the city of Turku. The expression Turku region can in this text be understood as the same as the English version⁵ Turku district (used by Antikainen & Vartiainen, 2002). "Region" is here used to emphasise that, especially the informants, use the expression on a very general level in discussing e.g. the Turku logistics cluster compared to logistics clusters in other parts of the country.

Vertical network: A network should perhaps not be described as vertical or horizontal. The purpose is, however, to emphasize the structure of and the activities within a limited network. When a certain service package is being worked on, the main provider works with partners and a customer in a vertical chain-like structure. However, taking into consideration that the roles of the logistics providers might be different in connection to other service packages,

⁴ In 2010 enlarged and renamed Väståboland, the final name is still (June 2011) under discussion.

⁵ In Finnish the expression used by the informants was most of the time "Turun alue" and in Swedish "Åboregionen".

they do not have a predetermined place in the chain and the co-operation over time is better described as a network.

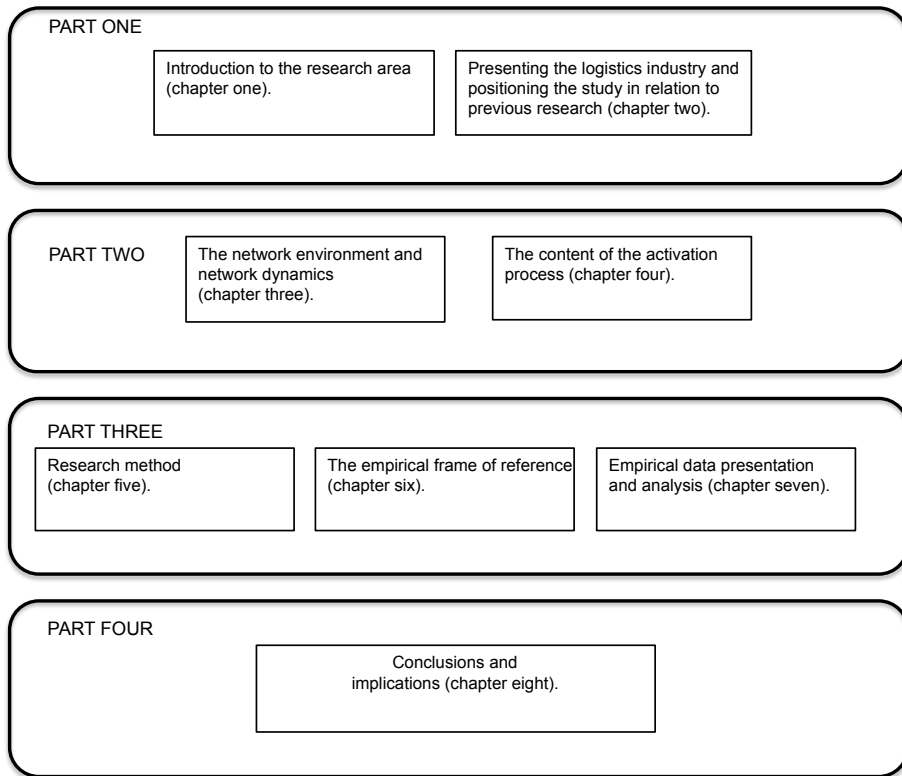
1.8. Structure of the thesis

The thesis is divided into four parts (see figure 1.3) out of which the first includes specification of the area of study, objective and research questions as well as delimitations. A brief presentation of the logistics sector that serves to describe some of the terminology is included together with a discussion of previous studies. The review of previous studies aims at positioning the present study in regard to four aspects; logistics as a research area, the logistics sector as a service industry, the varying views of supply chains and business networks as well as the perspective in comparison to previous studies about logistics companies.

The second part of the thesis forms the theoretical underpinnings of the research focusing on specifying the supply nets and networks as well as the concept of activation. A model of pre-understanding is formed to help structure the empirical research, and the model is transformed into discussion questions to be used in the empirical data collection phases.

In the third part the method used for the empirical research is presented. The setting for the study is presented and the empirical data presented and analyzed. Finally the data is included in the theoretical discussion in the form of model, concepts and links. In part four conclusions and implications are discussed and suggestions for further research are presented as well as a critique.

Figure 1.3. Structure of the thesis



2. Positioning the study

In this chapter previous research on logistics companies is discussed. The theoretical perspectives that have been used when studying logistics services are examined in order to position the present study in the research context, see figure 2.1. A brief presentation of the logistics sector is, however, given first in order to introduce the context within which the study takes place.

Figure 2.1. Positioning a study on activation in the logistics industry



2.1. Introduction

Traditionally a distinction has been made between transport and logistics. The transport sector has a long history as it has developed hand-in-hand with trade and production. The transport system is often described as nodes and links in three layers; the infrastructure, the transport resources and the goods (cf. Lumsden, 1995). Logistics as a term has mainly been used for the activities needed within production and distribution within industrial companies. With the growing interest in additional services to be added to transport and the transport related services (such as e.g. forwarding, loading and unloading), the term logistics has gained a foothold also among the providers and, the terms logistics services and logistics companies have become buzz words in the marketing messages of practically any kind of company in the field (cf. Berglund et al. 1999). The *transport* sector includes transport and other transport related services. Only quite recently, from the 1980's onwards other kinds of logistics services have been added, due to a boost in outsourcing from industrial companies as well as technological developments providing the opportunities for producing and offering new kinds of services. Accordingly, in this study the expression logistics sector is used instead of a transport and logistics sector. The discussion is delimited

to logistics related to physical goods excluding passenger transport and other passenger related logistics.

The logistics sector is characterized by derived demand; the demand for logistics services is dependent on the demand for physical goods (cf. Bardi et al., 2006). It consists of different sub-markets with highly diverse structural features, business logic, market conditions etc. (cf. Laine et al. 2003). Focusing on the main services of a logistics company one can make a broad division of the logistics sub-markets into transport, warehousing, forwarding, handling of goods and the operation of terminals, harbours as well as companies focusing on specific value-added logistics activities (the activities are discussed further in section 3.1.2) or, providing logistics solutions (highly customised and integrated service packages). The transport market can be further divided into transport by land (road or rail), air or sea as well as pipeline (the different modes of transport). Even considering that all the listed sub-markets can be further divided into specialised segments, sea transport is considerably more differentiated than the others. Depending on the perspective, one can divide sea transport into specific markets e.g. based on the type of goods handled (e.g. bulk compared to containerised goods), the mode of operation (e.g. time-charter compared to liner traffic) or the geographical scope (e.g. short-sea compared to intercontinental transport). Many providers are, however, active in several of these segments and the general term shipping is frequently used. Shipping also includes several types of companies specialised e.g. on the management of ships, shipping agency, manning etc. Companies providing express-services (rapid shipments of small packages, cf. Bardi et al. 2006) can be considered a separate segment but, several of the larger express companies, such as TNT or FedEx, are heavily involved in other kinds of logistics as well.

As mentioned above, the expression logistics company⁶ has become a common denominator for various kinds of companies within the sector. Also in this study “logistics company” is used for all companies included in the sector even when the company is specialized in a certain sub-sector such as e.g. sea or road transport.

⁶ A synonym in literature is Logistics Service Provider (LSP). It is, however, avoided here in order not to mix it with the expression main provider.

Aastrup (2002) uses the expression domain for the functional role stemming from the main services that a logistics company performs.

The expression third-party logistics provider (3PL, see also section 1.7) has been used in quite a loose way for different kinds of logistics providers, even if many researchers have discussed the need to reserve this term for providers of logistics *solutions* (cf. Skjøtt-Larsen et al. 2003). In this study 3PL is considered as one domain within the logistics sector, hence the use of the term logistics company will not give any indication about the extent to which a certain company provides integrated solutions.

2.2. Transportation studies, logistics and SCM

When taking the industrial customer perspective, *logistics* consists of the logistical activities needed within the business of the company. Logistics is by Coyle et al. (2003) defined as:

“the process of planning, implementing and controlling the efficient, effective flow and storage of raw materials, in-process inventory, finished goods, services, and related information from point of origin to point of consumption (including inbound, outbound, internal and external movements) for the purpose of conforming to customer requirements” (Coyle et al. 2003, p. 38).

Arlbjørn & Halldorson (2002 p. 25, referring to Stock & Lambert, 2001) provide a definition that, to some degree, takes into account the connection to supply chain partners:

“That part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point-of-origin to the point-of-consumption in order to meet customers’ requirements”.

Compared to supply chain management, logistics management focuses on the logistics processes, often from the perspective of one company. The processes can be divided into processes of supply, materials handling and, distribution. They include the separate activities needed in order for the production process to run smoothly and efficiently. The design of the logistics processes should hence follow the business logic of the industry that the company belongs to. Supply chain management (SCM) can be said to connect the logistics processes of the partners included in a supply chain. In addition SCM

also includes the development and management of relationships between the partners.

The Council of Supply Chain Management Professionals (CSCMP) provide a detailed, rather lengthy definition of SCM:

“Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes co-ordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. Supply Chain Management is an integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model. It includes all of the logistics management activities noted above, as well as manufacturing operations, and it drives co-ordination of processes and activities with and across marketing, sales, product design, finance, and information technology.”

2.2.1. Logistics and management studies

Drawing a line between logistics as a research field and business studies is not a quite straightforward task while logistics in some articles has been defined as an area within “management studies” (e.g. New & Payne, 1995). A similar discussion can be held about where to draw the line between transportation research and logistics. According to Woxenius (1998, referring to Sjöstedt 1996) transportation has focused more on issues involving the public sector, traffic planning with an emphasis on passengers, as well as civil engineering and architecture while logistics tend to be closer linked to issues involving the private sector, materials handling with a focus on freight as well as industrial and mechanical engineering. Logistics can then be understood as taking more of a customer’s approach to the movement and handling of goods while transportation is more focused on the planning of efficient transport systems from a societal perspective.

In both cases there is, however, a strong technical emphasis on equipment as well as physical networks consisting of nodes and links, where flows are seen as more or less mechanical and can be made more effective (faster and less expensive) through automation,

optimizing and technological improvements. It is hence not surprising that research within logistics has been dominated by positivism and quantitative studies (cf. Mentzer & Kahn, 2001). Even in the more management oriented logistics studies, quantitative research has prevailed (Gammelgaard 2004). A general systems approach is also one of the common approaches in logistics studies (cf. Woxenius, 1998)^{7,8}. Andersson (1992) made the same observation concerning studies of distribution channels. Larson & Halldorsson (2004), however, note a growing interest in qualitative research methods among logistics and SCM researchers. During the past decade, a growing number of studies with an actor-network approach have been done (see section 2.2.2).

The expression *logistics management* is frequently used for research focusing specifically on the planning and control aspects of the logistics processes and the definitions of logistics and logistics management tend to be the same (cf. Lambert et al. 1998). *Business logistics* can be regarded as a spin-off from marketing. In the 1950's it focused on the physical distribution and logistics cost in distribution channels while marketing focused on social aspects of exchange relationships (Gripsrud et al. 2006). Supply chain management is by these authors considered as a spin-off from business logistics attempting to re-introduce the holistic perspective.

Woxenius (1998) considers logistics to be a multi-disciplinary field and is echoed by Arlbjørn & Halldorson (2002) who, however, try to find the essence of the logistics discipline by dividing it into *hard core* and *protection belt* where hard core is explained as:

“directed toward the flow of materials, information and services; along the vertical and horizontal value chain (or supply chain) that seeks to;

⁷ New & Payne (1995) studied logistics practices in order to test what methods and concepts that should be used to find out what is happening in the industry. They came to the conclusion that the field needs to take more behavioral aspects into consideration but mentioned that in that case there is a problem concerning the possibilities to construct testable descriptions.

⁸ On the 3.2.11 the research papers on the home page of the IMP-group, www.impgroup.org included 14 papers where the abstract included the word logistics. This does not, however, imply that those papers would specifically focus on logistics issues (the number of papers include an addition of two between October 2004 and August 2006 and an additional four since 25.8.06).

co-ordinate the flows it is based on; system thinking (a holistic view), where; the unit of analysis essentially is the flow."

The authors consider this core to be neutral in relation to the individual researcher's view on science (Arlbjørn & Halldorson 2002). The "protection belt" is described as cross-disciplinary research that by the researcher him/herself classified into the logistics field. According to Arlbjørn & Halldorson there is a risk that logistics starts to "include all aspects of modern studies in business management". The present research could easily be placed in the latter category. It is a study of actors who provide logistics services and the way in which these services are provided is the starting point for identifying activation as a part of the service process in logistics. However, how activation is being performed, i.e. the focus of the study, might equally be understood as applicable to other service industry settings.

2.2.2. Research about supply chain management

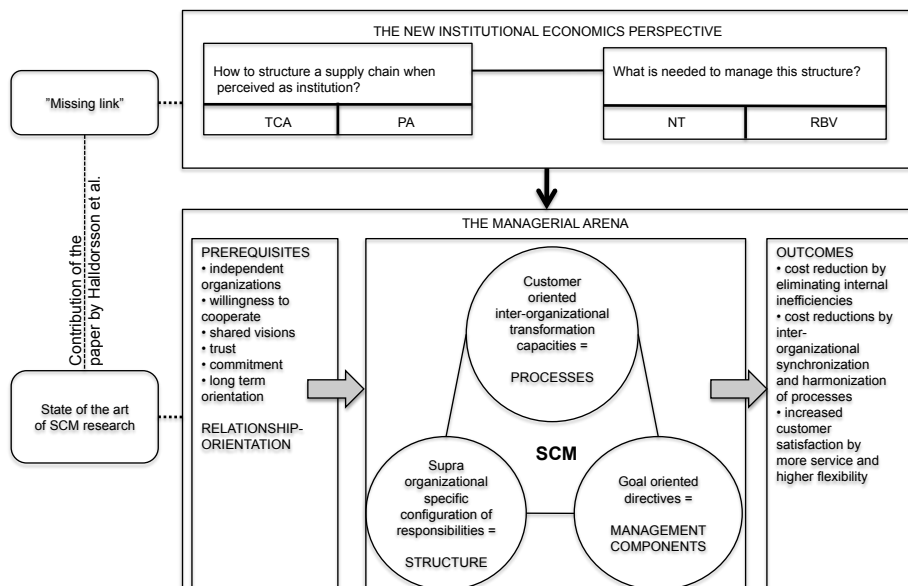
Supply Chain Management (SCM) is an area that in a sense has developed as a bridge between logistics and business studies (Arlbjørn & Halldorson 2002). According to Tan (2001), research within, or perhaps preferably, about SCM, started from two different lines that later were integrated. One is about taking a purchasing and supply perspective on the production of physical goods and aiming for integration with the suppliers of materials and components. The other line is a transportation and logistics perspective studying integration of the logistics activities within the distribution chain, mainly from a retail perspective (c.f. Gripsrud et al. 2006).

The definitions of SCM describe the included management activities as well as the basic idea of process integration across organizational borders. Nothing is said about the potential status of SCM as a separate research field with its own theoretical frame of reference. In fact, SCM can be considered a management concept and the choice of theoretical framework for SCM related studies is dependent on which aspects of SCM that one wants to focus on. Gripsrud et al. (2006) identify two approaches to the study of supply chains according to the processes that are included and the definition of the unit of analysis; one is considering SCM as an extension of the logistics concept and, the other as an enhanced process management concept. Efforts have been made to develop SCM into a discipline (e.g. Croom et al. 2000, Chen & Paulraj, 2004) but doubts have also been expressed about whether a unified theory of SCM will emerge (Cousins et al. 2006).

The supply chain literature can be divided into the categories of management, flows in channels, channel structures, business process approaches, network approaches, relationship marketing and, service strategies (Bask 1999).

According to Halldórsson et al. (2007) many contributions to SCM research have focused on definitions and concepts from a functional point of view providing pragmatic recommendations for management. The authors continue that the current frameworks present solutions on how to design and manage particular relationships, but that they do not address the economic, strategic and socio-economic rationales behind them (ibid.). Halldórsson et al. (2007) develop a middle range theoretical foundation for SCM based on the key issues of how to structure a supply chain and how to manage a particular structure. The chosen complementary theories (transaction cost analysis, TCA, the principal – agent theory, PAT, the network perspective, NT and, the resource-based view, RBV) help in looking at SCM from an institutional and socio-economic perspective (figure 2.2).

Figure 2.2. A middle-range theoretical frame of reference for SCM

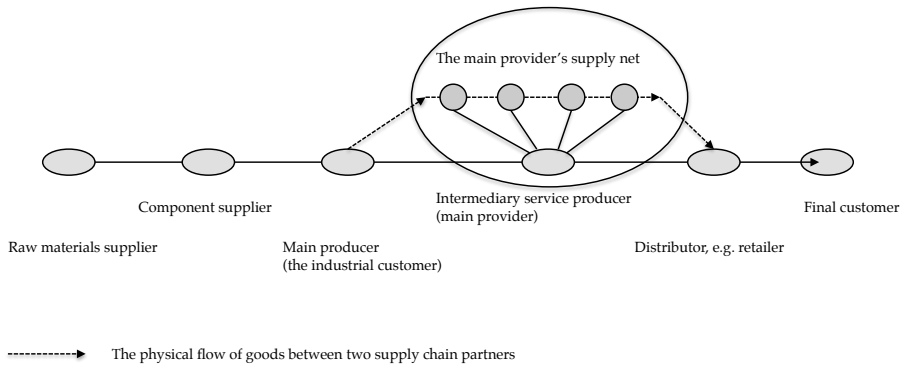


Source: Modified from Halldórsson et al. 2007

SCM takes a channel perspective to logistics processes including the organizational and structural dimensions. A channel perspective

implies that the starting point is a product flowing through a channel (channel perspectives are further discussed in section 2.3.2). Since the activation process in the present study is defined as starting from the planning of a service package, the study area can be understood as relationships within a supply chain, i.e. organizing for the movement of goods from one supply chain partner to another or, between several partners in the chain (see figure 2.3). Another view is to see the provision of logistics services as being done by companies not included in the supply chain but only providing services to the chain (e.g. Berglund 1997). Cui and Hertz (2011) do, however, introduce the concept of a logistics service supply chain including carriers, logistics intermediaries and 3PL companies who are interacting with each other and form a vertical network.

Figure 2.3. The main provider’s supply net within a relationship in a supply chain



2.3. Providing logistics services

In this section logistics is first discussed from a services perspective in order to highlight characteristics that influence the way in which these services are being produced and provided for customers. After that previous studies on the providers of logistics services are analysed with the aim to find out what perspectives the researchers have been using in studying these organizations.

2.3.1. A services perspective on logistics

Logistics services can be described as logistics activities that are the subject of exchange on an industrial market. They are often sold or bought in bundles where several different services, such as e.g.

transport, forwarding and loading/unloading as well as handling in terminals, form a service package. Usually a main provider sells the service package to a final industrial customer while at least part of the separate services are acquired from partners within the logistics sector. The activation process can thus be described as a supply process applied to the specific setting of the logistics sector.

Logistics services are not too often mentioned in the services marketing or purchasing literature⁹. In general, in the literature there seems to be an emphasis on consumer services and tourism. Within the business to business -services field, the emphasis tends to lie on knowledge intensive services, i.e. professional services (cf. Axelsson & Wynstra, 2002). Turning the issue around, in research that has been published in journals in the field of logistics and supply chain management, a relationship marketing approach and lately also the interaction approach have been used in studies of e.g. third-party relationships (see e.g. Marasco 2008).

Applying a common definition of services (Grönroos, 2000 and 2008b), providing a logistics service package could be defined as a process consisting of a series of more or less intangible activities that to some extent take place between the customer and service employees as well as the physical resources and systems of the service provider. The service packages are provided as solutions to customer problems and, the customer participates (at least to some extent) in the production process. The services are (at least to some extent) produced and consumed simultaneously, logistics services cannot be produced in advance and stored for later use, e.g. during a strike (Bardi et al. 2006), only preparations for the services can be made.

Further, the logistics service packages included in the present study are *business services*, defined as services provided by firms or other, formal organizations to other firms or organizations (Axelsson & Wynstra, 2000). They can include both routine services and professional services. Routine services include e.g. the execution of single services, such as transport, while professional services would include e.g. development and re-engineering of logistics solutions (Andersson & Norrman, 2002).

⁹ An exception is the use of the Servqual-model for evaluating transport services, which has been done in several studies (e.g. Cavana et al. 2007, Liu & Gao 2007, Sakas & Marina 2008).

The “solution to a customer problem” (see above) can be rephrased as understanding how the customer intends to use the services. The services acquired by the main provider from its partners, on the other hand, can be called *component services*, defined as services that become, unaltered, part of the offerings to the final customer (Axelsson & Wynstra, 2002). The service package provided by the main provider for the industrial customer can be of any of the four categories presented by Axelsson & Wynstra (2002), i.e. consumption services, component services, transformation services or, working method services.

The specific content of the logistics services can further be defined by the level of complexity as well as the position of the service on a price/quality/level of customization scale and, by using categories such as long-term vs. short-term, standardized vs. non-standardized, simple vs. complex, fluctuating vs. non-fluctuating and, targeted at individuals vs. targeted at organizations (Axelsson & Wynstra, 2002). Services targeted at individuals are, however, not included in this study, otherwise e.g. parts of the services provided by shipping agents can be defined as targeted at individuals.

A link can be found between the character of the relationship and the complexity of the total service package (c.f. Andersson & Norrman 2002) as well as the level of customization of the package. Kraljick’s (1983) model for supply strategy is often modified to illustrate in what kind of situations a need for developing close supply relationships occur (e.g. Friis Olsen & Ellram, 1998). In the model the type of supplier relationship is dependent on the importance of the purchased item in terms of e.g. cost of materials, value added profile and impact on profitability, and the complexity of the supply market in terms of the number of potential sources, the pace of technological advance, entry barriers and, logistics cost and complexity. By the help of these factors the purchased items /materials are categorized as strategic items, bottleneck products, non-critical items or leverage items. The original article does in fact not say anything about the character of the relationships that should be developed other than by brief comments on where the bargaining power lies for the different kinds of items. In the modified models the main idea is to show that a company might not have the possibility to work very close with all suppliers, or all customers and therefore needs to focus on the most important ones. The impact, based on this model is, however, delimited to product

characteristics while organizational and other impact is not included (c.f. Gelderman & Van Weele, 2003).

The contents of the service is important for understanding how the buyer and seller will interact (Axelsson & Wynstra, 2002). It would be essential that the main provider's suppliers take into consideration that the service will be a part of a package and how the final customer is going to use it. If the service package is an advanced logistics solution it is safe to assume that this is the case. When it comes to more basic freight services it has been claimed that the notion of taking part in a package is low (c.f. Engström 2004), differences can, however, exist between different kinds of services. In one-stop shopping situations in general, the aim is for minimum of involvement of the partners with the final customer, and all information goes through the main provider who then should be able to convey all the important needs and requirements from the customer to the suppliers. The service process might, however, require interaction both with the industrial customer and the customer's customers (c.f. Andersson & Norrman 2002). Partners activated by the main provider, i.e. another resource within the service process, will handle the goods that belong either to the customer or the customer's customer. Some of these partners will also interact face-to-face with representatives of the customer's or the customer's customer's organization.

Going back to the general definition of services (by Grönroos, 2000 and 2008b) the customer plays an integral part in the simultaneous production and consumption of the services. When logistics services are executed the customer does not need to be, and rarely is, present. However, when including the design phases; where the provider and customer set the criteria for the contents of the package (e.g. type and quantity of goods, timetable, specific services to be performed etc.), one can claim that logistics fits this description. The customer's role in the design phase can be seen as an example of co-production of services. Customers, as co-producers of services, are engaged as resources in the provider company's production process, or co-designers in a design process or co-developers in a product development process (Grönroos 2009).

According to the value co-creation logic, the customer uses the resources provided by a producer/provider to create value-in-use and the provider's role as co-creator of value during the consumption

(value-creation) process is limited (Grönroos, 2008a). The value co-creation discussion does, however, also include the notion of co-design of products (or services) by the customer and the supplier (c.f. Payne et al. 2008). Further it includes an aim towards a long-term relationship (Vargo & Lusch, 2008) which is not really required if we stay with the “co-producer of services” view even if logistics services are, to a large extent, provided with the intention to create and develop long-term relationships between the provider and the industrial customer. Within the service process between the main provider, as buyer, and the partners within the logistics sector, the same logic applies, only the relationships tend to remain less deep from a functional point of view. The customer sets the criteria that define the services that the partners are expected to deliver.

Lovelock and Gummesson (2004), propose a new paradigm for service marketing not focusing on the contents (i.e. services and/or physical goods) but ownership, stating that market exchanges that do not result in a transfer of ownership are fundamentally different from those that do. The customer buying any form of logistics services could then be seen as renting place and space as well as labour and expertise.

From a provider perspective, the separate activities in the service package can be treated as, in a sense, independent parts that can be combined in different ways to fulfil the needs of different customers. The separate sub-markets within logistics differ from each other when it comes to e.g. availability and special skills or equipment required, as well as the need or possibilities for customer specific adaptation. Consequently the production process for logistics services includes different constellations of in-house solutions, partnering and subcontracting between the companies within the logistics sector. Pekkarinen and Ulkuniemi (2008) suggest a modularisation model for creating the service offerings, including modular processes and modular organization. By considering the service processes for the separate services as well as the organizational set-ups that can produce the services, as modules that can be combined in different ways according to the customer’s specific needs, benefits can be obtained when developing services and managing heterogeneous demand.

In service literature the term service package is used for illustrating that services are often exchanged in bundles. The service package is

defined as consisting of a core service as well as additional services. A logistics service package, the way it has been defined in this study, does include separate services, but pinpointing one core service becomes more complicated, since several of the services are needed in order for the package to be of any value at all for the customer, e.g. transport can probably not be sold to an industrial customer without including loading/unloading. The concept of core service here gets another meaning, describing the main services offered by the main provider, i.e. part of the reason why the customer choose that provider instead of another one.

Within the research on project management and project marketing, studies on the relationships between companies within the project networks have recently started to emerge. Especially within the construction and ship building sectors studies have been made on project networks with an emphasis on relationships, purchasing, marketing and management. Industrial projects have several characteristics that are similar to logistics services. The main differences lie in the larger financial investments and risks included in industrial projects as well as the involvement of actors outside of the economic sphere e.g. concerning governmental or community projects. With the exception of 3PL, the development of a logistics service package does not necessarily include any large investment and the time frame can even be as short as a day or two. Within project marketing research a D-U-C model (Mandják & Veres 1998) has been compiled that describes projects as being discontinuous (i.e. take place within a certain time frame), unique (i.e. customer specific) and complex (i.e. contain many stages, parts and parties).

The projects can be seen as episodes in a relationship between the selling and the buying company. Between projects periods can exist where no contact is taken or where the relationship is maintained through social interaction only. The project specific network can be seen as a short-term construction while there are links to the long-term business network in that companies tend to co-operate on several projects in a row (Skaates & Tikkanen, 2003, Ahola, 2005). Dubois & Gadde (2000) speak about projects as temporary organizations or, networks within networks. According to Ahola (2005) there are advantages to gain from the companies learning to know each other and learning how to co-operate but they do not necessarily recognize and develop these advantages intentionally. As a

consequence, the relationships remain less deep. A reason put forth by Ahola is, that engagement in one project does not necessarily mean that the company will be involved in the next project and this would make the adaption between the partners potentially unprofitable. Engström's (2004) informants saw the same drawback as a result of short contracts within freight transport channels. In general one can claim that the situation presented by Ahola in much resembles logistics supply networks; the relationships might be long but not very deep when it comes to functional or technical adaption. Similarly, Dainty et al. (2001) found that subcontractors are not really engaged in quality development concerning construction projects and explained this by how the projects are structured with subcontractors engaged only for specific tasks so that they lack a total view and remain low in the project development hierarchy.

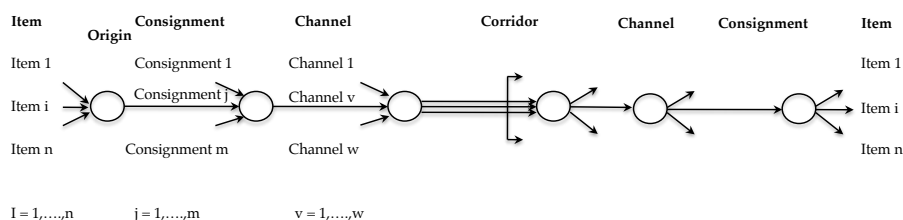
In a study on community projects, such as building shopping malls, Hellgren and Stjernberg (1995) note that most studies on inter-organizational networks tend to study networks with a long-term focus while the kind of networks existing in their setting do not fit the definitions. Also the supply nets in the logistics sector, from the service package point of view, could, at least theoretically, be seen as short-term constructions even if there are strong links to the supply networks of the involved actors.

2.3.2. Channel and chain perspectives

A frequent way of studying transport arrangements is to use a channel or a chain perspective, the benefit is that they accentuate the flow dimension (Woxenius, 1998). The channel perspective, such as a physical distribution channel, mainly refers to the transport/distribution of one particular product. It is one out of four channels within a supply chain, the others being the marketing channel, the ordering channel and the payments channel (Bask & Juga, 2000). Engström (2004) defines a freight transport channel as a set of interdependent organizations involved in the dynamic process of moving a product toward a place of use or consumption. The freight transport channel includes at least a co-ordinator, a shipper and a carrier as well as situations where the shipper takes care of the whole transport without participation of external actors. The co-ordinating actions can be performed by any one of the participants in the chain (Engström 2004).

The chain concept accentuates the inter-linked content of a channel (Woxenius, 1998). It can be viewed as the actual freight movement process and can refer e.g. to the activities (Woxenius 1998) or, the carriers involved (Engström 2004). The relationship between the concepts is illustrated in figure 2.4. Each item (product/unit) has its' own supply chain but items can be transported together if they are going in the same direction. The items are collected into one consignment (e.g. in a container) that is sent through a physical distribution channel to the destination. The consignments from a number of distribution channels are combined for the flow through a transport corridor (e.g. collecting containers to fill a ship) and later again split depending on the final point of destination for each item. The total flow can include several corridors but in order to simplify illustration the figure includes only one (Lumsden 2006).

Figure 2.4. The structure of the flow



Source: Lumsden, 2006

Several studies have been made on the development of intermodal¹⁰ transport chains (e.g. Aastrup, 2002, Nikkanen 2003) or systems (e.g.

¹⁰ Multimodal transport indicates that several modes are being used during the transport of a good from a point of departure to a destination. In part similar, the expression combined transport, was originally used only for situations where the main transport is performed by rail but the use of the expression has become wider (Lumsden, 2006). Intermodal transport can be understood as a refined version of combined transport. It is closely linked to the use of containers since it must be possible to shift the goods from one mode to another without actually handling the goods (cf. Bask et al. 2002, Bardi et al. 2006). From a user (customer) perspective it is a door-to-door delivery made as efficient as possible (cf. Lumsden 2006). Intermodal transport can be provided by an intermodal operator produced either in-house or by a network of partners and the shipper should need only one contract (Bask et al. 2002). From the perspective of the present study it can be seen as one of the types of freight services that can be marketed and provided by a main provider.

Woxenius 1998), in part with a connection to the aims of the EU to enhance the use of rail within goods transport while reducing the share of road transport. Also management and organizational behaviour within logistics companies have been studied as factors affecting the development of combined transport (e.g. Laine et al. 2003, Bask et al. 2002, Bask & Laine 2000 and Laine 2005). Laine (2005 and Laine et al. 2003) discusses rather stable and long-term chain structures, but point out that demand in some industries is more unpredictable and consequently speaks for looser, network type, relationships between the providers in order to enable reconfiguring of the chain to fit different situations, i.e. to be more responsive.

In an effort to categorize the types of freight services as well as how they are provided, Laine et al. (2003) combine the requirements of the goods (the demand for transfer services) with the available types of transfer channels (the supply of transfer services) into a transfer services matrix showing generic service solutions that fit the different combinations. The demand is divided into four categories, special transfer, customised transit, unitised passage and item delivery. The transfer services are provided with the help of transfer channels that vary between them based on organizational structure, technological resources used and the structure of the relationship between the customer and the participants in the channel.

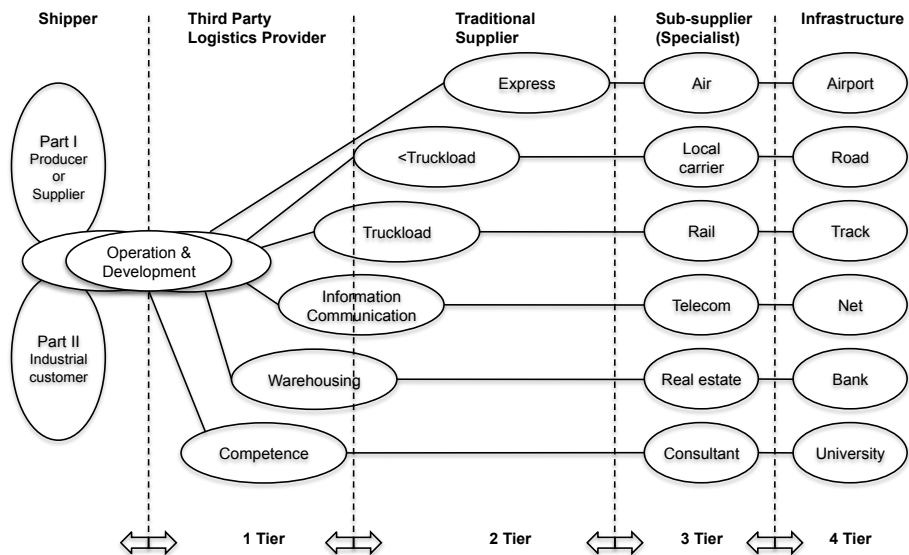
Some of the intermodality studies are quite normative in the sense that the researchers assume that a main actor will create an intermodal chain and then organize the activities. An issue not much discussed in these studies is why certain actors come to be involved in the chain and, in that case, the reactions to it by other companies.

2.3.3. Organizational perspectives

Studies of logistics companies as organizations is, with the exception of 3PL relationships, not a frequent choice. Management issues within the logistics sector have mainly been studied from a sector specific point of view while the logistics companies rarely are studied within the business fields, even as a part of the service sector. The research on logistics companies has only recently started to include a behavioural approach. Studies of organizations and contacts between organizations (e.g. the relationships between main providers and partners) within the sector are rare while studies on the resources needed in order to perform the specific services have been made.

Especially during the 1990's there was a discussion on the rise of Mega-carriers, logistics providers that would be big and diversified enough to produce all services in house, perhaps with some outsourcing of transport to owner-drivers (Cooper et al. 1992). It is, however, still common that a main provider co-ordinates logistics services that are being bought from a network of suppliers. In a one-stop shopping set-up, where the customer is in contact with only the main provider, several layers of operators will be involved. This is illustrated in figure 2.5. by an example of a logistics alliance between a shipper (either part I or II) and a 3PL provider. Abrahamsson and Wandel (1998) point out that the number of layers is context specific and can differ especially between modes. Several layers can be also be combined within one company. In addition logistics providers can co-operate horizontally with other providers to gain e.g. a larger geographical scope (Berglund, 1997).

Figure 2.5. Organization of a logistics link with a logistics alliance



Source: Abrahamsson & Wandel, 1998

The industrial network approach has been used e.g. by Hertz (1993, 1996, 1998, 2001, Hertz & Mattsson 2004) for the study of alliances within the logistics sector and the strategic development of 3PL companies (Hertz & Alfredsson, 2003). Cui and Hertz (2011) also stress the need for a logistics company to recognize the need for

different value creation logics (Bygballe & Jahre, 2009) when offering different kinds of logistics services (in terms of carrier, intermediary or 3PL services). Strategy within logistics companies has further been discussed by e.g. Persson & Virum (2001) and Berglund (1997 and 2000) while strategic *behaviour* by logistics service providers has been studied by Carbone & Stone (2005) and, with a specific focus on *international* markets by e.g. Ludvigsen (2000), Stone (2001) Lemoine & Dagnæs (2003) and Markides & Holweg (2006).

Several attempts have been made to classify logistics service providers into categories based on various attributes such as the characteristics of the provider and the services that they provide (Berglund 2002, Gadde et al. 2002, citing Virum 1993), the ability of customer adaption and general problem-solving capacity (Hertz & Alfredsson 2003) and, service capability (Lai, 2004). Lai uses the resource-based view of the firm to examine if there are different types of logistics service providers in terms of service capability and if these differ in service performance. A categorization is created with four types of companies; traditional freight forwarders, transformers, full service providers and “nichers”. The study provides an understanding of how the resources of the company might affect performance, however, the resource-based view takes into account only resources owned or controlled by the firm and thus the study does not explore the impact of partners and networks which are essential in logistics. Cui and Hertz (2011) combine the resource based view and the industrial network approach to study the development of core competencies and service capabilities of different kinds of logistics companies.

Several studies have suggested that logistics service providers should make clear decisions about which markets they want to serve and select their customers accordingly (Lai 2004, Dobie, 2005). Persson & Virum (2001) note that especially small and medium-sized forwarders and carriers do not do that but position themselves on the market with the help of the services they provide.

2.3.4. The focus on co-operation and services

Traditionally co-operation within the logistics sector has mainly been in the form of informal agreements between independent partners. Recently the forms of co-operation have, however, also come to include more formalized modes and various kinds of alliances have emerged. In addition large providers have included larger arrays of

services within their own organization, still with much input also from subcontractors and other partners.

The content of co-operation, or rather lack of co-operation between the actors in the transport chain has been studied by Bask & Laine (2000).¹¹ In order to improve the efficiency in transport chains Bask et al. (2002) call for more efforts to increase transparency and visibility between the partner organizations. The authors advice the providers to conceptualize the business model as a value net rather than a supply chain or a pipeline.

Compared to the relatively few studies on co-operation between logistics companies (e.g. 3PL companies and their partners), the relationships between 3PL companies and their customers have gained considerable interest among researchers and have been studied from several perspectives. The articles have a strong emphasis on the customer's perspective, while the 3PL company's perspective is less used (Lieb & Randall, 1999, Selviaridis & Spring, 2007). The supplier perspective has, however, become more used recently, with the growth in the industry (Marasco, 2008). The development of the 3PL relationships, is also studied empirically over time in different parts of the world (e.g. Lieb & Randall 1999, Lieb & Lieb 2010, Laarhoven, Berglund & Peters 2000, Sohal, Millen & Moss 2002, Power et al. 2006). In an analysis of 114 referred journal articles on 3PL published in 1990-2005, Selviaridis & Spring (2007) categorized 60 % of the studies as empirical and descriptive. Out of all the studies 51 % were based on surveys.

Customer specific solutions are an issue not only within advanced 3PL (including VAL) but also within freight services. Bask et al. (2002) noted that the container transport chains in Finland have developed into pipeline (i.e. supply chain) specific solutions with close co-operation between a few partners due to high investment costs (for the equipment needed to handle containers) and streamlining the processes between the companies (which creates interlocking). The authors call for modularity of the services (cf. section 2.3.1.) to increase efficiency.

The vertical alliance between a logistics provider and a shipper (customer) has been defined as a comprehensive, long-term, formal or

¹¹ It is, however, noted that the development of standardized load units is a result of co-operation.

informal, partnership arrangement including the provision of a considerable number of logistics activities (Bagchi & Virum, 1998). It can thus be considered an advanced 3PL-relationship while a horizontal alliance refers to the co-operation between 3PLs (Carbone & Stone, 2005, Jharkharia & Shankar, 2007). The alliances between providers have been established in order to reach cost reduction, to get and retain new customers and to establish complex supply chains (Carbone & Stone 2005). They have also been used to gather new competencies and as a tool in developing future potential core business issues (Bowersox 1990 and Lemoine & Dagnæs 2003). The benefits from horizontal logistical alliances have by Ludvigsen (2000) been divided into the opportunities provided by intra-modal agreements between single-modal providers, intermodal agreements between providers co-operating within international supply chains and, inter-industry vertical agreements for the provision of 3PL-services.

Many horizontal alliances have, however, turned out to be temporary solutions and, have later been terminated or, ended with a merger or acquisition (Carbone & Stone 2005, Herz 1998). This also happened to the Stinnes-Schenker alliance described by Lemoine & Dagnæs (2003). The initially voluntary co-operation between European providers studied by Ludvigsen (2000) by time became institutionalized into a multi-firm consortium and later on changed by further mergers and acquisitions. However, in situations where demand for freight services fluctuate much, working with partners has been considered a better option than integrating all the needed services into one organization (Laine, 2005). The understanding of co-operation within the logistics sector, more solid than mere transactions and looser than formal alliances, remains rather blurred. The literature, however, seems to suggest that more attention should be given to strategy and long-term planning especially in small and medium-sized logistics companies and, that there would be benefits to gain from thinking of the logistics supply structures in terms of nets and networks instead of the more rigid channels and chains.

2.4. Network research as a theoretical perspective on logistics services

Studies of relationships within supply networks (and within supply chains) lead to a need for an inter-organizational approach. While

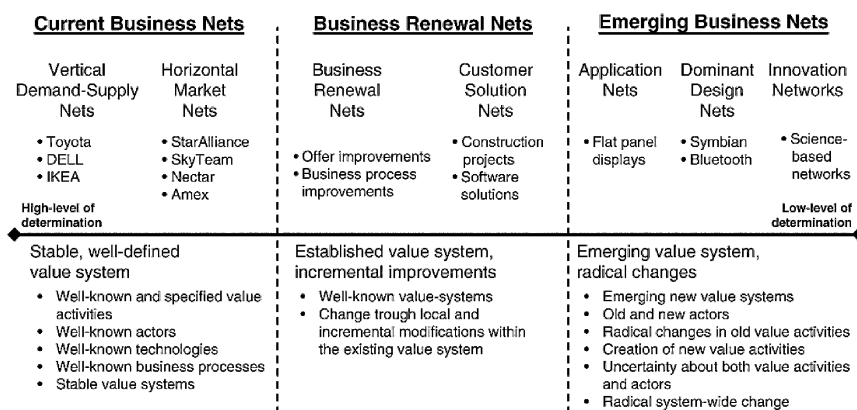
logistics and studies of supply chains mainly study structures and activities, the network approaches, such as e.g. the industrial network approach or the strategic network approach, focus on organization and behaviour in interaction.

According to Axelsson & Wynstra (2002) one can in the literature find at least two main categories of networks; well-organized, deliberate networks that are clearly delimited as to who belongs to it and, gradually emergent networks with no clear boundaries. The members join and enter collaborating relationships by themselves but also seem to be interrelated through mutual dependencies. The first category is defined by the achievement of common goals and the second by connected exchange processes.

2.4.1. Strategic networks

Several reasons for why companies might prefer to work in networks have been put forth in literature, e.g. specialization advantages, flexibility, access to knowledge and technological resources as well as complementarity (Möller & Svahn, 2003). Strategic networks are created intentionally for a specific purpose. They have been defined as long-term, intentional, purposeful arrangements between independent but to some extent interdependent companies (Jarillo, 1988). Within strategy research, strategic networks have been suggested as adding to the understanding of the conduct of companies. Gulati et al. (2000) use a definition that puts the focus on enduring inter-organizational ties that are of strategic significance for the companies that enter them and include among other, strategic alliances, joint ventures and long-term buyer-supplier partnerships. Implicitly both intentionality and a long-term focus are present in the definition. Möller & Svahn (2003), Möller et al. (2005) and Möller & Rajala (2007) separate between strategic nets consisting of a restricted number of members and macro-level networks. They propose a classification system (a continuum) for strategic nets built on the purpose of the net as well as the underlying value creation system (see table 2.1). It includes three ideal types; a stable well-defined value system (in Möller & Rajala, 2007 called current business net), an established value system with incremental changes and, an emerging value system including radical change. The time perspective is long-term since the authors state that e.g. nets creating innovative services, once specified will move towards the left side of the continuum (see also Jokela, 2006).

Table 2.1. Business net classification framework



Source: Möller & Rajala, 2007

The logistics supply nets could be placed to the left in the model, as a form of supply or channel net. One can, however, question whether the supply nets in the logistics sector have in fact been intentionally developed or, if they start out as path-dependent processes (c.f. Hite & Hesterly 2001) and remain that way. Exceptions might be supply nets created for logistics solutions as well as the rather stable networks of liner-type road haulage companies. Even the stable strategic nets are, in the model, defined as tightly co-ordinated and seem also to include efforts for improvement, which imply learning and adaptation between the partners. Logistics supply networks, and nets, are assumed not to include much of these efforts. In fact, from this point of view, even long-term relationships within the logistics sector tend to remain on a more arm's length level.

2.4.3. The industrial network approach

The industrial network approach has developed over time starting from the interaction approach that focuses on the relationship between two organizations, a dyad, within an exchange (buyer-seller) relationship. The interaction approach stresses the importance of long-term exchange relationships that develop through economic and social/personal interaction episodes. Over time investments are made in the relationship in the form of adaptations in resources, activities and actor bonds and, a certain relationship specific atmosphere develops (Wilkinson, 2001).

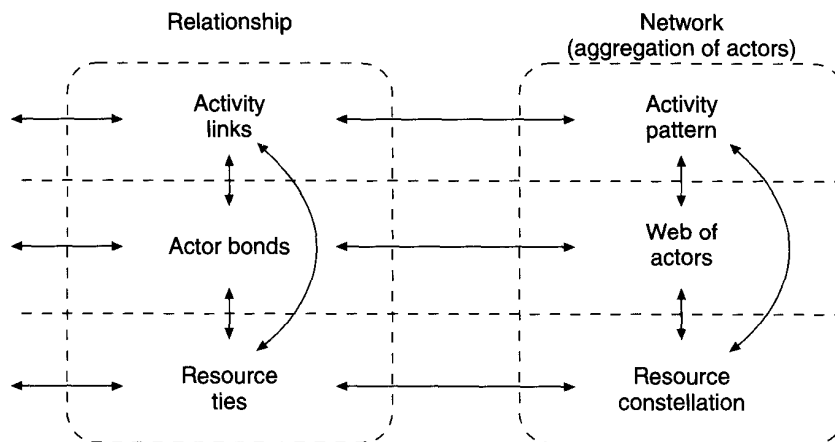
Business relationships are, however, not created and developed in isolation. The development of a relationship is dependent also on the other relationships that the companies are involved in. The interconnected relationships form a view of the market as a network. A relationship view further implies that one does not only study separate exchange episodes or transactions between the buyer and seller, but focuses on the development of the relationship over time.

As a consequence, the companies' roles, performance and development can be explained through their ability to develop relationships. Further, resource development, to a large extent, takes place between companies and, internal efficiency and performance is much dependent on the supplier and customer relationships (Håkansson and Snehota (1995). It also follows that the success of one company is linked to the success of its counterparts (ibid).

Håkansson and Snehota (1995) speak about continuity, complexity, symmetry and informality as the structural characteristics of business relationships. The structure is not totally stable but develops through processes of adaption, co-operation and conflict, social interaction and routinization (Håkansson & Snehota, 1995). The individuals involved in the relationship tend to "weave a web of personal relationship" (Håkansson & Snehota, 1995, p. 10), which is seen as a condition for the development of inter-organizational ties and raises the level of trust. Over time routines, explicit and implied rules of behaviour, as well as rituals in conduct emerge that make the relationship more institutionalized.

The ARA-model (actors, activities and resources) represents three types of content in a relationship. These connect the organizations through activity links, resource ties and actor bonds. The ARA-model is also presented as a model of industrial networks, see figure 2.6 (Håkansson & Johanson, 1992). The actors are individuals, groups of individuals, companies or parts of them as well as groups of companies. The heterogeneous resources are controlled by actors and are required while performing activities. Transformation and transfer activities occur when one or several actors combine, develop, exchange or create resources by utilizing other resources (Håkansson & Johanson, 1992). In chapter 3 the ARA-model will be used to describe the actors, resources and activities within logistics.

Figure 2.6: Relationships in a network



Source: Håkansson & Snehota, 1995

As mentioned, in this approach the business network does not have any defined boundaries. The organizations within all have their own view of the network and of their own position within it, as well as of the positions of other organizations. Within the general business network, places of thickness can exist where some actors are linked closer to each other than to other actors. These nets can be defined and delimited e.g. by a mutual interest between the included actors (see further in section 3.2). The research done within the industrial network approach originally focused predominantly on either the relationship or the network level, but has later started to include also studies on actor and net level. However, as Easton (1992) points out, the focus of research is ultimately the network and not the company or the individual relationship even if those must be studied in order to understand networks. Also Andersson (1992) points out that:

"Focus and network delimitation can be shifted depending on the purpose and the problem studied. For different purposes, the interrelated actors comprising the network can also be defined in several ways." (Andersson, 1992, p. 49).

Within the industrial network approach the research focus has previously been mainly on the relationships between producers of physical goods and their suppliers of materials and components as well as with the customers. The relationships between industrial producers and service providers are, however, mentioned as one

example of the kind of relationships that companies are involved in (e.g. Ford et al., 2003). The authors also mention that companies involved in distribution cannot in an efficient way supply all the different kinds of services that their customers want but that they also use subcontractors and therefore are involved in a supply network of their own (cf. Cui & Hertz, 2011).

As behavioural studies concerning logistics companies have started to emerge the network approach has been used as a frame of reference in several of these, such as Ludvigsen (2000), Aastrup (2002) and Nikkanen (2004). Within the research programme NETLOG at the Norwegian Business School (cf. Jahre & Fabbe-Costes 2003 and Jahre, Elvekrok & Flygansvær 2004) case material concerning the relationships between logistics companies and their industrial customers has been collected and studied with a main focus on the development and use of logistics resources over time (see further, section 3.1.3.).

Purchasing as well as supplier relationships have been studied extensively with the industrial network approach, leading e.g. to the publication of the book *Supply Network Strategies* (Gadde & Håkansson, 2001). The focus has, however, mainly been on the purchase of materials, components and machinery. Purchasing deals with finding, establishing and maintaining relationships with suppliers. Who these suppliers are, and what kind of relationships that are developed with them, is dependent on what it is that is being bought, how critical the product is for the buying company as well as how easily accessible the product is on the market (cf. the discussion on adaption of Kraljic's model in section 2.3.1).

2.5. A summarizing discussion

Logistics research is focused on logistics activities and processes with an emphasis on how materials and finished goods can be made available and handled in the appropriate way taking into account the context where these are being used. It tends to have a rather technical focus and has often been linked to systems theory. Supply chain management (SCM) has been introduced as a concept focusing on the need to co-ordinate these processes across organizational borders. SCM focuses on a product, and the processes involved in among others, the physical distribution channel for that product.

The supply net that in this study is described as created through a set of activations, is part of the physical distribution channel within a supply chain for a certain product. It could be a channel covering the whole supply chain but, it is more often limited to the direct needs of one supply chain party. The most important link between the supply chain and the activation of logistics partners by the main provider is the industrial customer. The activation process is in this study, however, examined without taking the entire supply chain into account. This approach provides better possibilities to study activation performed by different kinds of main providers focusing on their characteristics and relationships within the logistics sector.

Activation as a process is in this particular case strongly linked to how the logistics processes will develop and function but, its application is not necessarily limited to the logistics sector. Previous studies on the relationships between logistics companies have tended to take a structural perspective on the transport channels that are formed and the division of activities within a channel, while a study of activation starts with an assumption that the channel is only being created and focuses more on the selection between alternative potential partners than on setting the functional criteria for the channel. The possibility to choose between alternatives imply the existence of a supply network that includes a set of potential partners. Consequently the result of the aggregated set of activations in connection to one commission should theoretically be considered a sub-group of a network i.e. a net instead of a channel. These factors speak for the use of the industrial network approach as the theoretical setting of the study.

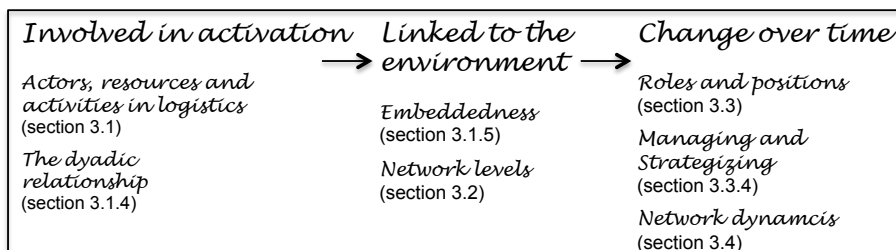
The actors within a transport chain rarely see the chain as a totality but as a chain of independent services (Engström 2004). I.e. the co-operation is often continuous and long-term but, at the same time there is not much adaption between the partners and, it is not in the companies' interest to build too strong constellations. The network approach has, however, been described as being more general and more open than using a chain perspective and thus useful for studying both well organized chains and more loosely coupled chains of activities (Axelsson & Wynstra, 2002). The network approach also provides the opportunity to catch the dynamics present in activation as well as tools needed for studying the impact of relationships on activation.

Part II Theoretical framework

3. The network context

This chapter forms the first part of the theoretical framework. It is focused on the network context of the main provider. An industrial business network can be analyzed from four different perspectives; actor (e.g. the single organization), relationship, net or network (cf. Hertz, 1996). Even if the present study is focused on the actor level it is important to take into consideration that the actors are embedded in a network context. It will impact on how actors act and the activities of actors might over time impact on the structure of the network. The chapter content is summarized in figure 3.1.

Figure 3.1. Activation from a network perspective



The ARA-framework is here used to picture the contents of the logistics sector in terms of actors, resources and activities. After that follows a discussion of business within networks and a definition of the supply network and the supply net, the way they are used in this study. Looking at the main provider as a focal actor with considerable impact over the activation process and outcome, the role and position metaphor is used with a link to managing and strategizing in networks. Industrial networks, within the industrial network approach, can be studied with the help of, at least, four different metaphors; networks as relationships, networks as structures, networks as position and networks as process (Easton, 1992). According to Easton the use of positions to study the structure of a network implies a stronger focus on the individual actors than the other metaphors. It also provides a way to understand strategizing within networks (ibid.). Since the present study has its focus on the activities of one actor, the main provider, it seems natural to choose the roles and positions metaphor for analyzing the connections between the actor and network levels. At the same time activation takes place within relationships, and the outcome (the effect) of

activation within a relationship is affected by, and can spread to, other parts of the network. In short, the roles and positions metaphor is useful for studying the reasoning of the main provider when making decisions, assuming that strategizing is happening and, the relationships metaphor helps in studying the effects of the outcome of the activation process. Network dynamics imply that networks evolve over time and these movements are discussed with the aim to focus on activation as a change agent later on in the text. Also dormant relationships as well as the multi-layered structure of the sector and horizontal co-operation are discussed as factors adding to the dynamics. However, one must keep in mind that the present study is not longitudinal, which would be necessary in order to make empirical observations about effects on the network level. Throughout, the intention is to apply the theoretical discussion explicitly to the logistics sector. On a practical level activation is the first step (sub-process) in providing the service package. In chapter four, the content of the activation process is discussed as well as its strategic potential (e.g. for strengthening or changing one's position in the network).

3.1. Logistics actors, activities and resources

A logistics actor can be defined through its functional role which relates to the activities it performs and stems from the logistics sub-market where it mainly works. Further, the resources it uses, especially in terms of whether these are owned or belong to a partner, in part define what type of actor it is. These examples serve to show that the concepts of actor, resource and activity are strongly linked to each other (cf. Jahre & Fabbe-Costes, 2005). Logistics actors, resources and activities are here discussed showing one of the elements at a time, or rather, by using the different perspectives provided in turn, as well as, later in the chapter, also by using the roles and positions perspective, in order to providing an understanding of how they are connected in the particular case of activation.

3.1.1. Actors in logistics

The actors present in this study are above all the main providers as focal actors and their potential and existing partners as well as, to some extent, the industrial customers. If logistics is seen as an industrial system it does, however, include a wider array of actors. Woxenius (1998, referring to Sjöstedt 1994) present an actor model

including the industries (transport, vehicle and energy), operators (shippers and the forwarding industry), traffic controller, planning agencies and regulators (concerning both the industries and infrastructure), the construction industry (in connection to infrastructure) and academies and universities as well as political constituencies. All the actors included in the present study, except for the industrial customers, hence belong to the groups transport industry or operators. The concepts actor and role become intertwined as one can also see the functional role within the logistics sector as a part of the “personality” (Getzels & Guba, 1954) of an actor that will be important for its potential for taking on the role as main provider or partner in a supply net. It is also important not to forget the impact of individuals within the organizations. Individual decision makers are the ones that, either alone or in groups, perform activation. The individual decision maker is discussed further in section 4.3.4).

The *main provider*, i.e. the company that is in direct contact with an industrial customer, plans the specific contents of the service package and decides on which potential partners that will become commissioned for the various specific services needed. Main provider is a role acquired by an actor when the customer contacts the actor and the activation process is started. The focus on different kinds of structures (see section 2.3.2) in previous studies has led to the use of different expressions for the provider that assembles and possibly controls the structure. The expressions co-ordinator (e.g. Aastrup, 2002 and Engström, 2004) and integrator (Aastrup, 2002) have been used to denominate the company that co-ordinates the transports within a freight transport channel. With specific reference to a railway company Nikkanen (2003) also introduces the roles of dominator (related to the need for a strong identity) and common carrier¹².

The *functional role*, expressing the kind of activities a certain actor is engaged to perform in the supply net, is related to the logistics sub-market within which the company mainly works (e.g. a road-hauler or a railway company). A comprehensive illustration of various types of logistics companies and the activities that they perform is provided by Stefansson (2004), (see table 3.1). He divides the logistics companies into three types of *third-party service providers*. *Carriers* mainly provide

¹² The common carrier concept has to do with the rail-company’s role as a (at the time) monopoly actor, which obliges it to provide the services for all who want to use them.

point-to-point transportation with some administrative services while *Logistics Service Providers* (LSPs) offer a number of services in addition to transportation, such as cross-docking services in terminals and storage and or value-added services in warehouses and distribution centres. Finally the *Logistics Service Intermediaries* do not perform any physical activities with the goods themselves but administrate the logistics activities carried out by either carriers or LSPs. Stefansson consider these intermediaries to be an extension of the traditional forwarder role with much bigger areas of responsibility.

Alternative categorizations use a separation of asset-based and non-asset based operations (e.g Persson & Virum, 2001) or specify the actors in connection to a specific kind of business, such as the intermodal transport industry (e.g. Woxenius, 1998). The groups are, however, not always mutually exclusive, especially larger companies can be involved in more than one group (cf. Persson & Virum, 2001).

Table 3.1. Services provided by three kinds of providers

Carrier	Basic	Intermediate	Advanced
Physical services	Inbound and outbound transportation Door-to-door transportation	Contract delivery	
Administrative services	Transportation administration Transport scheduling Documentation handling	Transport scheduling Track & trace information Delivery performance tools	
Logistics Service Providers	Basic	Intermediate	Advanced
Physical services	Storage Goods reception Pick & Pack Re-packaging and labeling Return of goods Delivery from storage	Consolidation and de-consolidation Preparation for freezing, freezing, thawing, sawing Preparation for delivery and pack Set building, sequencing, product resorting and labeling Cross-docking	Assembly of components Operate VMI inventories Recycling with waste handling and reconditioning Unpacking and quality control
Administrative services	Tendering and contracting other LSP Tendering and contracting carriers Insurance services Stocktaking	Payment services Order administration and customer services Claims handling Export clearance and import clearance Track & Trace information	Forecasting and inventory management Administration of minimum and protective inventories Purchase and call-offs Delivery planning and mgt. and follow-up Exception management
Logistics Service Intermediaries	Basic	Intermediate	Advanced
Physical services	None	None	None
Administrative services	Tendering and contracting other LSP Tendering and contracting carriers Insurance services	Forwarding services Payment services Financial services Order administration and customer service Claims handling Export clearance and import clearance Provide one-stop logistics service purchase Track & Trace information	Design and implementation of individual logistics setups Operation of customers' logistics setup Responsible for the customers' logistics operations Exception management

Source: Stefansson, 2002¹³

¹³ The abbreviation VMI in table 3.1 stands for *vendor managed inventory*

The terminology used by practitioners and academia is not identical. The term *carrier* is in literature understood as a “firm that transports goods or people” (Bardi et al. 2006, p. 487). The transport can take place by sea, land or air. Nothing is actually said about whether the carrier always has to own the equipment used for the transport but, it seems to be assumed. In the profession a difference seems to be made e.g. between a forwarder (not owning transport equipment) and a carrier (owning e.g. trailers, but not necessarily cars) while both can provide forwarding and other services. This actually provides the carrier with a wider domain than the forwarder has, but this does not apply to all carriers. Bardi et al. (2006) define a forwarder (or freight forwarder) as a carrier (!) that collects small shipments from shippers, consolidates the small shipments, and uses a basic mode to transport these consolidated shipments to a consignee destination. In the present study some informants preferred their companies to be called carrier instead of forwarder stressing the asset-based operations (owning trailers while haulage of these trailers can be outsourced) but at the same time performing activities that go beyond those mentioned for carriers in table 3.1.

Shipper is a term frequently used especially in connection to freight services to denote the party that owns, or at least needs to get the goods transported, i.e. the one who commissions the main provider. The shipper can also be understood as the party sending the goods to a receiver or consignee (cf. Stefansson, 2002). In this study the general term *customer* is being used for this actor. Especially in connection to value adding services and logistics solutions the use of the term shipper can be considered somewhat misleading (cf. Berglund, 1997).

3.1.2. An activities perspective on logistics

The logistics activities are strongly linked to the roles of the specific actor. Actors are included in the supply net because certain activities need to be performed. Their roles in specific logistics submarkets are thus important factors guiding the main provider in their direction when making the choices.

Within the interaction and network approaches activities refer to transformation and transfer activities that link actors together (Håkansson & Johanson, 1992), such as buying or selling, communicating etc. The specific logistic activities that the actors perform, i.e. the services that they produce and sell to the main provider, are the result of their service processes. At the same time

these activities will perform the transformation and transfer functions as part of the interaction between the partners. Unlike physical products they directly connect the actors with each other through the activity processes included in the logistics service package.

Logistics services are in general sold to the industrial customer in bundles (or service packages) as more or less customized sets of logistics activities. The service packages are in this study divided into freight services and logistics solutions. Drawing a line between these is, however, to some extent tricky. Both terms are often used both in the profession and in the literature without specific definition, and many informants did not see a clear difference between them. The term logistics solutions is frequently used within the sector at least for marketing purposes to stress the customer focus. One alternative is to describe the services provided as a continuum between advanced logistic services and basic logistics services (Andersson & Norrman, 2002). In a 3PL relationship the total service package can be described as a logistics solution while the freight services is one sub-process within this solution that might be further outsourced by the main provider to other partners.

Logistics activities were in table 3.1. shown associated with separate types of logistics companies while in table 3.2 they are divided into activities directly related to the physical flow of goods and activities not directly related to the physical flow of goods. Value-added logistics are services that give value in addition to what is created through the logistics activities. VAL can be almost any kind of activity (Berglund, 1997) but in general consists of “product enhancement” activities that previously have been taken care of by the shipper or the receiver of the goods (Bardi et al., 2006).

Table 3.2. A classification of functions of LSPs

Activities which are directly related to the physical goods flow		Activities which are not directly related to the physical goods flow	
Logistical core processes	Associated “added value” activities	Management support and tools	Financial services
Transportation: shipping, forwarding, brokering (de)consolidation, contract delivery	Assembly, quality control, merchandising receiving/order entry fulfilment, return goods handling, kitting, marking/labelling, project-related consulting/ forecasting, tracking and tracing, routeing, scheduling, etc.	Logistics project controlling, anticipative logistics consulting, location analysis, layout design, MRP, DRP, LIS, XPS development EDI/VANs, etc.	Factoring, invoicing/freight bill payment/audit, insurance services, etc.
Warehousing: storage, handling, commissioning, packaging, paletting, etc.			

Source: Delfmann et al. 2002¹⁴

In the present study activities that are not directly related to the goods flow are discussed only to a limited degree since the research is delimited to the activation of partners that are involved specifically in the flow of goods. One can recognize on the one hand liner-type offerings, based on certain routes and timetables and on the other hand services that focus more on the needs of specific customers. In the model by Laine et al. (2003) liner-type offerings are described as industrialised services, that require cost or time efficiency (intermodal and express courier services) compared to customer driven approaches. A logistics company can, however, be involved in several different kinds of transfer channels and, capable of managing several types of transfer demands. This shows one of several aspects of the different roles one actor performs; the role defined by the activities to be performed within a certain context.

The notion of “a 3PL company” is quite common in the literature but gets more complicated when comparing to the empirical setting for the present study. Practically all companies included in the study can

¹⁴ Abbreviations used in table 3.2: LSP *logistics service providers*, MRP *materials requirement planning*, DRP *distribution resource planning*, LIS *logistics information system*, XPS *expert systems*, EDI/VAN *electronic data interchange/value added network*

be said to provide an array of services for at least some of their customers, to what extent these in fact are integrated processes has, however, not been further investigated. At the same time the companies also provide function-based services to other customers. 3PL-solutions could be seen as one type of service package among others, even if more advanced (cf. Markides & Holweg, 2006).¹⁵ The main provider can thus be considered a third party logistics company (3PL) *only* if the service package developed for the customer can be defined as a customized and integrated logistics solution.

3.1.3. Resources in logistics

Logistics activities include the extensive use of several kinds of physical resources both in terms of infrastructure and equipment. According to Gadde et al. (2002) the resources should be put in focus when exploring outsourcing of logistics processes (see also Jahre & Fabbe-Costes, 2003). The company who is outsourcing should see this activity as a means to get access to resources controlled by the provider.

Jahre et al. (2006) introduce the term resourcing for using, combining and recombining logistics resources in order to enhance their value. In that context also the product that is handled within the logistics process is a physical resource while business units as well as business relationships are organizational resources. The main interface for resourcing lies between the physical and organizational resources. Several processes are included in resourcing or, systematic combining, important are the design of the physical resources, influencing and learning among the actors and, economizing, since the efforts are done out of economic motives and changes in how a resource constellation is done will have economic effects.

From a resourcing perspective, logistics service providers use their logistics resources to design and deliver supply chain solutions in order to support the economizing ambitions of their clients (Jahre et al. 2006). Continuing on that line, the provider would activate the relationships to its partners and their physical resources and include

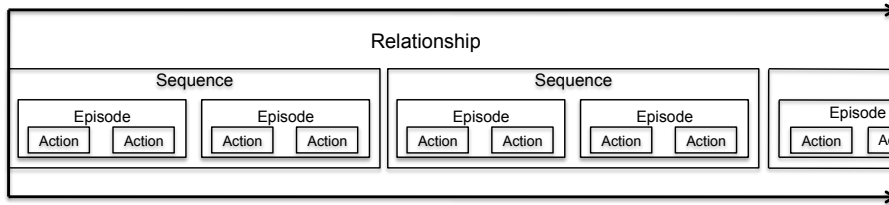
¹⁵ In fact, Carbone & Stone (2005) reported that only four out of the 20 leading 3PL providers in Europe in the year 2000 got 100 % of their turn-over from 3PL, 13 of the companies (65 %) gained less than half of their turn-over from logistics. Berglund (2000) also noted that most of the European 3PL-providers (ten years before the present study was done) still were in a phase of development with a strong focus on their functional areas of expertise.

these in the resource constellation that is being built for the customer. Resourcing does, however, take a long-term perspective while the focus in the present study is on a specific, short process. Further, the physical resources are in this study treated as only one (even if important) out of several criteria that have an impact on the activation process and outcome. The relationships to the partners are, even if they are being activated, not treated primarily as (organizational) resources because the emphasis is put on behavioural factors. In addition the role of main supplier does not always stay with one organization but can over time be assumed by different actors within the supply network. For these reasons all partners must be seen as actors that can act and make decisions. It would, however, be possible to study the relationships as resources to be used in the strategizing efforts of a main provider.

3.1.4. The dyadic relationship

The activities that the main provider performs during activation take place within dyadic relationships that, however, are connected to each other as well as to the main provider's relationship to the industrial customer. The interaction within a relationship has been divided into five different levels; actions, episodes, sequences, relationship and, partner base (Holmlund, 2004), see figure 3.2. The partner base represents the number of separate relationships that the focal actor is involved in and is here excluded from the discussion. Activation can, from an interaction perspective, be understood as an episode starting a sequence. It can consist of only one action, if only one contact such as e.g. a phone call from the main provider to the partner is needed for activation but can also consist of several actions in case of e.g. several contacts during the phase of evaluating and selecting a partner for a specific role. The sequence represents all interaction in connection to a specific commission.

Figure 3.2. A business relationship viewed on a time axis



Source: modified from Holmlund 1997, p. 96

The interaction between the partners can be lumpy (Håkansson et al. 2009) with time periods including more interaction alternating with periods including less or even no interaction (dormant relationships are discussed in section 3.4.2). It is, however, important to not only focus on the individual relationship but the aggregated activation of the entire supply net. Activation of one relationship is also dependent on which other actors are being engaged.

In the industrial network approach it is normally assumed that companies strive to deepen the relationships to their partners over time by e.g. adaption (Håkansson & Snehota, 1995). They divide adaption into three areas; technical adaption, adaption of administrative routines and, knowledge based adaption. In the present research it is assumed that the partners are engaged in order to perform very specific tasks and that they normally do not aim for much adaption (cf. Persson & Virum, 2001). In short, a relationship might be long-term and even close but not necessarily deepening in a business sense. It has to be noted, however, that there does not seem to be any specific definition of how large a change has to be in order to be treated as an adaption within the industrial network approach (c.f. Brennan & Turnbull, 1998). Instead of becoming deeper, relationships can mature into standardized, business-as-usual type, contractual agreements. In contrast to simple transactional relationships, a service agreement typically covers a range of activities that can be adjusted to customer requirements on a modular basis (Bask, 2000).

A logistics supply net will consist of several types of relationships that differ between them e.g. in terms of the power and dependency dimensions. This becomes particularly visible when taking into consideration monopoly actors. If there is friction in a relationship the

partners need to work on the relationship, or, they can consider breaking the relationship, but if an actor is dependent on the other party this is not possible. In a study concerning the relationship between a large logistics company and a port, several problems of compatibility were found. These included the interest and targets of organizations and individuals, service concepts, technology, location, timing, organization, skills and culture (Laine, 1998 as referred to in Laine, 2005). Both parties were, however, dependent on the relationship and efforts needed be made in order to overcome the incompatibilities or to work together despite them.

3.1.5. Dimensions of embeddedness

Individuals as well as organizations are connected to their environment through various direct and indirect relations that form an enacted environment within which the economic activities take place (cf. Grabher, 1993). The business network as well as the supply net and supply network that will be discussed in the following sections represent the environment that the main provider is embedded in.

A separation can be made between substantive, systemic and institutional embeddedness (Johannisson et al. 2002) as well as temporal and spatial embeddedness (Halinen & Törnroos, 1998). Further, political, technological and market embeddedness concepts (Halinen & Törnroos, 1998) have been used to define the business context where the economic activities take place. *Substantive embeddedness* refer to the content of the social embeddedness of economic activities while *structural embeddedness* refer to the structure, i.e. the pattern of interpersonal social relations and networks of social interaction (Granovetter, 1985) or, the relational structure and “architecture of network ties” (Choi & Kim, 2008). It includes both direct and indirect as well as weak and strong ties. *Institutional embeddedness* refers to the linkages with economic institutions and social associations. *Temporal embeddedness* refers to how companies are bound to past, present and future modes of time while *spatial embeddedness* refers to the role of space and geography in business networks (Halinen & Törnroos 1998).

The time and space dimensions can also be seen as adding depth to studies of substantive, structural and institutional embeddedness by emphasizing e.g. developments through time and taking into account developments on several geographical levels. The embeddedness

concept has been used mainly to illustrate social complexity but it shows the importance of not ignoring the socio-economic context of business activities (Johannisson et al. 2002) and it can also be used for understanding change and development in business networks (Halinen & Törnroos, 1998).

In the present study several aspects of embeddedness are discussed for their possible impact on activation behaviour and outcome. In addition to the functional supply nets and networks discussed in the following sections, one also needs to consider the regional cluster of logistics companies. It provides the spatial context for the study and within it special emphasis is put on the impact of the social network between individuals working in the sector. The impact of social networks should, however, be analysed with caution in order not to “oversocialize” (Granovetter, 1985, Easton & Araujo, 1992) the view of behaviour in business relationships. Still, organizations consist of individuals, and the relationships between organizations are being handled by interacting individuals. In contrast to the business network, the supply network and, the supply net that consist of organizational actors, social networks are seen as consisting of individual actors. The social network is, however, linked to the organizational level since it, in the present context, is delimited to individuals who all are working in the same sector. The benefits of social networks for business have been expressed in terms of social capital as used e.g. by Bordieu, and consisting of a structural, a relational and, a cognitive dimension (Nahapiet & Ghoshal, 1998). The structural dimension concerns the benefits from networking and the position of the company in the network. The relational dimension includes the development of trust, norms, personal expectations, obligations and identification while the cognitive dimension is about the development of a shared understanding through shared language and narratives.

The individuals working in the studied logistics companies can be seen as more or less active participants in various social networks. The social networks are judged important in the logistics business for collecting information and for getting business. One can separate between different social networks using various dimensions, such as formal or informal. Within the formal dimension a separation can be made through the individual membership in unions and professional associations and, organizations and associations where the individual

represents an organizational member. Halinen & Törnroos (1998) use a similar division into economic institutions and social associations.

The contacts between individuals within business relationships create “relationship energy” (Havila & Wilkinson, 2002), consisting of personal contacts, bonds and goodwill. Compatibility between the individuals who are interacting on behalf of the organizations has a positive effect on the business relationship. Price & Arnould (1999) discuss commercial friendship in service relationships and find links to satisfaction, loyalty and positive word-of-mouth. The individual relationship can, however, also lead to negative effects for the organization, Zolkiewski et al. (2008) discuss the risks for a business relationship if a key individual moves from the organization and Biong & Ulvnes (2001) the “following behaviour” i.e. when customers are more dependent on the individual who conducts the (professional) service than on the company. Havila & Wilkinson note that the relationship energy still exists between the partners after they have stopped trading with each other. It can be imported into or created within a business relationship and transferred between relationships (Havila & Wilkinson, 2002).

The temporal embeddedness of the actors can be illustrated through the past experience that actors within a network bring with them that affect their acts as well as their network-views, in a similar way as they have expectations about the future. Established relationships, as well as experience, impact on the decisions made during the activation process. In the present study, informants to some extent tell about how they came to start working with some of their partners. No specific questions were, however, asked about the history of the relationships. Still, a certain amount of common past is expected to exist between several companies due to the nature of the business, where long-term co-operation is more of a rule than an exception and also the individuals know each other. Further, if the service package is of a kind that the main provider normally works with (cf. Laine et al., 2003) the choices of partners are also expected to be influenced by the experience of arranging similar packages to other customers. In the same way, the consequences of the choices that are made are not delimited only to the present service packages but will also impact on future choices. Time aspects related to the activation process are discussed in section 4.3.6.

3.2. Defining the supply net

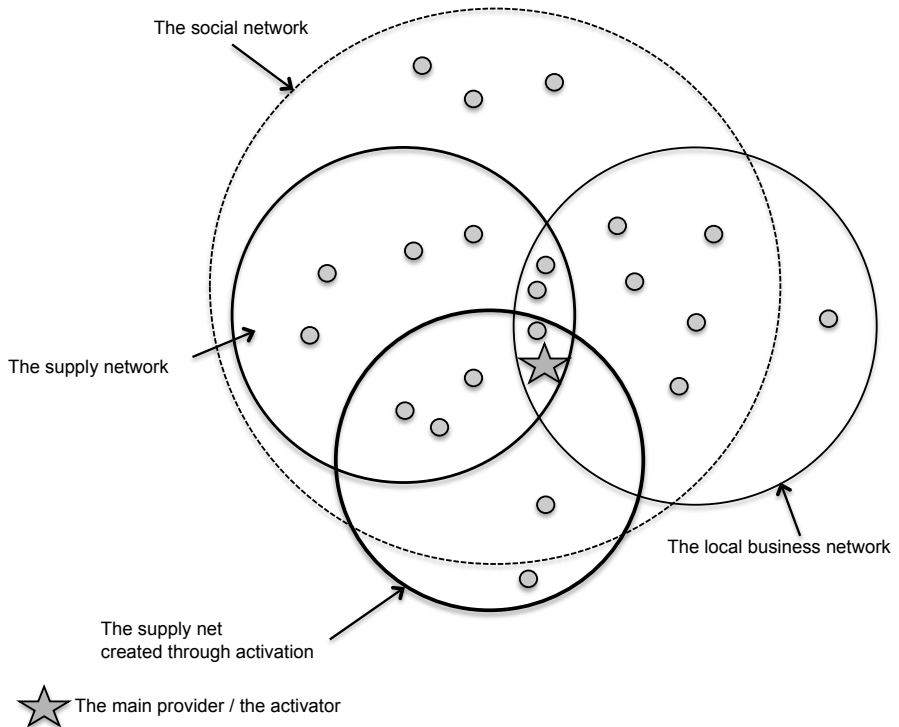
The actors are involved in several different networks that partly overlap and impact on each other. The local logistics business network can be described, using a broad definition of business network, as all the companies in the region that are involved in the logistics sector. A business network has no objective boundaries (Ford et al. 2003), but the aim, and the starting point of a specific study will affect what is included and where the boundary is set. Even if some of the companies are not currently involved in any business transactions with each other they can be expected to be, at least indirectly, connected through their partners as well as through social contacts. The relationships to some actors in the business network will hence be looser while other actors form local concentrations within the business network (c.f. Easton, 1992). Within the industrial network approach the term *net* is used for these concentrations. A net is characterized by stronger relationships between members than between non-members. According to Easton these cannot be unambiguously defined but they can be described by using some specific dimension, such as product, geography or process. Harland & Knight (2001) provide a similar definition of a supply network as consisting of those actors, resources and activities and their connections that are involved in the transformation of inputs into products and services. It can thus be seen as a sub-network within a business network (ibid.). In the present study both terms, supply network and supply net are being used. The supply network is the, perhaps in part intentionally created and in part emergent, set of partners that the main provider regularly tends to work with. The supply net is the outcome of activating relationships for providing a service package. It can be a sub-network to the supply network but it might also include new partners, not previously included in the supply network.

In addition actors might belong to intra-organizational networks with other units both inside and outside the local cluster. Being part of an internal horizontal network might affect the way that business is done, e.g. in case of "house rules" for how activation should be done and what kind of partners that can be chosen.

As mentioned, an individual decision maker's social network is in this study delimited to other individuals within the local logistics cluster. In the example in figure 3.3. the main provider has activated a supply net consisting of four partners from within the supply network, out of

which one a local company and, in addition, two new business partners. The activator knows somebody in one of the new partner organizations e.g. through membership in a trade association, while he/she has no previous personal experience of the other new partner organization.

Figure 3.3: Network structures from the main provider's perspective



Each relationship between the main provider and a partner within the supply net can be different when it comes to e.g. the degree of closeness, formalization, mutual history and power. It has been claimed that companies tend to work with the same partners "all the time". Even if that were so, the roles of the companies can be different within the different supply nets that they are engaged in. By taking into account both the set of actors and their roles one could claim that each supply net can be unique.

The supply net can be characterized by using several different dimensions. *First*, it consists of actors who in general tend to belong to

the same supply network and, are included for a certain purpose, which fits the definition of net given above. *Second*, in many cases the task has a clear lifetime, i.e. the specific constellation exists and acts during a short period of time; the time that is required to perform the services in the service package.¹⁶ Despite this, the supply net (*third*) is connected to the business network in such a way that the short term work on one service package might be influenced by structural and social links within the business network and it might also have an influence on these and hence on the long term development of the business network. *Fourth*, there is the existence of a central actor who assembles the supply net by activating. The main provider coordinates the activities and assigns tasks to the partners. Within studies of inter-modal chains it has been discussed whether a certain type of company within the chain would be a natural main actor who would plan and administer the chain. It has, however, also been stated that this alternative exists mainly theoretically. Also within the industry there has so far not been a big interest towards it (e.g. Karjalainen 22.9.2006). In the present setting the main provider role is not fixed towards the other logistics companies, only towards its own industrial customers.

3.3. Roles and positions in logistics networks

The concept of *role* has been used in social sciences to help in understanding behaviour linked to the context of the actor. In management science it has been used to study managerial roles within organizations (e.g. Mintzberg 1980) as well as roles of actors within networks (e.g. Andersson et al. 1998). The link to the context refers to roles as designating certain expected behaviour; other actors expect the holder of a certain role to behave in a certain way and to do certain things that are linked to the role (c.f. Biddle, 1986). Callero (1994) introduces the concept of role as resource, pointing out that roles are not only a bundle of pre-defined expectations, but the expectations and norms are negotiated in the process of role use. In a formal organization these expectations can be comprised in coded or written presentations (Heikkinen et al. 2007). Actors, organizations as well as individuals, can hold several roles at the same time, which can

¹⁶ Here an exception has to be made concerning 3PL-constellations and to some extent inter-modal chains. We still need to take into account that not all partners of the supply network participate on the same terms, of some services are bought, with others one co-operates.

lead to a role conflict. How the conflict is handled is dependent on which role the actor sees as the more important one in the specific situation, the congruence of needs and expectations as well as the legitimacy of expectations in the specific situation (Getzels & Guba, 1954). Roles can be taken on by a certain actor, or given by somebody else, e.g. Nikkanen (2003) discusses the role of VR Cargo¹⁷ as a common carrier as defined by the public authority.

From a business network perspective *position* is used to describe an actor's place in the network in relation to other actors. *Position* implies certain stability over time (Anderson et al., 1998). The position of one actor can only be described and explained in relation to the positions of the other actors. They are based on dependencies within the main relationships of the organization. These factors can in turn be based on e.g. the size of the company measured in purchasing power or its importance as a strategic supplier.

Role can also be understood as the dynamic aspect of *position*. An actor enacts several roles dependent on the position of the company as well as the specific situation. According to Anderson et al. the two concepts are dependent upon each other and must be defined in relation to each other (Anderson et al. 1998). Hence the dynamics of the network can be understood through the interaction of the roles and positions of the actors (Anderson & Havila 1993, referred to in Anderson et al. 1998). In the case of a service package to be created for a customer, a prerequisite for choosing certain actors are that they can perform certain well specified services. These requirements can be thought of as defining specific roles and the main actor will choose one actor for each role. The main provider's choices might in part be based on his/her view of the positions of the actors within the business network.

3.3.1. The functional role

As mentioned above the supply nets are shaped with a certain structure in mind where each organization performs a function not performed by any other organization at the same time. The functional roles are linked to the logistics submarket to which the company mainly belongs.

¹⁷ The Finnish state railway's cargo division, from 1.11.2010 named VR Transpoint (VR Transpoint).

The company possesses its functional role (or roles, since one company can provide several kinds of services) within the logistics business network regardless of participation in any specific service package. There is a connection between the functional roles and the position in the local business network. The company can, however, have a strong position within its own main logistics sub-sector without having a strong position in the logistics business network at large. Further, some of the services that might be required in a service package are rather simple, such as road haulage of average amounts of goods, which might make the actors who are performing them rather easily substituted. Other services can be highly specialized and not easy to come by. At the regional level they might even be available from only one source. The companies providing these specialized services can then be assumed to hold strong positions in the local business network. Even if a logistics company provides several kinds of services, the logistics submarket where the company has its origin and perhaps still mainly resides, can be expected to have an impact both on its identity and its image within the business network and these, in turn might also affect its position.

3.3.2. The main provider and partner roles

Another role to be performed simultaneously with the functional role is the one of either main provider or partner. The role of main provider contains several specific tasks, such as e.g. being in contact with the customer, activation, and control, which gives it a clear functional content at the same time as it involves a power position towards the other participants in the supply net as being the one who makes the decisions. In connection to intermodal transport this role (of intermodal transport operator) has been discussed extensively (cf. Stefansson 2004, Nikkanen 2003, Aastrup 2002). Nikkanen (2003) uses the terms principal, partner and subcontractor for the roles taken within intermodal freight transport, complemented by an integrator, in his case located outside of the net (i.e. the rail-based intermodal freight transport chain). Any actor within an intermodal chain can be its co-ordinator. It is hence a separate role than the functional role.

3.3.3. What gives “position” in logistics?

Pondering on what *position* actually consists of can lead to answers in several dimensions. From a traditional marketing point of view the simple explanation is to have a strong position on a market in comparison to the competitors. Taking into account the

embeddedness in business networks one must recognize that reaching this position requires that the business partners also can gain from the moves that are being made (Johansson & Mattsson, 1992). Strategizing (section 3.3.4.) is about improving one's position while acknowledging that other actors in the network also make their own moves and countermoves.

Positioning can also have to do with changing the power relationship between partners in a relationship or a network to one's own advantage. One can hence separate between the position within a specific network and, the market position that, in a network context, also must be worked on together with the partners. The market position and the position within the network are linked to each other. The business partners' interpretation of a company's market position can affect their image of the company and hence their evaluation of the company as a partner.

Within the logistics sector the forwarders have been claimed to have a strong position because of their ability to collect large goods flows through combining flows from many customers (Bask & Laine, 2000). The position might also be a function of both size and the array of service offerings. Carbone & Stone (2005) e.g. note that European freight forwarders differ from the US ones by owning or controlling many assets whereas the US forwarders are more "pure" and sub-contract much more. A strong position in the logistics sector has also been noted as originating e.g. in a monopoly, such as the one earlier (and to a large extent yet) held by the state railways (Nikkanen 2003) or stevedoring, being a concentrated industry where normally only one or a few companies provide all services within one harbour.

3.3.4. Managing and strategizing in networks

The view on strategy within the industrial network approach stresses the interdependence between the organizations in the network. It follows that no organization can make a strategy in isolation. One can, however, speak about *management* of, or management in, narrower nets, often defined by a mutual purpose (cf. Harland & Knight, 2001, Knight & Harland, 2005). Harland & Knight emphasize that the issue is dependent both on the kind of network that is in focus and, on how managing is understood. Heikkinen et al. (2007) studied roles for managing in nets for new service development, using three descriptive dimensions for role-acting in managing nets; the capability to influence the net, the role defined by other actors in

the net as either expected or emerging, and the level of acting as strategic or operational.

According to e.g. Mintzberg (1987), one aspect of company strategy is the pattern that emerges through the decisions that are made within the organization, regardless of whether these are linked to any previously formulated strategy. The INA-approach¹⁸ to strategy follows this view adding that strategy develops through the actions and reactions within the network (cf. Ford et al., 2003).

From a role and position perspective strategic action has the goal to influence the actor's own network position and the positions of other actors (Johanson & Mattsson 1992). Strategies mainly emerge from the interactions, negotiations and adaptations in each relationship and at network level (Baraldi et al. 2007). The position concept can be used to express the strategic means available as well as to show the strategic intention of actors; to influence (change or preserve) their position in network(s) (Johanson & Mattsson, 1992, Gadde et al. 2003).

The interdependence among actors leads to three strategizing issues for the company (Gadde et al. 2003); to identify and establish appropriate levels of involvement in its relationships with individual partners, to balance the interplay between influencing others and being influenced and, to identify adequate ambitions regarding control. Relationships should also be seen as resources that can be used in strategy development (Ford et al., 2003). This way a better position might be obtained if the company is known for having a relationship to another respected company. Strategizing is not only about competition (Ford et al. 2003, p. 6.), it "involves simultaneous elements of co-operation, conflict, integration and separation in the company's relationships", i.e. to consider the relationships in their entirety. The actors in the network look at the network as well as their position in it and, the positions of other actors, from their own perspective, their network picture (cf. Ford et al., 2003). The main provider's network picture will form the basis for the decisions during the activation process, regardless of whether these include any notion of strategy or not. The main provider, as an organization, is composed of a number of individuals whose actions impact on how the company acts. From the perspective of strategy as emergent, it also follows that anybody in a company can be a strategist who has

¹⁸ Industrial Network Approach

an impact on what direction the company takes over time. That notion is important if one wants to consider the possibility of strategic implications of activation.

The companies in forwarding and transport have been claimed to have little tradition for strategic thinking and, to have an operational focus (Persson & Virum, 2001). This is seconded by Nikkanen (2003) who notes that many of the decisions made in (rail-based) intermodal business in Finland are very operative by nature, with actions being mainly reactive, ensuring line haul on certain legs. As Nikkanen (2003) puts it, many of the decisions are made on tactical or operational level. He points out that logistics research has had a tendency of ignoring these "lower level" influences. Inertia to change in order to gain better supply chain integration has been noted by Bask et al. (2002) and Laine (2005). Laine, however, points out that the organizational structure can make it difficult to implement changes in several organizations at the same time.

From a strategy point of view, the partner choices, as outcomes of activation, might be made not only with the customer's needs in mind, but also to improve the main provider's own future position by strengthening the relation to partners that the main provider feels will benefit the company. The decisions could even become a trade-off between the customer's interest in the short-term and the main provider's long-term interest in improving its position. A comparison can again be made to the project based industry. Hellgren & Stjernberg (1995) note that actors do not take part in project networks only because of the project at hand but in order to gradually reposition themselves in the economic environment.

3.4. Network dynamics

The possibility for structures to change, make them harder to interpret and make analysis more complex. The word dynamics has here been chosen to describe changes in the supply network that are in a sense built into the system. They do not occur unexpectedly nor do they represent any abnormal situation, instead they can be characterized as successive modifications (cf. Andersson, 1992, Halinen & Törnroos, 1995). In the following four dynamic aspects of activation will be discussed. The issues of role exchange and horizontal co-operation could as well be seen as efforts to strategize and hence be included in the discussion about managing in networks

(see above). However, due to the choice of fixing the empirical study to one point in time, these factors can only be discussed theoretically and will hence be given a slightly softer touch by only pointing to their potential role in network dynamics.

3.4.1. Activation as a trigger for dynamic evolvement

Network dynamics consists of the actions and reactions of the actors involved (e.g. Håkansson & Ford, 2002). It is the way that the network lives and develops over time. The dynamics in a network can be studied with the help of the position-and-role framework (Anderson et al., 1998). Positions change through the roles of the actors. Actors function (/act) in their roles as a response to the actions of other actors performing their roles but also based on their own intentions and expectations (Anderson et al. 1998). The dynamics, the continuous movement in the network, can lead to changed or stabilized positions of the actors. The actors within the network all strive to maintain or better their positions through gradual repositioning but positions can change also as a reaction to impulses from the outside of the network.

Change in positions can be studied both from the perspective of a focal actor, or for a certain set of actors, where the position of each can be defined in relation to the position of the others (within a dyadic relationship or within a defined larger set of actors). Halinen et al. (1999) study change from the perspective of a dyad where change occurs as a result of reactions to internal or external impulses. Change occurring in one dyad can spread to other parts of the network or, it can start by an external impulse in the business environment. Halinen et al. (1999) present the alternatives *confined* and *connected* change where the results of the first remain within the dyad while the results of the latter spread in one form or another to other parts of the network. The change can be incremental or radical. *Incremental*, or step-wise change can be said to represent the “normal” movement within a network consisting of various actors with their own network views and their own agendas. A *radical* change is revolutionary, an old relationship breaks or a new one is formed (Halinen et al. 1999). Hertz (1998) uses the expression domino effects to illustrate how a radical change in one part of a network (a relationship or a net) leads to sequences of changes in other parts of the network through indirect relationships.

Activation can be considered an everyday activity which over time might strengthen or change the supply network of the main provider

depending on whether the same relationships are activated all the time or new contacts are being made. The change might eventually lead to relationships being broken or new relationships being created. One problem, and one activation is, however, not enough to lead to more than a temporal change within a dyad while it, if it becomes a pattern over time, might lead to a radical change. Relationships develop only over time; the first encounter (one activation) might remain only a trial transaction. There is a need to follow the activation pattern over time to be able to conclude whether a new long-term relationship emerges or not. It is, however, also important to find out *why* activation takes place and why a certain new partner is being activated. Activation of a new partner can be the result of a critical event, i.e. if activation of a new partner to replace an old one takes place because a problem of some kind has occurred (cf. Schurr et al. 2008). If the reasons for activating a certain new partner are embedded in that partner's organization (e.g. an individual) it is safe to assume that the intention of the main provider is to start a new relationship. The choice *not* to activate the relationship to a seemingly obvious partner, does not necessarily mean that the intention of the main provider is to break the relationship. It does, however, most certainly strain the trust and cool off the relationship between the partners.

Organizations do not break existing commitments, particularly not within a short period of time, unless there is a strong reason for doing so, such as decreasing effectiveness or risk for future development (Hertz 1998). It has been suggested that the type of dissolution of a relationship is linked to the present type of relationship (Halinen & Tähtinen, 1999). Their model suggests that continuous relationships might dissolve naturally when the relationship has become obsolete, by a choice made by one of the actors who wish to end it or, by force due to changes or events in the business network where the companies are embedded. The second type of relationship, a terminal relationship, is understood as a forced relationship, e.g. when the headquarters' centralized supply strategies impact on what suppliers the different company units need to work with. The parties would then end the relationship as soon as it becomes possible. Finally, an episodic relationship will end in a predetermined way when it has served its purpose.

In case of continuous relationships the change from one relationship to another is in most cases not an abrupt change but rather a "fading

out” (Hertz, 1996). Gadde & Mattsson (1987) speak about gradually decreasing the importance of an alliance. Total instant breaks come through strategic change at the network level (Hertz, 2001). New alliances are formed when there is a need to substitute a former one (Hertz, 1996). If a partner leaves, a replacement has to be found rapidly so that services can still be provided for the customers (cf. Hertz & Mattsson 2004).

On net-level, basic changes can concern the size and the co-operation between the relationships in the net (Hertz, 1996). According to Hertz (1993) a typical development on the net-level is joining of nets, closer co-operation and closing up, which means that the net becomes more integrated, and it becomes more difficult to get into the net, i.e. that old partners keep working together in an even deeper relationship while new ones cannot easily get in. Laine (2005) discusses this tendency within container transport chains and see it as a negative thing in situations where flexibility would be needed.

3.4.2. Relationships between interaction sequences – dormant or not

Activating a relationship implies that it earlier has been inactive, dormant, but still existing. The activation of a supply net, following the same logic, would mean that this structure with these partners has existed before. In this study activation does, however, only imply that the main provider activates a set of relationships for a certain purpose. Most but not necessarily all, of these relationships will have existed previously, even if some of them dormant.

Within project marketing the term sleeping (i.e. dormant) relationship has been used to illustrate the situation in a relationship between a project supplier and a customer at a point in time when no projects are being worked on, mostly the period just after a project has been completed. The relationship is defined as dormant when no economic transactions are taking place between the partners while social contacts can take place as well as when the supplier is e.g. providing after sales services (Hadjikhani, 1996). The aim is to maintain communication and an atmosphere of trust between projects (Cova & Salle, 2000). In the present empirical study a distinction is, however, made between dormant relationships with no interaction and those where social interaction takes place.

The activation of a dormant, inactive relationship, when it is needed changes the temporal setup of the relationship. It can also be seen as a further dynamics-related aspect of the changes taking place within a relationship and having an effect of on the supply network. In situations when the resources of a certain partner are needed the relationship will be activated to form part of the supply net, in-between contacts are social, at the most. Meanwhile other parts of the network (other actors) might be co-operating within another service package. Another interesting thought would be to consider how long a relationship could remain dormant (and without social interaction) before it should be considered as ended (dead)?

A third dynamic aspect of activation lies in the fact that it is not necessarily possible before hand to know exactly which actor that will perform a specific task within a service package since also partners might hand over tasks to partners of their own due to e.g. lack of capacity. The exact structure of the supply net can therefore not be defined until the tasks that it has been created for have been performed. The second layer (Abrahamsson & Wandel, 1998) of partners is assumed not be in direct contact to the main provider, instead all contacts will go through the partner in the first layer. A closer integration of the partners in the second layer could, however, be of critical importance for the possibilities to improve a transport chain's (or a network's) quality and efficiency. These issues have been studied in connection to other industries (cf. Dainty et al. 2001 for a discussion on the construction industry).

3.4.3. Role exchange and implications for network position

In addition to the main dynamic effect of activation described above; the capacity to change the "deep structure" (Halinen et al. 1999) of the network by breaking and creating relationships, there are other more subtle change related aspects of activation. One of these is the changing roles of the actors within a dyad (cf. Dubois & Gadde, 2000). In connection to one service package (A) a certain actor is the main provider while it, in connection to another service package (B), can be a subcontractor to one of the companies who are its own subcontractors in connection to (A) (cf. Persson & Virum, 2001, Nikkanen, 2003). As in the case of dormant relationships, the change concerns the temporal setup of the relationship between the partners in a dyad. This type of changing roles within a supply-oriented dyad can be described as normal within the logistics sector, and perhaps

also applicable in other service sectors but perhaps less frequent within the production of physical goods. The described situation, where a partner of a main provider at the same time can be a main provider involved in service packages of its own, implies that the providers should be considered as competitors at the same time as they are co-operating (ibid.).

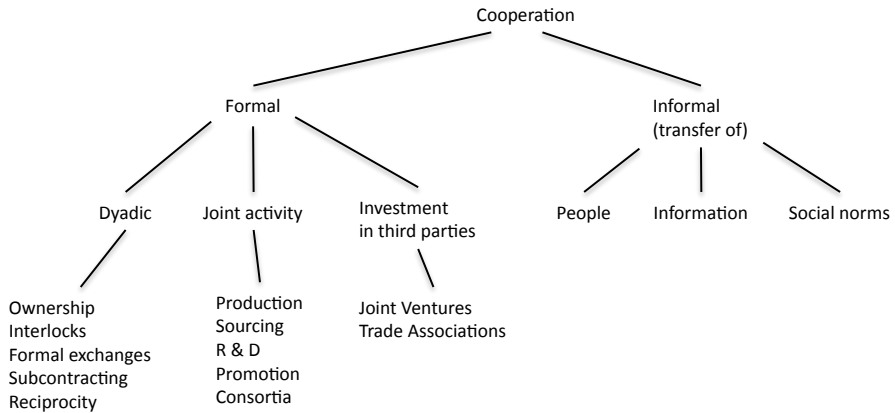
It can be suggested that this way of exchanging roles can help in strengthening the relationship between the companies, supporting openness and trust and, making the relationship more balanced in terms of power.

3.4.4. Horizontal co-operation

In section 3.3 the roles of the actors were divided into functional roles existing within the business network and, the roles of main provider and partner that are linked to the service package. In section 3.4.3 an implication of this was described; the potential for role exchange within a relationship. In addition the actors take on different roles within a relationship, such as customer and supplier. Further, the relationships in a network can take several forms; beside the direct exchange relationships, several types of indirect relationships exist. Easton & Araujo (1992) point out that not all relationships need to include an economic exchange. They separate between four types of relationships based on the dimensions economic /not economic, as well as direct/indirect. Hence one can include also e.g. the relationship between two, real or potential, competitors in the framework.

Horizontal co-operation should here be understood as co-operation taking place between two companies who at the same time compete with the same products or services for the same customers. The expression co-competition has also been used for this kind of situations (Bengtsson & Kock, 2000). Easton & Araujo (1992) present a taxonomy of types of co-operation between competitors (see figure 3.4). The authors point out that the division into formal and informal co-operation is not sharply defined but, that formal co-operation is distinguished by being overt, planned and managed, or at least capable of being so while the informal co-operation is more likely to be individual, random and unplanned.

Figure 3.4: Taxonomy of forms of inter-competitor co-operation



Source: Easton & Araujo, 1992

Easton and Araujo (1992) note that small scale trading between competitors e.g. for filling out a product line, is quite common especially on industrial markets. As will be illustrated in the empirical study this is a characteristic of the logistics sector as well.

Informal co-operation includes e.g. individuals moving between competitors. The individuals provide the new organization with a source of information about the company that they have left but also provide strong social links between the two organizations (Easton & Araujo, 1992). Information flows between competing organizations can from this point of view also be seen as a form of informal co-operation. It can, however, just as well be seen as a function of the social network that both companies belong to (cf. Bengtsson & Kock, 2000) and the flow of information is then not necessarily limited to only the two competitors in question.

Several researchers have studied formal horizontal co-operation between logistics companies in terms of formal agreements or organizational forms, such as joint ventures and strategic alliances (see section 2.3). Examples of horizontal co-operation within logistics include lobbying, maintenance, purchasing, chartering, warehouse sharing, freight sharing and joint route planning, knowledge centre, road assistance, co-branding, tender groups, asset pooling, shared crossdock, and intermodal group (Crujssen, 2006). Crujssen explicitly studies those types of co-operation that Easton & Araujo (1992) present as formal. In relation to chartering he emphasizes structural

outsourcing to a (in principle) competitor who is better suited for performing a certain task due e.g. to specialized equipment. Also the subcontracting of road haulage on specific routes to small transport companies is included in this category. Incidental chartering due to undercapacity is by Cruijssen, however, not to be considered as true co-operation (Cruijssen, 2006).

The Belgian logistics companies, studied by Cruijssen et al. (2007), found the main opportunities stemming from (formal) horizontal co-operation to be increased productivity within the core services (e.g. through a decrease in empty haulage and better usage of storage facilities) and cost reductions for non-core activities (e.g. organizing safety trainings and having joint fuel facilities). Further, horizontal co-operation was seen as an opportunity to both specialize and broaden the services at the same time. When it came to impediments for horizontal co-operation, the LSPs found the biggest challenges in partner selection and issues about bargaining power.

3.5. A summary of the network context

Activation is an act performed by the focal actor, the main provider, within a relationship to a partner. Activation of a relationship should, however, not be studied in isolation. The links between activation and the network can be understood through the concept of embeddedness. It here refers both to the links to the context, in terms of the network environment, as well as to the past experience and future expectations of the main provider. The individual decision makers within the main provider organizations provide a further dimension of embeddedness by being involved in social networks consisting of individuals from within the local business network.

On a first aggregated level the activations connected to a specific service package lead to the creation of a supply net. The supply net can be assumed, to a large extent, to consist of partners that the main provider already has relationships with and potentially also new partners. A separation is made between the supply net and the supply network, which consists of actors that the main provider in general tends to work with. The supply nets can, however, be assumed to be rather similar over time, i.e. the same actors co-operating continuously.

Network dynamics is understood as changes that occur in a network over time, strengthening or changing the positions of the actors. From

this perspective activation can be understood as an ordinary daily task that might function as a trigger for dynamic movement within the network but, it can also lead to radical change if previous relationships are broken or, new relationships are established. If certain companies constantly co-operate concerning certain services, this pattern can over time be seen as a partial definition of the structure of the local business network.

The roles of logistics companies can be defined through their functional role on the basis of the kinds of logistics activities they perform and the role of either main provider or partner in connection to a specific service package. Further dynamic aspects of activation can be e.g. role-exchange within a relationship that over time might strengthen the relationship as well as informal horizontal co-operation. The decisions made in connection to activation can be seen as a part of the strategizing moves of the main provider in order to reposition itself in relation to other actors. Empirically these changes can, however, only be studied with a longitudinal approach.

4. The activation process

In the previous chapter the network context of the main provider was discussed in terms of the structure and dynamics of networks as well as efforts to manage in networks. Activation was introduced as an act performed by a focal actor, the main provider, within a relationship, but at the same time embedded in the network context. In the present chapter the focus is on the term activation as well as on the content of the activation process. This part of the text represents the iteratively built theoretical model of pre-understanding that will be used to understand activation theoretically and to structure the presentation of the empirical data in chapter seven.

4.1. Defining activation

The term activation is in this study understood as the process of evaluating, choosing and commissioning partners when a set of logistics services (i.e. a service package) is to be provided for an industrial customer (cf. section 1.7). A certain company will be activated because it can provide specific resources and services that are needed in the service package. Activation can so far easily be understood as *selection*. It also has to be taken into consideration that the companies tend to use the same partners as long as this is feasible; logistics companies work within long term business relationships not only with their customers but also with their partners within the logistics sector; i.e. their suppliers (cf. Engström 2004). The supply networks of these companies consist of these various relationships. As discussed in chapter three, from a theoretical perspective, activation can be seen as one of the practical activities taking place within dyads and thus forms and transforms relationships and networks over time. The embeddedness of the main provider in the business network also leads to effects in the opposite direction. We can expect the content as well as outcome of the activation process to be influenced by the direct and indirect linkages between actors within the business network.

Activation as term expressing that something that exists all the time but is not used all the time is taken into use or “switched on” is frequent in various kinds of literature. However, it is rarely problemized itself. E.g. in Håkansson & Snehota (1995) we can find activation of resource ties, relationships and knowledge possessed by others, as well as activation of actor bonds. Actors can activate

resources, resource ties and resource networks (see also Harrison & Håkansson, 2006) as well as individuals. A relationship can activate resource elements and resource constellations, a resource can be activated by an activity and, a manager has activated a company (so that it is now considered a future winner). “Different existing opportunities can be activated depending on the outcome of a process” and, “Individuals activate the ‘living force’ of a relationship between actors”. These examples, even if coming from a narrowly defined context, a book on industrial networks, present several situations where activation has been found a suitable expression.

In the industrial network approach the terms co-ordination and mobilisation have been used to express the growth and change in networks. Actors co-ordinate their activities and the co-ordination influences the resource base while mobilisation is about the creation of new resource structures in relation to discontinuous change (Lundgren, 1992). At first sight these terms seem to be related to the content of the term activation. Lundgren (1992) defines mobilisation as “the process of acquiring resources to achieve change in industrial activities”. Mobilising has also been expressed in terms of engaging other (partners) in working for a certain aim (e.g. Håkansson & Ford, 2002, Gadde et al. 2003). Tikkanen and Halinen (2003, p. 16) discuss network mobilising in terms of “committing partners by sharing visions or goals, influencing relationship and network development, and allocating resources to the relationships”. Mobilising hence seems to be a term most of the time used with reference to conscious strategic moves. The word activation is here used instead of mobilizing in order to stress the short term nature of the resulting supply net.

4.2. Inside the process

The activation *process* can be understood as a decision-making process, taking place mainly within an organization, with some input from the customer and, in case of the development of broader 3PL solutions, even with some input from partners. Decision-making differs from planning in that a decision-making situation includes a choice between alternatives (Miller et al. 1996). Arrangements made within “obvious” parts of a logistics service package such as booking capacity on a ferry where no other alternatives exist, can be claimed to belong to the rational planning process. Other parts of the service package are created through choices. A decision-making process is

influenced by the issue that a decision has to be made about, the decision criteria, the decision maker, stake-holders, the decision process, the level of decision making, the time frame and institutional factors (Miller et al. 1996). This simple model is in section 4.3. modified to fit the present setting.

The service package is often customer specific but can be put together of very standardized, common, pieces (mentioned e.g. by informant X14). The reaction by the logistics providers to the various demands of the customers could be of, generally speaking, two kinds. A production-oriented system, a more or less fixed structure, can be used to provide certain services to those who want to use them. An example would be liner services; transport from point A to point B at certain intervals. A customer-oriented system on the other hand would imply that all the pieces of the service package are being produced only and specifically according to the needs of a specific client. The two alternatives can also be seen as extremes on a line. Even if some logistics providers might be rather specialized in either one or the other, practically all will provide mixed varieties for their customers, perhaps produced in-house, but more often with the help of partners. The partners that are engaged within a certain service package are there because of the certain skills, equipment and other resources they possess and combine into the specific services they offer.

Choosing the right partners for the service package requires the capability to evaluate what would be the best total mix of services (as a selection between different ways to perform the same thing) as well as knowledge of the markets for the specific services (i.e. to know about and be able to choose the most suited actor to perform the services). In most cases the main provider will end up choosing a partner from within the existing business network. Hence, partners within the business network get *activated* when their services are needed. The relationship between the main provider and the partner exists long term but might be dormant or upheld e.g. by social means in-between activations. In situations when a new partner is used instead of an existing one, it could be argued that the activation concept gives the wrong picture. However, the actors in a business network are connected by direct and indirect links and, it can be assumed that activating a new partner most of the time means

activating a previously indirectly linked actor while totally new entrances are quite rare.

In the literature several models for formal purchasing processes exist. Some of these are market-based taking into account the different phases of defining specifications, selecting supplier, make the contract agreement, ordering, expediting and evaluation (e.g. Van Weele, 2002). Other are focused on the need to develop continuing supplier relationships and include also phases of establishing as well as evaluating the relationship to the supplier (e.g. Ellram, 1995).

Since activation is a natural part of the service process in logistics companies it can become a routine. It can, however, still be assumed that the main provider does follow some form of purchasing process model, even if more or less intuitively. The process might also be structured through either formal or informal rules existing in the organization. Learning and experience from earlier activation situations and especially from arranging similar service packages can also be expected to have considerable impact on activation (c.f. Axelsson & Wynstra, 2002, Laine et al. 2003). In the empirical study an effort is made to find any possible structures and rules governing the process. The informants are also asked about how they seek information on potential partners as well as how they choose whom to activate.

For illustration the activation process is divided into three different steps. It has to be noted, however, that this division into steps is made by the author for the sake of clarity in the written text and is not necessarily recognized by the informants. They mainly see the two latter steps as intervoven. A similar method of dividing a selection process into two parts (initial screening and final selection) has been used by Jharkharia and Shankar (2007) in developing an analytic network process (ANP)-method for selecting 3PL service providers. According to Nikkanen (2003) a *shipper* does first pre-test the quality of the provider (e.g. by evaluating experience, references, intuition or reports from external audits) and then either discard the provider or start evaluating cost and time distance. The difference between the situation where a customer is choosing a main provider and, the one where the main provider is choosing partners is that the main provider might need to commission more than one partner for the service package. The intention to form a supply net consisting of more

than one partner also indicates that the separate activations will impact on each other.

The first step starts with the customer engaging the main provider to provide certain logistics services. The two companies, the buyer and the seller, then together specify the needs and define the contents of the service package identifying what services need to be included, goods quantity and volume, timetable, geographical setting (e.g. transport from x to y) etc. The main provider can then, in step two, identify subprocesses to be outsourced and services to be bought. The specifications of these will form the pre-conditions that potential partners need to meet. The second step ends by the main provider picking a set of potential partners from those that are available on the market.

The initial contact to the potential partners can vary between a number of alternatives between automatic booking and an invitation to tender. Because the logistics submarkets function in different ways, varying kinds of relationships can develop between the main provider and partners from different submarkets. Laine (2005) mentions three alternatives for selecting the partners into a supply chain (or network); the partners can be systematically picked, the chain can be created through market transactions or, it can be formed over time through long-term business relationships. One could also assume that all three alternatives might exist within one network.

It can be expected that a highly specialized service, requiring the use of highly specialized resources, will lead to a rather limited number of competing actors while the number of competitors will be larger for more general services. As a consequence the main provider might perceive the relationships to the more specialized partners as strategically more important and these would then be more actively nurtured. In some instances competition can also exist between logistics sub-sectors, e.g. between different modes of transport such as rail and road.

It can also be assumed that the main provider in most cases will not make a choice between all alternatives existing on the market but within a limited set of actors that are judged to be suitable for the task. Factors such as previous experience, co-operation in connection to previous service packages as well as the positions of the various actors within the business network can be expected to influence the choices.

These factors are stressed particularly when discussing business behaviour on industrial markets within the IMP-view. The third step includes the final selection of the partners to engage as well as commissioning them to act in the role assigned to them in the supply net.

4.3. The impact factors

The factors that from a theoretical perspective affect the decision-making linked to activation are here modified from Miller et al. (1996) to include “the issue”, the decision maker, the decision process, decision level, choice criteria, impact from actors with an interest in the outcome, time frame and impact from the network level. They are here used to form a structure for the discussion. The issue at hand (section 4.3.1.), that a decision is to be made about, is the activation of a partner relationship. Choosing a set of partners to form a supply net should hence be considered the sum of separate but inter-linked activation processes. The service package (section 4.3.2.) includes the specific services needed in order to meet the demands of the customer. It is thus the starting point for defining the selection criteria (section 4.3.3.). These include requirements that an actor needs to fulfil in order to be regarded as a potential partner as well as the requirements that are used to make the final choice. The decision maker and the level of decision making are discussed together in section 4.3.4. Since the empirical study was executed among main providers, not interviewing other actors, the customer is the only other actor with an interest in the outcome of activation that will be discussed in any detail (section 4.3.5.).

Time (section 4.3.6.) can in the present context be understood in several ways. In the model by Miller et al. (1996) time mainly refers to the amount of time available for making the decision. Another dimension of time that becomes relevant is the intended duration of the activities within the service package. Thinking of activation as the present point of contact between history and the future describes the connection between experience, learning as well as future expectations and the activation process. It also provides an element of understanding of the connection between activation and strategizing.

The impact from the network context was discussed in chapter three and will be linked to the activation process in the final section of this chapter. On a broad level one could also make a division into impact

factors that are dependent on the intentions of the actor (such as choice criteria) and factors that will impact on the decision regardless of the intentions (and wishes) of the actor. These could, in the network setting, be the actions and reactions by other actors but, they could also include changes in the outer business environment such as e.g. a strike in a harbour leading the main provider perhaps to re-routing a shipment leading to a need to use another partner than originally intended. This kind of impact is, however, highly contextual and is not further discussed within this study.

4.3.1. "The issue" – activating a relationship

The supply net is formed with a certain structure in mind where specific activities need to be performed. These activities can be translated into the functional roles of companies within the logistics sub-sectors and for each role an actor is engaged through activating the relationship. Some activities that could be performed by different actors can also be lumped together and handed over to one partner depending on the situation, e.g. the availability of different kinds of actors.

Studying the decisions that are made concerning the set of actors and the matching between actors and activities should also take into consideration the context of how business is carried out in the logistics sector as well as within the main provider organization. Activation is part of the provider's service process. In the logistics business it is in fact a rather substantial part of it, given that logistics services are more often than not produced and provided in co-operation with partners. However, it seems that both previous studies as well as the practitioners, represented by the informants, place more importance on the initial creation of a supply network (or, in case of previous research, a channel or chain) which is then assumed to be used as it is. The structure can, however, include alternative partners for some roles but the choice of one or the other of these alternatives in a factual situation has not been discussed much earlier. As will be seen in the empirical presentation, activation is a relevant process, being executed all the time but not at first sight acknowledged of having any strategic impact. Hence one could conclude that activation is, within the organization, treated as an ordinary operational task of limited importance, as long as the partners fulfil the expectations set on them. At the same time, according to the INA-view on network dynamics, activation can be assumed to have marked long-term effects on the

business network. As the network provides both opportunities and hindrances for the free movement of an actor the developments over time clearly impact on how the main provider can develop its services in the future.

4.3.2. The service package

According to Axelsson & Wynstra (2002) service specifications can be made by four different methods:

1. Focusing on input, the resources that should be spent by the supplier (e.g. man-hours) and customer (e.g. involvement in and commitment to the interaction that is needed during the process).
2. Focusing on process /throughput, i.e. how the goal or assignment should be fulfilled.
3. Focus on the output; meeting functional demands (where the customer lets the supplier translate demands into activities) or, by the supplier and customer together trying to clarify what is needed in terms of activities and resources in order for the functional demands to be fulfilled.
4. Focus on outcome, indicating what the service provided should accomplish (the service is an enabler, an example of this kind of service specification are the learning targets defined for a university course).

Defining the logistics service package is rather clearly an example of n:o 3; focus on the output. In a one-stop shopping situation the customer is expected to express certain demands as to the outcome while it is up to the main provider to arrange the needed activities.

The service package can be seen as a customized set of services, but the customer might also need rather standard services e.g. road transport that by the main provider can be provided in the same way for many customers. The service package characteristics can be divided into the characteristics of the goods (including e.g. volume and weight), time table and locations involved, the specific services required by the customer, as well as the type of co-operation aimed at by the customer and by the main provider (e.g. long-term or short-term, freight services or a logistics solution). Andersson & Norrman (2002) discuss the process of defining logistics services by using three dimensions; what to define (resources, process and output), who

defines (provider, both or shipper) and, the nature of the included factors (tangible, semi-tangible and intangible).

Service packages provided by logistics companies have been treated in several alternative ways in literature. It is a complex issue for several reasons. First of all a package includes one or several separate services. As mentioned earlier the separate services are one-by-one rather standard activities but they can be combined in numerous ways to satisfy differing needs. The service package as a totality can then, by combining the various services, be characterized based on the level of customization or standardization as well as having a short term or long term focus. Second, the same type of service package can be provided by different kinds of logistics companies both in terms of functional characteristics, such as e.g. transport companies compared to forwarders or, companies with a background in the express business, as well as companies with different size and organizational structure. Third, several combinations of services can be used for the same aim e.g. the mix of transport modes can vary within a door-to-door transport. Fourth, the services included in the package might be produced in house by one provider or, compiled through the use of a supply net. Fifth, the supply net can take many forms; each included relationship can be formal or informal as well as different in terms of e.g. power relations. The character and content of the service package does not only influence the choice of specific actors but it will also affect the types of relationships that develop between these and the main provider (cf. Bask, Juga & Laine 2001). The customer relationship can as well take the various forms mentioned above and, include a further variation e.g. in time ranging from a continuous 3PL-relationship to a one-off commission. All these factors can be used to distinguish between different kinds of logistics service packages. How a researcher treats the issue depends on the main focus of the study. If the exact contents of the service package is of relevance to a study there is a need to categorize the packages in a way that supports elaboration on the main research theme.

In designing the present study the decision was made not to delimit the notion of what goes into a service package too much. Only a broad division of logistics service packages into freight services and logistics solutions is used. The role of the service package in the activation process consists of delimiting the commission given by the customer to the main provider and thereby setting the necessary (but perhaps

not sufficient) criteria that the potential partners must fulfil, such as e.g. required capacity and the right kind of equipment. To what extent the content of separate service packages affect the activation process; i.e. how activation is done, was left for the informants to judge.

4.3.3. Selection criteria

Traditional theories on competition would assume that the main provider makes active choices based on rational criteria such as price and quality. However, as Engström (2004) puts it, it might be more rational not to do it. It might in the long run be strategically safer and/or more profitable to stay loyal to one carrier than switching for the optimal solution in the short run. In fact, Engström claims that some of the most important factors for the shipper's choice of co-ordinator and the co-ordinator's choice of carrier are history, traditions, personal relations and the shipper's experience. Even so, the carriers and other partners must fulfil the rational criteria as well, being able to provide the right services in an efficient manner.

The term selection criteria here refer to those factors that can be used in a comparison of how well individual potential partners fit the requirements defined by the content service package. To a large degree these criteria can be traced back to the definition of the service package but they also include other factors that the main provider judges as important in selecting a partner, such as e.g. financial status and reputation. In addition reasons stemming from the main provider's network picture and efforts to maintain or transform its position in the business network might influence the decision.

A substantial number of studies have been made on selection criteria used by industrial customers when choosing logistics service providers. During the period shortly after the deregulation of the US transport industry, in the late 1970's and 1980's there was a need to get to know the shippers better and learn to operate in a market-driven environment (Dobie, 2005). As a result numerous studies were made particularly in the US on selection criteria used by shippers choosing a carrier, many of them mode specific, focusing on e.g. road haulage. With the development of logistics outsourcing, studies on the choice of 3PL partners, i.e. taking into account also relationship characteristics, started to be published in the early 1990's. Recently studies have also been made on newer forms of distribution such as the choice of logistics providers for e-commerce (Lin & Lee, 2009). Some studies are normative; discussing how the selection should be

made, as well as what factors to take into consideration (e.g. Murphy & Daley, 1997), other studies have focused on the shippers' and carriers' differences in perception of decision criteria (e.g. Kent & Parker, 1999). Also within the area of freight services, studies are specialized in certain types of services such as e.g. selection of container ship carrier (e.g. Kent & Parker 1998), forwarder (e.g. Murphy & Daley, 1997) or road carrier (e.g. Bardi et al., 1989). Some of the criteria that will affect the choices are rather specific for a certain subsector of logistics, but several can be applied to many different selection situations. The table in appendix II shows criteria used in studies published in five international journals between 1990-2009. The table includes both studies on the choice of providers of specific logistics activities as well as studies on the choice of 3PL providers. In the table no ranking is done regarding the relative importance of different criteria since rankings are context specific.

Taking into account that logistics companies work in networks where their relationships as well as resources controlled by partners are important ingredients in service production, the supplier selection process should also include an analysis of the network that the supplier is structurally embedded in. Choi & Kim (2008) especially draws the attention to the supplier's suppliers. Applied to this setting, a provider that sells a service package consisting of services produced mainly by partners is strongly dependent on how these partners perform. This might in fact be seen as a strong reason for staying with established partners instead of using new ones.

Studies on selection criteria used by logistics providers when choosing carriers are few, one can, however, assume that, in a customer-driven environment, most of the criteria should be the same as those evaluated by final customers. Patterson et al. (2010) made a comparison between carrier choices made by 3PL companies and other companies (shippers) in Ontario and Quebec and found some significant differences:

- For regular shipments 3PLs are more price-sensitive than other shippers, but not concerning high-value shipments.
- 3PLs are more sensitive to on-time reliability.
- For 3PLs damage risk was not considered significant for non-fragile goods while it was important for fragile goods.

- For higher-risk shipments 3PLs seem to be less price-sensitive and more sensitive to other carrier characteristics than other shippers.
- 3PLs are more biased against using intermodal (including a rail leg) carriers than other shippers.

The studies on selection criteria are, more often than not, done with a quantitative method where respondents rank criteria in a pre-constructed list. Meixell & Norbis (2008) found that the research on selection criteria in 48 studied articles, was done predominantly by surveys (38%) or using mathematical models (44%). In the present qualitative context using a typology of selection criteria was seen as useful in order to connect the more rational part of selection to other kinds of factors affecting the decision, such as efforts to manage the business network. During the interviews the discussion about selection criteria focused on how the criteria are being used (e.g. as part of step two or step three in the theoretical process structure) as well as how they are combined with each other. Selection criteria during step two consist of criteria that all potential partners must fulfil, i.e. order qualifiers (e.g. Mangan et al. 2008) while the criteria in step three are used for the final selection, i.e. order winners (ibid.).

Even if the present study is about the relationship between main provider and partners and the previous studies concern the relationship between the main provider and the customer, one can expect that criteria describing rational efficiency factors such as e.g. equipment and cost should be the same. However, issues concerning the relationship might be different within the supply side of service provision than between provider and industrial customer. The selection criteria that were included in the discussion guide (see appendix III) were partly gathered from the above-mentioned previous studies but items linked to the network approach were also added, concerning e.g. roles and positions as well as experience.

4.3.4. The decision maker

Except for the largest organizations, logistics companies tend to have a rather flat structure where individuals can handle several kinds of tasks regardless of position. Activation can be seen as a different kind of decision situation if it involves something new (e.g. new types of activities, destinations, customers or partners) than if it is about a

standard service package that can be performed within a structure regularly used by the main provider. This might have an impact on who in the organization gets involved in the decision making. As mentioned in chapter one, activation is here linked to the separate transactions within a (possibly) long-term agreement with a customer, and is therefore mainly treated as an operational task. Still, this task seems to be performed by decision makers with a Position in the company. Another important issue is the combination of organizational and individual decision-making.

On the organizational level, several internal and external characteristics will affect the decisions. Internal factors (the characteristics of the organization) are e.g. the services provided and produced, the size of the company as well as the organizational structure (part of a group or not). External factors relate to the links between the organization and its business environment. Main providers might be using different kinds of choice criteria depending on the logistics sub-market that the company belongs to as well as its position in the business network.

The decision maker involved in the activation process can be either an individual or a team within the main provider company. Even if the business transaction takes place between companies one can expect that, in the case of individual decision makers, personal opinions, perceptions and social relations might influence the decisions (c.f. Mainela & Tähtinen, 2007) and, problems might occur if the views and aims of the individual and the organization differ (cf. Danielis et al. 2005).

Following the reasoning by e.g. Mintzberg (1987), one aspect of company strategy is the *pattern* that emerges through the decisions that are made within the organization regardless of whether these decisions are linked to any previously formulated strategy. From this perspective anybody in a company can be a strategist who has an impact on what direction the company will take over time. Discussing strategy from an INA – perspective, Baraldi et al. (2007) also point out that strategists are not the only ones affecting the strategy of an organization.

“Anyone who can affect the long-term development of an important business relationship is potentially a strategist” (Baraldi et al. 2007, p. 892).

The activation process provides a potential setting for illustrating this view. Of particular interest is the relationship between co-operation and competition. This potential link between day-to-day tasks and strategy is discussed as a part of the concluding discussion on network links in section 7.7.).

4.3.5. Impact from customer and partner relationships

The actors with a direct interest in the outcome of the activation process should here be understood as the industrial customer and the potential partners. Their interest and possible impact on the situation can have its roots in practically any aspect of their own business strategies. Their own relationship linkages are of particular importance. The customer and the partners are not only connected to the business network of the main provider but they also have other important relationships that might impact on their wishes and demands (customers) and possibilities to become included in the supply net (partners).

The partners, both those who are and those who are not activated, as well as the customer's customer are here treated mainly as affected by the activation outcome and, are not likely to impact directly on the activation process themselves. This is of course a simplification; one can expect that e.g. the customer's customer (who in many cases will be in direct contact with at least one of the activated partners) and the customer have negotiated and agreed upon a certain distribution plan before the customer has contacted the main provider. In establishing a distribution channel (in the form of a long-term logistics solution) one could also expect the customer and customer's customer to negotiate with the main provider together. All these potential hidden dimensions are, however, here collected into the simple notion of the customer affecting activation through the details of the commission given to the main provider. I.e. the interest and impact of the customers are delimited to whether or not they express any direct demands on who or, what kind of partner that should be activated as well as those reasons for this behaviour that the main provider knows of. These include knowledge of the relationship between the main provider and the customer, other logistics relationships that the customer is involved in, and other demands stemming from the nature of the goods and the customer's previous experience.

The potential partners are expected not to know about, and not be able to impact directly on the choices (as mentioned, a theoretical

assumption). Their impact is here to be understood as an indirect impact stemming from the main provider's attitude towards their linkages e.g. to competitors, while e.g. the main provider's previous experience is treated as a selection criterion. The impact of potential partners on activation might also be dependent on their respective position within the business network, this is to some degree discussed in the empirical analysis.

The character of the relationship between the main provider and the customer will also impact on the activation process. In a long-term relationship where the customer has the need of the same kind of service package continuously one can expect the separate activation processes (linked to separate transactions within the relationship) to become a routine (cf. Håkansson et al. 2009). The customer's demands are to a large extent known beforehand and one can assume that the content of the service package, including activated partners, will remain the same as long as all parties are satisfied with the cost/quality balance and as long as the capacity is available. When the relationship is particularly deep, as in a 3PL-relationship, the long-term focus can also be expected to spread into the relationships between the main provider and the partners. New customers and new service packages might lead to a more thorough analysis of the potential alternatives and of the consequences of the choices.

4.3.6. Time frame

Time gets several dimensions within the present context. We are not only discussing the time it takes to activate all relationships in the supply net but it is also important to consider time-related factors affecting the decision as well as time-aspects of linking activation to strategy and network development over time. Recently there has been a call for specific consideration of time in case-based B2B-research (c.f. Halinen & Törnroos, 2005 and Quintens & Matthyssens 2010). The authors claim that studying e.g. a case with the help of time aspects one might reveal new concepts that can help in understanding the phenomenon. In the present study several process related aspects of time could be taken into consideration. The time dimensions (Quintens & Matthyssens 2010) timing, duration, event based pace, order and, flow can be used to illustrate and analyze certain aspects of the activation process. When connecting activation to the larger processes of network development and strategizing, particularly the

dimension of flow is of interest for how patterns of activation processes develop and impact on network structure.

Timing refers to the point in time when a certain process or phenomenon starts or ends. Describing activation theoretically requires that one can establish when the process starts and when it ends. In the model of pre-understanding it is suggested that the process starts with a customer contacting the main provider. This will be further discussed in section 7.5.4. The ending point can be defined as the point in time when the task has been accomplished, i.e. when the supply net is set in motion. Time is here not defined as clock-time; it is defined in relation to preceding and following processes. The theoretical illustration of activation includes three sub-processes, the latter two of these are by the informants considered as interwoven, simultaneous processes, i.e. the *order* is polychromic and, at the same time they have an obliged order, (if both step two and step three are to be taken, step three cannot precede step two).

The *duration* of a process shows how long it takes. Duration is linked to time horizon, which normally is defined as long-term or short-term (Quintens & Matthyssens 2010). The duration of the activation process is to be understood as short, but the duration is dependent on the context (e.g. a long-term 3PL-relationship compared to a one-off transaction) and, how it is defined is also dependent on how the informant sees the time-horizon, i.e. what the informant would define as short or long compared to the context. Long-term issues come into the picture when linking activation to the above-mentioned network and strategy contexts.

Pace can be understood as an indicator of how often separate processes start or end, the pace can be constant, declining or increasing. According to Quintens & Matthyssens (2010) paces can be divided into time based and event based paces. In an event based pace the occurrence of an event starts an action as e.g. the activation process or, one sub-process follows after the other.

Flow connects the past, the present and the future. Time flow can be represented as cyclical, linear and spiral (Quintens & Matthyssens 2010). The start of an activation process is dependent on the need to create a supply net and it ends when the task has been accomplished. It is a process with clear starting and ending points and the time flow can then best be described as linear. This aspect of flow will not be

discussed further in the study. The second flow related issue linking the past, the present and the future illustrate how experience, which can be seen as a form of learning, will link past activations with the following ones, as one informant put it *"you learn who can do what..."*. These relate to the "past-loadedness" and "future expectations" of the main provider (cf. Hedaa & Törnroos, 2008, Håkansson et al., 2009).

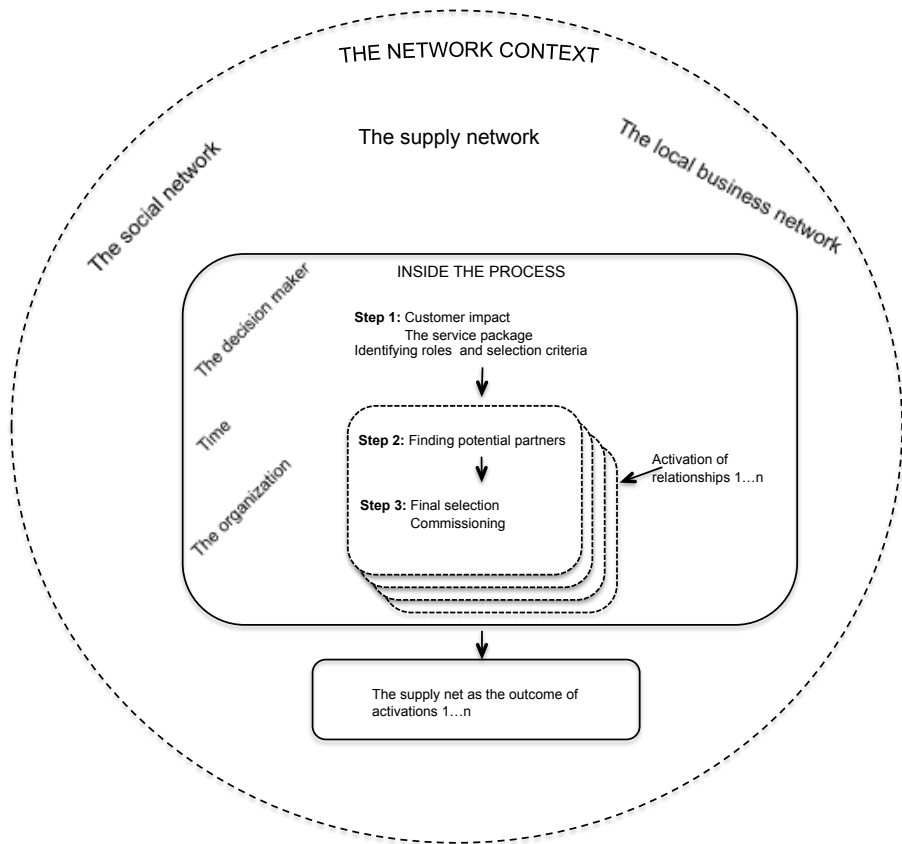
Aspects of time were included in the empirical data collection through questions concerning the duration and order of the activation process. Timing, pace and flow were elaborated indirectly during the interviews in connection to e.g. the discussion of long-term relationships with partners and customers.

4.4. The activation model

The activation process is summarized in figure 4.1. showing the three included (theoretical) steps of defining the service package, finding the potential partners and the final decision. The supply net is the aggregate outcome of activating partners for all separate roles that have been identified as a result of defining the requirements. Activation concerns separate relationships while the negotiation with the customer concerns the whole service package and is the necessary starting point regardless of whether the supply net will include only one or several partners.

The activation process comprises the first phases of the service process of the main provider organization. Within the service process it will be followed by the actual execution of the services.

Figure 4.1. Activation in its context



It is important to note that the impact from contextual factors can concern different things, e.g. the contents of the service package will have an impact on which partners that are included in the supply net, but it does not necessarily change *the way* that they are chosen, compared to how the main provider would activate relationships for another supply net. On the other hand, the time available for selecting partners to a certain supply net might have an impact on how they are chosen in that specific situation. When comparing activation executed by different main provider organizations, however, the process can be different because of another context in terms of both organizational and individual impact factors, as well as the main provider's various roles within the logistics network context.

The use of the expression activation emphasises the links between the process of creating the supply net and the embeddedness on the different network levels. In chapter three, activation was described as an act, taking place within a dyadic relationship between a main provider and a partner, performed by the main provider. It is the initial episode of a sequence of events within the relationship with the whole sequence also including the actual execution of the services by the partner. After the sequence the relationship might be dormant until a new sequence is initiated through a new activation.

Impact originating from within the relationship as well as from the level of the supply network, representing the total array of partner relationships of the main provider, can be described through the dimensions of actor bonds, activity links and resource ties. Especially trust and experience can be considered strong impact factors in logistics when thought of as a service industry. Compared to physical products the quality of a service can only be known through experience, personal or shared through information exchange with other users (cf. Grönroos, 2000).

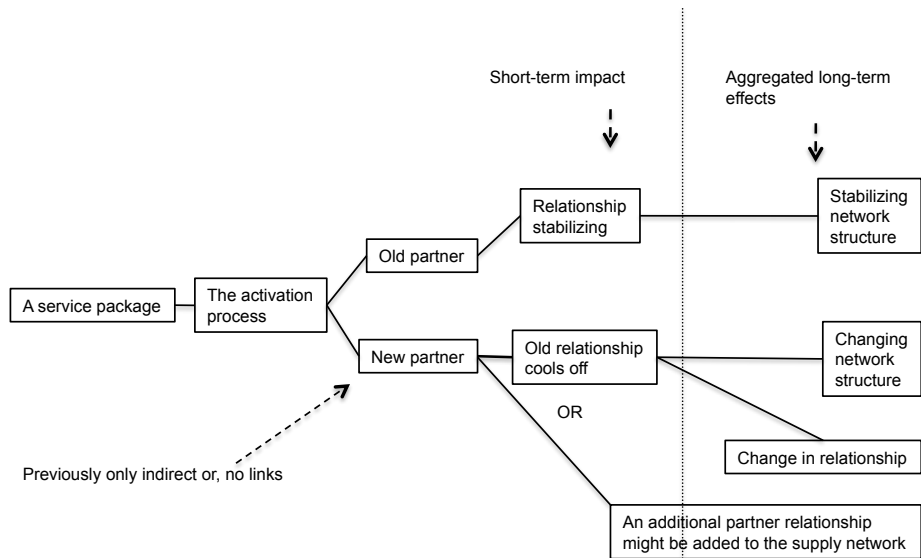
Further, the roles and positions of the companies within the business network can impact both on their behaviour in the role as main provider and their propensity to be chosen as a partner to enact certain roles in supply nets. Individual decision makers' involvement in social networks including individuals from other organizations within the local business network, strengthen the exchange of information and establish trust.

Following the theoretical line of reasoning, the pattern of activations over time will work in a direction of either changing or stabilizing the business network, being a part of the network dynamics. In figure 4.2. the need to activate a partner for a certain role within a supply net is assumed to lead to either engaging a previous partner or a new one. Activating a previous partner has a stabilizing effect while activating a new one can be considered de-stabilizing or, changing. In the short-run the change takes place within specific relationships but, in the long-term, through a pattern of activations, the change can spread to the network level.

Activation triggers change but the reason for the change lies behind it, mainly in the form of dissatisfaction with a present solution or, an aim to extend business. If a new partner is commissioned because of a

need for e.g. more capacity or new types of services the effect is different (i.e. adding a new partner to the supply network) than if the reason stems from dissatisfaction. If no change is needed at the moment activation is an act of stabilization. It can be understood as the click on the red button that seals a choice, establishing the direction that a certain part of the network will take until the next move is made. The effects should, however, not be over-estimated, e.g. the moves and countermoves of other actors will also have their own impact.

Figure 4.2. Activation as a change agent



The empirical study of the activation process is first and foremost intended to focus on the contents of the activation process as well as factors having an impact on it. Other connections between activation and network development as well as activation and strategizing are only discussed to a limited degree. The impact of network related factors on activation were discussed with the informants. However, studying the impact of activation on the different network levels would require a longitudinal study design focusing on the pattern of activations over time. These can hence be discussed mainly from a theoretical perspective.

4.5. Chapter summary

Activation is to be understood as the decision process of defining requirements, evaluating and choosing partners, contacting them and handing out commissions when a set of logistics services (i.e. a service package) is to be provided for an industrial customer. The expression activation refers to the assumption that the partners that are contacted in general will be long-term business partners of the main provider. They hence belong to the supply network of the main provider and the relationships to them are activated for the needs related to a certain service package. The activation process is here divided into three steps; the definition of the service package, the initial selection of a set of potential partners and the final selection and commissioning.

The content of the process is formed by “the issue” about which a decision is to be made, the decision maker, the decision process, decision level, choice criteria, impact from actors with an interest in the outcome, time frame and impact from the network context.

Activation is part of the main provider’s service process. It might be treated as an ordinary operational task of limited importance, as long as the partners fulfil the expectations set on them. It can, however, also be assumed to have long-term effects on the business network and hence over time impact on how the main provider can develop its services.

Part III The empirical study

5. Research approach and method

5.1. Introduction

The research in this study is conducted as an iterative process (Bryman 2002) where literature studies and empirical research proceed intertwined. Literature studies were performed in the beginning to find out what has been done previously concerning the study area, and to position this study in relation to the previous research. Because of the limited number of previous studies on the actors and the use of partners within the logistics sector, the next step was to form a model of pre-understanding about activation as well as about the logistics business network. After that it was time to find out what the actual activation process looks like and how the supply nets are being formed.

In this chapter the research process is presented and discussed including research approach and design, choice of data collection method and design of the empirical study as well as the practical work during the interview phases. Finally the data analysis process is described and the study is evaluated.

5.2. Research approach

Ontology is about the view on man and her relation to reality (Hirsjärvi & Hurme, 2000). The researcher's ontology shows his/her assumptions concerning reality. Our conception of the world is dependent on whether we think that an objective reality that we can study exists outside of our own conception/interpretation of it or, whether we think that we take part in the construction of reality through our interpretation. Based on these assumptions an epistemological approach is chosen; a view on the character of knowledge (Hirsjärvi & Hurme, 2000) or, a paradigm as a starting point for the research (cf. Solem 2003). Girod-Séville & Perret (2001) do, however, also discuss the possibility to use several paradigms at the same time.

Epistemology is the science of knowledge and hence also of science (Girod-Séville & Perret 2001). An epistemological choice implies taking a stand towards whether the knowledge one can create is objective, i.e. an exact presentation of a reality existing regardless of the researcher's experience and understanding or, if it is the researcher's interpretation of reality or, whether the researcher takes

part in the construction of reality through the interpretation (Girod-Séville & Perret 2001). According to them these three alternatives represent the three “big” paradigms; positivism, interpretativism and constructivism. Easton (1998), however, discusses four epistemological orientations; positivism, realism, conventionalism and constructivism and places interpretativism as one form of constructivism.

5.2.1. Realism as a starting point

The ontological and epistemological orientation of this study is realist following mainly the form of critical realism developed e.g. by Bhaskar (1978) and Sayer (1992, 2000). It acknowledges a reality that exists regardless of whether it is being studied or not. On the ontological level a distinction is made between the levels of the real, the actual and the empirical (Bhaskar, 1983). The empirical represents what we can observe while the actual also includes the things that happen regardless of any observation and the real includes the mechanisms that can create events and other things that we observe at the empirical level. A clear difference is made between social structure as an object and human agency. The social structure belongs to the level of real and will both enable and constrain human behaviour at a certain point in time. Human agency will, however, also change the social structure over time through acts of reproduction and transformation (Bhaskar, 1983). Those things that are real have a causal effect on behaviour and “make a difference” (Alvesson & Sköldberg, 2008). The causality is, however, not pre-determined but refers to the *ability* to enable and constrain (Sayer, 2000). The impact of context and the emergent nature of structures are stressed for the outcome of processes (cf. Bhaskar, 1983).

Logistics is an area where it is quite easy to see the object of study as very “real”. Physical goods flow on specific routes in very solid means of transport regardless of who is studying them or how they are being studied. Each specific combination of routes, nodes and actors is, however, the result of human decision-making (see also Aastrup & Halldórsson, 2008). Pondering on which factors that have led to a certain decision gives room for interpretation. The decisions that have been made remain the same regardless of how we interpret them but our description and understanding of the process through which they have developed is dependent on our interpretation. This study focuses on the activation process (the object of study) and the

behaviour of actors performing activation but recognizes the limits set on this behaviour by structures (in terms of e.g. organizations and relationships) as well as the impact of the context. According to the definition above, activation can be a real object if it has a causal effect on behaviour and makes a difference. The process of activation can have different outcomes, in part dependent on the existing structures (seen as the causal element) but also on contextual circumstances.

5.2.2. Research design

Designing the research means that the researcher chooses the method(s) that will be used. The choice is based on the aim of the research; how can answers to the questions be gained? What do we want to do; e.g. express causal connections between variables, generalize to larger groups of individuals or, understand behaviour and the meaning of the behaviour in a certain social context (Bryman & Bell, 2004).

Critical realism does in general not include any strict standpoints towards the methods that should be used (c.f. Sayer 2000, Danemark et al. 2003 and Alvesson & Sköldbberg 2008). It has, however, been linked both to experiments (e.g. Harvey, 2002) and case-studies (Easton, 1998). Due to the difference between the real, the the actual and the empirical, critical realism includes both hermeneutics and causal analysis with an aim at explanation. Explanation is, however, not understood as finding a rule for how something functions but, as identifying causal mechanisms and how they work as well as “identify if they have been activated and under what conditions” (Sayer, 2000, p. 14). In the present study an interest is expressed both towards behaviour and structure. The activation process is embedded in structures that will have an impact on it while also the outcome of the process is seen as a structure, a supply net. We also need to ask what has led the activation process to become the way it is (cf. Tsoukas, 1989) in these particular cases.

As a slight contrast to the statements about critical realism not taking a stance towards methods Danemark et al. (2003) introduce a process for critical realism informed explanatory research including the steps

of description, analytical resolution, abduction, retroduction ¹⁹, comparison between theories and abstractions and, finally concretization and contextualization (see also Ryan et al. 2009). Danemark et al. (2003) do, however, point out that the model should be seen as a guideline and note that research processes need to differ between them so that the various steps can blend into each other or, some steps are taken lighter than others. Also Sayer (2000) points out that the nature of the study object and what one wants to learn about it should impact on the choices that are made concerning methods. Tsoukas (1989), outlines only a general model (see table 5.1) building on Sayer's (1984) statement that the research should include a gradual transition from action to reasons to rules and from there to structures and causal powers.

Table 5.1. An explanation of an organizational phenomenon

Starting point:	A set of phenomena (i.e. actions), either distinct or part of an established pattern of recurring regularities.
Stage 1:	a) Resolving the actions into their constitutive components. b) Theoretically re-describing these components so that their inner constitution is revealed.
Stage 2:	Asking for the actors' accounts of why the actions have taken place. The reasons will invoke various rules in terms of which the given reasons can be made intelligible.
Stage 3:	The explanation can be completed by posing the following questions (as the basis for abstract analysis and conceptualization): Why do these specific rules exist? What are the structures and associated causal powers behind them? How did these causal powers come to be exercised during that particular set of circumstances?

Source: modified from Tsoukas, 1989

¹⁹ Retroduction is to be understood as a thought process by which we want to find the circumstances that are needed in order for X to take place. This can be done e.g. through contrafactual thinking, "can X be without this", "would X be the same if..." Danemark et al. (2003).

5.2.2.1. A qualitative approach

One of the first issues to consider within research design is often the one about qualitative or quantitative methods. The design of the present research is qualitative for two main reasons. First of all the aim and research questions are formed around an interest in how actors are activated into a supply net, why certain actors are activated instead of others and, what kind of network structures that develop. The present research is mainly about studying the results of individual as well as organizational decision-making, which, at best, can be called semi-rational. Behavioural studies speak for a qualitative design. Second, the present research is about an area that has not been studied extensively earlier. As a consequence, theory does not provide too much help in forming variables to use in a quantitative analysis. There is no reason to perform a quantitative analysis if we do not know what kind of variables the problem consists of, even if quantitative research as well can be exploratory. Some of the questions in the discussion guide do, however, include lists of potential answers e.g. concerning selection criteria (see appendix III). The intention was to let the informants make their choices among the alternatives and in addition describe and motivate why and how these were chosen. That is what they did as well. During the interviews no effort was made to ensure that the answers to these questions would be suitable for quantitative analysis. As a third reason one could put forth the theoretical considerations concerning the concept of activation and its suitability as a link between the short term supply net and the long term developments on the network levels as well as a link between strategy and ordinary daily activities. To this part the present study might be seen as preparing ground for efforts to collect further empirical data later on.

It has to be pointed out, however, that more and more authors are of the opinion that no strict line needs to be drawn between qualitative and quantitative methods. Both can be used within the same study depending on the needs (e.g. Hirsjärvi & Hurme 2000). It is, however, also in that case just as important to consider the requirements of each as well as the differences between them.

As a consequence of using a qualitative approach the findings of the study will provide an illustration of the activation process as well as a tentative model of activation as a concept. As to the possibility of generalization, results from qualitative research can be generalized if,

by generalization is meant application to another context or, a theoretical generalization (Alvesson & Sköldberg 2008, Brannen 2005). Statistical deduction and generalization to e.g. larger or other populations can on the other hand not be performed.

5.2.2.2. Abduction

In this study an abductive approach (cf. Alvesson & Sköldberg, 2008 and Kovács & Spens, 2005) is used, where theory and the empirical data interact throughout the process. Abduction also implies that the ideas generated from studying the study object in one setting (of eg. ideas or a theoretical framework) are placed within another setting to find out more about it (Danemark et al. 2003). In the present study new theoretical ideas are to some degree introduced into the framework during the process of data collection through this kind of thought processes. The use of an abductive approach also impacts on the collection of data in such a way that issues that the first informants wanted to discuss have been included in the discussion guide for later interviews while things they felt were asked in a wrong way or asked several times in different forms were changed. The effort is primarily to develop theory. A deductive approach was judged not feasible because of the lack of an existing or modified theoretical model that could have been tested and verified in its existing form. The work process can also be described as iterative (c.f. Bryman 2002) starting with literature studies mainly focusing on previous research in the field as well as potential theoretical approaches. Based on the literature studies as well as my own pre-understanding of how the logistics sector functions, based on 15 years of lecturing on transport- and logistics management, a preliminary model was developed about how the supply net for providing logistics service packages is formed. Since the pre-understanding stems as much from practical observations over time as from reading theoretical literature it is not solid enough as a starting point for deductive research. On the other hand, it is too tangible to allow for totally inductive research.

Hence the chosen approach is abductive; the model of pre-understanding influences and is influenced by the way that the research questions are formulated and the insights accumulating during the empirical research and, iterative; theoretical elaboration takes place simultaneously with the empirical data collection and analysis, in a back- and-forth process, and both are allowed to influence each other. The model of pre-understanding is throughout

the work used to guide the presentation and discussion and at the end, it will be refined and complemented with an attempt to formulate an activation concept.

5.2.3. Working with concepts

In this research the concept of activation is in a sense “recreated” to express the object of study. Concepts are, by Blumer (1954) defined as the means of establishing a connection between theory and the empirical world. He divides them into *definite concepts* with a specific definition of what is common to all instances in the class that is covered by the concept and *sensitizing concepts*. In a sensitizing concept what is common (what the concept refers to) is expressed in a distinctive manner in each empirical instance (Blumer, 1954). The context in which the concept is studied will make the expression of it distinctive. If activation is considered a sensitizing concept it contains certain common parts (e.g. planning, contacting, commissioning) but how these activities are performed, and why, varies depending on the context where activation is being studied (e.g. for the three types of provider profiles discussed later in this thesis).

Even bearing this difference between definite and sensitizing concepts in mind, Blumer criticized the concepts within social science for being too unspecific. Sensitizing concepts can be formulated and communicated, which is mainly done through illustrations. The risk, according to Blumer, is that the concepts are taken for granted and only become a device for ordering or arranging empirical instances (Blumer, 1954). Is it e.g. so that activation here becomes only a tool for sorting the studied units into various groups or is there some additional value attached to the exercise? I claim that the added value in this sense comes from not seeing activation only as a sorting tool but also as an object with the function of connecting the short-term process with the long-term network structure as well as connecting the operational routine with strategy development.

5.2.4. The case study approach

Within case study research the researcher attempts at understanding complex connections and structures. Yin (2003) defines a case study as:

“An empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.” (Yin, 2003, p. 13)

In order to do that, the research is concentrated to one or a few cases that illustrate various aspects of the research problem. Also multiple case studies are conducted where, according to Dubois & Gadde (2002) and Easton (1998), “the aim is to argue for the accuracy of one’s assumptions in a way that better would fit statistical methods”. Among the challenges for performing case studies in network settings, Halinen & Törnroos (2005) discuss the problem of setting network boundaries as well as the problem of complexity. Since 29 main provider organizations are included in the present study one cannot treat the individual provider unit as a case. On the other hand, all main provider organizations work within one particular context, the logistics cluster in Turku. Also, the main providers included in the study are estimated to represent more than 60 % of the number of main providers existing in the cluster at the time. Comparing one cluster to another could bring forth the impact of the local, functional as well as social, networks on the main providers. Local network characteristics might have an impact on activation performed by main providers in different clusters. For these reasons, the study can be thought of as a case study of activation within this specific cluster. In the terms of Yin (2003, and Collis & Hussey 2003) the unit of analysis in the case study is activation with the case setting being the local logistics cluster. Activation is elaborated on theoretically, and empirically, as a factor with strong linkages to the development of the main provider’s supply network. However, while the supply network (or functional network) is defined as consisting of the main provider’s relationships to *business* partners within the logistics sector (cf. section 1.7) it is important to note that the informant organizations are not each others’ main business partners. They are linked by a local social network as well as competition for, in part, the same customers and these factors affect their activation patterns. The supply nets they form through activation do, however, to a large extent, include other partners than their peers in this study. For this reason the case cannot be said to focus on the supply network. The boundaries for what actors are included in the case are hence set by the local cluster, stressing the social contacts, and by the definition of what is required in order for a company to be considered as a main provider.

The problem of complexity (Halinen & Törnroos, 2005) refers to the need to provide a clear and intelligible case description while at the same time avoiding too much simplification of e.g. aspects of embeddedness and various levels in the network context. It has been

suggested that this requires getting a thorough description by e.g. using several informants and, by presenting the case through effective means, supplementing the narrative with illustrative figures and schemes (Halinen & Törnroos, 2005). The methods for data collection, analysis and presentation are discussed further in the following sections.

5.3. Methods used for the empirical study

The research methods used in qualitative studies do not always come with a specific name or strict guidelines for how they should be performed (c.f. Bryman & Bell, 2003). The discussion of method related to the realist orientation (section 5.2.2.) mainly concerns the thought processes involved in the analysis. In addition there is a need to find an efficient way of handling the materia(l) obtained during the collection of empirical data.

Tesch (1990) divides qualitative research into research that studies the characteristics of language, research with an aim at the discovery of regularities, research that seeks to discern meaning and, research which is based on reflection. The aim of this study leads to a need for exploring the elements included in activation as well as linking them and, finding potential patterns among the set of informants. Following Tesch's line of reasoning, the present study can thus be placed in either one of two subgroups within the group "discovery of regularities". One of these is characterized by "identification (and categorization) of elements, and exploration of their connections" while the other is mainly occupied with "discerning of patterns".

As Tesch points out, the subgroups, however, blend into each other and researchers can find themselves slightly emphasizing one more than the other even if they in both cases can be said to be interested in the identification of elements and their connections. Moving from the content of activation to its connections to the context, i.e. networks and strategy, the study relies on interpretation of the informants' accounts of why and when activation takes place. In the terminology of Tesch the research interest can then be described as "the comprehension of the meaning of text/action". Also within that group Tesch presents two subgroups, "discerning of themes" and "interpretation".

Since 29 main provider organizations are included in the study one could argue for a method focused on the discerning of themes, which

also overlaps with the previously presented “discovery of regularities” (Tesch, 1990).

One of the methods used by researchers within the “discovery of regularities”- group is grounded theory, and several of the other methods also build on the same kind of analysis methods. The data analysis procedure used in the present study (see section 5.7.2) follows a structure that has its roots in grounded theory (GT). GT is also the foundation for the structure of the NVivo software which is used as a tool in the data analysis phase. The use of a case study approach based on only one or a few case organizations (main providers) did not seem feasible due to the effort to understand what kinds of supply nets that have been formed in the logistics sector as the result of various forms of activation, and how these should be categorized. I.e. the separate case cannot be studied in much depth if one also aims at sufficient width. It seems reasonable to let informants tell about their work as activators as well as their networks but, in order to analyze the data one also needs a method with clear and well-documented guidelines. GT provides this kind of tools. Some problems, however, also exist, e.g. fragmenting the data in the coding process can make it difficult to see totalities (cf. Bryman 2002). Alvesson & Sköldbberg (2008) find GT to stand for a too rational and narrow view of the research process. In the present context, however, only the tools of GT are being used for data reduction and management. Miles & Huberman (1984) also present similar kinds of analysis methods, e.g. coding (with reference to Glaser & Strauss, 1967). While not explicitly naming their epistemological stance except for calling it “soft-nosed logical positivism” (1984, p. 19) Miles & Huberman follow a realist approach (see also Tesch 1990). In the following sections the data collection and analysis methods will be accounted for in more detail.

5.4. The discussion guide and types of data

When designing the research, the decisions about research method, data collection methods and analysis methods have to be done, not in isolation, but taking into account the total design. The type of data needed to answer the research questions should guide the process, even if one can expect the research design phases to include simultaneous elaboration of both research method and research questions. In this written account the issue of types of data as well as the content of the semi-structured discussion guide are discussed first

followed by the selection of informants and, third, the data collection method.

The contents of an interview guide or a questionnaire is guided by the aim and research questions of the study. But, an interview does not need to start from a guide. A research interview is a steered discussion (Lanz, 2007), but the steering means can vary from a very loosely formulated interview guide to a fully structured questionnaire, which might make the interview unnecessary.

The present empirical study focuses on two issues that in addition influence each other. The first is the activation of partner relationships to form a supply net. The second one is the role of network related factors as decision criteria and the impact of activation on the business network. The chosen data collection method was interviews with the help of a semi-structured discussion guide. The model of pre-understanding was transformed into a discussion guide in order to structure the coming interviews. It was later on slightly modified based on feedback from an external logistics professional as well as comments from the first informants (see further in section 5.8.). The intention was, however, not to let the discussion guide impact too much on what the informants felt to be important issues. Some questions were intentionally left quite general, allowing the informants explain what the issue meant specifically for them. At the same time the discussion guide also included some pre-formulated response alternatives, however phrased in rather general terms.

Pre-formulated response alternatives were used e.g. when parts of the answers were expected to be similar for several informants or, in cases where some form of specific answer was wanted, e.g. "who decides on the transport route being used?" (the customer, provider together with the customer or provider only). On the other hand the research context, the logistics sector, includes a great deal of variation between organisations when it comes to services offered as well as size, market structure etc. and it was judged meaningful to let informants answer questions as "how do you ..." in their own words instead of using response alternatives. In total the discussion guide (see appendix III) includes 44 questions divided into six main areas as well as a general introduction. It starts with *background* questions about the company and the informant as well as the services offered by the company. Further, the informants were asked to describe the company profile as well as naming other companies in the region that they considered as

being important for various reasons. The following part deals with how service packages are defined in terms of the extent of the *involvement of the customer*. The creation and development of the *supply network* as well as the relationships with the partners in and between activations were then discussed followed by the *use of choice criteria* in the (theoretical) second and third steps of the activation process. Activation as a *work process* starts with issues about how potential partners are found as well as the customers preferences concerning who the partners should be. Finally *horizontal co-operation* as well as the *local social networks* were discussed. The discussion guide was sent to the informants beforehand but they were not expected to fill in any answers. All questions were instead discussed during the interviews.

5.5. Choice of informants

Choosing units within one geographical region that forms, and markets itself, as a logistics cluster provides an opportunity to study the links between the companies in a business network at the same time as the companies' supply networks are being studied. Studying main providers in the Turku logistics cluster can be considered a case study of one among several similar logistics clusters. No assumptions were, however, made about the supply network of the main provider being particularly local. The aim was to reach an as broad as possible selection of the various types of logistics companies represented in the area as well as companies with different positions within the business network. The informants should be individuals that are engaged in activation in the companies.

Another important issue was to look at the connections between the development of the business network and activation of partners for a supply net. Since I wanted to find different types of activation the focus was not on logistics in connection to a certain customer industry or type of goods. Hence another kind of delimitation of the business network was needed and, a geographical delimitation seemed appropriate, especially taking into account the clustering pattern or even clustering effort within logistics.

5.5.1. To find the business units

On company level²⁰ the aim was to find the potential main providers within the region. The selection of companies was done according to a number of criteria, the first being that an included company does take the role of main provider towards industrial customers when providing logistics services. This implies that the company will provide service packages that consist of several types of logistics services. Second, the company should engage partners in providing at least parts of the services included in the package and not produce everything in house. Several types of actors within the cluster were thereby excluded, such as the harbour, customs, companies only serving customers within the logistics sector (e.g. small local distributors) as well as companies producing all services in house. There are also a number of companies that operate e.g. a terminal in the Turku region while customer contacts as well as activation is the responsibility of a unit located elsewhere, e.g. in Helsinki. Also these companies were excluded.

In order to find the companies two main methods can be used. The first one is to start from above, studying the statistics available by using the register of work-places in the region based on the Standard Industry Classification (TOL, cf. section 1.7). The advantage is that the register should show all units existing at a certain point in time. The drawback is that an official industrial classification does not necessarily represent all the businesses in which the company is involved and, it does not tell how the company works. There might be important actors within the logistics sector that wouldn't be included because their main business is e.g. in whole sale trade. The results would also have to be double checked for the specific business since the register naturally does not say what kind of customers the companies work with. The typical example here is the road haulage sector with approx. 600 enterprises in the region out of which more than 480 small businesses with less than five employees (Statistics Finland, 2006) that can be expected to work directly towards one customer either in industry or within the logistics sector.

²⁰ Even if activation is studied at "unit" level, the word company is used here because the short advertisements published by the companies had to be considered as representing the whole organization.

Another method to find the right companies is to compile information from lists where a selection already has been made. Such are e.g. lists of membership in trade and marketing associations as well as other marketing channels used by the sector. Even then there is a risk that important actors are excluded. It is therefore important to find all the main marketing channels used by the target companies.

5.5.2. The included business units

Based on the above discussion it seemed realistic to first look at the Statistics Finland's register of establishments²¹ to get a picture of the types and numbers of companies available. After that marketing- and trade associations' membership lists were used to compile a list of actual companies. The marketing efforts made by the companies as well as the information on their web pages were studied to learn about the services provided by each. Contact information was collected from the web pages as well as web sites such as Yritystele²².

According to the TOL table "Establishments by region and industry", 1349 companies belonging to the category "Transport and storage" were present in the Turku region 1.1.2005. Included are several types of establishments that are delimited from this study (see section 1.4.), among these taxi companies and travel agencies. A specification according to the delimitations narrowed the number down to 771 establishments. Out of these 487 were road haulage companies with less than five employees (the road haulage sector was represented by 605 companies in total). The number of employees does not tell whether the company uses partners or not. On the other hand it did not seem realistic to include the whole group of small road haulage companies. Instead company visibility e.g. on marketing sites was used as a guide line for whether a company should be contacted. At the end one small road haulage company was contacted but did not respond. After the above mentioned as well as 29 additional companies of a rather unspecified nature²³ had been excluded, a total

²¹ Statistics Finland use the expression "establishment" for any work place regardless of whether it is an independent company, a company belonging to a concern or chain or, a sub-unit of a larger company. In this study the included entities are called "unit" reflecting the fact that they can be of any of these categories, including sub-units that are independent enough to perform activation (see also section 1.4).

²² A website providing contact information to Finnish companies, <http://www.yritystele.fi/>

²³ The number of employees was categorized as "not yet known" in Statistics Finland.

of 255 companies remained. Since I did not have a list of what explicit companies these were²⁴ it was time to turn to other sources, i.e. membership lists and marketing channels. The most important ones are listed in table 5.2.

Table 5.2: Main sources used to find the companies

Pilot Turku web
Turku Logistiikka web
Port of Turku web
Finnish Association of Purchasing and Logistics (LOGY), list of membership
Finnish Freight Forwarders' Association, list of membership
Yellow pages
Information from contacts within the logistics sector

A large number of companies could be omitted due to a clear focus on some other kind of services than the ones sought for. Such are e.g. small vessels operating in the archipelago and express delivery or other distribution services within the local area.

Due to the turbulence within the logistics sector during the recent years, compiling the names was a challenge. In some web pages old company names existed that, however, could not any more be found in e.g. phone directories. If the researcher was not familiar with these companies a further search had to be done in order to find out what had happened (closed or merged and, merged into what?). Finally a list of 58 companies remained. The following step was to find a contact person within each establishment. The first search was made on the company web pages. On the one hand the aim was to find the right kind of persons for the interviews but, if not enough information about individuals was to be found, a name to use as a first contact was searched for. To some extent this task was easier than selecting the companies due to previous knowledge of some individuals within the sector such as e.g. former students. Also articles about the companies in local media were used, both to find names of contact persons and to get a clearer picture of the business of the companies.

A letter introducing the researcher as well as the research was sent by e-mail to the contact person together with a request for an interview (see appendix IV). If the contact person did not respond within a few

²⁴ The information could have been bought from Statistics Finland. However the price compared to usefulness for the present purposes was judged too high.

days a phone call was made to him or her. Even if the letter stated that I would call, quite a few persons contacted me rapidly either by e-mail or phone to confirm that they would participate. During the initial contacts it also became clear that some more names should be omitted from the list. Those were units that did only handle marketing and not activation or, units that provided only their own services to either industrial customers or partners within the logistics sector and did not activate partners. Some companies did in fact not have any unit in the region but only marketed themselves through the same marketing channels as the local community. In addition a few had a terminal in the region but activation was being handled by a unit located in another region. Three potential informants responded that they did not want to participate while four could not be reached despite several efforts both by e-mail and phone.

At the end individuals representing 30 business units were interviewed. During the initial analysis one more unit was dropped because it in fact did not use partners in the service production process, which left 29 units in the analysis. Due to a promise of confidentiality²⁵ the names of the companies as well as names of informants will not be mentioned in the text. An effort will be made to present the units in such a way that no identities can be recognised, even if, as many informants pointed out, "here everybody knows everybody".

5.5.3. The individual informants

In most cases the business units are rather small. According to Statistics Finland, 75 % of the establishments in this sector in the region at the time had less than five employees and, 85% less than ten. If the road transport sector is omitted, 53 % of the remaining establishments employed less than five persons and 67 % less than ten. Among the 29 informant units 17% had five or less employees and 41% ten or less. In small units more or less everybody does everything. A formal division into areas of responsibility might exist but in practice several individuals take care of their own customer contacts etc. In larger units the division is much clearer, e.g. between individuals dealing with customers and individuals dealing with partners.

²⁵ The promise was made in the request for an interview (appendix IV) and two informants also wanted me to confirm it during the interview.

The informants are individuals in mainly management positions in the logistics companies. Some of the informants were chosen by the researcher based on job descriptions on the companies' web pages and some were recommended by the original contact person. The informants were expected both to be in a position where they are able to have an overview of the business network in the region as well as being involved in the practical work of assembling service packages for customers as well as activating partners.

In the larger units decisions are more often done in teams and it can be expected that all team members have some knowledge of the various parts of the total process. During the first contact some informants discussed the issue of different persons working with customers than with activation. Some suggested that several persons from their organisation would take part in the interviews and I accepted that. Background data concerning the informants can be seen in table 5.3.

Table 5.3: Background data for the informants

Position			
	Executive manager	9	
	Regional manager	6	
	Marketing/ Sales responsible	8	
	Production responsible / transport planner	2	
	Groups*	4	Total: 29
Work experience in the logistics sector			
	1 - 2 years	1	
	3 - 5	1	
	6 - 10	4	
	11 - 20	8	
	more than 20 years	21	Total: 35
Work experience in the company			
	1 - 2 years	6	
	3 - 5	5	
	6 - 10	4	
	11 - 20	6	
	more than 20 years	11	Total: 35
Male / Female			
	Male	29	
	Female	6	Total: 35
*Group content (total 10 persons in 4 groups)			
	Executive manager	3	
	Regional manager	1	
	Marketing/ Sales responsible	3	
	Production responsible / transport planner	2	
	Other (forwarder)	1	Total: 10

5.6. Data collection by interview

The method used for data collection should be selected based on what is evaluated to be the most appropriate method taking into account reliability, precision, effectiveness as well as economy (Hirsjärvi & Hurme, 2000). When wanting to explore how a certain group of

informants perform activation by letting them tell about it, as well as wanting them to give their opinion of various issues, the wish was for an interactive form of data collection where the researcher has the possibility to ask additional questions to get a clearer view of the issue at hand. The data collection method chosen for this research was face-to-face, semi-structured discussions. Two interviews were, however, performed by phone and one by e-mail (see further below). Observation did not seem a realistic option due to the large number of business units included in the study. In connection to case studies, however, participant observation is a much used and effective method (c.f. Eriksson & Kovalainen, 2008). An advantage of a face-to-face interview is that the researcher is in direct verbal interaction with the informant which makes it possible to steer the discussion into desired directions, decide on in what order issues should be discussed as well as finding the motives behind the answers. It is also possible to see non-verbal reactions and expressions that help in interpreting the answers (Hirsjärvi och Hurme, 2000).

In qualitative research the context of the results (cf. Brannen, 2005) must be analysed and the results/conclusions analysed within their context. An important part of this context is the interview situation. The context, including the interview situation, is affected also by the theme that is being discussed. In the present study the theme is activation. In a theme interview or focused interview the informants have been chosen because they have experienced a certain situation. The discussion is then focused on their subjective views of the situation (Merton, Fiske & Kendall 1956, referred by Hirsjärvi & Hurme 2000).

Another advantage of face-to-face interviews is when one wants to get information with more depth. Understanding both how things are being done and why they are being done that way was absolutely necessary in this study. A third advantage is when researching sensitive or awkward areas (Hirsjärvi & Hurme, 2000) or, when the informant wants to guarantee confidentiality. When meeting the interviewer in person, the informant is able to judge what he/she wants to reveal.

An interview is a dialogue between interviewer and informant. It has its own rules which make it a specific kind of situation but it is still also a meeting between individuals. The character of the interaction between interviewer and informant, their roles in comparison to each

other as well as demographic factors will affect the language. Choices that are made concerning e.g. how to address the informant will lead to other choices being made as well. (Hirsjärvi & Hurme, 2000). One must e.g. consider that especially younger informants might fear that the interviewer find them unprofessional if they do not answer in a certain way. Anyhow, the answers will reflect the fact that the interviewer is present as well as the way he/she asks questions. In the same way, answers will reflect those questions and answers that have been preceded them (Hirsjärvi & Hurme, 2000).

Concepts can mean different things for different individuals even when using the same language. Connotations are different. The way of expressing one self and communicating differ between individuals with different backgrounds. These things should be taken into consideration as well as already when formulating the discussion questions but can of course not be eliminated. The important thing is, that the interviewer is prepared and able to recognise words that can be interpreted differently as well as tries to assure that both parties understand questions as well as answers in the same way. In the present setting the informants were talking about their own work in their own words, in fact many issues turned out to sound much more individual than originally assumed. At retrospect, the creation of meaning together also shows clearly in the interviews, in good as in bad. A few informants asked my opinion of their interpretation of certain terms and phrasings. That is, however, not judged as having an impact on their message. It is also a risk to try to interpret too much. The informants' verbal expressions were taken at face value unless they used clear over- or understatements or other common figurative speech.

Another factor that will affect communication is the business culture within the industry. The communication within the logistics sector is characterised by many daily contacts where a lot of practical information must be transferred rapidly, this might be one reason for the rather informal inter-personal relations in the business and a relaxed atmosphere, which benefited the interviews. Some informants called the logistics sector "people business" (see further in chapter 7).

With the exception of the contacts to the first informant, all interviews took place between December 2006 and October 2007. Two of the interviews were performed by phone, the discussions were taped and additional information collected by e-mail. One informant returned

the questionnaire by e-mail and more information was collected through several e-mails later. This company did in fact not meet the selection criteria since no activation was being done and was omitted from further analysis. Information from one company was collected through numerous contacts during several months at the beginning of the empirical research phases and the informant's reactions on some of the issues and terminology in the questionnaire, were used to sharpen the definitions.

The remaining 26 interviews took place at the respective units. The interviews lasted approx. 45 minutes to 1,5 hours. The interviews were characterised by a relaxed atmosphere where, many times coffee was served and the informant to some extent took care of urgent work matters in between not minding the interviewer being present. In some cases the informant gave a tour of the premises after the interview. All interviews except one (on request of the informant) were taped and later transcribed into approximately 10-15 pages of text for each interview, including some lists from the discussion guide. In addition a copy of the discussion guide where the interviewer filled in marks especially for the more structured questions, exists for each interview.

The interviews were conducted either in Swedish or Finnish depending on the preference of the individual informant. This can be seen as an additional risk when comparing results between interviews. On the other hand the geographical setting, the Turku logistics cluster, where a lot of transactions has to do with contacts to Scandinavia, might make this issue somewhat smaller since Finnish speaking informants in many cases are rather fluent in Swedish and were able to comment on terms that might be expressed better in another way in Finnish than the alternative suggested by the interviewer.

5.7. Data analysis

According to Brannen (2005) this is where the epistemological and ontological issues hit the data. We become forced to reflect on several types of "truth" or "validity" and also to take into account that our different types of data result from the assumptions we make and the methods used to get the data. Qualitative data analysis differs from quantitative in that there are few well-established rules for how to do it (Bryman & Bell, 2003). Further, Brannen (2005) claims that it, in the

analysis phase, can become necessary to introduce new methods e.g. in order to put the conclusions into their context. Miles & Huberman (1984) in fact encourage qualitative researchers to develop simple, practical and effective analysis methods (see also Alvesson & Sköldbberg, 2008).

Reporting and analyzing data is, however, not yet a result, the outcome of the analysis must also be interpreted (c.f. Saaranen-Kauppinen & Puusniekka. 2006) and contextualized (Brannen 2005). The context can mean e.g. how the questions have been formulated (cf. Wrong, 1961), how the interviewer behaved as well as the interview situation. Also the way that the informant feels about his/her own situation (e.g. agency), how he/she can impact on his/her own situation and, if he/she has resources or if the person sees him/herself as a victim of the circumstances (i.e. actor or not).

In the present study the analysis phase is guided by an aim to structure and to a certain degree formalize the collected data into one story (a narrative) about activation. It is done through coding, data reduction and the use of illustrative displays in the form of tables and figures (c.f. Glasner & Strauss, 1967 and Miles & Huberman, 1984). Miles and Huberman (1984) speak of creating displays as an analytical activity since it helps both in data-reduction and in revealing patterns in the data. Contextualization takes place through discussing the context during the presentation of the empirical data.

5.7.1. The data

The data, consisting of the 29 different stories, was taped, transcribed and coded before the main analysis. One can also claim that coding is in fact the first step of the analysis since the patterns that arise through coding to some extent are sensitive to choices made by the researcher. The units as well as the informants are treated confidentially, the informants will here be referred to as X1 - X30 (with X6 omitted). Group-informants are regarded as one informant regardless of the number of participants in the group. The group members did not contradict each other at any point, on the contrary, they filled in each others' sentences in a way that made it a challenge to find out who was saying what on the tapes afterwards. Five interviews as well as the (later on omitted) e-mail discussion were performed in Swedish, the other in Finnish. All quotations in this text have been translated by me. Background data for the informants are given in table 5.3. and background data for the business units are given in appendix V.

5.7.2. The analysis method

The intention was to condense the content of the data into one story (narrative), which could be divided into a few separate types if the stories told by the informants gave reason for it. The types that eventually became used were three provider profiles (which will be discussed further below). The analysis consisted of three steps as shown in table 5.4. The analysis process can be seen as an applied version of a general model for the handling of qualitative data as presented by Miles & Huberman (in Lanz, 2007, see also section 5.3).

The transcribed interviews as well as the data gained through e-mails were initially imported into the computer software QSR NVivo²⁶. A loose classification structure was developed in advance in NVivo. It consisted of four main parts (i.e. themes); the relational environment of the unit (including ownership, customer and partner relationships, horizontal and vertical networks of customers and partners as well as social relationships), selection criteria (price, quality, experience, individuals etc.), the activation work process (customer participation, planning, searching for partners, being in contact etc.), and time (duration of relationships, importance of experience, possible strategic importance of activation etc.). The data was coded based on nodes (i.e. concepts) within these categories as well as on new concepts rising from the material. During the work process some nodes were abolished as unnecessary and some were combined into new ones. Some new important themes also emerged from the material and were added to the classification structure. At the end 68 nodes were in use in NVivo (see appendix VI).

Table 5.4: The analysis method

STEP 1	Analysis of separate nodes
	numerical tables (frequency and median value/averages)
	manual text reduction (including new themes and nodes)
STEP 2	Analysis of themes
	text fragments sorted within nodes and themes
	differences between groups analysed (types chosen)
STEP 3	Final story
	links made between themes and for the types
	final reduction to one story with three types

²⁶ QSR NVivo is developed by QSR International as a tool for qualitative data analysis. The structure of the tool is based on analysis methods included in Grounded Theory.

The **first step** of the analysis consisted of reading the material node by node. This clarified the issues that seem to work the same way in all informant organizations. Some tables with numerical data were also compiled in order to illustrate some main trends in the material. Special attention was given to the motives expressed by the informants regarding their choices in different situations during the activation process. Different kinds of motives might lead to the same outcome or then not. The motives presented and the expressions used by the informants when talking about the separate themes were sorted into groups according to content. This work could also have been done in NVivo but was now done as a cut and paste procedure in MS Word using the possibility to create an automatic list of content as a way of showing the backbone of the emerging story. At the same time the names of the informants and units were changed into the x-codes.

Step two started with evaluating the need to divide the story into different types; where it was needed and where not. In order to find the common content of activation as well as to find the parts that differ within different contexts, there was a need to compare the answers of the informants from the various units with each other to find out how and why they differ from each other (if they do). Because of this, a decision was made to divide the units into groups that would show likeness within as well as differences between groups when it comes to the main issues within activation. Different kinds of background information can be used as a tool in comparison. The data provides several opportunities for this:

- The size of the company and its horizontal network
- The specific sub market within the logistics sector as well as a more subtle division into different kinds of services (e.g. liner vs. forwarding types of services)
- The experience of the informant measured as years employed within the logistics sector as well as in the specific company.

The logistics sector in the region consists of, in part, very specialised units, which makes it impossible to make very detailed comparisons between them. On the other hand logistics services consist of rather similar parts (activities) that are combined in different ways by different kinds of main providers to produce customised solutions.

Using simply the main service offerings of the units as a tool of comparison was considered early on as one option. Later on, during the detailed analysis of the data, several alternatives were tested for individual questions but, the main service alternative still seemed the best tool. At this stage the answers were compared to the background information about units and informants. The units were divided into different groups based on main service offerings as well as company size and company structure. Out of these the service-offering alternative showed most similarities within the groups and largest differences between groups.

The three groups of units, the provider profiles, i.e. liners, forwarders and specialists, are presented in section 7.2.1. If the answers would be compared by using only one, or several, of these background factors, one might just as well do a quantitative analysis. That would, however, leave out the explanations given by the informants for the choices they make. The richness of the data (Collis & Hussey 2002) would suffer. The choice of which factor to use for the grouping is important since it represents “a commitment to a certain way of looking at the data and making sense of it” (Miles & Huberman, 1984, p. 152).

In **step three** connections between themes were formed and the final story with its three types was formulated and written.

5.7.3. Data reporting

According to Hirsjärvi & Hurme (2000) the language in a qualitative research report should allow for the informant’s voice to be heard. The reporting is descriptive and illustrative while numerals are little used. There is, however, nothing that prohibits using them. The empirical data is in this thesis presented in form of the story emerging through the above mentioned work process. The three provider profiles are presented in the beginning and then mentioned when differences occur between them. Quotations from informants’ stories are used to illustrate arguments put forth in the text by the researcher as well as to provide richness of the writing style as well as the content, by letting the words of informants’ complete sentences.

Some tables with numerical data as well as graphic presentations are used to show the strength of some of the views presented e.g. in the form of how many of the informants in a specific profile group that shared an opinion. In addition to quotations, phrases used by

informants are in some cases shown in summary tables. The informants are referred to as X1 - X30 (with X6 omitted). Appendix V, showing the general data for each business unit, includes the X-numbers as well as the provider profile assigned to the unit.

5.8. Evaluation of the research process

The number of units included in the study is rather large keeping in mind the qualitative methods used. Since the intention was to gain an understanding both of the general traits of the activation process and of the variations within different kinds of main provider units, it was, however, judged not feasible to limit the number of units any further before the work had been done. It is as well not possible to give a strict definition of the number of interviews that should be included in this type of project. When using the Grounded Theory method more interviews are being done until new variations are not any more found (Glaser & Strauss, 1967).²⁷ Even if the present study only uses some of the tools of GT, it is worth mentioning that this is in fact what happened, towards the end it became quite clear that additional interviews would not provide any new information and, that the data provided supported a division into the three provider profiles. All chosen units were, however, contacted and interviewed as originally planned. Since a majority of the units can be said to be specialized in one way or another this was judged to be the safest strategy.

There are several alternative options for how to evaluate the quality of qualitative research. The approach used in this study is the one presented by Lincoln & Guba (1985) for evaluating the trustworthiness of the research. The trustworthiness criterion includes credibility, transferability, dependability and confirmability. Below the study will be discussed by using each criterion in turn.

Credibility stands for the extent to which the results appear to be acceptable representations of the data (Davis-Sramek et al. 2007). It should be established whether the data is sufficient to merit the researcher's claims, whether strong links have been made between observations and categories and, whether another researcher, based on the same material, can come close to the interpretations (Eriksson & Kovalainen 2008). Credibility is established by ensuring that research is carried out according to the canons of good practice and,

²⁷ also called "theoretical saturation"

that the findings are submitted for respondent validation or that triangulation has been used (Bryman & Bell 2004). Good practice in qualitative research refers to openness. The research process of the present study is discussed in detail in chapter five of the thesis. The findings have, however, not been submitted for respondent validation. The feeling of theoretical saturation during the later part of the interview phase could, however, in part be seen as compensating that. The discussion guide was, however, tested on a logistics professional in another region shortly after the numerous discussions with the first informant and before the discussions with the other informants.

Transferability (or external validity) shows the extent to which the findings from a study made in one context can apply in another context or in the same context at a later time. In qualitative research there is an effort towards thick descriptions, i.e. detailed description of what is being studied as well as the contextual uniqueness. These descriptions have been claimed to provide the reader with a database for comparison and judgement about the transferability (Bryman & Bell 2004). According to Eriksson & Kovalainen (2008) it is a question of showing the degree of similarity to other research, to establish a connection to previous research.

In the present study a rich description of the context in terms of the local cluster is aimed at, including both the presentation of the logistics cluster from a functional perspective (chapter 6) and the informants' descriptions of it (section 7.3). These can be used for a comparison to the setting in other logistics clusters. The data can also be compared with other service sectors, within the limits of the discussion of services in section 2.3.1. but transferability to industrial settings is not aimed for.

In a study on competition in the freight transport sector, Engström (2004) performed interviews with participants in freight transport channels (shippers, carriers and co-ordinators). Among other things he discussed the shippers' and co-ordinators' process of selecting and contracting carriers with the respondents. For the corresponding parts the data in the present study are compared to the data in Engström's study. Notes of the results are added as footnotes in chapter seven. This procedure is aimed at strengthening the credibility of the study and showing some transferability between the two empirical settings.

Dependability has been compared to auditing (Bryman & Bell 2004) in that complete records are held in an accessible manner of all stages of the research, including field notes, transcripts and notes on decisions made during the analysis, so that peers could audit it. Bryman & Bell (2004) note that audits are rarely used within management and business. One problem is the large amount of data, another could be the confidentiality issue. Eriksson & Kovalainen (2008) speak about the responsibility of the researcher to offer information to the reader that the process has been logical, traceable and documented. All documentation for the present research is held by the researcher but no audit has been made.

Confirmability should show that the researcher has acted in good faith, not letting personal values or theoretical inclinations affect the research. This is according to Bryman & Bell (2004) a task for the audit. It is also an issue that should be evaluated by following through the argumentation in the thesis. Eriksson & Kovalainen (2008) describe it as linking findings and interpretations to the data in a way that can be easily understood by others.

5.9. Chapter summary

The present research is executed from a realist perspective. The study process is characterized by iterative and abductive qualitative research. It is a case study of activation performed by main providers located within a geographic logistics cluster. Data is collected through semi-structured discussions with informants in 29 main provider units. The data are combined into one story including three different types, main provider profiles, through a process of coding and data reduction. The quality of the research can be judged through the detailed descriptions provided of the research method as well as the effort to provide rich descriptions of the empirical data and the context. All taped interviews, transcriptions and related discussion guides, e-mail correspondence as well as notes made during the analysis process are stored by the researcher which would enable an audit, however bearing in mind that informants have been promised confidentiality. Parts of the empirical data are also in chapter seven compared to the results of a Swedish study by Engström (2004).

6. The context in time and place - Empirical frame of reference

The geographical context of the empirical study is, as mentioned, the Turku region. The context is in this chapter pictured through a presentation of the economic situation as well as the setting in terms of infrastructure and main development trends within the region during the period of the interviews, the year 2007. It mainly focuses on developments connected to the logistics cluster, i.e. focusing on *logistics* infrastructure, providers and activities.

6.1. Introduction

Turku has been known as a port city at least since medieval times. The port of Turku celebrated its 860 anniversary in 2009 (Aboard, 2009) and trading e.g. with the Hanseatic League was extensive already during the 14th century (Laaksonen, 2007). Hence the logistics sector has for a long time played an important role for employment in the region and for providing the necessary services connected to import and export. The development strategies for Southwest Finland also stress the importance of continued development of the Turku region as a logistics centre within the Baltic Sea Area (Varsinais-Suomen Liitto 2008B, 2010). The logistics sector is a part of the maritime cluster, which has been defined as a growth sector within the Turku region, the others being biotech based industry and well being, ICT, culture, tourism and the environmental cluster (Varsinais-Suomen Liitto 2008A). The maritime cluster includes e.g. shipyards, ship equipment manufacturers, marine suppliers, ship design offices and off-shore industries, shipping companies handling both passenger and goods traffic, ship supply and clearance companies, classification societies, ports, companies specialising in port technology, port operators and other service providers related to sea transport. Examples of significant, associated businesses include financing and insurance companies (Karvonen et al. 2006). The vision for the region for the year 2025 emphasise among other things the competitive strengths coming from a network economy and logistics skills built on creativity (Varsinais-Suomen Liitto 2008A).

6.2. Logistics infrastructure

From a logistics point of view, the Turku region can be seen as a node comprising the Ports of Turku and Naantali, as well as the Turku

Airport. Important features are the E18 (between Stockholm and Petersburg) and the rail connections.

The port of Turku is the main port and distribution centre in Finland for traffic between Finland and Scandinavia. Comparing the number of connections Turku comes second in Finland after Helsinki with 55 weekly departures each week in liner services out of which 6 daily departures to Stockholm. Container transport through the port of Turku has, however, been rather limited, most of the services are provided with roro and ropax (ferry) vessels. (Port of Turku, 2008). In the year 2007, 4 million tonnes of goods were transported through the port. In table 6.1 some data are presented concerning the goods flow and passenger numbers in the years 2007 and 2010. The year 2010 was chosen because the period in-between was characterised by a strong downturn in the economy (see section 6.4.) with the recovery starting in 2010.

During 2005-2009 Turku's share of total transit transport through Finland has been approx. 1.6% each year (Finnports, 2009). There is, however, a strong concentration on import transit of general cargo, especially new cars, to Russia. The share of the Port of Turku for the transit import of general cargo is estimated to be approx. 20% (Finnports, 2011).²⁸ Further, Turku is the only Finnish port with equipment for changing the bogies on train wagons (needed due to different rail width on East and West European railways). The train ferry traffic, however, dropped with more than 17 % during the year 2007 with the termination of the operating of m/s Sky Wind in August 2007. The remaining ferry traffic with rail wagons was terminated in 2011.

²⁸ No exact numbers are presented since the statistics from different sources is contradictory.

Table 6.1. Traffic in the port of Turku

Types of traffic	2007	2010
Total freight traffic (mill. tn)	4.0	3.2
Exported goods (mill. tn)	1.7	1.5
Imported goods (mill. tn)	2.1	1.4
Containers (TEU)	21982	13500
Roro-traffic (tn)	760000	768000
Car ferry traffic (tn)	880000	1120000
Rail ferry (tn)	1360000	480000
Vessel arrivals/year	2901	2330
Passengers (mill.)	3.6	3.56

Source: Port of Turku 2008, 2011.

During the period the port was at a rapid development phases, extending the infrastructure as well as developing the co-operation with the companies using the harbour. Capacity on the routes to Europe grew with Finnlines bringing a bigger vessel to the route between Turku and Travemünde as well as opening a completely new regular liner connection to Antwerp in January 2007 (Port of Turku, 2008).

The overall traffic through *the port of Naantali* was 8.5 mill tonnes in 2007 (see table 6.2.). Liquid bulk including crude oil as well as oil products had a share of 55 % of the tonnes (Port of Naantali, 2009). The rubber-tired traffic between Finland and Sweden on roro/ropax vessels with three departures in each direction/day. Transport on trucks and trailers through Naantali grew with more than a third during 2003 - 2007 and still showed a growth of more than 7 % in 2008 but falling with 34 % during 2009. Also in Naantali the recovery started during 2010 with a growth of 19% compared to the previous year (Finnports).

Table 6.2. Traffic in the port of Naantali

Types of traffic	2007	2010
Total freight traffic (mill. tn)	8.5	8.12
Unitized & general cargo (mill. tn)	2.65	2.21
Bulk cargo (mill. tn)	5.85	5.91
Vessel arrivals/year	2168	1977
Passengers	150 906	179575

Source: Port of Naantali 2009, Vainiala 2011

Turku Airport's share of Finnish international airborne freight volumes grew from 0.6% in 2001 to 2.5 % in 2008. The main reason for the growth is that TNT started express freight flights from Turku in 2004. In 2008 TNT transferred all its Finnish freight flights to Turku. In September 2008 also DHL Express transferred one of its two Finnish flights to Turku (Connections, 2009).

Table 6.3. International freight volumes at Turku Airport, selected years

	2002	2005	2007	2009	2010
Tonnes	280	2664	3304	6761	6988
Share of Finnish total (%)	0,4	2,3	2,4	5,7	4,5

Source: Imailulaitos

The general trend in Finland for airborne freight and mail has been an increase in volumes of foreign freight and a decrease in mail traffic and domestic freight. The passenger traffic at Turku Airport was 308782 persons in 2007 with an increase to 357259 in 2010 (Finavia).

6.3. The economic situation

In 2007 there had been an upward trend in the Finnish economy for more than ten years. Statistics Finland reports a steady growth during the period 1994-2007 with an average annual growth of real GDP with 3.8 % per year (Statistics Finland). In 2007 the growth was the highest since the change of the century at 5.3 %. A survey on logistics companies in the Turku region shows that growth expectations continued to be positive up until the first half of the year. Demand for logistics services as well as turnover were rising and the service providers had been able to raise their prices. Increasing capacity usage

rates and a slight growth in employment were reported (Heikkilä et al. 2004, Heikkilä 2005, Kajander 2006, 2007A). The economy reached its highest level during the second half of 2007 and the transported goods volumes in Finnish foreign trade reached a peak (Customs, 2009). Expectations in the sector were now for a more neutral development (Kajander 2007B, Sundberg 2007B). The logistics companies considered the availability of skilled workforce to be one of the main challenges for the future (Kajander 2007A, 2007B, Sundberg 2007A).

During the first half of 2008 growth slowed down and finally turned into a slump. The annual GDP growth for 2008 stayed at 0.9 % and in 2009 fell to -8.0 % (Statistics Finland). Imported and exported goods volumes fell with more than 20 % during the year (Finnish Customs). A survey on Finnish shipping companies reported the main challenges for business to be the unstable economy, decreasing demand and sinking capacity usage rates together with rising prices and growing cost (Sundberg 2008B, 2009A). During the second half of 2009 the shipping sector reported that the decrease had started to slow down and a new growth period was expected (Sundberg 2009B). Import and export volumes started to recover during the spring of 2010, the growth for the whole year brought the volumes and value back to the level of 2005 (Finnish Customs). The economic trend was again upward and turnover expected to increase (Seppälä 2010, Sundberg 2010).

In the interviews, especially around mid-year 2007, several informants mentioned the difficulties in getting enough capacity especially in the road haulage segment. They claimed this factor to affect their answers as to which criteria have the largest impact on choices of partners. The volume of goods transported by lorries within Finland did grow during the third and fourth quarter of the year and continued growing during the first half of 2008. Also international transport with Finnish lorries grew during the year up until the last quarter (Statistics Finland, 2008a, 2009). However, the figures do not show any significant boost in road haulage over a longer period.

Statistics show that the gap between the number of unemployed and the number of open positions grew smaller in the road haulage sector (including transport of persons) in the Turku region 2000 – 2007. The number of unemployed truck drivers was, however, considerable compared to open drivers' positions. Konttinen et al. (2008) report that

the statistics give the wrong impression of the amount of available workforce due to difficulties in matching required and existing skills and capabilities.

The number of companies in the road haulage sector in the region was rather stable during the period, e.g. in 2006, 97 new enterprises were registered while 86 were terminated (Konttinen et al., 2008). The trend in the whole logistics sector in the region was rather stable from the mid 1990's with a small down going trend in the subsectors for land transport as well as postal- and courier companies from the turn of the century while the number of companies within sea- and air transport as well as supporting and auxiliary transport activities grew slightly (Marttinen, 2004).

6.4. The service providers

A large cluster of service providers is situated in and near the harbour area; all together 83 companies were connected to the port in 2007 (Dvorak, 2008). Other local clusters can be found around the airport and close to the highways.

The logistics sector has faced significant change on the organizational level during the last 20 years. The global trend of mergers between companies within the logistics sector as well as acquisitions as an entry and expansion strategy used by large players can be seen also in this region. For the whole country the trend can be exemplified by looking at the development of the number of members in the Finnish Freight Forwarders Association. From 2001 to 2006 the total number of members in the association went down from 72 to 62 while the number of included workplaces belonging to these members went up from 178 to 192. Separate workplaces belonging to one company have been treated as individual members in the association since 1941 (Blomberg, 2007). In mid 2009 the number of members was 60²⁹, the number of work places was this time not included in the register on the Internet (Huolintaliitto, 2009). As mentioned by several informants, ownership changes have characterized the sector for several decades. Some informants have been doing the same work in the same office for a long time but being employed by several companies in a row. The chain of mergers is well described and exemplified by Blomberg (2007).

²⁹ Some larger organizations have listed their specialized units as separate members, which would make the total number of members grow to 67.

Changes also take place through companies adding capacity in the form of e.g. new logistics centres or terminals. In addition, as some informants pointed out, the age structure of the employees in the sector follows the general trend of baby-boomers now exiting the work force. As an example of the changes taking place, in mid 2009, less than two years after the last interviews, at least seven informants had either changed their position within the unit or moved to another organization, four organizations had been affected by mergers and acquisitions³⁰ and a few more had moved their operations within the region.

6.5. Developments during the period

As mentioned the Port of Turku made, and has continued to make, considerable investments in developing land-based services, including building terminals for the use of logistics companies located in and around the harbour area.

Another logistics centre, being developed around the airport, is LogiCity, in the beginning developed and marketed by Pilot Turku. Pilot Turku Oy (Oy Promoting Intermodal Logistics Operations In Turku Ltd.) was projected under the name Turku Logistics Center, in 1999 by Hartela Oy and the City of Turku. Activities started in 2001 and 2003 the name was changed to Pilot Turku Oy (Dvorak, 2008). Pilot Turku was a marketing and development company in the form of a public-private partnership aimed at promoting the development of the Turku region into a significant logistics hub in the Baltic Sea area. The idea was to attract users of logistics services, such as distribution centres, wholesalers as well as companies involved in assembly and outsourcing to the region by promoting the logistics services available and also by assisting in the establishment process (Pilot Turku, 2009). Pilot Turku was also involved in improving the logistics infrastructure and enhancing efficiency of logistics services by co-operating with the service providers. The activities ceased in 2010 when the project period run out.

The main project that Pilot Turku was running during 2007 was the development of LogiCity. The area (715 ha) that borders to Turku airport is planned to become a logistics centre comprising of companies both within logistics services and industrial production

³⁰ Not taking into account situations where the focal organization has bought other companies.

(see above, presentation of Pilot Turku). The first companies started activities in LogiCity in 2007 when Suomen Kaukokiito as well as Läänin Kuljetus³¹ announced starting to build terminals there. Also the enlarged activities by TNT and DHL at Turku Airport are connected to the development of the area.

At the time of the interviews a new port, Vuosaari was under construction in Helsinki. The new harbour opened in November 2008. The aim was to concentrate the freight traffic of the Port of Helsinki to one area, outside of the city centre. The construction involved considerable investments in land-based services in and around the new harbour as well as close to the main highways leading to and from the area. The construction of new harbour led to considerable discussion in media concerning its effects on traffic in the congested metropolitan area, its potential impact on other logistics centres in Southern and Southwest Finland as well as the environmental impact. The impact on the Turku logistics cluster was to some extent discussed with the informants who, however, did not foresee any large effects. On the one hand the competition might grow but on the other hand the increase in congestion was seen as potentially emphasizing the advantages of the Turku region as a less congested area (see further in section 7.3.5.).

6.6. Summary

The geographical context of the empirical study is the Turku region, mainly centered around the Ports of Turku and Naantali as well as Turku Airport. The region is considered as the main contact link between Finland and Scandinavia due to extensive roro- and ropax traffic to Sweden. The share of Finnish international cargo traffic going through the Turku airport has grown from 0.4 to 4.5 % during the last decade and a new logistics centre is developing around the airport. Also the Port of Turku has made considerable investments in land based services during the period. The logistics sector, as a part of the maritime cluster, is seen as an important development sector in the regional economy.

³¹ Both companies primarily operate in road haulage in Finland running their own networks of routes and terminals but also offering other kinds of services. They are private companies owned by a number of independent road haulage companies. (Läänin Kuljetus, Suomen Kaukokiito)

The economic situation during the time of the interviews (December 2006 - October 2007) was characterised by an upward trend that had been going on for more than a decade. During the following year it turned into a recession with recovery starting to show in 2010.

7. Empirical analysis - activation in the Turku logistics cluster

7.1. Introduction

The data from the empirical study is here presented in the form of a narrative about activation. Within the main outline, three alternative stories emerge for some of the themes, based on a categorization of the business units into three types of provider profiles. Activation takes place within a context of existing business as well as social networks which will be discussed second. The following part digs into the specific contents of activation, the activator, the process, criteria and other influencing factors. Activation is then linked to competition and co-operation within the logistics sector. Finally the threads are pulled together in a concluding discussion.

7.2. The main providers

Reluctant to provide any numbers on e.g. unit turnover or market share the informants were given the possibility to describe the unit with the help of a few general terms. The descriptions given by the informants strongly reflect the heterogeneity of the sector. According to these highly subjective descriptions, there are large differences between the companies in terms of size, market share and geographical scope and, the variety of services offered (see appendix V).

Being a main provider means that the business unit procures parts of the services that it provides for customers from other providers. Services that are needed on a regular basis (such as e.g. road haulage in a liner company) are in general acquired by subcontracting while other kinds of services are being bought through other kinds of (market) transactions.³² In total 17 units procure all services that they provide except for the one they are specifically specialized in, five mentioned that they also from time to time need to procure more capacity in their own field (c.f. section 7.5.). For example, 17 units mention procuring road haulage, among them the liners (for the division into liners, specialists and forwarders, see below), while five

³² Readers are reminded that the word partner will be used throughout for all activated parties, unless it is necessary to point something out specifically by using the word subcontractor.

forwarders out of six procure all services except their own speciality and the last one mentions buying everything.

7.2.1. Three provider profiles

As mentioned the business units are here divided into three groups representing three provider profiles. The idea that the units could be divided into these three groups came during the collection of empirical data when it became clear that there are similarities within, as well as differences between these groups. The idea was tested as one of several alternatives (see section 5.7) and judged the best suited one. The division should, however, not be seen as strict, since practically all companies do sell and arrange all kinds of logistics services, depending on the needs of their customers. The three profiles used are liners, forwarders and specialists. *Liners* (11 units) operate regular scheduled transport on specific routes by road or sea. Even if the word liner normally is used to express a certain type of transport by sea, the word is here used both for companies operating at sea and companies operating on road. *Forwarders* (6 units) are companies whose goods volumes and transports are planned more on the basis of the customer's specific needs, compared to the liners. Although the definition of forwarder states that a forwarder does not own any equipment (cf. section 3.1.1) the group includes a few companies that own e.g. trailers. Two of them also prefer calling themselves carriers. They are, however, included in this group because they do not fit into the Liners nor the Specialist groups and in other aspects have the same characteristics as the other companies in the forwarder group. The last profile type, *Specialists* (12 units), consists of companies that are specialized in certain types of goods and those whose main service is not transport or arranging transports.

In all three groups the spread of unit size is quite wide, ranging from small units with 3-5 employees to units with more than 50 employees. The organizational structure, i.e. whether the unit is an independent company or belonging to a domestic or international group of companies, is taken into account when discussing the possible impact on activation of any formal or informal guidelines or regulations within the organization. In the specialist and forwarder groups more than half the units belonged to different kinds of domestic groups while international companies dominated the liner group. Units belonging to large organizations that market large arrays of services were grouped based on the main activities dealt with in the unit in

question. The three profiles are presented below, later in the text they will be mentioned when specific differences between them are being addressed.

Liners

All the business units in the Liner group buy services (liners on sea) or use subcontractors for road haulage. At the time of the interviews the use of their own drivers was quite rare but the companies were beginning to hire drivers because of a predicted shortage of qualified drivers in the near future.

Liners in road transport form their network based on their own long-term needs. The need is calculated based on long-term customer agreements and an expected average need for capacity on each route. The partner network often originates in old relationships that over time have become formalized through written agreements. The partners work full time for the main provider and additions to the network occur only when new long-term customer agreements are being signed that lead to new kinds of needs or when additional capacity is needed. Replacements take place when old partners decide to end the relationship or if the performance of a partner deteriorates. Temporal changes can occur due to the need for special services or e.g. technical problems. The Liners talk of these partners in terms of e.g. *“an extension of our hands”* (X20). The benefits of working in long-term relationships as well as the costs for introducing new partners into the network are seen as large. New entrants into the network in general start with short term jobs when extra capacity is needed, from there they can advance into a pool of reserves (back-up that any company needs to have) or into the regular network. The main providers do not necessarily search for new partners on the market, many times potential partners contact them to ask for a job. At the same time the lack of capacity on the market has led the main providers also to employ drivers into the company to ensure availability of capacity. The relationship between the main provider and these partners is one of rather traditional subcontracting.

“It sounds worse than it really is but... we tell them (the partners) how it should go and they adapt their activities to ours” (X23)

The Liners also buy other kinds of services e.g. sea transport, storage and forwarding. For these as well, time-based agreements are signed, the relationship to these partners are, however, different than for road

haulage. Liners in sea transport are companies that offer sea transport on specific routes following a timetable, using either owned or e.g. time chartered vessels. Many times sea liners work solely as partners to main providers or sell sea transport only to industrial customers. To some extent they do, however, also sell larger packages including e.g. road transport and booking of further sea transport on intercontinental routes. To these parts their activities resemble those of the forwarders group.

Forwarders

With one exception all business units in the Forwarder group stated that they buy all services but forwarding. As in the Liner group customer agreements in this group are most of the time long-term, which means that a considerable amount of the needed services can be planned beforehand. The transport and additional services are, however, based more on specific customer needs. The exact volumes of goods to be handled at a certain point in time might become known with very short notice. These units as well prefer working with long-term supply partners, a co-operation network out of which the partners that are needed are activated. If the first choice does not have the needed capacity at the moment the next option is contacted. The order between these (i.e. who is number one etc.) is not necessarily very exact. The relationships are less formal than in the liner group but the benefits from working together for a long time still makes the co-operation network rather stable. Old partners are abandoned only if their service quality degrades or if their prices no longer are competitive. Since the services needed from one customer package to another might vary more than in the liner group, specific supplier relationships might not be active all the time. Those are most of the time upheld through social contacts.

"...when we start to look for somebody we already have the need. We choose directly, these choices are made fast, it is a question of minutes, we don't have the time to be academic at that point." (X29)

"The basic picture is this, we have a co-operation network that has been established like a social network to the subcontractor market, they (the relationships) have developed over the years and you learn to understand that he can do this and he can do that, everybody has some limited resources and some of these (subcontractors) work for us all the time and we have learned that ...he can take five and he can take three and then we need eleven more

and those we have to find somewhere else...normal consignments fit inside the base structure but for bigger ones we have to look into it separately" (X26)

Specialists

The specialist group consists of business units who are to a large degree specialized in certain types of goods or certain types of logistics services. The activities in this group much resemble those in the forwarder group. Practically all services except the own specialization are being bought from other companies. The requirements on the partners are, however, more specialized and the number of alternative partners with the right equipment and competence can be expected to be rather small. This makes the specialists even more dependent on their partners and the co-operation network is quite stable for at least part of the services. Where Road Liners are in tighter co-operation with the road haulers than with other service suppliers, the other groups are less bound with road haulers than with other suppliers due to a larger supply of road transport services and stronger dependency of e.g. sea transport on the right routes and other services where competition is smaller.

7.2.2. Customer orientation

The companies were chosen for this study because of what they have in common: industrial customers and the use of partners in building the service package. Only one informant, representing a specialist unit, stated that the unit has only industrial customers while all others also serve customers within the logistics sector and have internal customers, meaning that commissions also come from within the organization. There is, however, a difference between the situation where another part of the organization is the customer, handing out a commission, and a situation where a customer order is only transferred from one part of the organization to another. If all commissions arriving through the internal organization are considered as internal commissions the share of these ranges from 0 to 50 % in the forwarder group, 0 to 50 % in the liner group but only 0 to 30 % in the specialist group. A more interesting issue for the coming discussion is the share of commissions coming from other companies within the logistics sector. In the forwarder group only two companies gave an estimate of their share (40 and 10 %) while in the liner group half the companies gave a number on an average of 20 %. In the specialist group the number of companies explicitly mentioning

customers within the logistics sector was much higher (8 out of 12) whereas the share is, on average 23 %, ranging, however, from 9 to 50 %. The differences between the groups can be understood through the differences in functional roles within the sector. Road haulage as well as specialized services can be expected to be demanded more often by other logistics companies than the services of the forwarders who have a clearer main provider orientation.

When it comes to the industrial customer profile, there is a slight tendency in the forwarder group to serve medium to small sized companies from a variety of industries while the specialists to a larger extent have large customers. As can be expected liners are in general not focused on any specific customer size or industry while the specialists are rather focused on certain industries.

In general all companies strive for long-term customer relationships. Agreements might be re-negotiated as often as once a year but the relationships tend to continue. In the forwarder group the share of long-term relationships seems, however, to be lower than in the other groups. Also ad hoc, one off, commissions exist in all groups. In total 18 informants gave an estimate ranging from 1 – 30 % of the jobs being one-off with a larger share in the forwarder group and smallest in the liner group. “Keeping the customer happy” might, however, also include arranging odd small-scale jobs that would normally not be included in the main provider’s profile. On the other hand, industrial customers with only odd jobs (i.e. occasional logistics needs only, especially in small volumes) might be better off with one kind of provider instead of another. The point here is that all the companies engage in activating more frequently than the general picture might show.

7.3. The network context

In figure 4.1 (section 4.4) the network context of the informant organisations/logistics providers is pictured as a set of partially overlapping networks; the supply net to be formed through activation, the supply network that the provider tends to activate partners from, the local social network and the local business network. In this section the supply network is discussed first for two reasons. The supply network consists of those logistics companies that the provider usually works with and, it is not necessarily local.

Logistics was by some informants called a “people business” (X12, X13, X15, X24, X29), stressing several ways in which the individuals working in the business have an impact on how business is being done. The informants’ views on the importance of individuals will hence be discussed before turning to the social network. After that, the business environment, the Turku logistics cluster, is examined from the perspective of its giving the local context in terms of not only social contacts but also business location and infrastructure.

7.3.1. Supply networks

None of the main providers work with partners only in the Turku region, which is understandable due to the character of the logistics business. The networks need to include participation of local partners in the places of origin and destination of the goods that are being handled. Only four of the informant organizations were one-unit companies out of which two, however, mentioned being connected to a wider network, which also explains that a part of the services used will originate elsewhere. The Turku area is by many informants seen as the main link to Scandinavia while at least part of the commissions involving other geographical areas were handled through other Finnish harbours and partly also by other company units. Still, seven informants were of the opinion that local companies are strongly represented in their supply networks and 15 expressed that they work with local partners in Turku as much as they work with local partners in other areas where they are present.

Also when it comes to those services used in Turku, the partners providing them can come from other regions. E.g. in road haulage the subcontractors can originate in other regions for various reasons. If the main provider is part of a national network that has developed over time, there might previously have been a stronger connection to another region or, subcontractors from other regions can, just by chance, have offered their services to the main provider. In addition, the Liners mentioned a shortage of supply of road haulage in the Turku region.

The services that are acquired from within the cluster include all kinds of logistics activities, however with a strong representation of road haulage and local distribution. Several informants didn’t recognize networking in the local cluster to be of a particularly strong importance for their organizations from a *functional* point of view. The relationship between main providers and road haulers, especially in

the Liner business, is more of a typical subcontracting relationship compared to the co-operation with other partners and it includes less social networking. However, the local social networking is recognized and appreciated for its' role in strengthening the region as a logistics cluster and its potential impact on improving the service level for customers.

7.3.2 People in logistics

The impression in peoples' minds of how logistics, or in the old days, the transport business, used to work is one of individuals known to each other discussing and agreeing on how to transport goods belonging to one of them and letting new actors into this informal but close network only by personal introduction. The informants pointed out that modern times have arrived in this sector as well, but were not prepared to fully dismiss the importance of individuals.

"Business deals are definitely made between organizations, but how you arrive at a deal, personal relationships, that you are known and such, of course they matter." (X4)

In section 7.6, horizontal co-operation is discussed as, to a rather high degree, dependent on mutual trust between individuals and also gentlemen's agreements are mentioned. Another old impression of the sector has been that if a skilled person leaves a logistics company to work for another one, the customers would follow him/her to the new employer. Informants did not agree on to what extent this still is the case³³. Those informants that were of the opinion that it still happens disagreed about what kind of customers that would follow: big accounts or customers with small goods flows.

"This is a thing that has always been exaggerated in discussions and now it has disappeared." (X4)

"That company name there (points at a paper) would have been another one if that person hadn't started working with this one. Some just know how to do things and others don't, it is so simple." (X14)

³³ Engström (2004) discusses this issue drawing on his informants; an incumbent person can break free and start a competing business as a specialist taking parts of the customer base with him. According to the service providers in his study, customers often are more attached to a person than to a firm. In connection to finding potential customers the carriers also mentioned that shippers might have a fear of new transport solutions.

“If a number of key people would choose to start their own company I think that they would be able to establish themselves on the market at least to some degree, the biggest barrier is perhaps the resources that are needed e.g. within IT.” (X9)

“This is no occult science anymore with information existing only in the heads of people...you can get more information on the Internet...on the other hand many companies don’t buy services from company X but from person X that they know knows their company and their business.” (X23)

As in other service industries, the skills and competence of the personnel are among the main competitive advantages in a logistics company. Since a large part of the business is being done in the interface between organizations it stands to reason that communication skills are much needed. As has been concluded in previous sections, the aim is to establish and maintain long-term relationships, both to partners within the sector and to customers.

“Experience and networking, experience doesn’t help if you are not networked...networking takes surprisingly much time.” (X27)

“Transport, logistics, is a service business, regardless of how fine the equipment is, if the personal chemistry doesn’t work the service doesn’t work.” (X5)

7.3.3. Social networks

Social networking is in this section to be understood as keeping in contact with other actors within the sector locally. Social contacts that are specifically linked to activation, such as e.g. in case of dormant relationships, are discussed further in section 7.4.2.

A large part of the actors in the logistics sector meet several times a year at events arranged by local organizations or associations or, sometimes by one of the companies. The general impression among informants is, that there is more social networking in the Turku cluster than in logistics clusters in other regions. Informants explain this by the rather small size of the cluster combined with a logistically rather important location in Finland, as well as by personal reasons; many individuals have worked in the sector for a long time, shifting positions in and between organizations.

“Turku is very small and nobody really can afford to create any market disturbance, it is typical that somebody who is now working in one company previously worked in another and the other way around, you can count the

decision makers in this sector locally, they are a few dozen, and you try to stay on good terms because it makes your life and co-operation harder later on if you become known as a difficult actor.” (X5)

In most cases the informants did not make much difference between the various social networks when considering their potential impact on business. There is also a considerable overlapping in the sense that the informants felt that they meet the same people everywhere. In this study the social network is hence mostly treated as an arena where the individuals meet more or less frequently in more or less structured settings. Table 7.1 however, shows the organizations and associations mentioned by informants as the ones arranging events where people meet. It includes both organizations and associations based on individual membership as well as such where the informants represent their organization. The Port of Turku, as well as some of the other actors, also arranges thematic events that are open for anyone with an interest in the particular theme.

Table 7.1. The informants’ networking arena

Organizations and associations mentioned:

Port of Turku

Turku Chamber of Commerce

Turun laivanselvitys- ja huolintaliikkeiden yhdistys

The Finnish Association of Purchasing and Logistics (LOGY)

Pilot Turku

Finnish Freight Forwarders' Association

The Foreign Trade Guild of Turku

Turku Area Development TAD Centre

South Western Ports of Finland

Finnish Transport and Logistics (SKAL)

The strongest organizations in bringing together the logistics actors seem to be the Port of Turku and The association for ship’s clearance and forwarding agents³⁴ as well as the Chamber of Commerce and the regional branch of The Finnish Association of Purchasing and Logistics (LOGY).

³⁴ Turun laivanselvitys- ja huolintaliikkeiden yhdistys, translated into English by the author

Informants especially appreciate the work done by the Port of Turku to promote the cluster as well as arranging information meetings around themes of current interest etc. Also the Association for ship's clearance and forwarding agents in Turku is seen as an important coordinator. The Logistics forum under the Chamber of Commerce is seen as a possibility to make an impact on issues of general interest, such as the motorway Turku – Helsinki. Still, the informants are of the opinion that lobbying and other efforts to make an impact together on e.g. legislation or other developments in society, are rather weak in this sector. The main benefits from the co-operation and the events are felt on the business side; to hear about others and tell about one's own company, both as part of the arranged program at an event and, as a by-product of meeting and discussing with other actors (see table 7.2).

“we do swarm a lot in different kinds of co-operation settings but I think that the results are perhaps not so big, of course everybody has the first responsibility of seeing to the interest of his/her own company, still, there have been some cautious advances, the intentions are real.” (X25)

More than 70 % (21/29) of the informants pointed out specifically that the social networking is important. One informant from the Forwarder group did, however, say that there is no social networking and another Forwarder that there is too little of it.

Table 7.2: Reasons for why social networking is important

It is good to get to know people/ personal contacts are important (mentioned by almost everybody)
It strengthens the functions of the whole cluster (X7)
Since we don't have a physical product to show (X10)
We can learn from each other (X11, X14)
Social contacts are good to have the day that you need some help (X18)
It's not about what you know but who you know (X23)
To maintain your network (X30)
Show that you are interested (X29)
To get to know what the others do and what kind of plans they have (X30)

An interesting observation is that social networking seems to be slightly less important in the Forwarder group³⁵ than for Liners and Specialists. There are, however, only six companies in the Forwarder group compared to 11 in the Liner and 12 in the Specialist groups. Based on the interviewer's personal impression during the interviews, those four informants in the Forwarder group that did not express any deep involvement in the social networking were perhaps personally less inclined for this kind of activities compared to other informants. There might, however, also be organizational factors that could explain why some of them, as well as some informants from the Liner and Specialist groups, seemed to be less involved in social networking. These kinds of questions would be of interest for a further study later on. On the other hand, as has been noted earlier (see section 3.3.3.) forwarders have tended to have a stronger position in the logistics business networks than other actors, now not taking into account the global providers, which might explain why mingling with them would seem more important for the other parties.

"You need to stay on good terms with the forwarders" (X13)

7.3.4. The atmosphere in the local cluster

The atmosphere in a business network can be seen as a way of describing the relations between the actors. It can be expected to be influenced by e.g. the balance of power and the existence of dominant actors as well as by the nature of competition and co-operation within the network.

The informants described the relations between the actors in the local cluster as good, only one informant expressed that there exists a lack of openness. Some companies in the Specialist group are so specialized that they do not really have any competitors in the cluster concerning their main business. Because of this, they might have a rather relaxed attitude towards the community. The Liners are somewhat more cautious in their expressions, which could stem from the harsh competition in the road haulage sector.

"Competition is harsh but to my understanding the relationships between the personnel in the companies in Turku are good, let's say that even if there are

³⁵ In a study on horizontal co-operation between logistics companies Cruijssen et al. (2007) came to a similar conclusion concerning the interest in horizontal co-operation due to a lower response rate for forwarders than for other types of logistics companies.

companies that compete with each other there are also mutual interests to be found that the sector wants to follow through and especially through these organizations.” (X4)

“Of course I can answer only for me but on a personal level these relationships are as ok as they can be between competitors. We are on talking terms and if we meet we stop to talk. The relationships between the companies might be more complicated, but they still consist of the personal relationships.” (X10)

“Both on a company and a personal level the relationships are good in my opinion, open, we discuss a lot, we also criticize each other if something goes wrong, but nobody gets angry.” (X25)

“I would say that they are quite good even if you think about the size of the companies, we have both large and small and medium sized companies and I would say that the relationships are close, we don’t consider each other as competitors in that sense. The social relationships are good even if you compete for the same customers.” (X30)

Domination at company level was felt mainly in the form of dependence on the shipping companies. A large part of the transports in the area is linked to sea transport and the frequencies of departures as well as the shipping timetables are for many actors decisive for what kinds of service packages that can be offered to customers.

“The only ones we are dependent on are the shipping lines, so we have to relate positively towards them, but it is really a disadvantage for Turku this (the shipping lines’ activities) the service level has decreased over the years and it affects the development of the Turku region, how to come to terms with them? Turku is being mistreated by them compared to the service level in Helsinki, and timetables and everything, it does not serve this region.” (X19)

Some concern was also expressed regarding the lack of competition in the stevedoring sector.

7.3.5. Developing the cluster

All informant units except two were at the time of the interviews located in the city of Turku and Turku was considered the centre of the logistics cluster. The cluster is described in chapter six, here the discussion is focused on the how the informants evaluate it from a business perspective and how they see the future in the region. The discussion can be divided into issues about infrastructure and governance on the one hand, and business development and

competition on the other. Having discussed their own (activation) work for quite some time, not many informants were interested in going into a discussion about the region and the logistics cluster. After the interviews were done some changes have occurred, e.g. the Port of Vuosaari and the E-18 (between Turku and Helsinki) have been finalized and the project organization Pilot Turku has ceased operation since its task has been accomplished. The text below, however, presents the views of the informants at the time. Those informants who did express opinions about the development of the region stressed the importance of the ferry connections to Scandinavia; they were seen as important logistical competitive advantages for Turku and Naantali in comparison to other locations in Finland. More sea transport was hoped for; the container port should be developed and companies should direct more traffic through the Port of Turku. The fairway dues were, however, seen as a challenge as well as the geographical location of the Port of Turku inside the archipelago, compared to ports in more open sea-areas. The shipping companies should improve services through Turku, i.e. through better timetables. The new Port of Helsinki, at the time being built in Vuosaari, was not seen as a threat. Even if being large and modern it was criticized e.g. for creating further congestion in an already congested region.

In connection both to shipping lines, large logistics companies and large customer companies, a problem is that the decisions are made outside of the region, in Helsinki or outside of Finland. Turku, however, has a good location in the logistics network and is much less congested than the Helsinki area. In general informants saw a problem in European logistics actors not knowing about other Finnish ports than Helsinki, which makes them choose that route.

"In Europe, when you look at the map (of Finland) you see Helsinki and then you direct the ship there." (X1)

Turku and Naantali should lobby together and even more emphasis should be put on international marketing. Critique was expressed towards the region's political decision makers who, it was felt, do not manage to lobby for the interests of the region on the national level.

Industrial activity has declined rapidly in the region during the last 20 years and, as an effect, the flows of goods have also declined. The logistics cluster would benefit from more actors establishing

themselves in the region, both actors from within the logistics sector and industrial companies. The availability of labour was seen as a competitive advantage as also the co-operation between the local actors, which was described in terms of the climate being much colder in Helsinki. The Pilot Turku initiative (see section 6.3.) was at the time ongoing and by some considered a good development, but by others as being too far from business reality. The estimated employment effects of the LogiCity project felt exaggerated. Further improvements for the cluster were expected from the E18 highway being finalized. Developing the Trans-Siberian railway as a connection to the Far East, was as well seen as providing opportunities for the region.

7.4. Supply networks

In this section the informants' supply networks are introduced. Also on the supply side the informants prefer long-term relationships, which makes the supply networks rather stable. Benefits of long-term relationships are presented as well as situations where changes in the network can occur.

7.4.1 Long term co-operation with partners

There is practically no exception to the rule that formal agreements are being made with those partners that the main provider needs continuously or, for a long-term advanced logistics solution, otherwise the accepted tender is the agreement, be it on paper or not³⁶.

"With new ones we always make a written agreement, or let's say that it is confirmed by an e-mail or something like that" (X14).

There is, however, a trend towards more agreements on paper, even in case of short-term commissions. The agreements (for continuous services) are in general not exclusive. The partner is allowed to serve other clients as well, in practice, however, especially in the Liner

³⁶ Engström (2004) found that neither shippers nor co-ordinators or carriers give much thought to whether they work with the right partners or not. The relationships between the channel participants were often vague in their formal structure. Formal contracts were often complemented by more personal agreements that often were held more important than the formal ones. Also a gentleman's agreement was often used instead of a formal contract. Typically shippers that worked with short formal contracts held that the informal contractual length is longer or even eternal, and the carriers behave as if they had a longer contract. A drawback mentioned by the buyers was that it gives the service providers room for price increases. Service providers mentioned that it creates a stressful situation where the actors find it hard to develop and improve the service.

business many subcontractors have only one customer. There might also be “house rules” that restrict them from doing business with the main provider’s competitors at the same time.

Within long-term service agreements the aim is in general that the same partners would be used all the time (see, however, also the discussion on the customer’s impact on activation, section 7.5.3). Especially in road haulage, the benefits of maintaining long-term relationships are many. Benefits that the informants point out (see table 7.3) are trust in the partner and, in the quality of the services provided as well as in the quality of equipment. Customers want the same person to handle the goods each time; the driver knows the premises and the people and it leads to faster and more efficient operations. Training new ones is costly and takes time and *“it’s easier to deal with old ones”*. (X19)

In addition to benefits, there are also specific needs of the main providers that lead to a certain dependency on old partners. Competition in the specific sub-services of logistics is not always great if one is dependent on specialized services and equipment and/or special skills/competencies. Security regulation on industrial sites which means that not just anybody can enter the premises makes it easier to stick to an approved solution as well as loyalty to the partner with whom one has built a solution and loyalty (*“ethical pressure”*) towards small partners.

The informants could not think of many disadvantages of long-term relationships. One that was recognized was that close personal contacts could make the buyer lose the critical touch (X9) and the partners *“think we are married and raise the prices”* (X25).

Despite the efforts to create and maintain long-term relationships with the partners, the informants did not talk much about deep involvement with the partners, e.g. in terms of service development. One reason could be that the informants are not very much involved

in highly customized logistics solutions³⁷. However, for the future several informants (half of the forwarders and one third each of liners and specialists) wanted to make the relationships deeper. At the same time an equal number of informants were planning to produce a larger number of services in-house. The main reasons given for both these developments were deteriorating quality in the market and, especially concerning road haulage, a lack of capacity. The interviews were done during a period with high demand and low supply of road transport, one year before the dramatic downturn of the Finnish economy.

"In some areas you can see that the prices are rising and the service level is going down, even if it is mean to say so, a small recession would do good right now." (X5)

Still, six informants estimated that the number of partners would grow in the future. Reasons given were cost, growing business, and better possibilities for flexibility. One informant mentioned the problems that can come from being dependent on only one or a few partners.

"Some times a big partner can forget who is the dog and who is the tail and who should do the wagging." (X26)

The use of rental workers, e.g. in warehouses, is a mixed issue. On the one hand it is a common and simple solution to seasonal fluctuations in demand. On the other hand informants are aware of the risks concerning quality and resulting cost and image effects.

Table 7.3. Benefits of long-term relationships

³⁷ Engström (2004) notes that even if the actors in a freight channel work in some type of partnership, it is often limited concerning information sharing, development of channel-competitive advantages and having enough insight into each other's businesses to improve on the efficiency of the whole channel. Reasons mentioned by his informants were an unwillingness to share information since it can be abused, legal aspects, lack of resources and uncertainty of what might come out of the co-operation. Few co-ordinators or carriers were interested in expanding their undertakings in the channel while this would make them more dependent on one shipper. Further, the participants were real, or potential competitors in other relations.

Trust in the partner
Trust in the service quality
Trust in the quality of equipment
Customers prefer a known person handling their goods
The driver knows the people
The driver knows the premises
Activities get faster
Security regulations at customer's site makes it easier to use the same partner all the time
Activities are more efficient
Training new ones is costly and takes time
It is easier to deal with old ones
There is not much competition in all logistics sub-fields
Dependency on specialized services or equipment
Dependency on specialized skills and competencies
Loyalty to a partner who has co-operated in building a solution
Loyalty towards small partners

7.4.2. Dormant relationships

Assuming that a main provider needs a certain service provided by a certain partner now and then but not continuously the question arises what the relationship between them looks like between these activations. According to literature (Hadjikhani 1996, Cova & Salle, 2000) a business relationship is dormant (sometimes also called "sleeping") if only social contacts are taking place between the partners. It can be the time after a business project is finished and before a new one is initiated. In the discussions with the informants, the relationships were called dormant if no social contact either took place between the partners. This should, however, not have any impact on the main issue.

In the Liner business most relationships are active all the time. *"Subcontractors don't like driving on Monday/Tuesday and then again on Thursday/Friday"* (X20). Those relationships that are not active (e.g. to suppliers of special services or the back-up pool) are in general maintained through social contacts, but not always (X5, X6, X9). Customers want more and more frequent deliveries (X1), which leads to fewer pauses in relationships in general, but in the Specialist and Forwarder groups a somewhat larger number of relationships have breaks between activations and are then normally maintained through social contacts, see table 7.4.

In addition to keeping in contact themselves, informants consider also marketing efforts by the partners to be social contacts or feel that social contacts from a partner is a marketing effort. Social contacts are needed so that the relationship is in working order at once when it is activated, *“we keep the flame burning”* (X26).

“the contacts are more on their initiative, we are their customer” (X28)

Table 7.4. Activities between activations

Regular formal meetings
Meeting at events
Marketing efforts by partners
Individual contacts & phone contacts
Social get-togethers in smaller groups

In a clear sub-contractor setting, such as in the Liner business, the contacts consist to a larger degree of formal meetings concerning issues such as quality improvement. While the contacts to other partners can take several forms as can the contacts with customers.

“With some we keep in contact, with others not. It depends on which group they belong to as well, A, B or C” (i.e. how important they are for the main provider) (X12)

7.5. Activation

Activation was in section 4.3 described in terms of a process theoretically containing a planning as well as a selection phase. In this section the activation process is described and discussed with the same theoretical chronology as a structure. Also the division into impact factors used to structure section 4.3 will be used here. The section starts, by identifying the activator, the decision maker, or group of decision makers, who performs activation. Because activation is a process much dependent on the individuals carrying it out, it is important to introduce the activator first. The informants are here explaining how they, themselves, and in some cases, also other individuals in the unit work.

7.5.1. The activator – the decision maker

In half the companies one individual is responsible for activating the supply partners within a service package in the same way as a key account manager (KAM) or an individual contact person can deal with a customer. When larger packages, such as logistics solutions are

being planned, larger groups of people are involved in the activation process, mainly because of the need for deep knowledge of separate types of services or, if a partner is being engaged for the needs of different units in the company. Benefits from several persons being involved show e.g. during the holiday season or in case of sick leaves. If one person is away there is still somebody else who knows what is going on.

It is, however, clear that the individual or individuals who are involved in activation play a decisive role for the outcome. The informants put great stress on personal experience, skills and knowledge of the market as factors needed in activation.


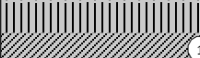



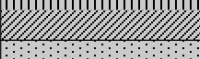
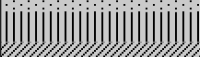


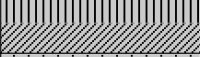
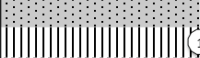




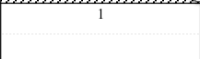



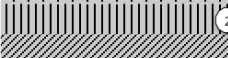








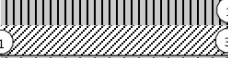
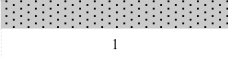





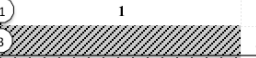
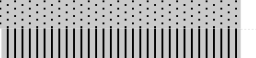





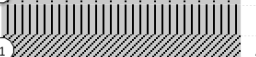


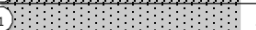
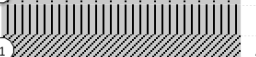
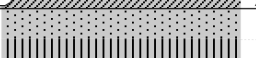










7.5.2. Defining the package

The activation process starts with the definition of the service package. This is done when a customer informs the main provider of his/her needs and discussions are held about the services that should be included. Customers give specifications concerning the goods, volumes and the services needed as well as a timetable. This can take place either at the initial stage of a long-term agreement, in connection to individual transactions within an existing agreement or, as the starting point of a one-off transaction. One-off transactions were by most informants seen as not wanted situations and as not occurring very often (see, however, section 7.2.2). They might, however, also be thought of as a potential long-term customer testing a new provider.

The contents of the service package, in terms of separate services, are then defined, based on the specifications. This can be done either by the main provider alone or, in co-operation with the customer. Here it should be noted that an existing long term agreement between a main provider and a customer can mean that some of these issues have been agreed upon in the beginning while additional decisions can be made by the main provider in connection to the separate transactions. Table 7.5. shows the general pattern of specifications given by the customer, things negotiated between customer and main provider and, choices where the responsibility lies with the main provider. There are not many differences between the three groups of providers concerning this issue. The customers give specifications as to the *goods characteristics, volumes and destinations. Delivery timetables* are either given by the customer or negotiated, in the specialist group time tables set by the customer are, however, more frequent. Negotiations include issues such as *price and value adding activities*. The choice of

how the goods should be handled, (*transport mode and equipment*) is in the Liner Group most often decided by the main provider while Specialists and Forwarders often tend to discuss these matters with the customer. The *combinations to be used within a door-to-door* transport in general falls into the main provider's field of authority while the Specialists discuss also this issue with the customers. The choice of *route*, as well as the *use of subcontractors and partners*, are issues that are decided on by the main providers. The actual choice of partners will be discussed in more detail in section 7.5.6.

Table 7.5. Defining the service package

	The customer specifies	Agreed upon in the discussion between provider and customer	The main provider decides	na
Goods characteristics	   		1 (size limits)	2
Volume	   			2 2
Destination	   	1	 Logistics solution	2 1 3
Delivery time tables	    		1	1 1
Price	1	   	2	2 2
VAL (value adding activities)		    	1	3 2
Choice of transport mode and equipment	2	      Logistics solution 	   1	2 2 1
Combinations within a door-to-door transport	1	   1 1	   	3 1 1
Route	1		    Logistics solution 	1 1 2
The subcontractors' duties, resources and capacity		1	  	1 1
Other	goods that demand special treatment, alimenteries	shipment size, packaging, dangerous goods, excess volumes, length of agreement		
	   	Specialists, majority cluster Specialists, strong cluster Forwarders, majority cluster Forwarders, strong cluster Liners, majority cluster Liners, strong cluster	> 50% of references 30 - 50% of references > 50% of references 30 - 50% of references > 50% of references 30 - 50% of references	
	* one informant pointed out that all three alternatives are used as much			
	 occasional answers			

On average large customer organizations tend to have more detailed specifications and want to influence the content of the service package more. Working with small companies allows the main provider to advice and discuss options more.

“Really large companies with professional logisticians and purchasers make an effort to steer much more. They prepare a list of how things should be done and “if you can’t do that, don’t make an offer”... In really small companies where one person handles these things as his/her third or fourth task beside the main job, more consultancy type help is needed...” (X4)

Still, the main differences are not always correlated directly to the size but more to the importance given to logistics in the buyer organization.

“Also in small organizations you can find very skilled purchasers who know the transport sector well while there are also customers that don’t know more than door-to-door and that somebody should handle the transport.... On average it (knowledge of logistics) is better in large organizations than in small ones but also in large ones some individuals are very active and interested observers of the logistics sector while others are less interested. It depends on the company how much they have invested in logistics. There is not necessarily a logistics manager in all large organizations either but it might be a side-job in the sales or purchasing departments.” (X5)

“You can’t see any difference directly between large and small. There are large companies who have hopeless people in the purchase department, some times you can even say the larger the worse, there is a huge waste of resources. The products might be great but the administration culture in the organization cannot adapt to logistics, the payments practice gets to rule over how logistics is done and makes the costs unreasonably high.” (X14)

The work experience of the individual representing the customer organization also has a big impact.

“The larger the organization and the longer the individual has worked in the sector the easier is the discussion. If somebody comes directly from the school bench the discussion can be rather interesting.” (X17)

“Young people come with a happy, unprejudiced view that everything functions the way it is drawn on a flap board, but reality can be different... those who have been there longer and have stumbled a few times present matters in a different way because they know that it does not always work like that.” (X26)

The informants, however, feel that they are there to solve the customers' problems and feel that they work well in dialogue with the customers.

"Large companies know what they want. But it is difficult to get the information, it depends on you, you must ask and ask, it does not come automatically." (X18)

The trend is that customers have more and more specific demands. The informants do, however, also see some risks arising from the deteriorating skills level among the individual purchasers.

"Many times you wonder with what skills and knowledge they do business, especially now with the EU (= after Finland became a member of the EU) the knowledge level has deteriorated. Earlier when companies had their own forwarding departments they knew everything about transport, documents and everything that has to do with foreign trade. There is a generation shift in the companies, there are new people who don't have any experience of the time before the EU, the business is basically the same, just some functions have been eliminated, but the totality has not changed much. The same information is still needed. And the information that you get, you have to ask what kind of goods, where it is going. The customer can say that they have ten pallets of something and when you collect it there are 15 pallets and they can add something that is going somewhere totally different, they don't think. There is a lot of unnecessary problems, e.g. the terms of delivery; " I just assumed ..."." (X19)

Table 7.6. Summary of the customer’s knowledge and skills in defining the service package

In general large organizations have more specific demands	X3, X4, X16, X23, X24, X30
Skills and knowledge is linked to how much the organization has invested in logistics	X3, X5, X8, X11, X16
There tends to be more trained logisticians etc. in larger organizations	X4, X16
Skills & knowledge tend to be better in large companies	X17, X27
There is no direct correlation between size and skills & knowledge	X5, X14, X28
Time tends to be a bigger issue in large than in small companies	X4
The “quarterly business” creates time pressure	X15
Small companies tend to need more advice	X4
Small companies make fewer demands	X20, X30
Some customers want to know more about the content than others	X8, X18, X28
A lack of awareness of logistics and too little co-ordination with other parts of the organization creates unnecessary cost and other problems	X14, X27
Customers with goods that require special treatment have more specific demands	X28, X30
Some customers might not know what kind of treatment their goods require	X1, X15
The skills & knowledge level is deteriorating	X12, X15, X19
Outsourcing leads to less skills & knowledge in the organization	X12
EU membership has lead to less skills & knowledge in the organization	X19,
Even small companies do foreign trade now and therefore need more help	X23,
The purchaser’s individual experience affects how easy the discussion is.	X17, X26
Many times information comes only by asking	X18, X19, X24, X25

7.5.3. The customer’s influence on the selection of partners

As could be seen in table 7.5. the choice of subcontractors and partners as well as their duties are not discussed in detail with the customer. There are no large differences between the three groups of companies concerning the issue of customer impact on the selection of partners. In each of the liner and forwarder groups, half of the companies (three forwarders and five liners) pointed out that it is quite rare that customers present any wishes or demands concerning partners and, if

they do, the main provider does not really take these into consideration. In the specialist group the issue was more common, only three companies called it rare. On the other hand, only four out of the total of 29 informants said that customers do not, or very seldom do, present any demands or wishes about which company that should be engaged as partner to take care of their goods. All other respondents recognized the situation rapidly and presented several examples of situations where it occurs.

The starting point is, however, that the selection of partners should be the task of the main provider. It can be seen as one of the corner stones of a one-stop-shopping strategy and a 3PL relationship.

"It is not good if the partner is in contact more with the customer and the customer's customer than with us, we are the ones that shall report to the customer so we try to avoid that kind of things." (X9)

"We promise and produce a certain service and how we do it is not really their concern." (X5)

"If they would (present demands and wishes) we would think that they are not satisfied with us and then they would not call us in the first place." (X29)

"In general this (choosing partners) is our business and not the customer's." (X27)

The customer expects the main provider just to provide the needed services and is in general not interested in how the services are being produced. In some instances customers might, however, express wishes about the use of partners. The main provider listens and tries to fulfil these wishes *"It is ok if it makes the threshold to use our services lower for the customer."* (X23) or then not; *"the commission is our responsibility"*(X5), and, *"they see our name..."* (X10, X12, X20) meaning that the services are being sold under the name of the main provider and the customer should / will expect the main provider to take care of everything.

One can see the main provider as a strict gatekeeper between the customer and the partners. On the other hand there are contacts between the persons handling and transporting the goods regardless of affiliation. Individuals from the partner organizations are, perhaps more often than the main provider's own employees, in physical

contact with the goods as well as meeting the customer and the customer's customer face-to-face.

Comparing the main services of the three groups of companies, it seems natural that liners would be less perceptive to wishes from customers due to their production process that is built mainly around fixed routes that are used to serve all customers, compared to the situation in forwarder and specialist companies where a larger part of the services focus on the needs of individual customers.

"...the routes are given to certain subcontractors so we cannot really satisfy any special wishes in a cost effective way" (X4)

The customer impact on the choice of partners is here divided into three areas. The first one is direct impact through setting demands and expressing wishes while defining the service package in contact with the main provider. The second area is indirect impact through e.g. other networks that the customer organization is involved in and the third area is the impact of a long-term relationship between the customer and the main provider. The last area can, however, be seen as a separate case as it is more linked to the decisions made by the main provider than to specific input by the customer. It should be studied further in combination with other aspects of how a 3PL relationship between a provider and a customer works.

Direct impact

Customers might want to use partners that they have become used to working with either in connection to previous service packages or within their own operations, e.g. local small providers. Customers also, sometimes, might want to know who the partners are because of security reasons. They do not necessarily request a specific partner but demands can be made regarding environmental certification or quality and safety related matters. It was also mentioned that customers expect the provider to meet certain environmental criteria but are not prepared to pay for it (X15), (the same was noted also by Nikkanen 2003 and Engström 2004). In road haulage customers might express wishes about using owner-drivers (i.e. that the person who is driving the car also owns it, also called owner-operator, cf. Bardi et al., 2003). The request for owner-drivers can also be traced back to quality.

Requests for specific partners originate in experience and trust as well as knowing that the partner already knows the premises. These

requests can be based on a long-term relationship with the main provider where the same partner has been involved. They can, however, also originate in experience from the customer's dealing with the partner in other situations, or previous to establishing the relationship with the main provider. In addition there might be companies that the customer does not want the main provider to use, due to unsolved disputes or other bad experience. Personal chemistry might as well affect the wishes of customers.³⁸

Indirect impact

The industrial customers' previous logistics arrangements as well as current arrangements for other parts of their total logistics needs, can reflect on the relationship with the main provider. If the customer is engaged in a long and successful relationship with a certain company the customer wants to continue this relationship even if the main provider is engaged to handle the total logistics process (mentioned by 8 informants). Especially the customer's contacts in their own local region impacts on the choices made (mentioned by 9 informants).

"Some factories might have kind of their own carriers and then they take care of those transports." (X1)

"It can be someone that is also a subcontractor to the customer and can take care of both their and our needs at the same time, the reason is functional." (X5)

"If the customer has created a good relationship to a local provider and have good experience of it that is in our interest as well." (X23)

Even in one-stop-shopping, 3PL relationships, one can expect the customer to deal with several logistics providers e.g. for different product groups or different markets. The networks developed for different purposes can in theory seem independent but in fact they can be intertwined or, at least have an indirect effect on each other. A total of 15 informants (4 liners, 3 forwarders and 8 specialists) had experience of this kind of situations.

"Sometimes somebody wants their goods through another network." (X3)

³⁸ In the study by Engström (2004) shippers in a similar manner stressed the importance of confidence in the carrier as well as the carrier's knowledge of the points of delivery in terms of knowing the routines, having access to warehouse, and to be known by the people at the points of pick-up/delivery.

"... sometimes it can be a benefit that they have some knowledge of the sector in advance." (X23)

Only six units (two from each group) were of the opinion that the customer's other relationships do not impact on their choices.

The impact of long term customer relationships

In most cases agreements with customers are made for a certain period of time, e.g. one year or longer for customized solutions. It can be assumed that there would be a link between a long-term agreement with a customer and the activation of partners to the service package; that the partners would also be engaged for the whole period. It stands to reason that a relationship benefits from the learning that takes place between all the involved organizations.

The general picture is that the same partners are used throughout as long as no problems arise (6 liners, 4 forwarders and 3 specialists, with two more; one forwarder and one specialist, saying that it sometimes happens). This can be the result of a conscious decision but many times it can also be described as a situation that just develops this way over time. Still, a total of 6 companies (three specialists, two liners and one forwarder) gave a negative answer to this question, mainly, however, stressing the fact that they are not forced by any agreement to stick to the same partners.

"We can't. We use those that are available and we expect them all to function well." (X4)

When and why do main providers conform?

As pointed out earlier main providers are not obliged to follow the requests set by customers on the choice of subcontractors. However, doing so makes sense from a marketing and relationship management perspective.

"Yes, we are here for the customer. What we do we do from the customer's perspective. If the customer has created a good relationship to a local provider and have good experience of it that is in our interest as well ... It also makes it easier for the customer to start using our services." (X23)

There are also several functional reasons in favour for listening to the customer such as gaining local knowledge about regions and companies, as well as benefits from using a partner that already

knows the setting (i.e. the customer, the premises, the kind of goods, the route).

"In some local areas some carrier might function better than another one ... Also in regions where we don't have much business." (X3)

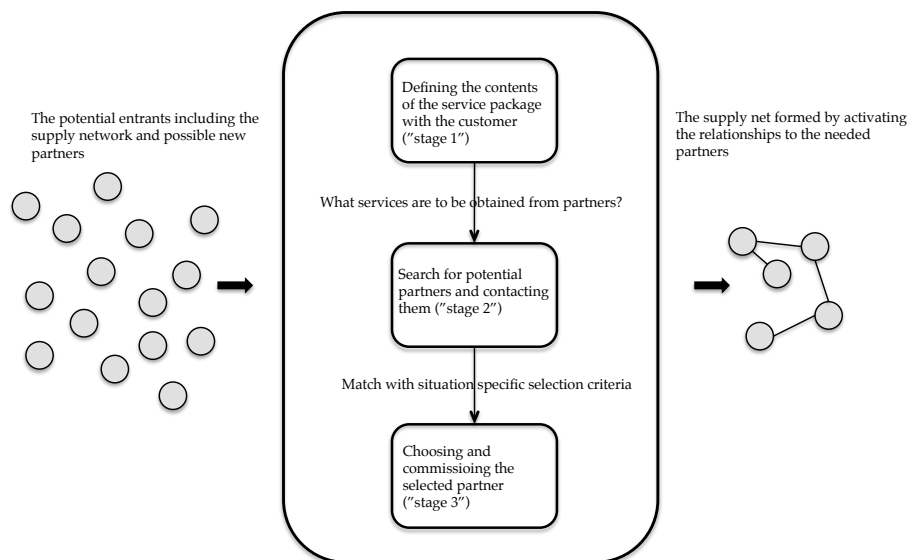
In relationships with an imbalance in power between the main provider and a large customer it can also be a must.

"...but we do, and we have to, listen to wishes about who handles some certain local services" (X8)

7.5.4. The activation work process

When the requirements have been set the work continues with the actual selection and commissioning of partners for the specific tasks. Figure 7.1 shows the step-wise structure, which is, however, used only to ease description and analysis, in real life all issues are handled simultaneously.

Figure 7.1. The activation work process



As mentioned, activation is an ordinary daily activity that is not given much extra thought in the provider organizations. At the same time it is an important part of the creation of service packages that serve to

satisfy the customers and create competitive advantages. To find out how this duality is managed it is necessary to consider not only the work procedures followed by the individual activator but also the links between strategy and the operative / tactical level in the form of rules and guidelines concerning the activation process as well as pre-set criteria that should guide the selection of partners.

“Unfortunately not, (= do not have a formal structure) ...starting to think about it, it might be that we do have one but we don’t recognize it ourselves, we have indeed drawn process charts about how we work but we haven’t thought of it as subcontracting, even if subcontracting is a central way of working...we don’t see it as a purchasing process, it is so central that we don’t need to think about it that way anymore. It (activation) is just a way of working.” (X14)

At the time of the interviews ten companies were ISO-certified and one more was planning to start the process in the near future. The activation process is in general described in the quality handbook in some detail and it thereby guides the process. Still, the process is not always considered very formal. If the unit is planning a bigger logistics solution for a customer, the work process is more structured than concerning freight services. Also, choosing a partner for long-term co-operation tends to make the procedure more formal. In forwarder companies customers’ needs are so different that they affect the activation process as well and time is often a barrier for using formal structures.

“No, there is so much variation among our customers that there cannot really be any established structure, it can be a lump this size (shows with hands) going to a city nearby or it can be huge machine that needs a totally different treatment.” (X25)

“We do have a rather established procedure in that we choose a few subcontractors that we negotiate with up until the finishing line...we also look at financial data. And quite often we also call an acquaintance and ask if he/she knows what the subcontractor is like. These are no certified things, it’s just how we always do.” (X8)

Many informants, especially among the specialists, stressed the importance of individual know-how and experience and the impact this has on creating “an individual job structure” (an expression used by six informants).

The work process is documented when there is a need for it, either on the customer's request or as part of the quality process. The written agreements as well as the accepted offer might form the documentation. E-mails and such are saved for some period of time and can also be considered as documentation.

Guidelines for whom to choose

In Liner companies as well as in large organizations in general, formal guidelines exist concerning the type of partners that can be used. Quality handbooks as well include some guidelines about this matter. In the other companies in the Specialist and Forwarder groups these formal guidelines are not used. Informal rules were by the informants understood as discussing experiences etc. within and between company units. These guidelines can be seen as hints if they come from people at the same level in the organization and stricter instructions if they come from above.

"Since I am a manager I will say no, that there are not that kind of instructions, but if I go to the customer service desk they will say yes, because if I tell them what to do they'll have to do it, it depends on how you look at it." (X27)

"Well, there are probably always some of these, after all we work with people" (X11)

The informants do not, however, feel obligated to follow informal instructions to the letter if a certain choice can be motivated in another way (mentioned by seven informants).

"It works so that we are not instructed about whom to use but we all know whom not to use." (X14)

"It is mainly your own experience that is decisive. Even if my boss comes and says that "use this one" it doesn't have to mean that it is the world's best solution just because he knows him and I don't....It doesn't have to mean that the co-operation between us would work (between informant and subcontractor)." (X29)

Information also flows between individuals in different companies. It is a strong example of how social networks can have an impact on business.

"A colleague or somebody else somewhere might say that "don't under any circumstances use that one, he messed up our business, dumped the prices",

we do get this kind of information, especially negative, and why not positive as well that "we have tried this here and it is quite a good company and it works over here so if you need then call them", but these are not really instructions, they are daily, things that pop up in the discussion." (X24)

Within large organizations some of the selection processes are done centrally leaving activation of only parts of the used subcontractors and partners to the local unit. This can be the case e.g. if a large organization works with yearly contracts with a sea carrier due to extensive use of the services within several of the company's units.

Time available for activation

The time used for negotiating a new customer agreement can be extensive; depending on the contents of the package and the companies/industries involved, ranging from a few weeks to more than a year. If the service package consists of a logistics solution the partners are involved already in this stage. When discussing a package with a clearer freight-image, activation is seen as the procedure that is taking place in the beginning of each separate transaction included in the general customer agreement. Those everyday decisions are in general done fast and, even faster when the goods arriving does not match the information given by the customer at an earlier stage.

"It depends, the industry defines it a lot, companies within basic industries have very even goods flows so they naturally, normally, contact us in good time...but then there are many companies with a totally different kind of business and they can be rather late. They might well call an hour or two in advance and ask if we can handle the goods." (X12)

In general customers with even goods flows send the notification at an agreed upon time before the transaction needs to take place; depending on the services required, the volume and the need for special services from one week to half a day in advance. Planned volumes "fall into the process" in the Liner business, but, from time to time goods arrive with the request "should be at the destination tomorrow".

"The reaction time is really short compared to these needs; after all we are no taxi company that would just have a line of cars waiting." (X10)

“There is no time for planning...if I don’t have the equipment they will call a competitor instead.” (X15)

The informants stress the lack of time.

“With this kind of rolling things like e.g. our own routes it goes in a fast rhythm normally, order today, transport tomorrow. Actually we don’t even want the orders much earlier...normally it is stated in our agreements how long time we want for planning, but normally it is of no consequence, it is not something that we can refer to when customers order too late, it always becomes the practice but we do work with a rather hectic timetable.” (X11)

“Some times minutes, sometimes days, this is a very hectic business and I have said that the transport sector in general is about continuous problem solving.” (X14)

Finding the potential partners

When the customer’s requirements have been transformed into the separate services that are to be included in the service package, appropriate actors need to be commissioned to provide them. In the theoretical work process this is done through two steps, first choosing potential partners and then selecting and commissioning one of them. When discussing how potential partners are picked, the informants had the possibility to look at a table with different options concerning collection of information about alternative partners. Even if the empirical data was not collected in a way that would fully support statistical comparison, it is still to some extent interesting to study the arising pattern. Especially when dividing the companies into the three profile groups, see table 7.7.

The main skill needed for activating is knowledge of the market. Out of the 26 companies that touched upon the issue 17 (75%) said that the decision is always based on the market knowledge of the person activating, while the rest of the informants used the expression “often”. General (public) market information is used “sometimes” by 11 informants (48% of those discussing it) whereas “often” or “never” by 6 companies each. Nobody collects market information every time. Specialists are to a larger degree than the others depending on their own knowledge of available options, in part because they often need rather specialized services, where not many competing options exist. General tenders are not used much, “never” was mentioned by 13 companies and “seldom” mentioned by three companies. It is,

however, a method that fits certain situations when price is the decisive factor³⁹.

“Many of our customers use general tenders for these basic freights every day, so in that sense one might say that using general tenders or tenders to a certain group is more common for freight services than for logistics solutions...when you start deeper co-operation the importance of price diminishes and the importance of reliability and these other functional qualities grow.” (X14)

³⁹ The tendering process was in Engström’s study (2004) found to include the following steps, with some informants doing them simultaneously: (1) Identifying potential co-ordinators/carriers fulfilling the basic requirements. (2) Carrying through a tendering process, where many stressed that the pre-set requirements should be so clearly defined that price would be the only remaining important variable. (3) Sorting the offerings. (4) Select a few carriers and if necessary perform a second tendering process. An argument for not performing a full tendering process is that it is time-consuming and expensive. The process typically involved three to ten participants depending on the scope of services tendered. Some co-ordinators and shippers felt pressed for time, having to move fast and just call some of the well-known carriers or co-ordinators to ask them for a price (2004, p. 216).

Table 7.7. How potential partners are found and contacted

	Always	Often	Sometimes	Never
Own market knowledge	14	1	0	0
General market information	0	14	1	1
General tender (or e.g. auctions)	0	2	1	1
Invite tenders from a certain group	1	1	2	1
Direct order to one company	0	2	1	0
Contact made by sub-contractor	1	1	0	0
Specialists, majority cluster	0	0	12	0
Specialists, strong cluster	0	0	8	0
Forwarders, majority cluster	0	0	12	0
Forwarders, strong cluster	0	0	8	0
Liners, majority cluster	0	0	12	0
Liners, strong cluster	0	0	8	0
① occasional answers				

(Not all informants discussed this issue in detail.)

Only a few informants mentioned electronic auctions and, out of them, one said that he uses them. Tenders to selected companies are common, mentioned as being used “often” by 14 informants and always by one. Direct orders are placed “often” by eight informants and “some times” by 12 while one says it is never done. Especially the liners, who have a pool of potential subcontractors waiting, will contact one of them. More than half of the Liner informants felt that it is more a question of potential subcontractors contacting them than the contrary.

"I have this pile in the drawer with phone numbers that I receive by phone when they offer us cars and I always make notes and tell them that we'll get back to them when there is something and so we kind of find the partners through experience and acquaintances, and that's where we look and then we start to choose the appropriate equipment, what is being offered and what we are looking for." (X24)

Social networks are extensive and important in the logistics sector and, the impact of social contacts on this part of the activation process show clearly.

"So far we have found our suppliers by phoning acquaintances within the sector who know somebody who knows somebody who can help. This way we have built a network where somebody always can help." (X30)

Staying tuned

As could be seen in table 7.7. informants rarely collect general market information in connection to the activation process. One explanation for this is that they make quite an effort at keeping up with market developments in general without any need to allocate this activity to any specific search for partners or customers. A typical example is the answer given by a Liner informant to the question "how do you collect information?" *"Well, I work."*

The sources of information mentioned by the informants can be seen in table 7.8. The information sources can be divided into formal (e.g. media) or informal (e.g. word of mouth) as well as general (e.g. on the economy or the logistics sector in general) or local (developments in the Turku region). The table should be treated as a sample of what informants use, rather than an exact list. Some informants did e.g. not always list all the associations that their unit or some individual in the unit was a member in, while others made an effort to collect all of those names.

"Through media you hear a lot...but mainly through the grapevine, most things you hear first from somebody you know. There is rather much activity here in Turku...and the place is rather small so everybody knows each other, about four to eight events are arranged here every year where you meet almost everybody, regardless of who arranges them, even one-to-one discussions and exchanges of thoughts." (X8)

Table 7.8. Information sources used by the informants

Information sources mentioned	N:o of informants
Media (including also company /competitor web pages)	18
Actors arranging meetings as well as membership associations:	
• Turku Chamber of Commerce	6
• Port of Turku	8
• Turun laivanselvitys- ja huolintaliikkeiden yhdistys	5
• The Finnish Association of Purchasing and Logistics	4
• Logistics Turku Region/ Pilot Turku /Logicity	3
Meetings and trade fairs	6
“Discussions”	11
Drivers, partners, customers	3
Informant contacting e.g. interesting companies	7
Word of mouth (various expressions used)	11

“All of these and a little more. I have lunch in x and so...and among our customers we have...(several types of logistics companies) so you need to hang with these guys, then you’ll keep rather well informed.” (X11)

“You need to walk with your eyes open, if you see a ship or a truck with unfamiliar colours in the harbour or at the petrol station, you find out; who is that, what do they do?” (X26)

“Customers talk quite a lot, even about competitors, or in general about the sector.” (X28)

The social network was in section 7.3.3. discussed from a broader perspective, not specifically focusing on how it is used for activation. As could be seen, a substantial amount of social networking takes place between the main providers and various kinds of actors, both from within the logistics sector and industry, as well as other actors such as state or city agencies.⁴⁰

7.5.6. Choosing the partners

As could be seen above, the actual choice of a partner is most of the time done from within a pre-defined set of companies that the main

⁴⁰ In Engström’s (2004) study all carriers and co-ordinators pointed to their personal network of contacts as their largest and most important source of information. Further they were of the opinion that contacts in the trade as well as historical/traditional relations affect tendering processes and selections.

provider has previous good experience of. This goes both for the choice of subcontractors into a Liner's road haulage network, as well as partners needed for other services within the Liner Group. In the Specialist and Forwarder groups as well, continuation, based on good experience combined with an acceptable price level, is what is aimed at.

Selection criteria can from this point of view also be seen as a way to express what kind of experience that is considered as good, leading to a continuing business relationship.

While discussing selection criteria, the informants also had the possibility to look at a ready-made list of criteria. In addition to picking important criteria from the list, the informants reasoned their choices and discussed how different criteria are connected, as well as added other important aspects to the issue. Table 7.9. shows a summary of the informants' choices. The informants' views of how the criteria should be combined and when specific criteria come into play, are presented and discussed in the text.

As mentioned the interviews were done at a period with high demand and low supply of road transport, this naturally affected the views of the informants.

*"The most important (criterion) is **availability** or **capacity** since that cannot be taken for granted today...you will get the service but not necessarily at the right time."* (X14)

"...for short term needs we have to take the one that we can get, the other issues become more important when we are looking for long-term co-operation." (X18)

Important criteria that any company, wanting to be considered in the choice of partners, needs to fulfil are the **content** of the services offered and the right **relationship between quality and price**. Some informants stated that customers are interested in price mainly, but that should perhaps be defined as the right quality to the lowest price.⁴¹ The informants were also sensitive to how the partners

⁴¹ Most shippers in Engström's (2004) study stated that qualitative variables are more important than price, but when a certain qualitative minimum level is reached price can be decisive. Such qualitative (soft) factors were the feeling of working with the right partner, personal contacts, and the history of the relation. Shippers experienced inertia in the tendering process when they were satisfied with the currently used coordinators and carriers and performed a more intense process if not satisfied.

interact with the customer and customer's customer. For several informants, out of all three profile-groups, this was considered a pre-requisite. However, it is also something one cannot judge without pre-knowledge of the potential partner. As an issue related to the customer, one informant also pointed out that the partner should fit the image of the customer.

Table 7.9. The Informants' selection criteria

Quality	Starting point for being considered an alternative	Considered while choosing between alternatives	Seldom or never considered within the selection process	na
Quality				2
The potential subcontractor's service offering				4
Customer treatment				2 2
General characteristics of the company				2 2
Price				1 1 3
Timetable/frequency				3 2 5
Previous experiences				3
Established relationship				1 4
Personal relationships				1
Position in the local business network				2 1 2
Technical compatibility				2 2
Participation in horizontal networks				2
		Specialists, majority cluster	> 50% of references	
		Specialists, strong cluster	25 - 50% of references	
		Forwarders, majority cluster	> 50% of references	
		Forwarders, strong cluster	25 - 50% of references	
		Liners, majority cluster	> 50% of references	
		Liners, strong cluster	25 - 50% of references	
		① occasional answers		
		Ⓛ Separate answer for logistics solutions		

In the ISO-certified companies standards are set concerning approved companies, especially concerning **economic stability** and **technical quality of the equipment**. The definition of **quality** is, however, broader than that, see table 7.10.

Table 7.10. Contents of quality

Economic stability
Flexibility
Reliable performance
Keeping promises
Skills/competence
Social skills (driver meeting customer)
Technical quality

Flexibility is one of the most important elements, but also reliable performance, keeping promises, skills /competence, as well as social skills (the driver in contact with the final customer). All these elements were also mentioned without specific reference to quality.

Service quality cannot be known before the services have been provided unless one has previous experience from dealing with the company or can gain knowledge of it through word of mouth.

Table 7.11. How to gain knowledge of the service quality

Reputation	X17, X22, X24, X25, X26
Image	X4, X16
Own experience	X4, X5, X11, X14, X17, X20, X21, X26

The reputation and image of the potential partner as well as the main providers own experience of the company are hence important. Their importance grows the bigger and more long-term the package is that is being built. This fully supports the discussion in section 7.4.1. concerning the main providers preferences for working with long-term partners.

“Their activity is part of our total quality...marketed in our name.” (X4)

Logistics solutions as well as freight services on a continuous basis make things such as reliability, competence and previous experience of the company even more important. The personal relationship between the individual doing the activating and the contact persons in the partner companies develops over time and is seen as important

for knowing what is available and knowing which companies that fulfil the requirements.

"When you work with these issues for 30 years you learn who can do what..." (X26)

Trust can develop between organizations but first of all between individuals. *"You need to be able to trust that your partner doesn't start competing against you to get the customer"*(X30). A risk with too close relationships is, however, that *"the buyer loses the critical eye and the partner starts to charge too high prices"* (X9).

Organizational networks, such as the main provider and the potential partner belonging to the same company group or, the potential partner being established on several markets, were considered to some extent. These factors can bring economy of scale and efficiency in operations. An important issue is, however, that the potential partner is not at the same time involved in co-operation with a main competitor (X18, X23, X24, X9). One informant stated a preference for working with small companies.

The **position** of the potential partner on the local market was by the informants understood as image or reputation:

"...in Turku everybody knows who are considered to be good and strive at using them" (X26).

"in x (a market) where we are not well known it is good to co-operate with a company who is (well known)" (X21).

Technical compatibility refers mainly to the use of information and communication technology. The informants did not see it as a big issue but recognized it as becoming more important in the future. Compatible IT solutions are taken into account sometimes but mainly not. For communication, some companies provide their subcontractors (e.g. drivers in road haulage) with communication tools; others ensure that the communication works but do not set very specific technical requirements for how it should be done.⁴²

⁴² Engström (2004) reports that shippers (i.e. customers) to a large extent agree that price is the most important, and often the decisive factor, for participant selection in a freight transport channel, given that some minimum requirements on other service characteristics are fulfilled. Engström, however, points out that these requirements might be tough and very important in the selection phase.

7.5.7. When does activation take place?

As mentioned earlier, introducing *new* partners into the supply net is rare. Mainly it is done when the need for capacity or new kinds of services occur. Another reason is if the main provider finds itself in an unsatisfactory situation such as prices rising, quality deteriorating or , an old partner exiting the network.

“As long as it works don’t fix it” (X9)

“We are like a devoted spouse” (X10)

Activation of *one out of several* existing partners within a network is on the other hand a regular daily activity that is not even considered a big issue by the informants. There are, however, strategic implications that will be discussed in section 7.7.

Despite, or because of, the activation of new partners is quite rare, informants rapidly provided reasons for when it can happen. These have been summarized in table 7.12.

The table shows several kinds of reasons with the main ones being growing business and short-term special needs, which in most cases can be understood as problems. Even if the aim is for long-term relationships, one can also see the importance of price-competition.

Table 7.12. Reasons for new entries/ activating somebody else than the obvious choice

Need for more capacity (temporal or growing)	X1, X4, X9, X10, X12, X15, X19, X20, X23, X24, X25, X26, X27, X28
When new long-term customer agreements including new demands are being signed	X1, X5, X8, X9, X16, X18, X14, X20, X21, X27, X28
Going to new geographical markets	X17
Short term special needs that cannot be handled by the existing partners	X1, X9, X16, X21, X25, X26, X27, X28, X29
A partner makes a mess and needs to be replaced / complaints from a customer	X3, X4, X7, X8, X10, X17, X22
The service level / service quality of the partner has dropped	X2, X3, X5, X8, X12, X23, X28
Temporal technical problems	X24
A partner stops offering certain services	X28
The partner ends the relationship	X10, X17, X18, X20
Price level (compared to service)	X2, X7, X13, X21, X22, X25, X27, X29
New companies introduce new services	X17, X29
Not wanting to be dependent on only one supplier	X27
If it makes logistical sense to change a system	X24

Testing new alternatives

Reluctant to start using new partners the informants still say that they are willing to do it under specific circumstances. The need to improve an unsatisfactory situation has already been discussed. In addition, new alternatives can and will be *tested* from time to time. In general, testing means just handing out a normal commission (mentioned by eight informants), but the new ones can also be used “on the side, as a job trainee” and will be under special control (mentioned by six informants).

Table 7.13. Reasons for trying new alternatives

To check the price level on the market	X9, X13, X30
To benchmark services or to find out about new services	X22
A reaction to marketing efforts from potential new partners concerning e.g. new services	X2, X6, X12, X17, X21, X28, X29

The testing is preferably done during slow (not peak) seasons (X23) and within old customer relationships (X27). Sometimes testing might be done perhaps without a real intention to break an old relationship; *“playing large potential partners against the existing large ones to control the price level”* (X30). The risks with testing if the old partners know about it are that the old ones feel threatened or at least irritated (X16, X24).

7.6. Horizontal co-operation

“Especially in this industry (logistics) favours and return favours are being exchanged. Commissions and goods are being mediated and split; even invitations to tender are being mediated.” (X25)

In section 4.4.6 horizontal co-operation as well as the competition – co-operation dualism (co-opetition) were discussed from a theoretical point of view. Two different kinds of situations were discussed with the informants. The first one is when another logistics provider, in its role as main provider, engages the informant’s organization as a partner. In addition to acting as main providers the studied units also have functional roles, stemming from the submarket within the logistics sector that they belong to. As was seen in section 7.2.2. they also sell their services to customers within the logistics sector and thus become engaged as partners, in order to perform their own core services. A shift of roles takes place between two companies in a relationship, some times one is the main provider and some times the other one is (X11, X25). The second kind of situation can be expressed in terms of informal short-term co-operation. Informants easily recognized these two kinds of situations and the differences between them. As to the preconditions, benefits and implications many similarities can be found. Only one informant stated that the unit he represents only competes, not co-operates, and two more informants said that it seldom happens. Co-operation made sense for one only if the co-operating partners do not compete but are specialized in different services or, in case of capacity problems. The first situation is described as *“the normal way of doing business in this industry”* (X13, X14, X15, X17, X18, X21, X24). Being able to some times work with competitors might be a precondition for the business (X28). The second situation is also seen as *“a typical business characteristic, this is the way it works (in relation to volume fluctuations)”*(X11) and it is *“an old tradition or habit in this industry”*(X4), be it that it perhaps is starting to become *“a thing of the past”* (X15).

7.6.1. Who are the competitors?

Before going into details about the two situations mentioned above, there is a need to discuss the issue of competitors. As mentioned earlier (in section 7.2.1) practically all logistics companies will provide all sorts of logistics services to their customers, with the help of their partner networks. Based on that, one could consider them all to be competitors. However, informants seem to make a difference between other logistics companies, treating some of them as only partners or potential partners, and others as mainly competitors. A first distinction can be made between companies that do work as main providers and hence can compete for the same industrial customers, and those that only serve customers within the logistics sector, such as many of the small road haulage companies included in the Liners' subcontractor networks. Among the potential main provider companies, informants tend to look at some companies more as partners and others more as competitors. In general, companies with the same functional role in the business network tend to be seen as competitors. In case of specialization on certain customer industries or geographical areas, these factors can also be seen as defining the competition. In addition there is a tendency for informants from small and medium-sized companies to see the large organizations as competitors.

"If a customer, who is at the moment also working with our partner, asks me to tender for a service I say that the service does not fit us or give a high price but, if I compete against one of the big companies I give a reasonable price." (X30)

On the other hand, informants from both large and smaller units see a difference between companies in the possibilities for being flexible, which is needed in case of informal co-operation (see table 7.14). Returning to the two versions of horizontal co-operation, the first one can be understood as co-operation between companies that do not treat each other harsh competitors even if they both have their own industrial customers. There is, however, no straight line between competitors and non-competitors.

"We compete for all new transport needs from all customers but once an agreement has been made and a solution has been built we don't go back there after two weeks trying to ditch their main provider." (X27)

In connection to customer orientation, the issue of “keeping the customer happy” was discussed. It can lead to a unit organizing odd jobs that do not fit their normal line of business. In arranging this kind of services the use of potential competitors as partners is not unusual. Another alternative can be to give the customer a hint concerning another company that might be in a better position to arrange a certain package (X1, X7, X27, X30)⁴³.

Also in case of sudden, short-term lack of capacity a main provider might turn to a friend or, when abundant capacity exists, offer it to a friend. The use of the word *friend* in this context is deliberate because this kind of working requires strong trust between the individuals, many times referred to in terms of the gentlemen’s agreements that used to structure the activities in the sector before the tendency to draw up written agreements developed (X11, X13, X19, X28, X29, X30). It is important “*not to step on some body else’s toes*” (X13, X18) and to follow the “*unwritten rules*”(X2). The unwritten rules might be understood through the expressions used by the informants X27 above and X11 below in this section.

If one of the companies represented by the informants works as a partner to another logistics provider, (as almost all of them do from time to time with only a few exceptions), the organization that hands out the commission and pays for the services is the customer of the informant’s unit.

“There is a kind of code of honour, ...if we need to work with a competitor and we have the same type of customers and we take care of their commissions, it is a silent contract, a gentlemen’s agreement, we don’t go behind their backs and we don’t advertise (the co-operation)” (X11)

In general there is no direct contact between the partner and the industrial customer outside of the specified activities, unless the service package consists of a large long-term logistics solution where trust has developed within the whole network over time (X9).

7.6.2. Informal co-operation

“It is the basis of our existence, there is no other way to act.” (X14)

⁴³ During one interview a person from another company located nearby dropped in with an invitation to bid that had arrived from a potential customer. After a short discussion with my informant both came to the conclusion that none of them were interested in bidding and that somebody else could take care of that job.

“There is nothing unusual about small companies co-operating but having big companies doing it must be rather unique.” (X11)

As presented above, the situation where the informant organization is engaged as a partner can be seen as looking at the business transaction that activation leads to, from the partner’s perspective. The second situation, where two main providers help each other, can be considered a special case since it can take place also between companies that do consider each other as competitors towards industrial customers. For this reason a rather strict format can be considered to exist for this type of informal co-operation, see table 7.14. Co-operation can take place e.g. by dividing the goods between providers based on geography instead of both driving the same route with small loads or unbalanced loads. Dividing routes makes sense for the informants because of the scattered markets in Finland (X23) as well as rather small trade flows (X12). Also, it makes ecological sense to use a smaller number of trucks (X5). Another option is when one of the providers runs out of capacity (due to seasonal fluctuations or sudden problems) and prefers help from somebody else instead of making big investments or, if special equipment is needed.

Co-operation, especially in the second situation, is in general a choice based on personal trust and friendships.

“It can be done only between individuals who know and trust each other; the ones who are the least dangerous.”(X26)

The gentlemen’s agreement must be respected; an example given by two informants is that if one is a partner towards a main provider one does not contact their customer and try to take over the contract (X27, X28).

“There have in fact been many operators like that (trying to steel customers) over time in Finland. But they have, if not as a company then as an individual, run into a dead-end, for understandable reasons, because nobody wants to co-operate with a person or a company like that.” (X27)

At the same time the business setting is clear, one does favours only when one knows that one can expect a favour back, the co-operation must be mutual. Customer agreements are a company secret⁴⁴ but the services are being put together of rather standard components (X14,

⁴⁴ The content of the agreements is a secret but “locally customers tell who they are working with and the information goes around” (X28)

X28) which perhaps makes co-operation easier than in the production of various kinds of physical goods. Further, the Turku logistics cluster is rather small, locally *“everybody knows everybody”* (X13) and there is a certain feeling of solidarity between companies.

The main benefits of all kinds of co-operation are the possibilities for cost savings as well as optimizing the use of equipment and capacity. Trying to be the main provider in every service package is not necessary. The most important thing is *“to get the goods to move smoothly”* (X1), *“that the service works”* (X19) and *“it is better to be a partner than not to be included at all”* (X10, X21, X22, X24).

Table 7.14. A summary of informal co-operation

Informal co-operation, main reasons	
Geographical route co-operation to reduce small loads or load unbalance	X1, X2, X3, X4, X5, X9, X12, X18, X19, X23, X28, X30
Temporal lack of capacity or need for special equipment	X1, X4, X7, X11, X18, X19, X23, X25, X29
Benefits of informal co-operation	
Cost savings	X26
Optimizing the use of equipment and capacity	X12, X29
Get the service to function regardless of whose it is, the cluster benefits	X1, X19, X16, X25
Prerequisites for informal co-operation	
The co-operation must be mutual	X6, X15, X16, X18, X27, X30
Personal trust and friendship	X7, X8, X26, X30
Flexibility	X1, X2, X7, X13, X28
Respect the gentlemen’s agreement	X19, X28
A feeling of solidarity between companies in the local cluster	X13, X29

Especially small companies gain from co-operation due to limited resources that make it impossible to make big investments (X23) and to compete on all routes and markets (X30) even if customers ask for anything. Small companies also have greater difficulties with load balance (X3). Co-operation is important especially for them, *“a must”* (X3, X18, X28). At the same time it is easier for small companies to be flexible, large organizations are stiffer and the small ones *“gain because they know who can do what and who can help...and flexibility is important...in big companies it can be difficult to get hold of the right*

person”(X1). The Turku region also benefits if commissions can be kept within the cluster instead of going somewhere else (X16, X25).

7.6.3. Horizontal co-operation as strategy

In answering to a straight question, informants did not feel that co-operation between potential competitors could be a strategic choice, or that they would use it in a strategic manner. *“It is more a question of survival than strategy”*(X11). Several comments were, however, made about issues that could be claimed to have strategic impact. These are presented in table 7.15. and are discussed below.

The first group of comments has to do with **customer** demands: the need to be able to arrange total packages /full solutions for customers who want one stop shopping. In order to do that, one needs partners that make it possible to offer specific services. An informant also mentioned service development in co-operation with partners; *“to create something together that will bring the customer to us”* (X10). The second group involves the **production** process. Without the possibility of rapid short-term co-operation larger capacity investments would have to be made. The co-operation also leads to improved load balance, which improves the cost structure. The perhaps most interesting comments have to do with **future** operations (see table 7.15). Even if the comments are few they well illustrate a deep understanding of how the work needs to be done in a sector where contacts and relationships are essential.

Table 7.15. Co-operation with a strategic angle

Customers	
The need to be able to arrange total packages / full solutions for customers who want one stop shopping, <i>“if we can’t do it somebody else will”</i>	X9, X11, X24, X25
<i>To be able to offer certain services</i>	X28, X30
<i>To create something together that will bring the customer to us</i>	X10
Production of services	
<i>It is a strategy in the sense that we know that investment cannot be done according to peak levels.</i>	X4
<i>It is a competitive advantage that you can get return loads</i>	X1
<i>It helps companies stay with their chosen strategies</i>	X25
<i>Getting rid of balance problems is a strategic issue</i>	X2
<i>Individual strategy, way of working</i>	X27
Future operations	
<i>It creates unofficial confidence and trust (= personal confidence and trust between individuals working in different companies).</i>	X9
<i>If a partner company gets more business their economy stabilizes and they can renew their equipment faster, which benefits us.</i>	X8
<i>We are dependent on keeping in good books with some companies and give them business.</i>	X13
<i>These (co-operation issues) are perhaps not strategic issues but they have to do with creating the network.</i>	X8
<i>(The changing roles) are the most important preconditions for companionship, one partner cannot always dominate but the one with the best substance should deal with the customer, even at different points in time with the same customer.</i>	X27

7.7. An analyzing discussion

While processing the empirical data, the role of the activation process has emerged as a more and more central part of producing services that satisfy demand. It also constitutes the first step of the service process. While the research questions will be addressed in chapter eight, this section provides an analyzing discussion of the activation process from the perspective of the informants. It is focused on some significant differences that have to be kept in mind regarding

customer relationships and main provider profiles. In addition, the empirical conclusions will be discussed concerning the content as well as the network links of activation.

7.7.1. The starting point

The intertwined impact of the factors presented in section 7.5, (the issue, the decision maker and level of decision making, process, time, selection criteria, as well as impact from customers and the network context) forms the layout of the activation process in a business unit. There are clear similarities between the units within the provider profile groups and differences between them. As can be expected, the main intra-group similarities as well as the biggest differences to the other groups exist in the liners' group. The specialists, even if being specialists offering very different kinds of services, also show similarities between them as well as differences in comparison to the other groups. The forwarders stand in-between these. One can see a hint of a pattern within the group and differences towards the two other groups. However, since the forwarder group is only half the size (six units) compared with the liner and specialist groups, it wouldn't do the forwarders justice to make very sharp conclusions about these similarities and differences. It must also be remembered that some of the informants in the forwarder group would prefer the expression carrier. The definition of carrier is, however, vague and is in literature used with contradictory connotations (cf. section 3.1.1).

As noted in chapter one, the term partner is here used for all logistics companies that the main provider works with. The decision to do so was made mainly because partner was the term used by most informants for all suppliers. In general the informants used the word partners for the customers as well, which can be seen as a sign of the aim for long-term customer agreements. As to the partners within the logistics sector, the relationships between the Liners and the road haulage *subcontractors* are clearly different than the relationships to *partners* providing other kinds of services in all three provider profiles groups.

7.7.2. When activation takes place

A substantial part of the service packages are handled within the framework of long-term partner networks where the partners are not changed often. From that point of view, activation of a (existing) relationship seems an appropriate term for the process that is

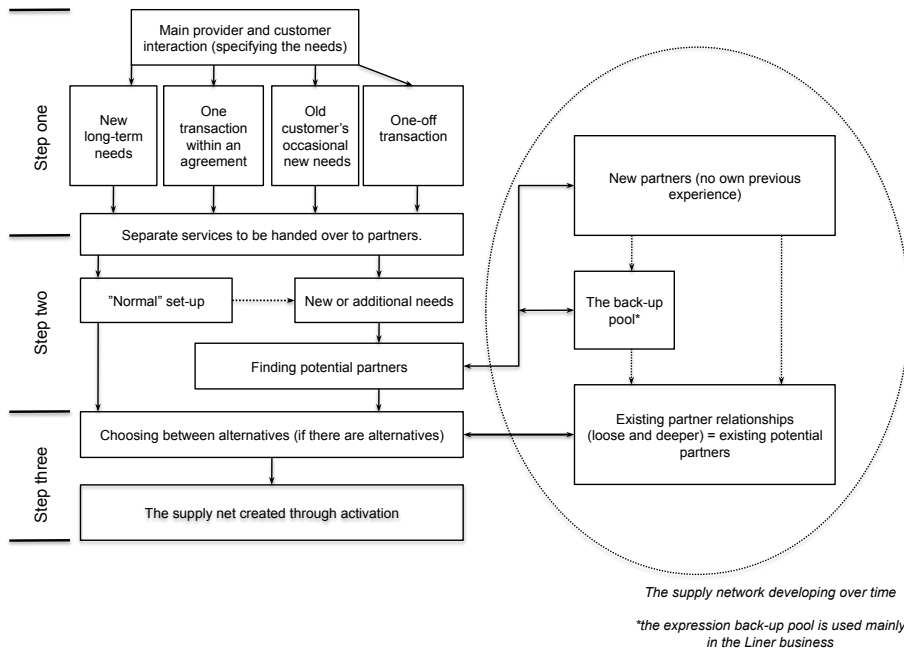
illustrated in the empirical study. Some significant refinements, however, need to be made.

The supply network has here been discussed simply as “the partners that the main provider usually works with”. It should be noted that when informants in the Specialist and Forwarder groups speak about “a pool of partners” they in fact refer to their supply network. In the Liner Group a separation must be made between the back-up pool for the road-haulage subcontractor network and, the supply network concerning other kinds of services.

The members of a supply network and a pool can be seen as an emergent group. Some partners might originally have been included through a specific evaluation and decision process while others just might have grown into it over time, through repeated activations. The selection of subcontractors into a Liner’s road haulage network is, however, more often done according to a more strict selection process that in many cases should be treated as a separate process, not included in activation.

Regardless of provider profile the service packages provided to industrial customers can be of four types; a new long-term customer agreement, a normal transaction within a long-term customer agreement, a transaction to be done for a long-term customer but, including new or different demands than those included in the normal agreement, and finally, ad-hoc transactions to new customers. The type of service package, defined this way, seem to have an impact on the possibilities for new entrants into the supply net. In figure 7.2. these four variations are included in a summarized and simplified view of the activation process.

Figure 7.2. A summarized activation model



The different service packages are here (in step one) presented as alternative settings while the work content within the three steps is not described in detail. The type of customer relationship can have an impact on parts of the process e.g. if the service package leads to a need for providing new services or an increase in capacity. The development of the supply network over time is pictured to the right in the figure. It does, however, here only include those parts of the developments that take place through activation. As mentioned, especially Liner companies can be expected to also develop their subcontractor network in road haulage as a separate service development process not linked to any specific activation process or customer relationship.

The first type of service package described is the start-up of an intended long-term relationship to a customer. It can be assumed that a new long-term customer agreement leads to a need for additional resources and/or new services other than those that at the moment are being provided by partners. Further, the need is assumed to be long-term which means that partners also need to be committed to deliver the services during a longer period of time. In this situation

one can expect that the relationships to several partners from the supply network, and even to new partners, are being activated.

The second alternative could be called “business as usual”. The service package has to do with a transaction within a long-term customer agreement and the general set-up has been established earlier on with only minor transaction specific requirements. As mentioned, the main providers aim at using the same partners for the duration of the long-term agreement. The Liners form an exception where the partner network used for these “business-as-usual” situations is a rather fixed route-subcontractor constellation, which, however, can be expected to lead to the same result. As long as no problems arise between the main provider and the partners one wouldn’t expect new entrants into the supply net.

New occasional needs coming from existing customers refer to what the informants discussed in terms of “keeping the customer happy” (see section 7.2.2.). Since the need is expected to be short term no new partners are taken into the supply net. If the main provider cannot take care of the commission through the “normal set-up” it can e.g. be taken care of through short-term, informal, horizontal co-operation. A one-off, or ad hoc, transaction to a new customer was by the informants described as a rare and unwanted situation. If the needs of the customer do not “fall into the process” (see section 7.5.4.) the customer might get a hint about a more appropriate main provider instead.

In addition to these four situations, changes can occur due to problems, these have, however, not been added to the figure in order to retain some readability. Similarly, horizontal, short-term, co-operation is not included in the emergent supply network.

7.7.3. Inside the process

On a general level the activation process can be described as consisting of the three steps presented earlier. As mentioned, this step-wise process should, however, be considered a theoretical model only, or a thought-process map, since no real division of tasks into steps was expected in real life.

The differences in the activation process *between the informant units* are not so much about *how* activation is done, i.e. the contents of the process. The main differences relate to *who* does it (an individual or a group), and, what kind of relationships that are being activated

(following the theoretical definition of partners and sub-contractors). These factors can be related back to the profile group that the main provider belongs to, but also to the size of the organization. The **impact of organizational size** shows in a general tendency for larger organizations to include several individuals in the decision making process, especially concerning new long-term customer agreements and more customized solutions or, when a new partner relationship is initiated for the needs of several parts of the organization. The work process is as well more formalized in larger organizations.

The impact of the **decision maker** is, however, considerable, especially when the process is performed by one individual following an "individual job structure" (see section 7.5.4). The activator's knowledge about potential partners has a strong impact on who will be contacted, and hence engaged, if the price can be agreed upon and the partner has the right capacity at the right time. The functional requirements, such as e.g. equipment, capacity and cost, are important selection criteria that will narrow down the number of potential partners during the theoretical second step of activation. The role of the individual decision maker becomes more important during the third step of choosing one among the potential alternatives. But, as mentioned also in the second step the decision maker tends to, most of the time, delimit the potential alternatives based on his/her own judgement instead of screening the whole supply market.

From a theoretical point of view this will lead to an inclination for activating an existing partner relationship against initiating a new one. The activator's knowledge stems from previous experience and information gained through word-of-mouth and potential partners' marketing efforts as well as the activator's other ways of following the developments in the logistics sector. Taking into consideration the **time-pressure** as well as the perceived nature of the activation process as an ordinary task, there is nothing odd about it. The issue could also be turned around, emphasising the long-term relationship to the partner and treating activation solely as one episode (see section 3.1.4.) within the relationship. However, according to the informants' accounts, there does not seem to be particularly much intentional relationship enhancing activities going on outside of the activations. Planning as well as formalized structures, however, become more important if the service package consists of an intended long-term logistics solution.

Social networks are important in the logistics sector. In the present setting one has to take into consideration that many of the partners are not necessarily involved in the cluster that serves as delimiting the studied social network. The social contacts discussed with the informants include mainly contacts with customers and other actors on the logistics scene, regardless of to what extent these are, or can become, partners. These social contacts, however, impact on activation through the w-o-m effects.

The impact of the **customer** on activation can be considered as strong when it comes to setting the requirements for the services. On the other hand the customer's involvement in the actual choice of partner was by most informants considered to be low. Activation is hence a decision process that takes place mainly within the main provider organization. This is in full accord with the one-stop-shopping strategy aimed at by both customers and main providers. Comparing the main services of the three provider profiles it seems natural that Liners would be less perceptive to wishes from customers due to the production process that is built mainly around fixed routes that are used to serve all customers compared to the situation in Forwarder and Specialist companies where a larger part of the services focus on the needs of individual customers.

7.7.4. Relationships and networks from an empirical perspective

The relative strength assigned to the pre-existing relationships and to the importance of the social network for information sharing, express rather clear-cut network effects on the activation process.

The relationships between the co-operating actors in the logistics sector can be characterized as long-term but not to a large degree focused on adaption between the partners. On the other hand the relationships can be characterized as deep in terms of informal bonds through the experience and trust that builds up between the partners over time (cf. section 2.4.3). In connection to service packages consisting of long-term logistics solutions one can also expect activity links to be intentionally built in order to provide an efficient solution for the customer.

Using the role and position framework on relationship level mainly emphasises the role of the main provider as the decision maker, but, with the exception of the Liners' road haulage networks, it is only

fixed in connection to specific service packages. The mobile character of the main provider role can bring the partners closer together by strengthening the symmetry between them (cf. section 2.4.3.). Some relationships, such as those in the Liner network mentioned above, are asymmetrical so that the roles of partner and main provider are fixed within the relationship. In that case the role of main provider might be seen more as a position from the perspective of the subcontractors.

The relative positions of the main provider and partner are also dependent on the market situation in the submarket from where a partner is needed. E.g. if the partner has a monopoly-like position in its submarket the main provider does not have much possibilities to choose. In relation to social contacts during dormant relationships (section 7.4.2.) a certain position awareness can be sensed in that the partner (the supplier) is expected to be more active than the main provider (the customer in the relationship). The position of the potential partner within the business network was by the informants, however, not considered to be an important selection criterion.

The informants were not asked directly about the strategic implications of activation. Explicit action in order to better one's position in a network, referred to as strategizing, can have an impact on activation, however to a limited degree due to time pressure during the decision process. There does not seem to be much effort in deepening the relationships with the partners outside the specific activations, but activation can also be expected to have long-term effects without any intentional effort. The preference for activating existing relationships will serve as strengthening the existing network structure. Problems occurring in the existing structure and new market opportunities are almost the only things that seem to lead to change.

In Liner companies it is obvious that a subcontractor network with the right capacity and equipment for the planned goods flows must exist (be activated) at all times. For other kinds of services partners are predominantly activated from a somewhat looser supply network. Especially in big organizations the process of picking partners into this group can be considered as strategic decision-making. The Forwarders' and Specialists' supply networks have, however, mainly developed over time, based on experience and "knowledge of the market", especially in smaller organizations. Within these supply networks practically any alternative partner with the right functional

characteristics can be activated, not necessarily in any particular ranking order. The nature of the activation process strengthens the tendency for long-term co-operation.

In addition to the role-exchange mentioned above, co-opetitive behaviour would also seem to have a strengthening effect on the relationships between the involved companies. The requirement for when short-term unofficial co-operation can take place is strong trust, on the organizational as well as on the individual level. Again, change, such as turning to somebody *else* for help, would be the result of a problem, be it only that the original potential helper has a lack of capacity or worse, that the gentlemen's agreement has been broken on an earlier occasion.

It can also be claimed that horizontal co-operation includes possibilities for strategic moves. This is when it is felt, and taken into account, that activation of a certain partner might lead to future benefits. The existing empirical data does not reveal how many of the potential or activated partners that could also be seen as potential main providers. If the liner – subcontractor structures as well as the use of small road haulage companies by the forwarders and specialists are excluded, there is still a rather big potential for this kind of strategic networking with other types of partners. This issue was to some extent discussed with the informants but they did in general not consider horizontal co-operation to be a strategic tool. One reason for this might have to do with how the term *strategy* is understood, e.g. as a plan for the future with only remote connection to every day operational work. Still, most informants are individuals who are also involved in the actual strategic planning in the organization. Another reason has to do with the study focusing on *supply* nets. Excluding the Liner Group, many informants at the beginning of the interviews found it easier to talk about the customers and marketing than to talk about how the services are created. Marketing strategies seem to be discussed in companies on a more regular basis than the production process. Strategy from a network perspective is, however, not only about competition but about understanding the possibilities inherent in the company's business relationships and how to develop these (cf. section 3.3.4.). The benefits of horizontal co-operation mentioned by the informants, in table 7.15 divided into three areas of development of the service content, the production process and the relationships, support this view.

7.8. Chapter summary

The main providers work in long-term relationships with their partners and aim for long-term relationships also with customers. With the exception of subcontractor networks for road haulage, the relationships to other partners can be activated when needed within a certain service package. The activation process is here understood as defining the needs, elaborating on alternative partner choices and selecting one to be commissioned. The decisions are made by individual decision makers or groups within the main provider organization with impact from the customer mainly when specifying the needs. The work process reflects the size of the organization as well as the reasons why activation is being performed in the specific case. It is in general an ordinary task performed under time-pressure with the exception of the planning of new long-term customer agreements or when a new partner is to be used by several parts of the organization. Partners are commissioned from within the existing supply network as long as this is feasible. New entrants are included mainly if problems arise or if there is a long-term need for new capacity.

The only ways to get to know the quality of an offered service (as compared to a physical product) is by previous experience or word-of-mouth from other users. This kind of information sharing can be considered essential for the logistics sector and it will hence form the basis for the decisions made within activation. Horizontal co-operation between logistics companies can occur as a result of the companies having different functional roles within the logistics sector as well as when a short term problem needs to be resolved. Both cases are expected to lead to a strengthening of the relationship over time.

Part IV Conclusions, contributions and implications

8. Understanding activation in a network context

The objective of this research as stated in section 1.3 was to gain an understanding of the activation process, its contents as well as its links to the network context of the main provider by studying how companies within the Turku logistics cluster activate partners into supply nets for providing logistics services. By studying what the factors are, that influence activation, and what the consequences of activation might be for the business network, theoretical understanding of the concept of activation as a link between ordinary day-to-day activities and network development over time was sought for.

The industrial network approach was applied as a theoretical setting for how the logistics companies work, taking into consideration the service industry character of the sector as well as the importance of partner networks in providing the services. The logistics sector was hence theoretically discussed in terms of actors, activities and resources as well as using the network as relationships and networks as positions metaphors. The content of the activation process was mapped according to a simple model of factors having an impact on decision making. The model was adapted to include the issue that a decision has to be made about, the decision maker, impact from the customer, selection criteria, the work process and the time frame as well as impact from the network context. Also the long-term effects of activation on the network context were theoretically elaborated but not empirically studied. Data was collected through semi-structured discussions in main provider organizations in the Turku logistics cluster and, through a process of coding and data reduction, transformed into a story of activation. The main providers were categorized into three different main provider profiles in order to clarify differences in the activation process that could stem from differences in their main service process. The chosen research method included simultaneous theoretical elaboration of the framework and empirical data collection and analysis.

The two main issues; the activation process as well as the network links are discussed in section 7.7. In the next section some conclusions are presented in the form of answers to the research questions.

Research question five, concerning the empirical consequences of the chosen view of activation is, however, discussed in section 8.3.

8.1. General conclusions

1. How can activation of relationships for providing logistics services be described and understood from a business network perspective?

In the terminology of the industrial networks approach, activation is an activity performed by a focal actor, the main provider. The partner relationships that become activated could be considered as resources that are needed in order to perform the services. Many of the included partners can, however, have industrial customers of their own, and might in turn activate the present main provider as a partner. For this reason, the partners are here seen as actors and, the relationships to these partners become activated. Seen from the perspective of the relationship between the main provider and a partner, activation is the initial episode in a sequence (see section 3.1.4), with the sequence being a commission. From the perspective of the main provider the episode is preceded by a decision process where criteria are set and a choice has been made to contact this potential partner.

Described as the first part of the service process towards the industrial customer as well as the first episode in the related sequence in the partner relationships, activation is an ordinary, perhaps daily, task in a logistics company. From a network perspective activation can be understood as a trigger for stabilization or change in the network structure. The consequences of studying the main provider as being emedded in a network context of linked relationships will be further discussed in connection to the second research question.

2. In what ways can activation and the structure of the network context influence each other?

The network setting was in section 3.2. described as consisting on different levels that partly overlap. The supply net is the aggregated outcome of all activations needed in connection to a certain service package. The supply network on the other hand can be understood as places of thickness in the business network (cf. section 3.4.3). As discussed in section 7.7. the supply network should be considered emergent, developing through activation processes over time. The impact of the supply network on the outcome of the activation process

and the impact of activation on the supply network can, in general, be considered as mutually reinforcing.

The business network as well as the social network of the individuals in the main provider organization were in this study delimited to the local level, the Turku logistics cluster. Since it was established that not all partners are included in this local network and, since no longitudinal data was collected, the impact on these levels should be considered mainly theoretical. However, some network links also show in the informants' stories, these were discussed in section 7.7.4.

Using the networks as relationships and, networks as position metaphors (see Easton, 1992 and chapter 3) in turn, sheds light on two different aspects of the relationship between activation and network dynamics. When thinking about a network as a set of interconnected relationships, activation illustrates how the effects of ordinary short-term decisions over time might accumulate into processes of either stabilization or change. The activation process takes place within individual dyads but it is, however, simultaneously linked to other relationships within the supply net to be and, to past and future activation outcomes through the importance given to experience as a choice criterion. As mentioned in section 4.1, activation can be thought of as the push on the red button fixing the move that an actor has decided to take. It will determine the direction in which a part of the business network will move until the next move is being made.

By using the network as position metaphor, activation can illustrate a decision process where reasoning around the relative positions of the main provider itself and the potential partners can be relevant. If structural (i.e. radical) change in the business network is an outcome of intentional repositioning and mobilizing it is a result of strategic action. If a focal company on the other hand recognizes benefits from the present structure and because of this aims at strengthen it, this action should as well be seen as strategic. The above-mentioned two situations represent intentional strategies. The effects of certain actions can, however, be the same even if the effects were not thought of before hand. Even strategizing can sometimes be seen as reconstruction after the fact (c.f. Tikkanen & Halinen 2003).

The embeddedness in the local social network was by the informants not seen as too strongly linked to the issue of activating partners. The

importance of the social network for getting to know other actors and for information sharing was, however, emphasized.

3. *How are the relationships to partners and subcontractors activated for providing logistics activities within a supply net?*

Activation is an operative task performed when needed, mainly on short notice, when changes are identified in the demand – supply structure of the main provider that require an addition or a change of partners on the supply side of service production. The process was theoretically described as initiating with identifying the needs of a customer and hence defining the needed service package. Especially in the Liner business, but also in the other profile groups, one possible outcome from the initial phase is that no activation is needed, as phrased by a Liner, the goods "fall into the process". In other situations the activation continues with identifying and engaging partners for the commission. The identification and selection phase was by the informants seen as one entity where in fact not much choosing takes place. At some point, however, an evaluation of specific potential partners has taken place and the result forms the impression that the main provider has of this company. The impression becomes specified over time by experience from working with the partner as well as impressions and experience obtained from within the social network. Formal processes of information collection and tendering are being used more often when activation is connected to a planned long-term change in the main provider's network structure or if a long-term logistics solution is being planned for a customer.

The model of the activation process presented in figure 7.1 focuses on the activation of one partner within a supply net. Further it follows the theoretical assumption that the initial selection of a group of potential partners is a part of the process. It must be noted, however, that the supply network also can be understood as the outcome of the decision maker's evaluation of the supply on the market over time. Further the first step of the process, the definition of the *total* service package together with the customer, (as illustrated in figure 4.1) means that activations within a service package are interconnected, which should be expected to have an impact on the outcome of the respective activations and potentially also on the process.

4. What kinds of selection criteria are used when the main provider chooses the partners and subcontractors that will be engaged into the supply net?

Previous studies on the selection of partners have focused on either quantitative analysis of selection criteria or long-term decisions while the present approach places more weight on individuals as decision makers and selection criteria from the sphere of experience and trust. This is not to say that efficiency criteria can be ignored, on the contrary. The efficiency criteria form the necessary pre-conditions while the final decision is made based on an evaluation of how well an individual partner will fit into the situation in question based on the experience of the main provider.

Due to the high demand compared to the supply of logistics services, in particular road haulage, at the time of the interviews, availability and capacity were considered the most important factors having an impact on partner choice. The informants, however, also discussed the issue in a more long-term perspective.

The selection criteria were considered in terms of two categories; those criteria that all potential partners need to fulfil (pre-requisites) and, those that the activator considers while making the final choice. According to the informants' accounts (see table 7.9) the latter category consists of issues of previous experience and existing relationships. Experience and relationships were, however, also mentioned as pre-requisites that affect the decision maker's view on what the potential alternatives are.

Quality was in all three profile groups considered as one of the most important pre-requisites. It was, however, defined in different ways by the informants, including issues such as technical quality and skills but also reliability as well as economic stability. The potential partner's position in the local business network as well as the partner's other network linkages were not considered as important, unless the company is at the moment involved in co-operation with a main competitor.

8.2. Theoretical contribution

In the present study, a process, which is perceived as rather small, is opened up to show content parts that link it to the aggregated network context of the actor that executes the process. The activation process takes place predominantly within one organization, only

started through interaction with a customer. Still, its aim is to form a net of partners and it is impacted on by the focal actor's view of the other actors in the network, at the time of the activation, based on previous experience and, perhaps, on future expectations. The focal actor acts in the role of main provider but an important notion is also that the roles of main provider and partner can be turned around within the dyadic relationship. Managing in networks is then not only about managing one's own supply net and supply network but also about being a partner in other supply nets.

Activation as a concept fits the illustrated process well. Existing business relationships are activated when needed. As mentioned, activation can be understood as an episode in the relationship between two companies. Another point of departure, i.e. the service package, illustrates perhaps even more clearly the importance of relationships in this kind of situations, in comparison to e.g. plain market transactions that, theoretically, also could be an option for the main provider.

As a concept, activation can, as Blumer (1954) says (see section 5.2.3) be used as a sorting tool but, it can also be seen as " an object with a function", i.e. linking the different levels as has been illustrated, the long-term with the short-term and the process executed within one organization with effects on relationship and network levels.

The use of two levels of co-operation networks (the supply network and the supply net) within a business network is further relevant particularly when studying industries where the outcome of the service process of one provider is dependent on services provided by suppliers. The logistics sector is a typical example of this.

8.3. Implications for practice

The fifth research question concerns the potential empirical value of the present way of picturing the activation process.

How can describing and analyzing the activation process from a network perspective help in understanding the partner relationship and supply network developments in a main provider organization?

Based on the discussions with the informants it seems that the supply relationships are in general less often analysed and developed intentionally than the customer relationships. This is perhaps also linked to strategy often being thought of mainly in terms of

competition and marketing. Studying partner relationships, as well as how they are being used, e.g. in case of activation, with a industrial network approach helps in revealing several dimensions of the relationships (c.f. sections 2.4.3 and 3.1.4). Activation as well seems to be a process that is not really seen as “a process” in itself. Activations, over time, aggregate into patterns that have an impact on each relationship within the supply network by either strengthening or weakening the connections between the companies. Assuming a continued effort for long-term relationships, activation is hence one of the factors that has an impact on the possibilities for future service development if a main provider wants to develop its services together with its existing partners.

The study shows several of the benefits that arise from maintaining long-term partner relationships as well as the risk of becoming inter-locked in a sub-optimal situation. The fact that these relationships, in the logistics industry, can be considered as less deep, in terms of technological adaption, can be a result of the effort to maintain a higher degree of freedom and flexibility. There are, however, also reasons that speak for involving the partners more in the service design process. The quality of the delivered service package is dependent on the quality of the services that are being obtained from the partners. As noted e.g. in section 7.5.6, quality was seen as one of the main pre-requisites in partner selection. Another example is the customer treatment (“how they treat our customer”) that by 19 informants was considered a pre-requisite for potential partners. In most cases the only contacts between the customer and the service providers during the service process will be contacts with a person from the partner organization. The same follows for the customer’s customer. As mentioned in section 7.5.3. several of the quality and safety related issues are hence outside of the direct control of the main provider. Through the face-to-face contact, the partners also have first-hand information on how the service package fits the needs of the customer. As pointed out, a chain like structure is not the solution but, partners should, when involved in a supply net, see themselves as more closely linked to the whole service package than as just delivering their own service. Again, it is acknowledged that the possibilities for, and benefits of, closer involvement vary between logistics sub-sectors.

8.4. A critical review of the study

The empirical study of the main providers was done mainly in the year 2007 and hence represents a picture of how activation was performed during that period. The economic situation was exceptional with strong growth during the period of the interviews, followed by a dramatic fall shortly after and now a slow growth. The logistics sector has also continued to change rapidly and one cannot be sure that activation and the co-operation within the sector in a new study and perhaps performed by another researcher would look the same.

The results of a study is always dependent on the methods used to get them. Hence studying activation from another angle, perhaps using another theoretical framework or another approach to the empirical data collection, might put the emphasis on other aspects of the process. Comparing with other accounts, it seems that the study presents a plausible picture of how the sector functioned at the specific point in time. At retrospect it would, however, have been advisable to submit the study for informant validation.

The discussion on strategizing and network effects of activation can only be stretched so far within the limits of the present study due to the lack of longitudinal data. On the other hand it felt necessary to analyse the process at one point in time in some detail in order to understand what lies within. In order to follow-up the the theoretical discussion empirically a longitudinal case-study of one, or a few only, main providers would be required.

The main gap, regarding the analysis of the content of the activation process, is that the connections between activations done within the framework of one service package are not empirically discussed. When planning the optimal supply net the main provider most certainly needs to take the whole net into consideration at the same time. Activation of the separate partner relationships cannot be done without consideration of how the pieces will fit together.

An unsolved issue is whether activation theoretically should be seen as taking place every time that a service package (in terms of a transaction to a customer) has to be provided or, if a break (a dormant period) in the partner relationship always should precede it. In the present study activation has been assumed to take place in connection

to all transactions that lead to a change in the present set-up (i.e. a present supply net).

8.5. Further research

The present study shows several possibilities for how the theme could be developed further in future research. A main division can be made into issues concerning relationship development and network implications of activations, activation from the partners' perspective, and, a closer focus on individuals and social networks. Also the possibilities to study activation in other settings than logistics services is accounted for below.

8.5.1. Enlarging the geographical scope

The present study was conducted within a limited geographical area, the Turku region. Both the study of the activation process as well as studies of the other issues discussed below could benefit from an enlargement e.g. including main providers located in several parts of Finland, or by performing comparative studies of several geographical clusters.

8.5.2. Relationship development and network implications

As concluded earlier, main providers aim at establishing and maintaining long-term relationships with their partners. This has implications both for how they will and can develop their services in the future as well as for how the business networks in logistics will turn out in the future. The risk that the stable relationships become barriers for entry into the sector has also been discussed. All these questions require a longitudinal research approach that has not been applied in the present study. It would be of interest to follow up the development of specific relationships over time as well as to study how the business network develops in particular with an emphasis on new entrants.

8.5.3. The partners

The present research has been conducted strictly with a main provider perspective on relationships and activation. The picture that has emerged should now be completed with the view from the other side. Especially the subcontractors' view on their role within the rather fixed network constellations in the Liner sector has not been studied earlier to any great extent. The task does provide a methodological challenge.

Service development (mentioned in section 8.3.) is to a great extent a question of developing new added services as well as further customization of service offerings. As noted the partners are, in the logistics sector, rarely involved in the service development process. However, as mentioned, partners possess first-hand knowledge of how the provided services function and fit the needs of the customers and customers' customers. They can provide a valuable input into a service development process that now seems not to be fully utilized. A further study would be needed on the potential benefits as well as risks and barriers for involving partners into the service development as well as quality improvement processes. Especially the information flow between the partners and the main provider as well as the information processing in the main provider organization would seem to be important elements.

8.5.4. Individuals and social networks

Informants mentioned that the importance of individuals in logistics has decreased through times even if still being important. The activation process in fact serves as an example of a rather substantial impact of individuals in forming the company's long-term relationships and ways of conducting business. In the present study the individual impact showed rather well in the informants accounts of their own working methods. The individual aspects were, however, treated only as a part of the main process in focus i.e. activation. As noted also the impact of social networks on activation as well as on other parts of the service process is substantial and a further study is needed on this impact particularly in connection to the, seemingly, rather "price and equipment" focused logistics sector. Several informants expressed the thought that the social networks might be closer in the Turku region than in other logistics clusters in Finland. This would serve as an interesting starting point for a comparative study on logistics clusters.

8.5.5. Activation in other services settings

Activation as a process could also be studied in other settings than concerning logistics services. In this particular case it is strongly linked to how the logistics processes will develop and function but, its application is not necessarily limited to the logistics sector. Other service settings with the same characteristics in terms of a main provider selling service packages composed of services obtained from partners might also serve as a study context. For example destination

marketing is about marketing a package of different kinds of services for tourists. Many times this is done by a DMO (destination marketing organization) that, to some degree, could be compared to the main provider role.

References

- Aastrup, Jesper (2003): *Networks producing intermodal transport*, Diss. Copenhagen Business School, Department of Marketing, PhD-series; 2003-1, Samfundslitteratur, Copenhagen.
- Aastrup, Jesper & Árni Halldórsson (2008): Epistemological role of case studies in logistics, A critical realist perspective, *International Journal of Physical Distribution & Logistics*; Vol. 38:10, pp. 746-763.
- Abrahamsson, Mats (2008): The role of logistics in corporate strategy, in Jan S. Arlbjørn, Arni Halldórsson, Marianne Jahre & Karen Spens, eds. *Northern Lights in Logistics & Supply Chain Management*, pp. 49-63, CBS Press, Copenhagen.
- Abrahamsson, Mats & Sten Wandel (1998): A model of tiering in third-party logistics with a service parts distribution case study, *Transport logistics*, vol. 1:3, pp. 181-194.
- Abshire, Roger Dale & Premeaux, Shane R. (1991): Motor Carrier Selection Criteria: Perceptual Differences Between Shippers and Carriers, *Transportation Journal*, Vol. 31:1, pp. 31-35.
- Ahola, Tuomas J. (2005): *Project networks – a short term and a long term view*, paper presented at the 21st IMP-conference in Rotterdam, Netherlands 2005.
- Alvesson, Mats & Kaj Sköldbberg (2008): *Tolkning och reflektion, vetenskapsfilosofi och metod*, 2 ed. Studentlitteratur, Lund.
- Anderson, Helén & Virpi Havila (1993): *Role and position - understanding dynamics in networks*, paper presented at the 9th IMP Conference in Bath, UK, 1993.
- Anderson, Helén, Havila, Virpi, Andersen Poul & Halinen Aino (1998): Position and role – conceptualizing dynamics in business networks, *Scandinavian Journal of Management*, vol. 14:3, pp. 167-186.
- Andersson, Dan & Andreas Norrman (2002): Procurement of logistics services – a minute’s work or a multi-year project? *European Journal of Purchasing & Supply Management*, vol. 2002:8, pp. 3-14.
- Andersson, Per (1992): Analysing Distribution Channel Dynamics: Loose and Tight Coupling in Distribution Networks, *European Journal of Marketing*, Vol. 26:2, pp. 47-68.

- Antikainen, Janne & Perttu Vartiainen (2002): Finnish districts and regional differentiation, *Fennia*, Vol. 180: 1–2, pp. 183–190.
- Arlbjørn, Jan & Arni Halldorson (2002): Logistics knowledge creation: reflections on content, context and processes, *International Journal of Physical Distribution & Logistics*; Vol. 32:1, pp. 22-40.
- Axelsson, Björn & Finn Wynstra (2002): *Buying Business Services*, Wiley, Chichester.
- Bagchi, Prabir K. & Helge Virum (1998): Logistical alliances: Trends and prospects in integrated Europe, *Journal of Business Logistics*, Vol. 19:1, pp. 191-213.
- Baraldi, Enrico, Ross Brennan, Debbie Harrison, Annalisa Tunisini & Judy Zolkiewski (2007): Strategic thinking and the IMP approach: A comparative analysis, *Industrial Marketing Management*, Vol. 36:7, pp. 879-894.
- Bardi, Edward J., John J. Coyle and Robert A. Novack (2006): *Management of Transportation*, Thomson South-Western, Mason, Ohio.
- Bardi, Edward J., Prabir K. Bagchi & T.S. Raghunathan (1989): Motor Carrier Selection in a Deregulated Environment, *Transportation Journal*, Vol. 29:1, pp. 4-11.
- Bask, Anu & Jari Juga (2000): Selective integration in supply chain management, *Helsinki School of Economics and Business Administration, Working papers W-239*, Helsinki.
- Bask, Anu & Jouni Laine (2000): Konttikuljetusketjujen koordinointi, *Liikenne- ja viestintäministeriö, Julkaisuja 46/2000*, Helsinki.
- Bask, Anu, Jari Juga & Jouni Laine (2001): Evolution of container transport: Services, management and technologies. *Helsinki School of Economics and Business Administration, Working papers W-289*
- Bask, Anu (1999): Third party relationships in logistics services, *Helsingin Kauppakorkeakoulun julkaisuja B-27*, Helsinki.
- Bengtsson, Maria & Sören Kock (2000): "Coopetition" in Business Networks - to Cooperate and Compete Simultaneously, *Industrial Marketing Management*, Vol. 29:5, pp. 411-426.
- Berglund, Magnus (1997): Third-Party Logistics Providers, Towards a Conceptual Strategic Model, *Linköping Studies in Science and Technology*, Thesis No. 642, Linköping.

- Berglund, Magnus (2000): Strategic Positioning of the Emerging Third-Party Logistics Providers, *Linköping Studies in Management and Economics*, Dissertations No. 45, Linköping.
- Berglund, Magnus, Peter van Laarhoven, Graham Sharman & Sten Wandel (1999): "Third-party Logistics: Is there a future?, *The International Journal of Logistics Management*, Vol. 10:1, pp. 59-70.
- Bhaskar, Roy (1978): *A Realist Theory of Science*, 2.ed. Harvester Press, Brighton, Sussex.
- Bhaskar, Roy (1983): Beef, Structure and Place: Notes from a Critical Naturalist Perspective, *Journal for the Theory of Social Behaviour*, Vol. 13:1, pp. 81 - 95.
- Biddle, B.J. (1986): Recent developments in role theory, *Annual Review of Sociology*, Vol. 12, pp. 67-92.
- Biong, Harald & Arne Morten Ulvnes (2001): *When the Supplier's Human Capital Walks Away, Where do the Customer Go?* Paper presented at the 17th annual IMP Conference in Oslo, Norway.
- Blomberg, Olli (2007): *100 vuotta huolintaa, speditööristä logistikoksi*, Suomen Huolintaliikkeiden Liitto ry., Helsinki.
- Blumer, Herbert (1954): What is wrong with social theory? *American Sociological Review*, Vol. 19:1, pp. 3 - 10.
- Bottani, Eleonora & Antonio Rizzi (2006): A fuzzy TOPSIS methodology to support outsourcing of logistics services, *Supply Chain Management: An International Journal*, Vol. 11:4, pp. 294 – 308.
- Bowersox, Donald J. (1990): The Strategic Benefits of Logistics Alliances, *Harvard Business Review*, July-August 1990, pp. 36 - 45.
- Boyson, Sandor, Thomas Corsi, Martin Dresner & Elliot Rabinovich (1999): Managing effective third party logistics relationships: What does it take? *Journal of Business Logistics*, Vol.20:1, pp. 73-100.
- Brannen, Julia (2005): Mixing Methods: The Entry of Qualitative and Quantitative Approaches into the Research Process, *International Journal of Social Research Methodology*, Vol. 8:3, pp. 173-184.
- Brennan, Ross & Peter W. Turnbull (1998): Adaptions in buyer-seller relationships, in *Network Dynamics in International Marketing*, eds. Peter Naudé & Peter W. Turnbull, Pergamon, Oxford.

- Bryman, Alan (2002): *Samhällsvetenskapliga metoder*, transl. Björn Nilsson, Liber Ekonomi, Stockholm.
- Bryman, Alan & Emma Bell (2004): *Business Research Methods*, Oxford University Press, Oxford.
- Bygballe, Lena & Marianne Jahre (2009): Balancing value creating logics in construction, *Construction Management and Economics*, Vol. 27:7, pp. 695 - 704.
- Callero, Peter L. (1994): From Role-Playing to Role-Using: Understanding Role as Resource, *Social Psychology Quarterly*, Vol. 57:3, pp. 228-243.
- Carbone, Valentina & Marilyn A. Stone (2005): Growth and relational strategies used by the European logistics service providers: Rationale and outcome, *Transportation Research Part E*, Vol. 41:6, pp. 495-510.
- Cavana, Robert Y., Lawrence M. Corbett & Y.L. Lo (2007): Developing zones of tolerance for managing passenger rail service quality, *International Journal of Quality & Reliability Management*, Vol. 24:1, pp. 7-31.
- Chapman Ross L., Claudine Soosay & Jay Kandampully (2003) Innovation in logistics services and the new business model, A conceptual framework, *International Journal of Physical Distribution and Logistics Management*, 33:7, p. 630 – 650.
- Chen, Injazz J. & Anthony Paulraj (2004): Towards a theory of supply chain management: the constructs and measurements, *Journal of Operations Management*, Vol. 22:2, pp. 119-150.
- Choi, Thomas Y. & Yusoon Kim (2008): Structural embeddedness and supplier management: A network perspective. *Journal of Supply Chain Management*, Vol. 44:4, pp. 5-13.
- Christopher, Martin & Helen Peck (2003): *Marketing logistics*, Butterworth-Heinemann, Oxford.
- Collis, Jill & Roger Hussey (2003): *Business Research, A practical guide for undergraduate and postgraduate students*, 2 ed., Palgrave Macmillan, Basingstoke, Hampshire, UK.
- Cooper, James, Michael Browne & Melwyn Peters (1992): *European Logistics, Markets, Management and Strategy*, Blackwell, Oxford.

- Cousins, Paul D., Benn Lawson & Brian Squire (2006): Supply chain management: theory and practice – the emergence of an academic discipline?, *International Journal of Operations & Production Management*, Vol. 26:7, pp. 697-702.
- Cova, Bernard & Robert Salle (2000): Rituals in managing extrabusiness relationships in international project marketing: a conceptual framework, *International Business Review*, Vol. 9:6, pp. 669-685.
- Coyle, John J., Edward J. Bardi & C. John Langley (2003): *Management of Business Logistics*, 7th ed. Southwestern, Mason, OH.
- Crosby, Leon & Stephen A. LeMay (1998): Empirical determination of shipper requirements for motor carrier services: Servqual, direct questioning, and policy capturing methods, *Journal of Business Logistics*, Vol. 19:1, pp. 51-66.
- Croom, Simon, Pietro Romano & Mihalis Giannakis (2000): Supply Chain Management: an analytical framework for critical literature review, *European Journal of Purchasing & Supply Management*, Vol. 6:1, pp. 67-83.
- Crujssen, Frans (2006): *Horizontal cooperation and logistics*, Dissertation, Tilburg University, Open Access publications from Tilburg University, 2006, available at <http://ideas.repec.org/p/ner/tilbur/urnnbnlui12-189742.html>, accessed 7.6.2011.
- Crujssen Frans, Martine Cools & Wout Dullaert (2007): Horizontal cooperation in logistics: Opportunities and impediments, *Transportation Research Part E* Vol. 43:2, pp. 129–142.
- Crum, Michael R. & Benjamin J. Allen (1997): A Longitudinal Assessment of Motor Carrier-Shipper Relationship Trends, 1990 vs. 1996, *Transportation Journal*, Vol. 37:1, pp. 5-17.
- Cui, Lianguang & Susanne Hertz (2011): Networks and capabilities as characteristics of logistics firms, *Industrial Marketing Management*, Vol. 40, pp. 1004 - 1011.
- Dainty, Andrew R. J., Geoffrey H. Briscoe & Sarah J. Millett (2001): Subcontractor perspectives on supply chain alliances, *Construction Management and Economics*, 2001:19, pp. 841-848.

- Dam Jespersen, Birgit & Tage Skjøtt-Larsen (2005): *Supply chain management - in theory and practice*, Copenhagen Business School Press, Copenhagen.
- Danemark, Berth, Mats Ekström, Liselotte Jakobsen & Jan Ch. Karlsson (2003): *Att förklara samhället*, 2 ed. Studentlitteratur, Lund.
- Danielis, Romeo, Edoardo Marcucci & Lucia Rotaris (2005): Logistics managers' stated preferences for freight service attributes, *Transportation Research Part E*, Vol. 41:3, pp. 201–215.
- Davis-Sramek, Beth, Brian S. Fugate, & Ayman Omar (2007): Functional/ dysfunctional supply chain exchanges, *International Journal of Physical Distribution & Logistics Management*, Vol. 37:1, pp. 43-63.
- Delfmann, Werner, Sascha Albers & Martin Gehring (2002): The impact of electronic commerce on logistics service providers, *International Journal of Physical Distribution and Logistics Management*, Vol. 32:3, p. 203-222.
- Dobie, Kathryn (2005): The Core Shipper Concept: A Proactive Strategy for Motor Freight Carriers, *Transportation Journal*, Vol. 44:2, pp. 37-53.
- Dubois, Anna & Lars-Erik Gadde (2000): Supply strategy and network effects - purchasing behaviour in the construction industry, *European Journal of Purchasing and Supply Management*, Vol. 6, pp. 207-215.
- Dubois, Anna & Lars-Erik Gadde (2002): Systematic combining: an abductive approach to case research, *Journal of Business Research*, 55:7, pp. 553-560.
- Dvorak, Simona (2008): Competitive Baltic sea ports: A comparison of Klaipeda, St. Petersburg and Turku, *Publications from the Centre for Maritime Studies*, University of Turku, C 49, 2008.
- Easton, Geoffrey (1992): Industrial networks: a review in Björn Axelsson & Geoffrey Easton eds. *Industrial networks, A new view of reality*, Routledge, London.
- Easton, Geoffrey & Luis Araujo (1992): Non-economic exchange in industrial networks, in Björn Axelsson & Geoffrey Easton, eds. *Industrial networks, A new view of reality*, Routledge, London.

- Easton, Geoffrey (1998): Case Research as a Methodology for Industrial Networks: A Realist Apologia, in Peter Naudé & Peter W. Turnbull, eds. *Network Dynamics in International Marketing*, Elsevier Science, Oxford.
- Ellram, Lisa M. (1995): A Managerial Guideline for the Development and Implementation of Purchasing Partnerships, *Journal of Supply Chain Management*, Vol. 31:2, pp. 9-16.
- Engström, Rikard (2004): *Competition in the Freight Transport Sector – a Channel Perspective*, Diss. School of Economics and Law, University of Gothenburg, Sweden.
- Eriksson, Päivi & Anne Kovalainen (2008): *Qualitative Methods in Business Research*, Sage publications, London.
- Evers, Philip T., Donald V. Harper & Paul M. Needham (1996): The Determinants of Shipper Perceptions of Modes, *Transportation Journal*, Vol. 36:2, pp. 13 - 25.
- Evers, Philip T. & Carol J. Johnson (2000): Performance Perceptions, Satisfaction, and Intention: The Intermodal Shipper's Perspective, *Transportation Journal*, Vol. 40:2, pp. 27 - 39.
- Friis Olsen, Rasmus & Lisa M. Ellram (1997): A Portfolio Approach to Supplier Relationships, *Industrial Marketing Management*, Vol. 26:2, pp. 101-113.
- Ford, David, Lars-Erik Gadde, Håkan Håkansson & Ivan Snehota (2003): *Managing Business Relationships*, 2 ed., John Wiley, Chichester.
- Gadde, Lars-Erik & Lars-Gunnar Mattsson (1987): Stability and change in network relationships, *International journal of Research in Marketing*, Vol. 4:1, pp. 29-41.
- Gadde, Lars-Erik, Göran Persson, Helge Virum & Marianne Jahre (2002): *Third Party Logistics and Logistics Alliances - Outsourcing of Activities or "Insourcing" of resources?* Paper published at the 18:th IMP-conference in Dijon, France.
- Gadde, Lars-Erik, Lars Huemer & Håkan Håkansson (2003): Strategizing in industrial networks, *Industrial Marketing Management*, Vol. 32:5, pp. 357-364.
- Gadde, Lars-Erik & Håkan Håkansson (2001): *Supply Network Strategies*, Wiley, Chichester.

- Gammelgaard, Britta (2004): Schools in logistics research? A methodological framework for analysis of the discipline, *International Journal of Physical Distribution & Logistics Management*, Vol. 34:6, pp. 479-491.
- Gelderman, Cees J. & Arjan J. Van Weele (2003): Handling measurement issues and strategic directions in Kraljic's purchasing portfolio model, *Journal of Purchasing & Supply Management*, Vol. 9:5/6, pp. 207 - 216.
- Getzels, Jacob W. & Egon G. Guba (1954): Role, role conflict, and effectiveness: An empirical study, *American Sociological Review*, Vol. 19:2, pp. 164-175.
- Girod-Séville, Martine & Veronique Perret (2001): Epistemological foundations, in Raymond-Alain Thietart et al.: *Doing management research, a comprehensive guide*, pp. 13 - 30, Sage Publications, London.
- Glaser, Barney G. & Anselm L. Strauss (1967): *The discovery of grounded theory: strategies for qualitative research*, Aldine de Gruyter, New York.
- Grabher, Gernot (1993): Rediscovering the social in the economics of interfirm relations, in Gernot Grabher (ed.) *The Embedded Firm, on the socioeconomics of industrial networks*, Routledge, London.
- Granovetter, Mark (1985): Economic Action and Social Structure: The Problem of Embeddedness, *American Journal of Sociology*, Vol. 91:3, pp. 481-510.
- Gripsrud, Geir, Marianne Jahre & Göran Persson (2006): Supply Chain Management – back to the future?, *International Journal of Physical Distribution and Logistics Management*, Vol. 36:8, pp. 643 – 659.
- Grönroos, Christian (2000): *Services Management and Marketing: a customer relationship management approach*, 2nd ed., John Wiley & Sons, Chichester.
- Grönroos, Christian (2008a): Service logic revisited: who creates value? And who co-creates? *European Business Review*, Vol. 20:4, pp. 298-314.
- Grönroos, Christian (2008b): *Service management och marknadsföring, Kundorienterat ledarskap i servicekonkurrensen*, Liber, Malmö.

- Grönroos, Christian (2009): Towards Service Logic: The Unique Contribution of Value Co-Creation, *Hanken School of Economics, Working papers* 544, Helsinki.
- Gulati, Ranjay, Nitin Nohria & Akbar Zaheer (2000): Strategic networks, *Strategic Management Journal*, Vol. 21:3, pp. 203-215.
- Hadjikhani, Amjad (1996): Project Marketing and the Management of Discontinuity, *International Business Review*, Vol. 5:3, pp. 319-336.
- Hakan, Göl & Bülent Çatay (2007): Third-party logistics provider selection: insights from a Turkish automotive company, *Supply Chain Management: An International Journal*, Vol. 12:6, pp. 379 – 384.
- Halinen, Aino, Asta Salmi & Virpi Havila (1999): From dyadic change to changing business networks: An analytical framework, *Journal of Management Studies*, Vol. 36:6, pp. 779-794.
- Halinen, Aino & Jaana Tähtinen (1999): Towards a theory of relationship dissolution, *Turku School of Economics and Business Administration, Discussions and working papers* 9:1999, Turun Kauppakorkeakoulu, Turku.
- Halinen, Aino & Jan-Åke Törnroos (1995): The meaning of time in the study of industrial buyer-seller relationships, in Kristian Möller & David Wilson (eds): *Business marketing: An Interaction and Network Perspective*, Kluwer Academic Press, Boston, MA.
- Halinen, Aino & Jan-Åke Törnroos (1998): The role of embeddedness in the evolution of business networks, *Scandinavian Journal of Management*, Vol. 14:3, pp. 187-205.
- Halinen, Aino & Jan-Åke Törnroos (2005): Using case methods in the study of contemporary business networks, *Journal of Business Research*, Vol. 58:9, pp. 1285-1297.
- Halldórsson, Árni & Tage Skjøtt-Larsen (2006): Dynamics of relationship governance in TPL arrangements – a dyadic perspective, *International Journal of Physical Distribution & Logistics Management*, Vol. 36:7, pp. 490-506.
- Halldórsson, Árni, Herbert Kotzab, Juliana H. Mikkola & Tage Skjøtt-Larsen (2007): Complementary theories to supply chain management, *Supply Chain Management: An International Journal*, Volume 12:4, pp. 284-296.

- Harland, Christine M. & Louise A. Knight (2001): Supply network strategy, role and competence requirements, *International journal of Operations & Production Management*, Vol. 21:4, pp. 476-489.
- Harland, Christine M., Richard C. Lamming, Jurong Zheng & Thomas E. Johnsen (2001): A Taxonomy of Supply Networks, *The Journal of Supply Chain Management*, Vol. 37:4, pp. 21-27.
- Harrison Debbie & Håkan Håkansson (2002): Activation in resource networks: a comparative study of ports, *Journal of Business & Industrial Marketing*, Vol. 21:4, pp. 231-238.
- Harvey, David L. (2002): Agency and Community: A Critical Realist Paradigm, *Journal for the Theory of Social Behaviour*, Vol. 32:2, pp. 163 - 194.
- Havlia, Virpi & Ian Wilkinson (2002): The principle of conservation of business relationship energy: or many kinds of new beginnings, *Industrial Marketing Management*, Vol. 31:3, pp. 191-203.
- Hedaa, Laurids & Jan-Åke Törnroos (2008): Understanding Event-based Business Networks, *Time & Society*, Vol. 17:2, pp. 319-348.
- Heikkinen, Marko T., Tuija Mainela, Johanna Still & Jaana Tähtinen (2007): Roles for managing in mobile service development nets, *Industrial Marketing Management*, Vol. 36:7, pp. 909-925.
- Heikkilä, Laura, Sakari Kajander & Antti Saurama (2004): Varsinais-Suomen logistiikkasektorin suhdannebarometri 2004, *Publications from the Centre for Maritime Studies*, University of Turku (C5/2004), C42, Painosalama, Turku.
- Heikkilä, Laura (2005): Varsinais-Suomen logistiikkasektorin suhdannebarometri 2005, *Publications from the Centre for Maritime Studies*, University of Turku (C44/2004), B131, Painosalama, Turku.
- Hellgren, Bo & Torbjörn Stjernberg (1995): Design and implementation in major investments – a project network approach, *Scandinavian Journal of Management*, Vol. 11:4, pp. 377-394.
- Hertz, Susanne (1993): *The internationalization processes of freight transport companies – towards a dynamic network model of internationalization*, Dissertation, EFI at the Stocholm School of Economics.

- Hertz, Susanne (1996): The Dynamics of International Strategic Alliances, A Study of Freight Transport Companies, *International Studies of Management and Organization*, Vol. 26:2, pp. 104-130.
- Hertz, Susanne (1998): Domino Effects in International Networks, *Journal of Business-to-Business Marketing*, Vol. 5:3, pp 3-31.
- Hertz, Susanne (2001): Dynamics of Alliances in Highly Integrated Supply Chain Networks, *International Journal of Logistics: Research and Applications*, Vol. 4:2, pp. 237-256.
- Hertz, Susanne & Monica Alfredsson (2003): Strategic development of third party logistics providers, *Industrial Marketing Management*, Vol. 32:2, pp. 139-149.
- Hertz, Susanne & Lars Gunnar Mattsson (2004): Collective competition and the dynamics of market reconfiguration, *Scandinavian Journal of Management*, Vol. 20:1 / 2, pp. 31-51.
- Hirsjärvi, Sirkka & Helena Hurme (2000): *Tutkimushaastattelu, Teemahaastattelun teoria ja käytäntö*, Helsinki University Press, Helsinki.
- Hite, Julie M. & William S. Hesterly (2001): The evolution of firm networks: from emergence to early growth of the firm, *Strategic Management Journal*, Vol. 22:3, pp. 275 - 286.
- Holmlund, Maria (1997): Perceived quality in business relationships, *Ekonomi och samhälle*, Nr 66, Svenska handelshögskolan, Helsingfors.
- Holmlund, Maria (2004): Analyzing business relationships and distinguishing different interaction levels, *Industrial Marketing Management*, Vol. 33:4, pp. 279 - 287.
- Huemer, Lars (2006): Supply Management; Value Creation, Coordination and Positioning in Supply Relationships, *Long Range Planning* 39:2, pp. 133-153.
- Håkansson, Håkan & David Ford (2002): How should firms interact in business networks?, *Journal of Business Research* 55:2, pp. 133–139.
- Håkansson, Håkan & Jan Johanson (1992): A model of industrial networks, in *Industrial networks, A new view of reality*, ed. Axelsson, Björn & Geoffrey Easton, Routledge, London.
- Håkansson, Håkan & Ivan Snehota, eds. (1995): *Developing Relationships in Business Networks*, Routledge, London.

Håkansson, Håkan, David Ford, Lars-Erik Gadde, Ivan Snehota & Alexandra Waluszewski (2009): *Business in Networks*, Wiley, Chichester, UK.

Isaksen, Arne (1993): Spesialiserte produksjonsområder og industrielle distrikter - en teoretisk diskusjon, *Spesialiserte produksjonsområder i Norden*, ed. Arne Isaksen, Nordisk Samhällsgeografisk Tidskrift, Uppsala.

Jahre, Marianne & Nathalie Fabbe-Costes (2003): *Adaptation And Adaptability In Logistics Networks*, Paper published on the 19:th IMP-conference in Lugano, Switzerland.

Jahre, Marianne, Ingunn Elvekrok & Bente Flygansvær (2004): *Influencing in Logistics Networks*, Paper published on the 20:th IMP-conference in Copenhagen, Denmark.

Jahre, Marianne, Lars-Erik Gadde, Håkan Håkansson, Debbie Harrison & Göran Persson, eds. (2006): *Resourcing in Business Logistics, The art of systematic combining*, Liber & Copenhagen Business School Press, Copenhagen.

Jarillo, J. Carlos (1988): On strategic networks, *Strategic Management Journal*, Vol. 9:1, pp. 31-41.

Jharkharia, Sanjay & Ravi Shankar (2007): Selection of logistics service provider: An analytic network process (ANP) approach, *Omega*, Vol. 35:3, 274-289.

Johannisson, Bengt, Marcela Ramírez-Pasillas & Gösta Karlsson (2002): The institutional embeddedness of local inter-firm networks: a leverage for business creation, *Entrepreneurship & Regional Development*, Vol. 14:4, pp. 297-315.

Johanson, Jan & Mattsson, Lars Gunnar (1992): Network positions and strategic action - an analytic framework, in *Industrial networks, A new view of reality*, ed. Björn Axelsson & Geoffrey Easton, Routledge, London.

Jokela, Päivi (2006): Creating value in strategic R&D networks, a Multi-actor perspective on network management in ICT cluster cases, *Turun Kauppakorkeakoulun julkaisuja, Sarja A-3:2006*, Esa Print, Tampere.

- Kajander, Sakari (2006): Varsinais-Suomen logistiikkasektorin suhdannebarometri 2006, *Publications from the Centre for Maritime Studies*, University of Turku, B136, Painosalama, Turku.
- Kajander, Sakari (2007A): Varsinais-Suomen logistiikkasektorin suhdannebarometri 2007/I, *Publications from the Centre for Maritime Studies*, University of Turku, B140, Painosalama, Turku.
- Kajander, Sakari (2007B): Varsinais-Suomen logistiikkasektorin suhdannebarometri 2007/II, *Publications from the Centre for Maritime Studies*, University of Turku, B146, Painosalama, Turku.
- Karvonen, Tapio, Laura Heikkilä, Laura Leppänen, Antti Saurama & Oskari Vähämaa (2006): *Meri yhdistää osaamisen, Lounais-Suomen meriklusterin perusselvitys. Merenkulkualan Tutkimus- ja koulutuskeskus, Turun Yliopisto. Kaarina 2006.*
- Kent, John L. & R. Stephen Parker (1999): International containership carrier selection criteria, Shippers/carriers differences, *International Journal of Physical Distribution & Logistics Management*, Vol. 29:6, pp. 398-408.
- Kleinsorge, Ilene K., Phillip B. Schary & Ray D. Tanner (1991): The Shipper-Carrier Partnership: A new tool for performance evaluation, *Journal of Business Logistics*, Vol. 12:2, pp. 35-57.
- Konttinen, Terttu, Satu Salonen, Riikka Koli, Taina Huovinen & Tapani Huikuri (2008): Työvoiman ja koulutuksen tarvetutkimus 2008, yhteenveto liikennealan työnantajahaastatteluista, *Varsinais-Suomen TE-keskuksen julkaisuja 5/2008*, Turku.
- Korhonen, Kristiina & Jarkko Lehtinen (2002): Innovaatioiden synnyttäminen ja niiden rooli logistiikkapalveluyrityksen kilpailukeinona, PALKE – Palvelun tuotekehitysprosessi logistiikkayrityksessä, osa 3, *VTT tutkimusraportti RTE 3747/02/2002*, VTT, Rakennus- ja yhdyskuntatekniikka, Espoo.
- Kovács, Gyöngyi & Karen M. Spens (2005): Abductive reasoning in logistics research, *International Journal of Physical Distribution & Logistics Management*, Vol. 35:2, pp. 132-144.
- Kraljic, Peter (1983): Purchasing must become supply management; How managers can guard against materials disruptions by formulating a strategy for supply, *Harvard Business Review*, Vol. 61:5, pp. 109 – 117.

- Laaksonen, Hannu (2007): *Turun historiaa kahdeksalta vuosisadalta*, Turun historiallinen yhdistys, Tammer-Paino, Turku.
- Lai, Kee-hung (2004): Service capability and performance of logistics service providers, *Transportation Research Part E*, Vol. 40:5, pp. 385-399.
- Laine, Jouni (1998): *Managing technological resources and port operations in container shipping*, Licentiate thesis, Helsinki School of Economics and Business Administration, Dept. of Marketing, Logistics, Helsinki (unpublished).
- Laine, Jouni (2005): Redesign of transfer capabilities - studies in container shipping capabilities, *Acta Universitatis oeconomicae Helsingiensis A 254*, Helsinki.
- Laine, Jouni, Vepsäläinen Ari and Bask Anu (2003) An analysis of physical transfer services, *Proceedings of the 15th Annual Conference for Nordic Researchers in Logistics*, ed. Jari Juga, pp. 368-383, Oulu University, Oulu.
- Lambert, Douglas M., M. Christine Lewis & James R. Stock (1993): How shippers select and evaluate general commodities LTL motor carriers, *Journal of Business Logistics*, Vol. 14:1, pp. 131-143.
- Lambert, Douglas M., James R. Stock & Lisa M. Ellram (1998): *Fundamentals of Logistics Management*, McGraw-Hill International Editions, Singapore.
- Lantz, Annika (2007): *Intervjumetodik*, 2. ed., Studentlitteratur, Lund.
- Larson, Paul D. & Arni Halldorsson (2004): Logistics Versus Supply Chain Management: An International Survey, *International Journal of Logistics*, Vol. 7:1, pp. 17 - 31.
- Lemoine, Olga W. & Lars Dagnaes (2003): Globalisation strategies and business organisation of a network of logistics providers, *International journal of Physical Distribution & Logistics Management*, Vol. 33:3, pp. 209-228.
- Lieb, Robert C. & Kristin J. Lieb (2010): The North American Third-Party Logistics Industry in 2008: The Provider CEO Perspective, *Transportation Journal*, Vol. 49:2, pp. 53-65.

- Lieb, Robert C. & Hugh L. Randall (1999): 1997 CEO Perspectives on the Current Status and Future Prospects of the Third Party Logistics Industry in the United States, *Transportation Journal*, Vol. 38:3, pp. 28-41.
- Lin, Pei-Chun & Chia-Hui Lee (2009): How Online Vendors Select Parcel Delivery Carriers, *Transportation Journal*, Vol. 48:3, pp. 20 - 31.
- Lincoln, Yvonna S & Egon G. Guba (1985): *Naturalistic Inquiry*, Sage Publications, Newbury Park, CA.
- Liu, Jun & Gao, He (2007): Study on Railway Transport Service Quality Evaluation, *2007 proceedings of International conference on wireless communications, networking and mobile computing (WiCom, 2007)*, Vol. 1-15, pp. 3313-3316, ACM, New York.
- Loetveit Pedersen, Eirik & Richard Gray (1998): The transport selection criteria of Norwegian exporters, *International Journal of Physical Distribution & Logistics Management*, Vol. 28:2, pp. 108-120.
- Lovelock, Christopher & Evert Gummesson (2004): Whither Services Marketing? In Search of a New Paradigm and Fresh Perspectives, *Journal of Service Research*, Volume 7:1, pp. 20-41.
- Lu, Chin-Shan (2003): The impact of carrier service attributes on shipper-carrier partnering relationships: a shipper's perspective, *Transportation Research Part E*, Vol. 39:5, pp. 399-415.
- Lumsden, Kenth (1995): *Transportekonomi, Logistiska modeller för resursflöden*, Studentlitteratur, Lund.
- Lumsden, Kenth (2006): *Logistikens grunder*, 2 ed., Studentlitteratur, Lund.
- Ludvigsen, Johanna (2000): *The International Networking between European Logistical Operators*, Diss. Stockholm School of Economics, Stockholm.
- Lundgren, Anders (1992): Coordination and mobilisation processes in industrial networks, in *Industrial networks, A new view of reality*, ed. Björn Axelsson & Geoffrey Easton, Routledge, London.
- Mainela, Tuija & Jaana Tähtinen (2007): *Individual action constructing business relationships*, Paper presented at the 23rd IMP Conference, Manchester, UK.

- Mandják, Tibor & Veres Zoltán (1998): The D-U-C model and the stages of the project marketing process. In Aino Halinen & Niina Nummela, eds. *14th IMP annual conference proceedings*, pp. 471-490, Turku School of Economics and Business Administration, Turku.
- Mangan, John, Chandra Lalwani & Tim Butcher (2008): *Global Logistics and Supply Chain Management*, Wiley, Chichester.
- Marasco, Alessandra (2008): Third-party logistics: A literature review, *International journal of production economics*, Vol. 113:1, pp. 127-147.
- Markides, Vassilis & Matthias Holweg (2006): On the diversification of international freight forwarders, A UK perspective, *International Journal of Physical Distribution & Logistics Management*, Vol. 36:5, pp. 336-359.
- Marttinen, Jouni (2004): *Työvoiman ja koulutuksen tarvetutkimus 2004, yhteenveto logistiikan yrityshaastatteluista*, Varsinais-Suomen TE-keskus, Turku.
- Maskell, Peter (2001): Towards a Knowledge-based Theory of the Geographical Cluster, *Industrial and Corporate Change*, Vol. 10:4, pp. 921 - 943.
- Maskell, Peter & Leila Kebir (2005): What Qualifies a Cluster Theory?, *DRUID Working Paper No. 05-09*, Danish Research Unit for Industrial Dynamics, Copenhagen.
- Maskell Peter & Mark Lorenzen (2004): The Cluster as Market Organisation, *Urban Studies*, Vol. 41, pp. 991 - 1009.
- McGinnis, Michael A. (1990): The Relative Importance of Cost and Service in Freight Transportation Choice: Before and After Deregulation, *Transportation Journal*, Vol. 30:1, pp. 12 - 19.
- Meixell, Mary J. & Mario Norbis (2008): A review of the transportation mode choice and carrier selection literature, *The International Journal of Logistics Management*, Vol. 19:2, pp. 183-211.
- Menon, Mohan K., Michael A. McGinnis & Kenneth B. Ackerman (1998): Selection criteria for providers of third-party logistics services: an exploratory study, *Journal of Business Logistics*, Vol. 19:1, pp. 121-137.
- Mentzer, John T. & Kenneth B. Kahn (1995): A framework for logistics research, *Journal of business logistics*, Vol. 16:1, pp. 231 – 250.

- Merton, Robert K., Marjorie Fiske & Patricia L. Kendall (1956): *The Focused Interview, a manual of problems and procedures*, The Free Press, New York.
- Miles, Matthew B. & A. Michael Huberman (1984): *Qualitative Data Analysis, A Sourcebook of New Methods*, reprinted 1991, SAGE Publications, Newbury Park.
- Miller, Susan J., Hickson David J. & Wilson David C. (2001): Decision-Making in Organizations, *Handbook of Organization Studies* eds. Stewart Clegg, Cynthia Hardy & Walter R. Nord, p. 293-312, Sage Publications, 1996, reprint 2001, London.
- Min, Hokey (1998): A personal-computer assisted decision support system for private versus common carrier selection, *Transportation Research Part E*, vol. 34:3, pp. 229-241.
- Mintzberg, Henry (1980): *The Nature of Managerial Work* (original 1973), The Theory of Management Policy Series, Prentice-Hall, Englewood Cliffs.
- Mintzberg, Henry (1987): The Strategy Concept I: Five Ps For Strategy, *California Management Review*, Vol. 30:1, pp. 11-24.
- Murphy, Paul R. & James M. Daley (1997): Investigating Selection Criteria for International Freight Forwarders, *Transportation Journal*, Vol. 37:1, pp. 29-36.
- Murphy, Paul R., James M. Daley & Patricia K. Hall (1997): Carrier selection: Do Shippers and Carriers agree, or not? *Transportation Research Part E*, Vol. 33:1, pp. 67-72.
- Möller, Kristian & Arto Rajala (2007): Rise of strategic nets - New modes of value creation, *Industrial Marketing Management*, Vol. 36:7, pp. 895 - 908.
- Möller, Kristian, Arto Rajala & Senja Svahn (2005): Strategic business nets - their type and management, *Journal of Business Research*. Vol. 58:9, pp. 1274-1284.
- Möller, Kristian & Senja Svahn (2003): Managing strategic nets, A capability perspective, *Marketing theory*, Vol. 3:2, pp. 209-234.
- Nahapiet, Janine & Sumantra Ghoshal (1998): Social capital, intellectual capital and the organizational advantage, *Academy of Management Review*, Vol. 23:2, pp. 242-266.

- Naim, Mohamed M., Andrew T. Potter, Robert J. Mason & Nicola Bateman (2006): The role of transport flexibility in logistics provision, *The International Journal of Logistics Management*, Vol. 17:3, pp. 297-311.
- Naala, Tapio, Lauri Ojala & Tomi Salokivi (2006): Finland State of Logistics 2006, *Publications of the Ministry of Transport and Communications*, 45/2006, Helsinki.
- New, Stephen J. & Philip Payne (1995): Research frameworks in logistics, Three models, seven dinners and a survey, *International Journal of Physical Distribution & Logistics Management*, Vol. 25:10, pp. 60-77.
- Nikkanen, Markku (2003): Railcarrier in intermodal freight transportation network, *Acta Universitatis Lappeenrantaensis* 175, Lappeenranta University of Technology, Lappeenranta.
- Patterson Zachary, Gordon E. Ewing & Murtaza Haider (2010): How different is carrier choice for third party logistics companies? *Transportation Research Part E*, vol. 46:5, pp. 764-774.
- Payne, Adrian F., Kaj Storbacka & Pennie Frow (2008): Managing the co-creation of value, *Journal of the Academy of Marketing Science*, Vol. 36:1, pp. 83-96.
- Pearson John N. & Jake Semeijn (1999): Service priorities in small and large firms engaged in international logistics, *International Journal of Physical Distribution & Logistics Management*, Vol. 29:3, pp. 181-191.
- Pekkarinen, Saara & Pauliina Ulkuniemi (2008): Modularity in developing business services by platform approach, *The International Journal of Logistics Management*, Vol. 19:1, pp. 84-103.
- Persson, Göran & Helge Virum (2001): Growth Strategies for Logistics Service Providers: A Case Study, *The International Journal of Logistics Management*, Vol. 12:1, pp. 53-64.
- Porter, Michael (1990): *The Competitive Advantage of Nations*, Macmillan, London.
- Power, Damien, Sharafalil Moosa & Vikra Bhakoo (2006): Adding value through outsourcing: Contribution of 3PL services to customer performance, *Proceedings of the 11th Annual Conference of Asia Pacific Decision Sciences Institute Power 2006*, pp. 304 -307.

- Premeaux, Shane R. (2002): Motor carrier selection criteria: Perceptual Differences between Shippers and Motor Carriers, *Transportation Journal*, Vol. 42:2, pp. 28 - 38.
- Price, Linda L. & Eric J. Arnould (1999): Commercial Friendships: Service Provider - Client Relationships in Context, *Journal of Marketing*, Vol. 63:4, pp. 38-56.
- Quintens, Lieven & Paul Matthyssens (2010): Involving the process dimensions of time in case-based research, *Industrial Marketing Management*, Vol. 39, pp. 91-99.
- Razzaque, Mohammed Abdur & Chang Chen Sheng (1998): Outsourcing of logistics functions: a literature survey, *International Journal of Physical Distribution & Logistics Management*, Vol. 28:2, pp. 89-107.
- Royer, Isabelle & Philippe Zarlowsky (2001): Research design, in Thietart, Raymond-Alain et al.: *Doing management research, a comprehensive guide*, pp. 111 - 131, Sage Publications, London.
- Ryan, Annmarie, Jaana Tähtinen, Markus Vanharanta & Tuija Mainela (2009): *Putting Critical Realism to Work in Business Relationship Research*, Paper presented at the 25th IMP-conference in Marseille, France, 2009.
- Saaranen-Kauppinen, Anita & Anna Puusniekka (2006): KvaliMOTV - Menetelmäopetuksen tietovaranto. Tampere : Yhteiskuntatieteellinen tietoaarkisto. (URL: <http://www.fsd.uta.fi/menetelmaopetus/>) accessed 7.6.2011.
- Sakas, Damianos P. & Terzi Marina (2008): Measuring Service Quality in the Greek's Shipping Transportation Sector: The Emerging Gap in Customers' Expectations and Perceptions, *Marketing And Management Sciences - Proceedings Of The International Conference On Icmms 2008*, pp. 280-284.
- Sayer, Andrew (1992): *Method in Social Science, A Realist Approach*, 2 ed. Routledge, London.
- Sayer, Andrew (2000): *Realism and Social Science*, Sage Publications, London.
- Schary, Philip B. & Tage Skjøtt-Larsen (2001): *Managing the Global Supply Chain*, Copenhagen Business School Press, Copenhagen.

Schurr, Paul H., Laurids Hedaa & Jens Geersbro (2008): Interaction episodes as engines of relationship change, *Journal of Business Research*, Vol. 61:8, pp. 877 - 884.

Selviaridis, Konstantinos & Martin Spring (2007): Third party logistics: a literature review and research agenda, *International Journal of Logistics Management*, Vol. 18:1, pp. 125-150.

Semeijn, Jake (1995): Service priorities in international logistics, *The International Journal of Logistics Management*, Vol. 6:1, pp. 27-36.

Semeijn, Janjaap & David B. Vellenga (1995) International logistics and one-stop shopping, *International Journal of Physical Distribution & Logistics Management*, Vol. 25:10, pp. 26-44.

Seppälä, Kaapo (2010): *Lounais-Suomen logistiikkasektorin suhdannebarometri 2010*, Satalogis-hanke, Turun yliopiston merenkulkualan koulutus- ja tutkimuskeskus,

Shinghal, Nalin & Tony Fowkes (2002): Freight mode choice and adaptive stated preferences, *Transportation Research Part E*, Vol. 38:5, pp. 367-378.

Sjöstedt, L. (1996): A Theoretical Framework - from an Applied Engineering Perspective, In *Mobility, Transport and Traffic - in the perspective of Growth, Competitiveness and Employment*, European Council of Applied Sciences and Engineering, Paris.

Skaates, Maria Anne & Henrikki Tikkanen (2003): International project marketing: an introduction to the INPM approach, *International Journal of Project Management*, Vol. 21:7, pp. 503-510.

Skjøtt-Larsen, Tage (1999): Third party logistics from an interorganizational point of view, *International Journal of Physical Distribution and Logistics Management*, 30:2, p. 112 – 127.

Skjøtt-Larsen, Tage, Arni Halldorson, Dan Andersson, Heidi Dreyer, Helge Virum, & Lauri Ojala (2003): *Third party logistics – a Nordic approach*, paper presented at Nofoma, 2003 in Oulu.

Sohal, Amrik S., Robert Millen & Simon Moss (2002): A comparison of the use of third-party logistics services by Australian firms between 1995 and 1999, *International Journal of Physical Distribution & Logistics Management*, Vol. 32:1, pp. 59-68.

- Solem, Olav (2003): Epistemology and Logistics: A Critical Overview, *Systemic Practice and Action Research*, Vol. 16:6, pp. 437-454.
- Stefansson, Gunnar (2004): Collaborative Logistics Management, The role of third-party service providers and the enabling information systems architecture, *Doktorsavhandlingar vid Chalmers tekniska högskola*, Chalmers tekniska högskola, Dept. of Logistics and Transportation, Göteborg.
- Stock, James R. & Lambert Douglas M. (2001): *Strategic Logistics Management*, Irwin McGraw-Hill, Boston, MA.
- Stone, Marilyn A. (2001): European Expansion of UK Third-party Logistics Service Providers, *International Journal of Logistics: Research and Applications*, Vol. 4:1, pp. 97-115.
- Sundberg, Pekka (2007A): Varustamobarometri toukokuu 2007, *Publications from the Centre for Maritime Studies*, University of Turku, B138, PAINOSALAMA, TURKU.
- Sundberg, Pekka (2007B): Varustamobarometri marraskuu 2007, *Publications from the Centre for Maritime Studies*, University of Turku, B143, PAINOSALAMA, TURKU.
- Sundberg, Pekka (2008): Varustamobarometri joulukuu 2008, *Publications from the Centre for Maritime Studies*, University of Turku, B158, PAINOSALAMA, TURKU.
- Sundberg, Pekka (2009A): Varustamobarometri heinäkuu 2009, *Publications from the Centre for Maritime Studies*, University of Turku, B165, PAINOSALAMA, TURKU.
- Sundberg, Pekka (2009B): Varustamobarometri marraskuu 2009, *Publications from the Centre for Maritime Studies*, University of Turku, B172, PAINOSALAMA, TURKU.
- Sundberg, Pekka (2010): Varustamobarometri 2010, *Publications from the Centre for Maritime Studies*, University of Turku, B177, PAINOSALAMA, TURKU.
- Tan, Keah Choon (2001): A framework of supply chain management literature, *European Journal of Purchasing & Supply Management*, Vol. 7:1, pp. 39 – 48.
- Tesch, Renata (1990): *Qualitative Reseach: Analysis Types & Software Tools*, The Falmer Press, Basingstoke.

- Thiéart, Raymond-Alain, ed. (2001): *Doing management research, a comprehensive guide*, Sage Publications, London.
- Tikkanen, Joni & Aino Halinen (2003). Network approach to strategic management - Exploration to the emerging perspective, *Proceedings of the 19th IMP International Conference*, Lugano.
- Tsoukas, Haridimos (1989): The Validity of Idiographic Research Explanations, *Academy of Management Review*, Vol. 14:4, pp. 551 - 561.
- Vafidis, Dimitrios & Lauri Ojala (1999): Logistiikkakeskuskonspeti, Edellytykset, järjestäytyminen ja toimintaehdot, *Publications of the Turku School of Economics and Business Administration*, Series B-2:1999, Kirjapaino Grafia Oy, Turku.
- van Laarhoven, Peter, Magnus Berlund & Melvyn Peters (2000): Third-party logistics in Europe – five years after, *International journal of Physical Distribution & Logistics Management*, Vol. 30:5, pp. 425-442.
- van Weele, Arjan J. (2002): *Purchasing and supply management, Analysis, Planning and Practice*, 3 ed., Thomson Learning, London.
- Vargo, Stephen L. & Robert F. Lusch (2008): Why “service”?, *Journal of the Academy of Marketing Science*, Vol. 36:1, pp. 25-38.
- Virum, Helge (1993): Third Party Logistics, *Research report 1993/1*, Norwegian School of Management (BI), Sandvika, Norway.
- Voss, Douglas M., Thomas J. Page Jr, Scott B. Keller & John Ozment (2006): Determining Important Carrier Attributes: A Fresh Perspective Using the Theory of Reasoned Action, *Transportation Journal*, Vol. 45:3, pp. 7 - 19.
- Wilkinson, Ian (2001): A History of Network and Channels Thinking in Marketing in the 20th Century, *Australasian Marketing Journal* 9:2, pp. 23-52.
- Woxenius, Johan (1998): Development of small-scale intermodal freight transportation in a systems context, *Doktorsavhandlingar vid Chalmers tekniska högskola, Report 34*, Department of Transportation and Logistics, Chalmers University of Technology, Gothenburg.
- Wrong, Dennis H. (1961): The oversocialized conception of man in modern sociology, *American Sociological Review*, Vol. 26:2, pp. 183 - 192.

Zolkiewski, Judith, Peter Naude & Stephen R. Waller (2008): Modeling the Effect of Losing a Key Individual on Internal and External Relationships, *Journal of Business Market Management*, Vol. 2:1, pp. 25-39.

Brochures and internet links:

Aboard (2009): Kauppaa ja merenkulkua, Turun Satama 860 vuotta, *Aboard*, 1/09, pp. 9-13, Port of Turku, 2009 (URL: http://www.portofturku.fi/portal/fi/press_center/julkaisut/aboard/) accessed 15.3.2011.

CSCMP, The Council of Supply Chain Management Professionals: Supply Chain Management, Terms and Glossary (URL: <http://cscmp.org/digital/glossary/document.pdf>) accessed 10.06.2009.

The Council of Logistics Management, Glossary (URL: <http://clm1.org/Downloads/Resources/glossary03.pdf>) accessed 28.10.2004.

Combitrans Oy (URL: http://www.combitrans.fi/index.jsp?cid=ct_yritystiedot&nav_level1=5&nav_level2=0) accessed 11.11.2004.

Connections (2009): DHL Express levittää siipensä LogiCityyn, Pilot Turku Oy, 2009, available at <http://www.pilotturku.com/page/fi/lehdisto/uutisarkisto/174>, accessed 7.6.2011.

DHL (URL: www.dhl.fi) accessed 3.11.2004.

Eurostat (2010): Local Administrative Units (LAU), European Commission (URL: http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/local_administrative_units), accessed 25.3.2011.

FCG Efeko (2009): Turun kaupungin osaamis- ja elinkeinostrategian 2006 - 2009 arviointi, Loppuraportti 14.5.2009, Finnish Consulting Group. (URL: www05.turku.fi/ah/kv/2009/0615009x/Images/834668.pdf) accessed 27.4.2011.

Finavia: *statistics* (URL: http://www.finavia.fi/about_finavia/trafficstatistics/statisticsfreighttraffic) accessed 5.10.2009.

Ilmailulaitos: *Ilmailulaitoksen lentoliikennetilasto, 2002 - 2010*, Finavia (URL: <http://www.finavia.fi/press/publications>) accessed 2.5.2011.

Finnish Customs: Foreign trade statistics (URL: http://www.tulli.fi/en/finnish_customs/statistics/index.jsp) accessed 7.6.2011.

Finnish Freight Forwarders' Association (URL: <http://www.huolintaliitto.fi/>) accessed 7.6.2011.

Finnish Transport and Logistics SKAL r.y. (URL: <http://www.skal.fi/uploads/hi4e2b1et3trm1.pdf>) accessed 11.11.2004.

Finnports (Finnish Port Association): *Annual statistics* - database (URL: <http://www.finnports.com/statistics.php>) accessed 2.5.2011.

Läänin Kuljetus (URL: <http://www.laaninkuljetus.fi/>) accessed 3.6.2011

Pilot Turku Oy (URL: <http://www.pilotturku.com/page/en>) accessed 7.10.2009.

Port of Naantali (2009): *Annual report 2008* (URL: http://www.ejulkaisu.fi/naantalin_satama/vuosikertomus2008/) accessed 29.09.2009.

Port of Turku (2008): *Annual report 2007* (URL: http://www.portofturku.fi/portal/en/press_center/publications/) accessed 6.10.2009.

Port of Turku (2011): *Annual report 2010* (URL: http://www.portofturku.fi/portal/en/press_center/publications/) accessed 7.6.2011.

Statistics Finland: *Statistical Yearbook of Finland, 2001-2010*. (URL: http://pxweb2.stat.fi/sahkoiset_julkaisut/julkaisut.asp) accessed 7.6.2011 (restricted access).

Statistics Finland (2008): *Revised standard industrial classification will be introduced in 2009* (URL: http://tilastokeskus.fi/til/tol2008_en.html#2) accessed 26.2.2009.

Statistics Finland (2008a): *Road Freight Transport 2007* (URL: http://tilastokeskus.fi/til/kttav/2007/kttav_2007_2008-05-30_tie_001_en.html) accessed 30.9.2009.

Statistics Finland (2009): *Road Freight Transport 2008* (URL: http://tilastokeskus.fi/til/kttav/2008/kttav_2008_2009-05-29_tie_001_en.html) accessed 30.9.2009.

Statistics Finland (2011): *Liikenteen tilinpäätöstilasto 2010, ennakko,*

(URL: http://www.stat.fi/til/litipa/2010/litipa_2010_2011-09-20_tie_001_fi.html) accessed 02.11.2011.

Suomen Kaukokiito Oy (URL: <http://www.kaukokiito.fi/>) accessed 3.6.2011.

Vainiala Yrjö (2011): Naantalin sataman liikenne kasvoi 12 % vuonna 2010, *Tiedote* 12.1.2011 (URL: <http://www.naantali.fi/satama/>) accessed 1.5.2011.

Varsinais-Suomen liitto (2008A): *Varsinais-Suomen maakuntaohjelman tarkistus 2009-2010*, Turku 2008 (URL: http://www.varsinais-suomi.fi/index.php?option=com_content&view=article&id=261%3Ajulkaisut-2000-2010&catid=58&Itemid=369&lang=fi) accessed 7.6.2011.

Varsinais-Suomen Liitto (2008B): *Miten Varsinais-Suomi makaa, Maakunnan kehittämisen näkökulmia vuonna 2009* (URL: http://www.varsinais-suomi.fi/index.php?option=com_content&view=article&id=261%3Ajulkaisut-2000-2010&catid=58&Itemid=369&lang=fi) accessed 7.6.2011.

Varsinais-Suomen Liitto (2010): *Kompassi tulevaisuuteen*, Varsinais-Suomen maakuntasuunnitelma 2030, maakuntaohjelma 2011–2014 (URL: http://www.varsinais-suomi.fi/index.php?option=com_content&view=article&id=261%3Ajulkaisut-2000-2010&catid=58&Itemid=369&lang=fi) accessed 7.6.2011.

VR Transpoint (URL: <http://www.vrtranspoint.com/>) accessed 1.6.2011.

The Merriam-Webster Dictionary (URL: <http://www.merriam-webster.com/dictionary/>) accessed 19.11.2010.

Lectures:

Karjalainen, Juha: Trends in logistics chains between Finland and Central Europe, presentation at Logistics Trends 2006, Old Mill, Turku 26.9.2006

Miettunen Matti, CEO, Frans Maas Finland Oy, guest lecture in Supply Chain Management, 23.3.2004.

Other:

Statistics Finland (2006): Toimipaikkojen lukumäärä henkilöstön suuruusluokittain, Tilastokeskus / Yritys- ja toimipaikkarekisteri.

Appendix I: Transport and logistics in the TOL 2008

H Transport and storage

49 Land transport and transport via pipelines

- 491 Passenger rail transport, interurban
- 492 Freight rail transport
- 493 Other passenger land transport
- 494 Freight transport by road and removal services
- 495 Transport via pipeline

50 Water transport

- 501 Sea and coastal passenger water transport
- 502 Sea and coastal freight water transport
- 503 Inland passenger water transport
- 504 Inland freight water transport

51 Air transport

- 511 Passenger air transport
- 512 Freight air transport and space transport

52 Warehousing and support activities for transportation

- 521 Warehousing and storage
- 522 Support activities for transportation
 - 5221 Service activities incidental to land transportation
 - 52211 Bus and motor-coach stations
 - 52212 Road transport terminals
 - 52213 Operation of paid parking lots or garages
 - 52219 Other supporting land transport activities
 - 5222 Service activities incidental to water transportation
 - 52221 Harbours
 - 52229 Other supporting water transport activities
 - 5223 Service activities incidental to air transportation
 - 5224 Cargo handling
 - 5229 Other transportation support activities
 - 52291 Forwarding and freighting
 - 52299 Activities of other transport agencies

53 Postal and courier activities

- 531 Postal activities under universal service obligation
- 532 Other postal and courier activities

Source: Statistics Finland

Criteria considered	Used in sources n:o																												
	1990-1994				1995-1999				2000-2009																				
	1	2	15	7	18	3	27	6	12	14	31	20	21	23	26	25	24	19	4	5	8	9	10	11	13	22	28	29	30
Freight damage experience with the carrier	X	X																	X	X									
Freight loss experience with the carrier	X	X																	X	X									
Familiarity with carrier	X	X																	X	X									
Long-term relationship																													
Prior relationship																													
Finances																													
Financial stability/strength of carrier	X	X			X	X			X	X							X	X											
Satisfactory insurance coverage	X	X			X	X			X	X							X	X											
Provides current financial statements, insurance and operating authority																													
Operating ratio																													
Operating revenue trend																													
Current ratio																													
Depreciation as a percent of revenue																													
Debt to equity ratio																													
Market share																													
Financial performance																													
Growth forecast																													
Shipping volume																													
Yearly efficiency																													
Price																													
Discount programs offered by carriers	X	X																											
Door-to-door transportation rates or costs																													
Willingness of carrier to negotiate rate changes																													
Rate level /price/cost																													
Tariff's simplified																													
Price and discount structure																													
Competitive pricing																													
Relation between actual and estimated cost																													
Low packing charges																													
IT-related services																													
IT capability/ systems																													
Shipment tracing (even if IT not mentioned)																													
Availability of computerized billing																													
Ability to provide extensive EDI																													
Ability to provide EDI to customs systems																													
Technological capability																													
IT integration capability																													
Optimization capability																													
Equipment																													
Condition of equipment (e.g. Up-to-date, cleanliness, appearance)																													
Equipment matching needs																													
Carrier transportation equipment designed to facilitate easy and fast loading and unloading																													
Equipment availability																													
Equipment free time for loading/unloading																													
Facilities and equipment (warehousing related)																													
Asset ownership																													
Time																													
Total transit time	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Criteria considered	Used in sources n.o													2000-2009																			
	1990-1994					1995-1999																											
	1	2	15	7	16	18	3	27	6	12	14	31	20	21	23	26	25	24	19	4	5	8	9	10	11	13	22	28	29	30			
On time shipment and delivery																																	
Pickup/delivery times			X	X	X								X	X	X	X	X	X	X														
Speed transit time			X	X	X								X	X	X	X	X	X	X														
Secured journey time																																	
Prompt availability of status information on delivery																																	
Time based logistics strategies					X																					X							
Relationship																																	
Willingness to use logistics manpower																																	
Information sharing and mutual trust																																	
Trust & Fairness																																	
Clause for arbitration and escape																																	
Opportunities to develop long-term relationship																																	
Compatibility with company culture and philosophy																																	
Partnership expectancies																																	
Strategic attitude																																	
Supply chain vision																																	
Other																																	
Gifts/gratuities offered by carriers					X																												
Courtesy of vehicle operators					X																												
Personal relations with the carrier					X																												
Capability																																	
Overall perception of mode																																	
Market competitiveness																																	
Market influences																																	
Security																																	
Centralized or local billing																																	
Knowledge of port/harbour																																	
Compatibility with the users																																	
Employee satisfaction level																																	
Human resources policy																																	
Management structure																																	
Support services																																	
Size																																	
Customer base																																	
Company policy																																	
Customer influence																																	
Creative management																																	
Ability to meet or exceed promises																																	
Availability of top management when necessary																																	
Business experience																																	
Driver availability																																	

Selection criteria sources:

1. Abshire, Roger Dale & Premeaux, Shane R. (1991): Motor Carrier Selection Criteria: Perceptual Differences Between Shippers and Carriers, *Transportation Journal*, Vol. 31:1 pp. 31-35
2. Bard, Edward J., Prabir K. Bagchi & T.S. Raghunathan (1989): Motor Carrier Selection in a Deregulated Environment, *Transportation Journal*, Vol. 29:1 pp. 4-11.
3. Crum, Michael R. & Benjamin J. Allen (1997): A Longitudinal Assessment of Motor Carrier-Shipper Relationship Trends, 1990 vs. 1996, *Transportation Journal*, Vol. 37:1 pp. 5-17.
4. Dobbie, Kathryn (2005): The Core Shipper Concept: A Proactive Strategy for Motor Freight Carriers, *Transportation Journal*, Vol. 37:1 pp. 5-17.
5. Evers, Philip T. & Carol J. Johnson (2000): Performance Perceptions, Satisfaction, and Intention: The Intermodal Shipper's Perspective, *Transportation Journal*, Vol. 40:2 pp. 27 - 39.
6. Evers Philip T., Donald V. Harper & Paul M. Needham (1996): The Determinants of Shipper Perceptions of Modes, *Transportation Journal*, Vol. 36:2 pp. 13 - 25.
7. McGinnis Michael A. (1990): The Relative Importance of Cost and Service in Freight Transportation Choice: Before and After Deregulation, *Transportation Journal*, Vol. 30:1 pp. 12 - 19.
8. Premeaux, Shane R. (2002): Motor carrier selection criteria: Perceptual Differences between Shippers and Motor Carriers, *Transportation Journal*, Vol. 42:2 pp. 28 - 38.
9. Voss, Douglas M., Thomas J. Page Jr, Scott B. Keller & John Ozment (2006): Determining Important Carrier Attributes: A Fresh Perspective Using the Theory of Reasoned Action, *Transportation Journal*, Vol. 45:3 pp. 7 - 19.
10. Danielis Romeo, Edoardo Marcucci & Lucia Rotaris (2005): Logistics managers' stated preferences for freight service attributes, *Transportation Research Part E*, Vol. 41:3, pp. 201-215.
11. Lu, Chin-Shan (2003): The impact of carrier service attributes on shipper-carrier partnering relationships: a shipper's perspective, *Transportation Research Part E*, Vol. 39:5, pp. 399-415.
12. Murphy, Paul R., James M. Daley & Patricia K. Hall (1997): Carrier selection: Do Shippers and Carriers agree, or not? *Transportation Research Part E*, Vol. 33:1, pp. 67-72.
13. Shinghal Nalin & Tony Fowkes (2002): Freight mode choice and adaptive stated preferences, *Transportation Research Part E*, Vol. 38:5, pp. 367-378.
14. Crosby Leon & Stephen A. LeMay (1998): Empirical determination of shipper requirements for motor carrier services: Servqual, direct questioning, and policy capturing methods, *Journal of Business Logistics*, Vol. 19:1, pp. 51-66.
15. Lambert Douglas M., M. Christine Lewis & James R. Stock (1993): How shippers select and evaluate general commodities LTL motor carriers, *Journal of Business Logistics*, Vol. 14:1, pp. 131-143.
16. Kleinsorge Ilene K., Phillip B. Schary & Ray D. Tanner (1991): The Shipper-Carrier Partnership: A new tool for performance evaluation, *Journal of Business Logistics*, Vol. 12:2, pp. 35-57.

Selection criteria page 6/7

18. Kent John L. and R. Stephen Parker (1999): International containership carrier selection criteria, Shippers/carriers differences, *International Journal of Physical Distribution & Logistics Management*, Vol. 29:6, pp. 398-408.
19. Pearson John N. & Jake Semeijn (1999): Service priorities in small and large firms engaged in international logistics, *International Journal of Physical Distribution & Logistics Management*, Vol. 29:3, pp. 181-191.
20. Loetveit Pedersen Eirik & Richard Gray (1998): The transport selection criteria of Norwegian exporters, *International Journal of Physical Distribution & Logistics Management*, Vol. 28:2, pp. 108-120.
21. Semeijn Jake (1995): Service priorities in international logistics, *The International Journal of Logistics Management*, Vol. 6:1, pp. 27-36.
22. Jharkharia Sanjay & Ravi Shankar (2007): Selection of logistics service provider: An analytic network process (ANP) approach, *Omega*, Vol. 35, 274-289.
23. Razzaque Mohammed Abdur & Chang Chen Sheng (1998): Outsourcing of logistics functions: a literature survey, *International Journal of Physical Distribution & Logistics Management*, Vol. 28:2, pp. 89-107.
24. Boyson Sandor, Thomas Corsi, Martin Dresner & Elliot Rabinovich (1999): Managing effective third party logistics relationships: What does it take? *Journal of Business Logistics*, Vol.20:1, pp. 73-100.
25. Bagchi Prabir K. & Helge Virum (1998): Logistical alliances: Trends and prospects in integrated Europe, *Journal of Business Logistics*, Vol.19:1, pp. 191-213,
26. Menon Mohan K., Michael A. McGinnis & Kenneth B. Ackerman (1998): Selection criteria for providers of third-party logistics services: an exploratory study, *Journal of Business Logistics*, Vol. 19:1, pp. 121-137.
27. Murphy Paul R. & James M. Daley (1997): Investigating Selection Criteria for International Freight Forwarders, *Transportation Journal*, Fall 1997, pp. 29-36.
28. Bottani Eleonora & Antonio Rizzi (2006): A fuzzy TOPSIS methodology to support outsourcing of logistics services, *Supply Chain Management: An International Journal*, Vol. 11:4, pp. 294 – 308.
29. Hakan Go" l & Bu" lent C, atay (2007): Third-party logistics provider selection: insights from a Turkish automotive company, *Supply Chain Management: An International Journal*, Vol. 12:6, pp. 379 – 384.
30. Halldórsson Árni & Tage Skjøtt-Larsen (2006): Dynamics of relationship governance in TPL arrangements – a dyadic perspective, *International Journal of Physical Distribution & Logistics Management*, Vol. 36:7, pp. 490-506.
31. Min, Hokey (1998): A personal-computer assisted decision support system for private versus common carrier selection, *Transportation Research Part E*, vol. 34:3 pp. 229-241.

Appendix III: The discussion guide

Supplier networks in the logistics sector in the Turku region

Note, if the company / unit is a part of a larger group the answers should focus on the Turku unit /the unit where you are working.

Background				
Company/unit:				
Number of employees in the unit?				
Your position in the company:				
For how long have you worked in the company?				
For how long have you worked in the logistics sector?				
The position of the company in the logistics business network in the Turku region				
How would you describe the position of the company?	Opinion leader	Strong position	Weak	Niche-company
Within the company's special field in the logistics sector				
Within the logistics sector in the Turku region				
What is it that drives the position?				
Is the position consciously being worked on, how?				
How much is the company cooperating (as main provider, partner or subcontractor) with other logistics companies within the Turku region compared to the amount of cooperation over regional or national borders?				

Subfields within logistics, what does the company provide by its own resources and what is acquired from subcontractors / partners, note also things that are sometimes provided by own resources and sometimes acquired.			
	Provided by own resources	Sometimes acquired	Acquired from partners/subcontractors
Forwarding:			
• General (customs clearing, import/export)			
• Specialized (e.g. air, rail etc.)			
Road transport:			
• Ordinary (full-loads, unit goods)			
• Local distribution			
• Special transport			
Sea freight (NVOCC and being an agent can be treated as own):			
• Liner			
• Tramping			
• Rail wagons			
• Special transport/special equipment			
Air transport			
Rail transport			
Warehousing			
Goods handling			
Logistics solutions (e.g. 3PL)			
Other, what?			

Company profile (the Turku-region) in short, mark the most appropriate alternative in each group:	
Service offering:	Size (turn-over and/or employees):
• Specific niche	• Large
• A sub-sector within logistics	• Middle sized
• Several services	• Little
• A wide spectrum	Brand:
	• Internationally well known
Customer focus (main):	• Locally well known
• Industrial customers	• As others
• Companies within the logistics sector	• Not much known
• Same company units	Activity within the local logistics network:
Geographical market area:	• Change agent
• Local	• Participates actively in the development
• National	• Participates passively in the development
• “Neighbouring countries”	• Participates socially
• International/global	• Participates only through business
Market share	The customers’ image
• Large	• Has a large impact on how our company is seen <u>within</u> the logistics sector
• Middle	• Has some impact
• Little	• Has no impact
Quality/Ethics/Environmental aspects	The image of our partners
• Are much used in the marketing of the company	• Has a large impact on how our company is seen <u>within</u> the logistics sector
• Are used to some extent	• Has some impact
• Are not used	• Has no impact

Which are the three most important companies in these logistics subsectors within the Turku-region?	
Forwarding: 1. 2. 3.	Road haulage/ local distribution: 1. 2. 3.
Sea freight: 1. 2. 3.	Road haulage / longer transport: 1. 2. 3.
Handling of goods: 1. 2. 3.	Warehousing: 1. 2. 3.
Logistics solutions (3PL etc.). 1. 2. 3.	
Network typology, what kind of networks is the company part of?	
Ownership structures (choose one) <ul style="list-style-type: none"> • Independent company with/without daughter companies • Daughter to a domestic company • Part of a large international chain • Daughter to a "smaller" foreign company 	
Agents <ul style="list-style-type: none"> • For a foreign company • For a domestic company • We have our own agents 	
Vertical long-term cooperation (within the sector, in order to create and sell services) <ul style="list-style-type: none"> As main provider <ul style="list-style-type: none"> • Formalized through written agreements • Without written agreements As subcontractor <ul style="list-style-type: none"> • Formalized through written agreements • Without written agreements 	
Horizontal cooperation between independent companies (e.g. sharing and mediating loads to each other) <ul style="list-style-type: none"> • Formalized through written agreements • Without written agreements 	
Customer focus, how big is the share of commissions coming from (estimate e.g. % of the number of commissions) <ul style="list-style-type: none"> • Other units within the company: • Other companies within the logistics sector: • Industrial companies: 	

Is your company specialized at...which? <ul style="list-style-type: none"> • Industries: • Customer size groups: • Geographic markets:

Customer relationships, how big is the share of (e.g. as %)		
<ul style="list-style-type: none"> • Short term • Long term (<1 year) • Ad hoc 		%-shares
Definition: How would you define the terms freight services and logistics solutions, where goes the dividing line between them?		
If by service package is understood the totality of services that a customer needs either within freight services or logistics solutions, do you see them as a set of separate services or a totality?		
	Freight services	Logistics solutions
A totality		
A set of services		

To set the boundaries of the service package			
What is agreed upon with the customer?			
	Customer specifies	Mutual agreement	Our company decides
Goods characteristics			
Volume			
Delivery timetable (JIT-demands)			
Price			
Destination			
Choices of mode of transport and equipment			
Combinations within a door-to-door transport			
Route			
The sub-contractors' areas of responsibility, their use of resources and capacity			
VAL (value adding activities)			
Other (what?)			

Are there differences between customers when it comes to defining the service package? How, what?

Time for planning:

How long in advance does the customer contact you (your company) when services are to be provided? Differences for different types of services? (= How much time do you get for decision making?)

Partners/sub-contractors in the supply net

When is cooperation with partners/sub-contractors established?

- To build a general network (that can be marketed as a ready made structure)
- For the long-term needs of a customer
- For ad-hoc commissions

What is the cooperation with partners/sub-contractors like between commissions?

- Functional (we cooperate all the time)
- It is taken care of through social contacts
- It sleeps

What kinds of differences are there for different kinds of partners/sub-contractors?

Cooperation **trends**; in what direction is your company moving at the moment?

- More services are produced in house
- Fewer partners/sub-contractors will be used
 - Contacts are deeper than earlier
 - Contacts are not deeper
 - Exclusive agreements
- More partners/sub-contractors than earlier will be used
- No change

Choice criteria in the activation process			
<i>Note, you do not need to fill in the list/grade the answers before hand.</i>			
In what ways are the following factors taken into account when choosing partners/sub-contractors for a service package concerning freight services ?			
	Starting point for whom can be considered	Taken into account in the selection process	Never or seldom taken into account in the selection process
The service offering of the potential sub-contractor			
Price			
Quality			
Timetable/frequency			
Technical compatibility between the companies in the chain e.g. IT-systems.			
General characteristics of the company (size, finances etc.)			
Customer treatment			
Previous experiences of this company			
Established relationship between the companies			
Personal relations			
The potential subcontractor's horizontal network			
The potential subcontractor's position in the local business network			
Time based agreements with subcontractors (what do they look like)			
What other factors are important when choosing partners/sub-contractors for a service package concerning freight services ?			

Choice criteria in the activation process, (see comment on the previous page)			
In what ways are the following factors taken into account when choosing partners/sub-contractors for a service package concerning logistics solutions ?			
	Starting point for whom can be considered	Taken into account in the selection process	Never or seldom taken into account in the selection process
The service offering of the potential sub-contractor			
Price			
Quality			
Timetable/frequency			
Technical compatibility between the companies in the chain e.g. IT-systems.			
General characteristics of the company (size, finances etc.)			
Customer treatment			
Previous experiences of this company			
Established relationship between the companies			
Personal relations			
The potential subcontractor's horizontal network			
The potential subcontractor's position in the local business network			
Time based agreements with subcontractors (what do they look like)			
What other factors are important when choosing partners/sub-contractors for a service package concerning freight services ?			

Consider this question as a discussion item:

Activation , how often are the following elements included in the process concerning freight services ?				
	Always	Often	Some times	Never
Potential subcontractors to contact are chosen through: <ul style="list-style-type: none"> • My personal knowledge concerning available alternatives • Available market information (search) • Inviting tenders from potential subcontractors • Direct ordering from a specific provider 				
Is there a formal structure for how to choose between alternative subcontractors?				
Is there a formal structure for the activation work process?				
A service package is taken care of by one individual in the company				
A service package is taken care of by a group in the company				
Is the process and/or the decision documented?				

Activation, how often are the following elements included in the process concerning **logistics solutions**?

	Alwa ys	Often	Some times	Never
Potential subcontractors to contact are chosen through: <ul style="list-style-type: none"> • My personal knowledge concerning available alternatives • Available market information (search) • Inviting tenders from potential subcontractors • Direct ordering from a specific provider 				
Is there a formal structure for how to choose between alternative subcontractors?				
Is there a formal structure for the activation work process?				
A service package is taken care of by one individual in the company				
A service package is taken care of by a group in the company				
Is the process and/or the decision documented?				

Reflect on the importance of previous experiences of specific subcontractors:

Customer impact on the choices:			
Do customers present wishes/ demands concerning the subcontractors that should take care of their goods?			
<ul style="list-style-type: none"> • Industrial customers: • Customers within the logistics sector: 			
Impact from the following factors	Yes	Sometimes	No
Customer's personal relations to subcontractors?			
The customer's involvement in other networks			
Time based agreements between your company and the customer			

<p>New and established cooperation relationships with service providers</p> <p>In what kind of situations does your company use new partners/subcontractors?</p> <p>When and how are new alternatives <i>tested</i>?</p> <p>Can an established partner be ignored, what are the possibilities for new companies to be commissioned?</p>
--

If your company is a part of a larger organization:	Yes	No
Are there official guidelines within the organization about which/what kind of subcontractors you should use?		
Are there unofficial guidelines within the organization about which/what kind of subcontractors you should use?		

<p>Dimensions of vertical cooperation: When your company as the main provider delivers freight services or logistics services to industrial customers, what is the cooperation with subcontractors like concerning different kinds of services?</p>		
<p>Time based</p> <ul style="list-style-type: none"> • Long term • Short term (<1 year) • Ad hoc 	Freight services	Logistics solutions
<p>Agreements:</p> <ul style="list-style-type: none"> • The cooperation is formalized through a written agreement • The cooperation is not formalized • The cooperation is exclusive (other partners cannot be used) • There is a pool of competing partners • Competing “out side” partners can be used 	Freight services	Logistics solutions
<p>Which are the main differences between different kinds of services?</p>		
<p>If/when your company is a subcontractor: Who do you consider to be your customer?</p> <ul style="list-style-type: none"> • The client within the logistics sector • The final industrial customer • Somebody else, who? 		

D. The local business network in the Turku region
How important is the local business network (the logistics sector in the Turku region) for your company compared to the cooperation network involved in arranging service packages for the customers?
How do you follow what is happening within the sector? (E.g. about new companies, price developments, new resources such as liner services etc., capacity growth? (Media, PR, direct contacts by other parties, you contact...etc?)
How do you maintain contact to potential partners and subcontractors?
Are there other kinds of cooperation between the logistics companies than the one about concrete services? What kinds? (Technical matters, Regulation/Laws, ...)
Are there social contacts between actors in the sector, what kind and how important are they?
How would you describe the relations within the local business network (the logistics sector in the Turku region)?
Are there companies that dominate on the market and steer the behaviour of the other actors (e.g. within pricing)?
Do you feel that you and your company are dependent on some other actor / other type of actor within the local business network?
How do you feel about the situation where each in turn can be a main provider or a subcontractor for each other?
In what ways do you compete for customers (the relationship between cooperation and competition)?
When favours are exchanges within the sector, (= e.g. sharing and mediating commissions): <ul style="list-style-type: none"> • Is it mainly positive or negative, motivate? • Is it a strategic issue?
Is there something you would like to change within the constellations within the local /regional business network?

Thank you for your cooperation!

Appendix IV: The letter with a request for an interview

Dear (recipient),⁴⁵

I work as a lecturer in international business at Åbo Akademi University. At the moment I am working on a doctoral thesis concerning co-operation networks in the transport and logistics sector. NN suggested that I could contact you in relation to this.

In my research I study how co-operation networks are established within the transport and logistics sector when working on service packages for industrial customers. For this reason I would like to interview individuals working in those transport and logistics companies in the Turku region that can function as main providers (i.e. have their own industrial customers) and use partners/subcontractors for parts of the services. Examples of the questions are: when and how does the company choose its partners/subcontractors? What factors affect which partners that will be chosen? How does the company maintain its relationships between commissions?

All answers are treated confidentially. My project is financed by the Foundation for Economic Education and Stiftelsen för Åbo Akademi.

The supervisor is professor Jan-Åke Törnroos.

Would it be possible to interview you in this connection? The interview can be done e.g. in your office or by phone. I can send the questions beforehand by e-mail. The discussion guide includes both questions that are aimed for a discussion and questions where one can provide a written answer. The interviews take approximately 1,5 hours.

If you like you can contact me by replying to this e-mail, otherwise I will call you at the latest on xx (day and date).

Best regards,

Monica Nyholm

(Contact information)

⁴⁵ The letter was slightly modified depending on who the recipient was

Appendix V: The informant organizations

Informant	Type	Unit size	Organization	Customer type			Customer size			Customer relationship length			Customer	Geo market
				Internal	Log sector	Industry	Large	Medium	Small	All kinds	Long	Ad hoc			Industry
X19	Forwarder	3-5	One unit	20	40	40		X	X	1		various	..	
X26	Forwarder	3-5	Domestic sub-unit	10	0	90		X	X	80	25	various	S of Jyväskylä	
X28	Forwarder	3-5	Global chain	10	0	90		X	X	40	40	various	..	
X12	Forwarder	6-10	International sub-unit			90	..	..	..	80	10	various	..
X29	Forwarder	11-20	Domestic sub-unit	50	10	40			X	80	15	various	Hanko - Pori, local	
X2	Forwarder	11-20	Domestic group		majority		..	..	..	30	30	tech, mech, steel, paper	..
X13	Liner	3-5	International sub-unit		30	70			X	..	..	paper, steel etc	..
X8	Liner	6-10	Global sub-unit	5	0	95		X	X	90	1 to 2	comp, finished goods	EU	
X9	Liner	6-10	International sub-unit	50	20	30	X			90	10	comp, finished goods	North Europe	
X18	Liner	6-10	Domestic group			80	X				25	trade, forest, met	..	
X11	Liner	11-20	One unit	10	25	65	X	X		80	15	some steel, metal, frozen	South Finland	
X5	Liner	21-50	Global sub-unit	49	1	50	..	..	..	50	40	various	..
X10	Liner	21-50	Domestic group	25	25	50	..	..	..	99	1	various	intl, dom
X4	Liner	> 50	Global sub-unit	50	0	50	..	..	..	99	1	trade	..
X20	Liner	> 50	Global sub-unit	35	0	65	..	..	..	80		various	..
X23	Liner	> 50	Global sub-unit			99			X	1		high value finished	Finland	
X24	Liner	> 50	Domestic group			70			X	1		various	Fin, Scand	
X17	Specialist	3-5	Domestic sub-unit			80	X	X		1	1 to 2	forest, metal	..	
X1	Specialist	6-10	Domestic sub-unit	..	..	..	X		X	1		chem	..
X15	Specialist	6-10	One unit	0	0	100	X			100		chem	Glob, FI	
X30	Specialist	6-10	International sub-unit	6	9	85			X	50	43	2 paper, steel, chem	South Finland	
X14	Specialist	11-20	Domestic group		20	80	X			70 to 80	20 to 30	bulk, project	Baltic & North Sea	
X21	Specialist	11-20	Domestic sub-unit		15	85	X			90	5	various, heavy	Fin, Scand	
X25	Specialist	11-20	One unit		50	50	..	..	..	1 yr agreem.	25	bulk, project	..
X27	Specialist	21-50	Domestic sub-unit		15	85	X			90		heavy	..	
X3	Specialist	> 50	Global sub-unit	30	0	70			X	90	new ~20	spec industry, trade	Europe	
X7	Specialist	> 50	Domestic group	5	30	65	..	..	..	80	15	various	..
X16	Specialist	> 50	Domestic sub-unit	10	5	85	..	..	..	100		spec industry,	East Baltic sea
X22	Specialist	> 50	Domestic sub-unit	5	25	70	X			80	20	bulk, raw materials	W, S, M Fin	
X6	excluded													

Appendix VI: The NVivo nodes

Tree nodes:

- Activation
 - The activation process
 - Documentation
 - Documenting logistics solutions
 - Established patterns
 - To activate
 - To choose
 - Choosing whom to contact
 - In logistics solutions
 - Time
 - Who activates
 - In logistics solutions
 - Defining the package
 - Mutual decisions
 - Differences
 - What the customer decides
 - We decide
 - Pre-requisites
 - When are relationships established
 - Passing over and choosing new
 - Impact factors
 - Customer
 - Subcontractor networks
 - Our horizontal networks
 - Cooperation between commissions
 - Choice criteria alternatives
 - Never or seldom used
 - Differences freight - logistics
 - Choice criteria
 - Definition
 - Freight vs. logistics
 - Package or totality
 - Favors and return favors
 - Subcontractor in turn
 - Who is the customer
 - The local business network
 - Change wishes
 - Wider cooperation
 - Domination
 - The unit's own position
 - Working on the position
 - In the logistics sector
 - In the sub-sector
 - What gives the position
 - Functional contacts
 - How are the relations
 - Competition
 - Social contacts
 - Important companies
 - Individuals
 - Own social networks and contacts
 - The importance of individuals
 - The person herself
 - Customers
 - Spread
 - Length of relationships
 - Specialization
 - Size
 - Cooperation trends
 - Vertical long-term cooperation
 - Agreements
 - Logistics solutions special
 - Time related
 - Logistics solutions special
 - Other info
 - Large players
- Free nodes:**
Company profile
What is being bought

Svensk sammanfattning

Logistikbranschen bygger av tradition på samarbete mellan olika typer av aktörer. Under de senaste decennierna har branschens struktur dock förändrats genom att globala aktörer uppstått som är verksamma inom många av logistikens delområden. Samtidigt har också formella avtal och andra typer av strukturerat och formellt samarbete blivit allt vanligare och den teknologiska utvecklingen har möjliggjort skapandet av nya logistiktjänster och nya sätt att erbjuda tjänsterna. Inom handeln och industrin har logistiken fått allt större strategisk betydelse (Abrahamsson, 2008) och ses nu som ett konkurrensmedel (Bagchi & Virum, 1998, Christopher & Peck, 2003). Dess betydelse syns ännu klarare om man tänker sig att konkurrensen sker mellan leveranskedjor och inte endast mellan enskilda företag (se t.ex. Dam Jespersen & Skjøtt-Larsen, 2005). Kraven på logistikprocesserna blir därmed allt mera sofistikerade och företagen väljer ofta att överlåta utförandet av större delar av de logistiska funktionerna till samarbetspartners (Skjøtt-Larsen 1999). I tillägg föredrar de att vara i kontakt med endast en logistikleverantör för en specifik process eller region (Dobie 2005). Som en konsekvens blir kraven på logistiktjänsterna också mera kundspecifika.

Logistikföretagen skiljer sig mycket från varandra vad gäller t.ex. storlek och tjänsteutbud och därmed också gällande möjligheterna att producera hela tjänstepaketet i det egna företaget. I de flesta fall skulle det vara ineffektivt att producera alla tjänster själv pga. de många olika typer av kunskap och utrustning som produktionen av de olika typerna av logistiktjänster kräver (se t.ex. Ford et al., 2003 och Chapman et al. 2003). Man kan därför se involveringen av partners i tjänsteprocessen som en del av den generella affärsmodellen inom logistikbranschen.

År 2010 uppgick omsättningen i de finländska speditörsföretagen till drygt 2.4 mrd € varav frakt och andra inköpta tjänster stod för 1.3 mrd € (Statistics Finland, 2011). Genom det här betydande beroendet av samarbetspartners uppstår också krav på att företagen ska kunna hantera leverantörsrelationer. Huvudleverantörens tjänstekvalitet samt möjligheterna att utveckla nya tjänster och förbättra de nuvarande är beroende av samarbetsparternas agerande samtidigt som utläggningen erbjuder ökade möjligheter för specialisering (cf. Schary & Skjøtt-Larsen, 2001). Man har kunnat se brister i

färdigheterna att hantera leverantörsrelationer i tredjepartslogistikföretag (Berglund 1997) och också inom branschen har utvecklingen av samarbetsnätverk setts som en viktig utmaning (Naula et al. 2006). Inom forskningen har man dock rätt sällan studerat leveransnätverk och -nät inom logistikbranschen. Samarbetsparterna nämns sällan i litteraturen och studeras då närmast med fokus på de tjänster de producerar och de resurser som behövs för huvudleverantörens tjänstepaket.

Ett logistikföretags leveransnätverk består av både fast och mera löst sammanhållna underleverantörer och andra samarbetspartners. I tillägg bör man beakta de individuella kontaktnätverken både inom och utanför det etablerade leveransnätverket. Då tjänster behöver utföras för en kund *aktiveras* de delar av nätverket som behövs och bildar då ett leveransnät. I den här studien anses leveransnäten då vara nätverk som medvetet skapats utgående från vissa krav. Krav kan härledas från det tjänstepaket som skall skapas för en kund. Där ingår t.ex. godsets särdrag, de tjänster som skall utföras, relationen mellan huvudleverantören och kunden och platsen, eller platserna där tjänsterna behövs. Teoretiskt sett kan man säga att leveransnätet kan komma att se annorlunda ut varje gång ett tjänstepaket skall skapas. I praktiken antas dock att många av de samarbetspartners som ingår är de samma från gång till gång. Laine (2005) påpekar att många leveranskedjor inom logistiken är rätt stela och att leverantörerna i stället borde arbeta med lösare leveransnätverk för att lättare kunna svara på de snabba efterfrågeförändringar som karakteriserar vissa kundbranscher. Det skulle också betyda att logistikföretagen skulle arbeta med aktivering allt oftare i framtiden.

Logistikföretagen har först på senare tid börjat studeras ur ett behavioralt perspektiv. Den här studien fokuserar på företagens beteende och faktorer som påverkar beteendet i en specifik situation, dvs. då relationer till samarbetspartners aktiveras för utförandet av tjänster inom ett tjänstepaket till en kund. Samtidigt beaktas också hur aktiveringen påverkar och påverkas av det existerande leveransnätverket. Aktivering ska här förstås som en operativ arbetsprocess som går ut på att välja och engagera partners för utförande av de olika tjänster som behövs i samband med ett uppdrag för en kund.

Syfte och forskningsfrågor

Avhandlingens syfte är att förstå aktiveringsprocessen, dess innehåll och dess kopplingar till den nätverkskontext där huvudleverantören verkar, genom att studera hur företag i logistikklustret i Åbo aktiverar samarbetspartners för utförandet av logistiktjänster. Genom att undersöka vilka faktorer som påverkar aktiveringen och vilka konsekvenser valen kan ha för utvecklingen av leveransnätverken, är målsättningen att skapa en teoretisk förståelse av aktiveringsbegreppet som en länk mellan ordinära dagliga aktiviteter och utvecklingen över tiden.

Utgående från detta har fem forskningsfrågor formulerats:

1. Hur kan aktivering beskrivas och förstås ur ett industriellt nätverksperspektiv?
2. På vilka sätt kan aktivering och nätverkskontextens struktur påverka varandra?
3. På vilket sätt aktiveras relationerna till samarbetspartners och underleverantörer för utförandet av logistiktjänster inom ett leveransnät?
4. Vilka typer av valkriterier används då huvudleverantören väljer vilka partners och underleverantörer som ska engageras i ett leveransnät?
5. Hur kan beskrivning och analys av aktiveringsprocessen ur ett nätverksperspektiv bidra till förståelsen av relationerna till samarbetsparterna och utvecklingen av huvudleverantörens leveransnätverk?

Den empiriska studien är geografiskt avgränsad till huvudleverantörer i logistikbranschen i Åboregionen. Undersökningen omfattar sådana företagsenheter som kan göra självständiga aktiveringsbeslut även om de hör till en större organisation. Leveransnäten och -nätverken är avgränsade till sådana samarbetspartners som levererar logistiktjänster för de tjänstepaket som huvudleverantören säljer till kunder inom industri och handel. Utläggningen av tjänster avgränsas till det första skiktet i logistikbranschen. Samarbetspartners kan också lägga ut tjänster till egna underleverantörer men dessa beaktas inte.

Den teoretiska referensramen

I studien används ett perspektiv på logistikbranschen där leveransnät skapas utgående från ett uppdrag från en kund. Genom att välja detta perspektiv är det möjligt att nå flera typer av aktiveringssituationer än om man, som i tidigare studier, skulle utgå från att huvudleverantören har en färdig transportkedja som sedan används för att utföra tjänster för olika kunder.

Arbetets teoretiska referensram bygger på den teoribildning om industriella nätverk som förts fram av IMP-gruppen⁴⁶. Samtidigt beaktas att logistikbranschen är en tjänstesektor där samarbetsnätverk har en stor betydelse för hur tjänster kan skapas och utföras. En del av logistikföretagens viktigaste resurser finns utanför organisationen, i samarbetsnätverken (se t.ex. Hertz, 1996) och detta förespråkar ett teoretiskt synsätt som bygger på relationer och samverkan över organisationella gränser.

Tillämpningen av nätverksansatsen innebär att företag ses som förankrade i affärsnätverk (t.ex. Johannisson et al. 2002) som består av direkta och indirekta relationer mellan de olika aktörerna. Interaktionen diskuteras i termer av aktörer, aktiviteter och resurser och företagets relationer förväntas i många situationer vara långvariga (t.ex. Håkansson & Snehota, 1995). Företagen agerar inte i isolering utan påverkas också av hur de andra aktörerna agerar och reagerar. Förankringen i nätverket innebär också en tidsmässig förankring (Halinen & Törnroos, 1998) där tidigare erfarenheter och framtida förväntningar påverkar företagets verksamhet. Relationerna mellan företagen (t.ex. en köpare och en säljare) utvecklas över tiden genom att aktörerna lär känna varandra och anpassar sig till varandras verksamhetssätt. Nätverk har inga fastställda gränser utan dessa definieras utgående från vad som studeras. Inom det mera generella affärsnätverket kan finnas klickar av företag som har ett mera intensivt samarbete med varandra (Easton, 1992).

Nätverkskontexten består i den här studien av fyra olika nivåer som delvis överlappar varandra. *Leveransnätet* omfattar de samarbetspartners som engagerats genom aktivering för att utföra tjänster i anknytning till ett tjänstepaket medan *leveransnätverket* omfattar alla de partners som huvudleverantören normalt tenderar att

⁴⁶ Industrial marketing and purchasing group, www.impgroup.org

samarbeta med. *Affärsnätverket* motsvarar här branschen generellt och det *sociala nätverket* omfattar individuella kontaktnätverk och socialt umgänge inom branschen. Affärsnätverket och det sociala nätverket är här avgränsade till det lokala klustret. Nätverk kan också förstås i termer av roll och position (t.ex. Anderson et al., 1998). Företagen i nätverket har alla sin egen syn på sin position i relation till de andra aktörernas positioner och kan förväntas arbeta för att förbättra sin position. Rollbegreppet omfattar i den här studien t.ex. företagets roll som tjänsteproducent inom ett visst segment inom logistikbranschen, t.ex. som transportör eller speditör. I tillägg innehar företaget rollen som huvudleverantör eller t.ex. underleverantör i anknytning till enskilda tjänstepaket. Begreppet dynamik används för att studera hur nätverk förändras över tiden. Detta sker i form av gradvisa förändringar (se t.ex. Andersson, 1992, Halinen & Törnroos, 1995) men kan också ibland ta formen av radikal förändring t.ex. om en relation bryts (t.ex. Halinen et al. 1999). I studien används ett aktörsperspektiv där aktiveringen studeras ur huvudleverantörens synvinkel. Föremålet för en enskild aktivering är relation till en (vanligtvis redan etablerad) samarbetspartner. Ett kunduppdrag kan ge upphov till att tjänster behöver anskaffas från flera samarbetspartners. Ett leveransnät byggs då upp genom flera aktiveringar.

Aktiveringsprocessen illustreras med hjälp av en enkel beslutsfattandemodell som visar vilka typer av faktorer som påverkar ett beslut (Miller et al. 1996). Modellen anpassas till aktiveringssituationen så att den innehåller temat som ett beslut ska göras om (dvs. att skapa ett leveransnät), beslutsfattaren, kundens inverkan, valkriterier, arbetsprocessen och tidsramen samt inverkan från nätverkskontexten. Också effekter i motsatt riktning, dvs. hur aktivering påverkar huvudleverantörens nätverk tas i beaktande. Eftersom longitudinellt data inte samlats kan detta dock ske endast i begränsad omfattning.

För att kunna analysera processens innehåll är den teoretiskt skissad som en arbetsprocess innehållande tre olika steg (se figur 4.1). Först definieras de krav och behov av enskilda tjänster som kunduppdraget ger upphov till. Efter det avgränsas en grupp av potentiella partners (under förutsättning att det finns flera att välja mellan) och slutligen evalueras dessa och en partner väljs, kontaktas och engageras (om detta företag har möjlighet att ta emot uppdraget). Tjänstepaketet kan ses som en, åtminstone i någon grad, kundanpassad helhet men den

kan innehålla både standardiserade och mera specialanpassade deltjänster vilket också kan leda till att aktiveringsprocessen och relationerna till de olika involverade samarbetsparterna ser olika ut. Kundens inverkan på aktiveringen ses starkast genom utformningen av uppdraget, men kunden kan även pga. sina relationer till andra företag vilja ge önskemål gällande de partners som ska aktiveras.

Med beslutsfattaren avses den eller de individer i företaget som utför aktivering. Samtidigt bör man också beakta huvudleverantörsorganisationen. Arbetsprocessen för aktivering kan tänkas se olika ut i stora respektive mindre organisationer, t.ex. i form av i hur stor utsträckning man följer en formell inköpsprocess.

Urvalskriterierna för logistiktjänster innehåller många rent funktionella krav på t.ex. utrustning, tidtabell och kapacitet. Hur dessa utformas kan härledas från uppdraget från kunden, i tillägg kan huvudleverantören ha egna kriterier för vilka partners som kan väljas. Med tid avses i det här sammanhanget närmast den tid som finns till förfogande för utförandet av aktiveringen före tjänsterna skall utföras.

Vid behandlingen av inverkan från nätverkskontexten tas fasta på företagets förankring i långvariga relationer framför allt till andra logistikleverantörer. De individuella beslutsfattarnas sociala kontaktnätverk inom branschen kan också ha en potentiell inverkan på aktiveringen.

Metod

Forskningsprocessen omfattade en abduktiv, samtidig insamling av empiriskt data och bearbetning av den teoretiska modellen. Undersökningen formades som en fallstudie av aktivering avgränsad till logistikklustret i Åbo. Material samlades in genom halvstrukturerade diskussioner i 29 huvudleverantörsorganisationer, huvudsakligen under perioden december 2006 - oktober 2007. Diskussionerna var i första hand fokuserade på hur informanterna går tillväga vid aktivering och vilka faktorer som påverkar aktivering (diskussionsunderlaget ses i bilaga III).

Diskussionerna bandades, transkriberades och kodades med hjälp av datahanterings- och analysverktyget QSR NVivo. Genom kodningen och datareduktion formades en berättelse om aktivering som är indelad i tre delar för olika typer av huvudleverantörer. De tre profilgrupperna skapades utgående från organisationernas

huvudsakliga tjänsteinriktning och benämns linjeföretag (Liners), speditörer (Forwarders) och specialister (Specialists). Aktiveringsberättelsen illustreras i texten med citat av informanterna samt tabeller där kommentarer om vissa delområden sammanställts. Som en del av valideringen av undersökningen jämförs det empiriska datat till vissa delar med en tidigare undersökning (Engström, 2004). Synen på verkligheten utgår från den kritiska realismen (t.ex. Bhaskar, 1978) där man anser att det existerar en verklighet utanför vår egen tolkning av den. Social struktur är en del av den reella världen som både begränsar och möjliggör mänsklig aktivitet. Samtidigt påverkas dock också de sociala strukturerna över tiden genom mänskliga reproduktiva och transformerande aktiviteter (Bhaskar, 1983).

Resultat

Medan det empiriska materialet bearbetades framträdde aktiveringen allt mera som en central del inom logistikföretagens tjänsteproduktion. Huvudleverantörerna arbetar i långvariga relationer med sina samarbetspartners och strävar efter långsiktiga avtal också med kunderna. Med undantag av linjeföretagens underleveransnätverk för landsvägstransport aktiveras relationerna till samarbetsparterna när de behövs i samband med tjänstepaket. Aktiveringen ska i det här sammanhanget förstås som en process som innehåller definition av behoven, utvärdering av alternativa partners och ett slutgiltigt val av en partner som engageras för ett uppdrag. Besluten görs antingen av individuella beslutsfattare eller av en grupp av beslutsfattare i huvudleverantörsorganisationen. Kunden inverkar på processen och valet främst i det skede då kraven för vad som ska ingå i tjänstepaketet fastställs. Arbetsprocessen återspeglar organisationens storlek och orsakerna till varför en aktivering ska ske. Vanligtvis är det fråga om en ordinär uppgift som utförs under tidspress utom ifall avsikten är att inleda en ny långsiktig kundrelation eller om avsikten är att samarbetspartnern skall utföra tjänster för flera olika delar av organisationen. Så långt som möjligt aktiveras relationerna till existerande partners inom företagets leveransnätverk. Nya partners engageras främst i fall att problem uppstått i tidigare relationer eller om nya affärsmöjligheter kommit fram som leder till ett långsiktigt behov av tilläggskapacitet eller nya typer av tjänster.

De enda sätten att kunna bedöma kvaliteten på en erbjuden tjänst, i jämförelse med en fysisk produkt, är egen erfarenhet eller erfarenheter

som förmedlas genom kontakter till andra som använt tjänsten tidigare. Den här typen av informationsspridning kan anses vara av stor betydelse inom logistikbranschen och erfarenhet är också den huvudsakliga utgångspunkten för de val som görs inom aktivering. Horisontellt samarbete mellan logistikföretag kan förekomma främst då företagen har olika funktionella roller inom branschen, dvs. är specialiserade på olika tjänstesegment eller då kortvariga problem uppstår som behöver en snabb lösning. Om företagen samtidigt kan anses vara konkurrenter förutsätter samarbetet ett starkt individuellt förtroende. Båda situationerna kan förväntas leda till att relationen mellan företagen förstärks över tiden.

Med användning av nätverksansatsens terminologi är aktivering en aktivitet som utförs av en fokal aktör, dvs. huvudleverantören. De relationer som blir aktiverade kan ses som resurser som är nödvändiga för utförandet av tjänsterna till den industriella kunden. Många av samarbetsparterna kan dock också själva ha egna industriella kunder och använda den nuvarande huvudleverantören som partner i sitt eget leveransnät. Av denna orsak ses också samarbetsparterna här som aktörer och aktiveringen omfattar relationen till enskilda partners. Om aktiveringen studeras med utgångspunkt i relationen mellan huvudleverantör och partner kan den beskrivas som en inledande episod i en sekvens av relationen (se avsnitt 3.1.4). Sekvensen ska då förstås som genomförandet av det uppdrag som huvudleverantören ger till samarbetspartnern vid aktiveringen. Ur huvudleverantörens synvinkel föregås episoden av en beslutsprocess där valkriterier bestäms och ett val har gjorts att kontakta just denna samarbetspartner. Ur tjänsteprocesssynvinkeln är aktiveringen den inledande fasen i utförandet av ett tjänstepaket till en industriell kund.

Leveransnätverket växer fram och förändras över tiden, t.ex. genom effekterna av på varandra följande aktiveringar. En aktivering kan beskrivas som en utlösande faktor för en rörelse i riktning mot stabilisering eller förändring i nätverket. På så vis kan nätverkets inverkan på aktiveringen och aktiveringens effekter på nätverket sägas ömsesidigt förstärka varandra. Om nätverksstrukturen ses som uppbyggd av hopkopplade relationer illustrerar aktivering hur små processer inom enskilda relationer med tiden ackumuleras till nätverksnivån. Eftersom valet av samarbetspartner inom aktivering långt bygger på erfarenhet och tillit kan aktiveringen också ses inom

en tidsdimension som en koppling mellan det förflutna och framtiden. Det att relationerna mellan olika aktörer är kopplade till varandra innebär samtidigt att en aktör inte ensam kan påverka hur nätverket, eller en del av det, utvecklas. Utvecklingen är också beroende av hurdana val som andra aktörer gör och hur de reagerar på varandras aktiviteter.

Affärsnätverket och det sociala nätverket studerades empiriskt endast gällande Åboregionen. Eftersom samarbetsparterna delvis finns utanför regionen och eftersom inget longitudinellt data samlats in kan man inte dra långtgående slutsatser om aktiveringens nätverkseffekter. Delvis syns sådana dock i informanternas berättelser (se avsnitt 7.7.4). Genom användning av metaforen om nätverk som positioner kan aktivering illustrera en beslutsprocess där huvudleverantörens syn på sin egen relativa position i nätverket blir ett relevant beslutskriterium. Om en s.k. radikal förändring sker i nätverksstrukturen som följd av aktiveringsbeslut, dvs. att en tidigare relation avslutas och/eller en ny relation inleds, och om detta motiveras med medveten ompositionering och mobilisering, så är det fråga om ett resultat av en strategisk handling. Om det fokala företaget däremot upplever att den nuvarande konstellationen innebär fördelar och därför avsiktligt strävar till att förstärka den, är detta också en strategisk handling. Konsekvenserna av de val som görs i samband med aktivering kan vara de samma även om man inte tänkt på dem på förhand. Strategi (i betydelsen "strategizing") kan också ses som en rekonstruktion av sådant som redan gjorts (se t.ex. Tikkanen & Halinen 2003).

Aktivering är en operativ verksamhet som utförs då det behövs, inom en kort tidsram, när förändringar har identifierats i huvudleverantörens efterfråge-utbudsstruktur som kräver ett tillägg eller en förändring i partnerkonstellationen på utbudssidan i tjänsteprocessen. Identifieringen av potentiella partners och det slutliga valet sågs av informanterna som en helhet som, de facto, inte innehåller mycket val. Egen kunskap om marknaderna för logistiktjänster samt erfarenheter av partnerorganisationerna är de huvudsakliga redskapen i valet av samarbetspartners. Erfarenheten kan bestå av egen erfarenhet i samband med tidigare tjänstepaket men den kan också bygga på information som fås via de individuella kontaktnätverken. Formella informationssökningsprocesser och anbudsfrågor används oftare då huvudleverantören planerar

för en långsiktig förändring i leveransnätverket eller då en ny långsiktig logistklösning byggs upp för en kund.

Tidigare studier av val av samarbetspartners (närmast den industriella kundens val av leverantör) har oftast byggt på en kvantitativ analys av valkriterier som har direkt med utförandet av den specifika tjänsten att göra (se bilaga II). I den här studien betonas den individuella beslutsfattaren tillsammans med valkriterier som erfarenhet och förtroende. Detta betyder inte att effektivitets- och prestationskriterierna inte skulle ha någon betydelse. De utgör de nödvändiga förutsättningar som alla potentiella partners bör kunna uppfylla medan det slutliga valet är beroende av hur väl beslutsfattaren, utgående från sina erfarenheter, anser att en viss partner lämpar sig för uppdraget. Specifika krav som informanterna lyfte fram var också kvalitet, flexibilitet och pålitlighet. Den potentiella partners position i det lokala affärsnätverket eller involvering i andra nätverk, ansågs dock inte ha någon större betydelse, så länge partnern inte samtidigt arbetade för en konkurrent.

Det verkar som om huvudleverantörerna generellt sätt analyserar och utvecklar relationerna till leverantörerna i mindre utsträckning än relationerna till kunderna. Nätverksansatsen bidrar till en förståelse av relationerna och hur de används t.ex. vid aktivering (jämför t.ex. avsnitten 2.4.3 och 3.1.4). Aktiveringen verkar inte heller att upplevas som en process utan mera som endast en arbetsuppgift. Flera aktiveringar efter varandra ger dock upphov till ett mönster som har en viss inverkan på alla relationer i leveransnätverket, genom att antingen stärka eller försvaga respektive relation mellan huvudleverantör och partnerföretag. Om huvudleverantören i framtiden vill utveckla sina tjänster tillsammans med sina etablerade samarbetspartners är aktivering en av de faktorer som har en inverkan på tjänsteutvecklingen genom att den inverkar på vilka dessa partners är. Studien pekar på flera fördelar med att arbeta inom långsiktiga relationer men visar även risken att bli inlåst i en sub-optimal situation. Orsaken till att relationerna inom logistikbranschen verkar karakteriseras av en mindre mängd anpassning kan vara att företagen vill bibehålla en större frihet och flexibilitet. Det finns dock också faktorer som talar för att samarbetsparterna skulle involveras mera i tjänsteutvecklingsprocessen. Tjänstepaketets kvalitet är beroende av den kvalitet de enskilda anskaffade tjänsterna håller.

Totalt 19 informanter angav gott kundbemötande (hur samarbetspartnern bemöter den industriella kunden) som en förutsättning som samarbetspartners bör uppfylla. Medan ett uppdrag utförs består de flesta kontakterna mellan kunden eller kundens kund och logistik tjänsteleverantörerna av kontakter med representanter för en samarbetspartners organisation. De facto kan man säga att en stor mängd kvalitets- och säkerhetsrelaterade faktorer ligger utanför huvudleverantörens kontroll. Genom sina direkta kontakter till kunden och kundens kund, innehar representanterna för samarbetsparternas organisationer också förstahandsinformation om i vilken mån tjänstepaketet motsvarar förväntningarna. Som konstaterats tidigare (se t.ex. Laine 2005) är en kedjelig fast leverantörsstruktur inte en bra lösning men samtidigt skulle det vara en fördel om samarbetsparterna medan de är involverade i utförandet av ett tjänstepaket skulle se sig mera som en del av en helhet och inte enbart leverera sin egen tjänst. Möjligheterna för detta varierar dock stort mellan de olika delsegmenten inom logistikbranschen.

The logistics sector is characterized by extensive co-operation between different business actors. In providing service packages for their industrial customers the logistics main providers engage in several kinds of relationships with supply partners. It has been claimed that, compared to other sectors, the relationships within the logistics sector, even if being long-term, are not particularly deep in terms of adaption and mutual development. On the other hand, the quality of the service package provided by a main provider is much dependent on the performance of the partners. The partners are also in possession of first hand knowledge about how well the service package fits the customer's needs. It is hence important for the main provider to understand and manage the partner relationships in a way that supports the service process.

The study introduces activation as a concept that encompasses the choice and commissioning of partners to be included in a supply net providing the service package to a customer. The study focuses on the activation process, its contents as well as its links to the network context of the main provider. Activation can be seen as an episode within the relationship between the main provider and the individual supply partner. It is considered an operational task that, however, is linked to the main provider's long-term network development.



Åbo Akademi University Press
ISBN 978-951-765-624-5

978951765624-5

