

Interacting Strategically within Dyadic Business Relationships

A case study from the Norwegian
Electronics Industry

Fahad Awaleh

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The logo consists of the letters 'BI' in a bold, white, sans-serif font, centered within a dark blue square.

Interacting Strategically within Dyadic Business Relationships

A case study from the Norwegian Electronics Industry

by

Fahad Awaleh

A dissertation submitted to BI Norwegian School of Management
for the degree of PhD

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BI Norwegian School of Management
Department of Innovation and Economic Organization

Fahad Awaleh:

*Interacting Strategically within Dyadic Business Relationships:
A case study from the Norwegian Electronics Industry*

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Abstract

The purpose of this thesis is to contribute to our understanding of how firms can act strategically vis-à-vis others when the objective is to enhance the way resources are economised on across firm boundaries. The organisational science literature offers numerous perspectives on the idea of strategy where the dominating ones view strategy as an individual firm activity that the single firm formulates, communicates and executes independently of others. In this thesis, the idea of strategy is viewed as a relationship activity and a process that the single firm does together with counterparts. The term *interacting* strategically is therefore introduced and builds on the idea that strategy is a dynamic and bilateral process carried out through interaction within dyads.

The Industrial Network Approach (INA) serves as the theoretical basis of the thesis and represents one school of thought that deals with the idea of strategy. In line with INA, firms are prohibited from developing independent strategies due to the embedded, connected and dependent nature of firms interacting in the business environment. While the idea of interaction and relationships is central to the INA literature, the idea of interacting strategically seems somewhat unexplored, especially when it comes to the impact such processes has on firms' ability to change the connectivity that resides within relationships and/or when it comes to their ability to make prudent use of resources vis-à-vis counterparts. Reviewing the prevailing INA literature on strategy show how writers on strategy often fail to explain the intricate process that allow firms to be strategic when for instance attempting to purposefully change their position, connectivity, dependency vis-à-vis others. The majority of these writers in addition write about strategy from an individual firm perspective, which makes it difficult to grasp how in fact change comes about. I have chosen to focus on the INA perspective on strategy here termed the Relationship Strategy Approach, which focuses on the dyadic opportunities and limitations that constitutes relationship strategies. This perspective will allow me to address the complex and often difficult process that constitutes the strategy process.

The empirical base concerns one single case study of a dyadic business relationship (a product developer and subcontractor/producer) from the Norwegian Electronics Industry. The parties establish a new partnership arrangement in 2002 and I follow this arrangement over several years. The firms created the partnership with the intention to put in place a management group responsible for confronting the way the firms do industrialisation projects together. The firms share the responsibility for four industrialisation projects that stretches over several years switching from product-development to volume production. The research techniques used to gather

the material concerns primarily face-to-face interviews, telephone interviews and participation in business meetings. The material is cased chronologically. It is also split into three main subcases, where each case is marked with a critical event that the parties dealt with within the frame of the partnership arrangement.

The case study is an example of how firms can interact strategically and the tactical, and the strategic decisions needed to deal with the limitations and opportunities experienced in the strategy process along the way. The findings demonstrate how firms relied on two purposeful acts to support and improve the way resources were economised on within the focal dyad. The first act concerns the efforts to initiate, develop and manage purposeful networking processes within the dyad. Specific groups of individuals became responsible for managing this networking and would function as connector units responsible for ensuring intra –and inter-firm alignment of various tactical and strategic decision-making processes taking place within the relationship. The second purposeful act concerns the introduction of various purposeful interaction programmes. These programmes represented specific attempts to formulate specific rules of conduct between actors involved in the industrialisation process. The aim was to help these individuals prioritise certain acts and interacts that the focal firms believed would activate specific subsets of resources enabling them to reach their economising objectives. The study then reveals some of the factors that support and/or constrain the parties from achieving the strategic objectives pursued in the relationship.

Key words: Strategy, interacting strategically, interaction, relationships, economising on resources, networking

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critical to the thesis being finalised. Harrison has from start to finish been there as a stable reference point helping me to deal with the vast uncertainties and challenges that constitute the PhD process. The most important word of advice that she gave me was given half way into the process when she told me to reflect, a word I had often used, but that now was given a new meaning. REFLECT soon became an intellectual thought process that would often get me through difficult hurdles experienced along the way. Harrison spent substantial time helping me improve my writing skills and would coach me every step of the way in a pedagogical way. She has truly been a coach in the true sense of the word. Håkan Håkansson, as the co-supervisor, has been inspirational and influential to my work through his writings, involvement in Netlog and as my supervisor. He has been a mentor with a big M. Håkansson has from day one been the spokesperson for independent thinking. In situations where others see problems and find it difficult to relate to unsolved questions, problem areas and conflicting views, he sees the potential for new insights and “innovative thinking”. Håkansson has thought me how deal and live with the uncertainty that constitutes the PhD process, which improved my confidence in my own abilities and in terms of me articulating and justifying my own views and reflections rather than giving them up to “the dominating views” elsewhere. So, thanks Debbie and Håkan.

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Chapter One Introduction

1.0 Introduction

This thesis investigates how firms involved in business relationships interact with each other in a strategic manner while dealing with the limitations and opportunities that exist within industrial networks. The theoretical frame of reference chosen for this research project is the Industrial Network Approach (INA). The idea of strategy within this paradigm builds on the understanding that business strategy is not an individual firm activity. The INA instead suggests that firms should develop relationship strategies, which refers to a strategic approach whereby strategic actions are directed *at* counterparts and/or strategic actions are derived from interaction *with* counterparts. This thesis builds on such a view on strategy, which therefore makes it natural to have the dyadic business relationship as the unit of analysis and the frame in which strategy is studied.

The purpose of this thesis is to examine the underlying factors that support and constrain firms from developing coherent relationship strategies vis-à-vis others (i.e. strategies that improve the way resources are organised and economised on within business relationships). In line with the idea that interaction between firms is the central co-ordination mechanism within industrial networks, this thesis is interested in finding out how firms decide what actions to conduct individually and collectively when engaging in interactive processes with counterparts.

The heart of this thesis concerns one in-depth case study of a dyadic business relationship between the product developer Kongsberg Defence and Communication (KDC) and the subcontractor Kitron within the Norwegian Electronics Industry. The focal firms co-operated and shared the responsibility for several industrialisation projects over several years. It required them to develop mechanisms that improved the way resources were organised and economised on at the different industrialisation stages. The way the firms acted and interacted in relation to each other impacted their ability to organise and economise on resources effectively when carrying out business exchange¹.

¹ The term business exchange is here viewed as an industrialisation process confined to the focal dyad. It involves a range of co-operative and interactive efforts across firm boundaries producing specific products and services.

The firms had been involved in joint industrialisation projects for more than a decade, but frequent restructuring programmes within each firm in addition to structural changes in the industry challenged the firms to confront and change how they organised their joint operations. After pursuing several unilateral attempts to improve the way their projects were governed without achieving the desired results, the firms finally decided to engage in close bilateral dialogues and co-operation to find out how they collectively could establish improved solutions for their relationship.

The two focal firms established a partnership arrangement in 2002, which was set-up in the form of a relationship project. This project had the overall objective to confront and change how industrialisation projects were organised within the dyad. The two central issues were to develop a new division of responsibilities between the firms and a new business practice on how to conduct joint projects. The parties shared a mutual interest to search for new ways to structure their relationship that was deemed 'optimal' from a resource perspective, both internally and in the specific industrialisation project. The parties chose to centre their attention on the manner in which they executed their individual and collective actions, and the impact these actions had on their ability to achieve firm and relationship-specific objectives. The main priority was on controlling the decisions that affected the logistics and purchasing costs/functions within the dyad.

The case study demonstrates how the firms struggled to interact strategically despite having a relationship project in place. For instance, shortly after the partnership arrangement was formed, an important customer-specific supplier in one of the projects was declared bankrupt. It was necessary to find a replacement quickly in order to maintain outputs. While it was the product developer that traditionally selected these types of suppliers, the parties had agreed that they had to make the selection process a collective matter. This was in order to ensure that the subcontractor's competence was utilised and its production requirements considered in the decision making.

This was important so that the subcontractor was able to influence purchasing and logistics costs through a more systematic evaluation of the mercantile abilities of the supplier. As the case study shows, the product developer ended up handling the situation individually and did not invite the subcontractor to participate in the selection. The subcontractor on the other hand failed to respond to the situation and instead remained passive and was content with letting the product developer deal with the situation unilaterally. This situation revealed how the parties had discussed engaging in more frequent strategic and tactical dialogues and co-operation in order to radically change the way their projects were governed, but that they lacked the willingness and/or ability to do so when put in a situation where this was

needed. This example and others from the case study illustrate how challenging the idea of partnering and strategising with a counterpart can be. This partnership arrangement therefore serves as the empirical point of departure of the study.

1.1 The world of industrial networks

The INA constitutes the theoretical frame of reference of the thesis. On other words, it represents the lens through which the dyad is studied. In line with this perspective, industrial markets can be viewed as networks whereby firms are inter-connected through the direct and indirect exchange relationships that exist between them. The network does not have any objective boundaries, and the INA stresses that any attempt to describe and analyse its content will be highly influenced by the purpose and the starting point of the analysis (Ford et al., 2003). A common way the INA often describes the nature of a network is by referring to its structural and processual characteristics and the role interaction plays in its development (see Table 1.1). Table 1.1 offers a brief comparison between the INA and what here has been termed the tradition view of markets and actions² as a way to highlight the unique features with the INA's view of the world.

Table 1.1 – Two views of the firm and the business environment

THE WORLD OF MARKETS AND ACTIONS	THE WORLD OF NETWORKS AND INTERACTIONS
Structure and process	Structure and process
Defined by a product	Defined by the threads between nodes
Anonymous members	Individually identifiable members
Heterogeneity <i>inside</i> units	Heterogeneity also <i>between</i> units
Competitive	Conflictual and co-operative
Clear separation between suppliers and customers	Companies having multiple and unclear roles
Stable (except in terms of counterparts)	Changing (except in counterparts)
Actions	Interactions
Based on the actions of single actors	Based on the interplay between actors
Structure creates <i>common</i> modes of behaviour	Structure creates <i>individual</i> modes of behaviour
Actions a result of individual company strategy	Interactions a result of how companies relate to each other
Market is demand driven	Network is problem driven
Different activities for suppliers and customers	All companies engaged in networking

(Modified from Ford and Håkansson, 2005, p. 255)

² See Mintzberg et al. (1998), de Wit and Meyer (1994)

1.1.1 Structure and process

In an attempt to define what a network is, Håkansson and Ford (2002: 133) state: “In its most abstract form a network is a structure where a number of nodes are related to each other by specific threads”. The *nodes* in this case refer to individually identifiable actors (e.g. a firm, department, dyadic relationship, etc.) that are viewed as heterogeneous network members. Each has its own distinctive identity and characteristics (resource collection, organisational structure, activity structure, technological abilities, economic logic, etc.) (Easton and Lundgren, 1992; Håkansson and Snehota, 1995).

The *threads* refer to the way firms are connected to counterparts through direct and indirect exchange relationships. A basic understanding within the INA is that individual network members are reliant on specific counterparts within its network for access to critical resources and abilities needed to solve specific problems and meet certain needs. The firm will attempt to manage its business relationships in such a way that resources and activities are integrated and co-ordinated for the exchange of products and services in ways it considered to be satisfactory to them and their counterparts (Gadde et al., 2003).

The notion of business relationships is a cornerstone within the INA. It is here the connectivity between firms is revealed, and the INA provides numerous concepts and models that help define, delimit and analyse the connectedness and dependencies between firms through concepts such as nets (Hertz, 1996), ties (Håkansson and Snehota, 1995; Holmen, 2001), interfaces (Baraldi and Strömsten, 2006), adaptations (Canning, 1999; Canning and Brennan, 2004), layers (Håkansson and Snehota, 1995), connections (Ritter, 2000), bonds (Snehota, 1990) and dimensions (Gadde and Håkansson, 2001). The INA views the individual firm as a heterogeneous collection of resources, but places special attention on the *heterogeneity that resides between firms*. In other words, firms obtain access to and adapt their resources to those controlled and owned by counterparts. The ways firms combine their distinctive resources in relation to each other makes these relationship features difficult to duplicate (Håkansson and Snehota, 1995). A basic understanding within the INA is that the interconnected and interdependent nature of such business exchange means that firms are embedded into the network opposed to them being isolated actors that are detached from their business context (Cook and Emerson, 1978; Håkansson and Snehota, 1989; Håkansson and Johanson, 1993, p. 35).

The business relationship also represents the arena where firms communicate, confront and discuss their individual and collective needs and objectives. This allows the parties to negotiate solutions that are in line with

their individual requirements, while at the same time trying to ensure that the solutions support the common needs of the relationship. A common understanding within INA is that firms have to manage relationships when *co-operation, conflict and competition co-exists* (Ford and Håkansson, 2006). This is viewed as a challenge, as the social interaction between firms can be multi-faceted and multileveled, and with perceived needs and requirements being subject to minor and major changes over time.

A basic assumption within the INA is the understanding that *networks are simultaneously stable and changing* (Ford et al., 2003). This implies that specific structures of relationships as well as the connections between firms are, subject to changes over time. The INA considers stability to be the norm, especially when it concerns the counterparts and relationships firm has. At the same time, the INA acknowledges that the nature of networks and connectivity between firms are subject to change. This is because the network and its members undergo minor and major changes in the actor, resource and activity dimensions. The changes that can occur in the connections between firms can significantly alter the nature of the exchange processes between firms, and ultimately lead to changes in the positions firms have vis-à-vis others and the role the firm has within the specific business relationship. The INA considers the change aspect to be something that is highly subjective, and it is assumed that the individual actor may have a distinctive understanding of whether certain parts of the network has changed or not. Their views in turn are connected to the position they hold in the network (Henneberg et al., 2006).

1.1.2 Interaction

The interaction process between firms is another cornerstone within the INA. It resides within business relationships and is viewed as a process that can have technical and organisational features (IMP Group, 1982). The social interaction between firms has a central place in INA, and it refers to the interplay between actors engaging in communications, information and knowledge sharing, discussions and decision making with each other (Ford and Håkansson, 2006). In line with the idea that “No Firm is an Island” (Håkansson and Snehota, 1989), the INA considers the interaction process between firms to be the central co-ordinating mechanism within networks (Johanson and Mattsson, 1987). It is interaction (and not individual actions per se) that ultimately allows firms to activate and use resources that reside within the control of counterparts.

The interacting firms gradually develop a distinctive way to manage this interplay and specific modes of behaviour become institutionalised in the relationship. The firms also rely on specific adaptation mechanisms (i.e.

routines, technical interfaces, etc.) deliberately put in place to support coordination and integration within the relationship. A basic understanding within the INA is that networks are problem driven. This implies that firms will engage in multi-faceted and multi-leveled networking in order to search for and develop solutions to their problems (Gadde et al., 2003). The nature of the interaction processes and the adaptations that are made could then be viewed as the outcome of the firms' orientation towards others.

1.1.3 Three paradoxes of industrial networks

Ford et al. (2003) and Gadde et al. (2003) discuss some of the problems firms face when trying to act strategically within industrial networks. Ford et al. (2003) highlight three managerial concerns, each of which is connected to a specific network paradox that managers need to relate to. The three concerns are viewed as strategic issues that firms deal with through their networking with others (Ford et al., 2003).

The first managerial concern has to do with how firms make sense of where they are in the network in which they operate (Ford et al., 2003, p. 23). A critical element here is how the firm chooses to invest in resources internally and in relation to its multiple counterparts. The fact that these resources are scarce means that firms need to prioritise and carefully choose how to organise and utilise resources within a specific relationship. Ford et al. (2003) describe the first network paradox in the following way: "A company's relationships are the basis of its operations, growth and development and are at the heart of its survival. But these relationships may also tie it into its current ways of operating and restrict its ability to change. Thus the paradox facing managers is that a network is both the source of freedom for a company and the cage that imprisons it" (p. 24).

Therefore the first strategic issue concerns how the firm identifies and creates the appropriate level of involvement within its individual business relationships (Gadde et al. 2003, p. 358). The decision to invest in specific resource combinations that are tied to current activities restricts the development of the relationship, as these cannot be used in alternative ways (ibid). At the same time, the decision to change existing resource combinations could mean that the firm loses the benefits related to maintaining the current ways of operating (ibid). All in all the first strategic issue concerns the choice between whether to 'confront' the status quo of accepted ways of operating or whether to 'conform' to current ways of operating within the relationship (Ford et al., 2003, p. 180).

The second managerial concern deals with the question of how to cope with the limitations in knowledge and understanding of the surrounding world. This concern is related to the first one, and has to do with how an organisation can use its existing relationships for its advantage. This is then a matter of choosing which relationships to invest in with the objective to change or preserve the firm's position in the network (Johanson and Mattsson, 1992). In order to be able to do so, the firm is reliant on knowledge and insight into the nature of the connections it has with others, and its decisions should involve "bringing order to the value, costs and investments involved in making relationship choices" (Ford et al., 2003, p. 27). Ford et al. (2003) formulates the second network paradox as: "A company's relationships are the outcomes of its own decisions and actions. But the paradox is that the company is itself the outcome of those relationships and of what happens to them. Thus it is possible to analyse a firm's position in a network from the premise that the firm determines its relationship, or that it is determined by them. Both situations exist simultaneously and both premises are equally valid" (p. 27).

The second strategic issue therefore refers to how to balance "the interplay between influencing others and being influenced" (Gadde et al., 2003, p. 358). This in turn addresses the issue of whether the firm is satisfied with its current position or if it wants to change it. Ford et al. (2003) argue that the strategic dilemma concerns the choice of whether to 'consolidate' the current position or whether to 'create' a new position through changing the resource combinations within its relationships.

The third managerial concern deals with the issue of how firms can manage their interaction processes with other firms effectively. It is assumed that the individual firm will try to act purposefully by engaging in action that they believe will develop the relationship in a certain direction. One way that this is done is by trying to influence others to behave and act in such a way that is compatible with solving the problems and meeting the needs of the firm. This could in some cases also mean that the firm tries to influence the views, knowledge and understanding that the counterpart has regarding specific issues. The problem with succeeding with such efforts to influence others is that the firm restricts the initiatives and change that others could generate (Ford et al., 2003). The third network paradox is therefore: "Firms try to manage their relationships and control the network that surrounds them to achieve their own aims. This ambition is one of the key forces in developing networks. But the paradox is that the more that a firm achieves this ambition of control, the less effective and innovative will be the network" (Ibid., p. 31).

The third strategic issue is concerned with identifying “adequate ambitions regarding control” (Gadde et al., 2003, p. 358). The firm needs to be aware of some of the possible reactions if it tries to pressure counterparts to comply with their wishes, such as others becoming unwilling participants. At the same time, the firm is dependent on the resources of the counterpart to solve their problems. This implies that the strategic dilemma facing firms is then the choice of when to ‘coerce’ others to do their wishes and when to ‘concede’ to the wishes and initiatives of others (Ford et al., 2003, p. 182).

In sum, it has been argued that the INA offers a unique view of the world. Here, interdependence and interaction between firms demands that they centre their purposeful acts and analysis on their direct and indirect relationships with others. It has also been argued that acting strategically in relation to others demands that firms relate to various paradoxes of the INA. These paradoxes can be handled through firms’ networking with others. Interaction within relationships is the frame whereby strategising occurs.

1.2 What is strategy within INA?

A central argument in the INA is the idea that firms have limited possibilities to act freely and independently of others. Håkansson and Snehota (1989) address some of the factors that constrain firms from acting independently of others. The main issues are the embedded nature of firms and the connectedness and dependencies that are manifested in their business relationships with others. The INA does not imply that firms cannot behave in a planned or deliberate way in their quest to pursue and gain certain outcomes. Instead, it stresses how the firm’s ability to achieve its desired outcomes will be dependent on the way other actors plan and act, and how the individual firm ultimately relates to the strategic acts of others (Wilkinson and Young, 2002).

The INA therefore proposes that the focus of strategic action should be on a firm’s business relationships. A firm’s strategic approach therefore needs to consider the impact its actions have on others and vice versa. Thus a basic understanding in the INA is that a strategic orientation towards these relationships is critical in order for the firm to be able to define and delimit their multi-faceted business environment (Ford et al., 2003).

The phenomenon of relationship strategy is central to the INA. It represents an umbrella term that covers various streams of thought dealing with the strategy concept within this paradigm. These perspectives are; strategy as management of adaptation (Canning and Brennan, 2004), management of sense making (Holmen and Pedersen, 2003; Ford et al., 2003), positioning (Henders, 1992; Johanson and Mattsson, 1992), networking (Ford et al., 2003) and relationship strategy (Turnbull et al., 1996; Håkansson and Ford,

2002). All these approaches to strategy assume that strategy is manifested in the relationships between firms. Some place a special emphasis on the role interaction plays in the strategy process. As such interaction processes are manifested in the social bonds between firms, then the interaction processes is both the co-ordinator and facilitator of actions, and thus also the activator of resources that otherwise are considered to be fragmented and passive entities (Håkansson and Waluszewski, 2002).

This thesis is interested in the Relationship Strategy perspective, which is viewed here as an important yet unexplored perspective within the INA. As noted earlier, the INA does not imply that firms cannot develop firm-specific strategic plans and behave deliberately. The INA instead stresses how the firm's ability to achieve its desired outcomes will be dependent on the way other actors plan and act. The objective could be to organise and use the firm's resource collections effectively within relationships (Gadde et al., 2003; Holmen and Pedersen, 2003). It is assumed that achieving cost-efficiency internally and exchange effectiveness externally are two aspects that are mutually interdependent. Failure to achieve effective exchange processes can hinder the firm from economising on its resource collection in a coherent and efficient manner internally (Gadde et al., 2003).

If strategy concerns how a firm acts strategically in relation to others, it is possible to say that such actions could be carried out in two ways: (1) the firm acts strategically *with* others (i.e. interacting strategically *within* business relationships) and (2) the firm can act strategically *at* others (i.e. directing actions *at* business relationships). Both types of actions are discussed within the INA literature, and the business relationship is both the frame where such actions occur and where implications are revealed. The idea of 'interacting strategically' seems appropriate to describe this idea of relationship strategy. Here strategy can be viewed as a bilateral, interactive and adaptive process whereby strategic action is shaped by the interplay between actors performing various acts, reacts, and re-reacts within various dyads over time (Mouzas, 2001; Wilkinson and Young, 2002).

The strategy is interdependent and interactive in the sense that one firm's action is a reaction to the actions of counterparts (Håkansson and Ford, 2002). The strategy is adaptive in that strategic actions are oriented towards the minor and major changes that occur within and outside the firm. Indeed, actions reflect the priorities and concerns that occupy firms at a given point in time (Canning and Brennan, 2004). Furthermore, the notion of directing strategic actions is often described as actions whereby the firm wants to force some sort of response from its counterparts. It could be described as a unilateral process where the strategic act not necessarily is a *direct* reaction to the acts of others, but a more indirect one as the firm may wishes to

influence others to act and behave in specific ways that are in line with their desires and objectives (Johanson and Mattsson, 1992).

1.3 Research problem area

This thesis examines the idea of coping within industrial networks, but special attention is given to coping in the form of strategic behaviour within the frame of dyadic business relationships. Here the main interest concerns 'strategy as process', which refers to strategy as an adaptive and interactive process. This implies that firms will act in relation to the right now and expectations regarding possible future developments at the same time (Mouzas, 2001; Wilkinson and Young, 2002). The strategy is adaptive in that the firm is acting and reacting to the specific concerns and situations that are prioritised and deemed relevant at each point in time. It is interactive in that the strategy is relationship-orientated and comes as a result of the interaction processes the firm is involved in with counterparts.

The distinctive features of a firm's strategic approach at a given point in time reflect both the concerns and attitudes that occupy the firm and the specific contextual setting that constitutes the firm's strategic reality (Mouzas, 2001). This means that the idea of strategy as content (e.g. a strategic plan) and strategy as outcome (e.g. when outcomes form the basis for future actions) will be treated as inter-twined dimensions included in the discussion of strategy as process. The strategy as content is viewed as the ability to interact with counterparts and to adapt to changing internal and external conditions, while simultaneously trying to act and react to the actions of others. This ability constitutes the firm's strategic approach and is difficult to define and communicate explicitly, as it resides with individuals and groups within the firm and its relationships, whereby each actor has its own subjective understanding of what this content is (Wilkinson and Young, 2002). The strategy as outcome refers to the performance outcomes and other network outcomes that are generated through the actions and interactions (Wilkinson and Young, 2002; Ford et al., 2003). These outcomes represent specific effects on the interacting parties that they have to cope with and that in turn will shape their strategic thinking. Such outcomes become subject to close evaluation and scrutiny, and are in themselves important determinants influencing both the type of purposeful acts firms pursue.

A central question addressed in this thesis is whether and how firms can enforce deliberate strategic actions aimed at their relationships for the purpose of preserving or changing specific relationship structures and/or changing the resource ties/economising on resources between firms. Over

time, firms' resource ownership, control and resource ties with others undergo frequent minor and major changes, following from decisions to invest in and organise resources in specific ways. In order to adapt intra-firm operations to those of counterparts, firms need to pay close attention to macro trends in the industry, while simultaneously being conscious about how to relate to the micro changes within individual dyads (Hertz, 1996). The process of coping with or within a developing world can therefore be considered an umbrella term whereby strategic action and interaction within relationships are inter-twined phenomenon that reflect such coping. We now turn to the empirical and theoretical interests of the thesis that formed the basis for the research problem.

1.3.1 The Electronics Industry

The empirical base of this thesis concerns a single dyadic business relationship within the electronics industry. In the industry firms and relationships have undergone frequent and significant changes throughout the 1990s and 2000s. This has followed from trends such as globalisation, internationalisation and specialisation³. Globalisation began with US-situated manufacturers that benefited from capital accumulation from the stock markets. They used their financial strength to increase volumes through mergers and acquisitions of both domestic and foreign firms.

As a consequence of their growth, these firms also began nurturing a limited number of core resources and abilities by outsourcing all none-core operations. These developments gradually continued downstream in the distribution channel to distributors, transporters, subcontractors, etc. The internationalisation of the industry became increasingly apparent as new markets in Eastern Europe and Asia gradually opened up to foreign actors. Furthermore, the increased size of the European Union contributed to the disruption of national boundaries and trade barriers. These developments have led to the increased segmentation of the industry. This has impacted both structure and content of business relationships, as changes have also occurred in the type and amount of resources firms' control and own. This in turn has resulted in increased pressure on firms to re-examine the industrial division of labour.

³ My understanding of the developments that have taken place in the electronics industry is based on a seminar with Isuppi (www.isuppli.com) where they provided statistics and other facts showing what they considered to be the trends and the factors leading to certain changes. I also rely on responses from my interviews supporting Isupply's understanding.

The focal firms in the case study have undergone similar structural changes as described above. During the 1990s and 2000s they have performed a series of restructuring and investment programmes that have led to frequent and significant alterations in their organisations. In 2002, Kitron was ranked as the number one Electronic Manufacturing Service (EMS) provider in Norway and number two in Scandinavia in terms of revenues. The firm offers both production and product development services on contract basis for product-owners. It controlled eight production facilities and six development firms in 2002. The firm grew significantly between 1995 and 2002. In 1995 a process began to buy up related firms that were outsourced by their customers. They also merged with other leading players, which significantly increased the amount and type of resources Kitron had access to.

In 2002, KDC were considered a leading product developer and designer of defence communication products in the European market. The firm was ranked as number three within their segment. It offers customers total industrialisation services. This involves that they co-ordinate and integrate a vast number of suppliers and partners participating in their projects. The firm also grew considerably between 1990 and 2000, primarily through organic growth. The firm used to control the production function through their affiliation with the Kongsberg Group, but the two facilities were outsourced to Kitron in the late 1990s.

The focal firms have been involved in industrialisation projects together for more than two decades. The organisations are closely inter-twined historically, financially and culturally. The firms have struggled to find a more up-to-date project management structure that was more in line with industry conditions and their needs in 2002. Both firms had increased their resource collection considerably between 1995 and 2002. However, they struggled to organise and utilise these resources efficiently and effectively in their projects. The parties experienced declining profitability because of this. In 2002, they concluded that their previous attempts to reduce costs and improve project management had failed. This was due to the unilateral way their efforts had been directed. The parties therefore decided to establish a partnership arrangement via a relationship project. This was deliberately set-up to confront the manner in which the parties performed industrialisation projects together.

The focal firms had three central motivations for establishing the relationship project. First, they believed that each firm had some responsibilities that they should not have held. The division of responsibilities within project plans had stayed more or less unchanged for many years, even though the firms' resource collections had changed

significantly. Secondly, the firms wanted to improve decision-making within those functions and departments that were responsible for activities that impacted purchasing and logistics costs. These costs could amount to as much as 80% of the total production costs.

Thirdly, the parties believed that each was in possession of resources that for different reasons were unknown to the counterpart and therefore remained unused in the relationship. The developments in the electronics industry, the focal firms' growth, and their commitment to improving the management of the relationship collectively make the empirical setting reported in this thesis interesting.

1.3.2 Theoretical interests

The main theoretical interest of the thesis concerns the notion of strategy, with a particular focus on examining how firms interact strategically within dyadic business relationships. The dyadic business relationship is viewed as both the arena in which strategy is formed and in which outcomes of strategic actions are manifested. Thus the dyadic relationship serves as the unit of analysis of the study. This decision broadly follows the tradition of much of the research that has been conducted within the INA. In the same way as the dyadic business relationship emerged as an alternative governance mechanism to the market and hierarchy, so too did the notion of relationship strategy emerge as an alternative to firm strategy.

The decision to place the dyadic business relationship as the arena in which strategic action and behaviour is examined builds on the assumption that firms cannot act independently and isolated from counterparts. In line with the INA there is no "invisible hand" that co-ordinates business exchange between firms, or a market exchange mechanism ensuring that buyers and sellers "finding each other" at an optimal mix of prices. The INA instead assumes that co-ordination occurs through interaction within business relationships. As such, relationships can be viewed as the "visible hands" (Ritter, 2000). Hence, business relationships are the central governance mechanisms that co-ordinate and affiliates business exchange processes between firms. In other words, relationships become the focus for firms' individual and collective actions that in turn affect their ability to govern in relation to counterparts. Thus, there is a natural connection between understanding strategic action and relationship management.

If it is assumed that dyadic analysis is critical for understanding strategising within industrial networks, then a dyadic perspective can offer interesting insights into the challenges and problems related to managing the firm in relation to counterparts. While concepts such as connectedness and

dependencies are treated as common truths and widely recognised terms within the INA literature, the terms are still somewhat unexplored in terms of what these concepts mean when applied to the strategy field. A focus on dyads with regard to how strategy is formed and how strategic action impacts the relationships between firms can provide further insights into the problems and challenges related to managing network conditions described in the literature. Thus, the dyadic focus on strategy may offer insight into the factors that limit and support firms from acting strategically in relation to others.

This thesis views strategy as a business activity whereby strategic action result from interactive processes with the counterpart. Ford and Håkansson (2006) support the need to have an interactive perspective on business activity. They state: “We argue that if we take an interactive view of business, then it becomes self-evident that we cannot understand business activity by looking at it from the perspective of a single company and its aims and actions. Nor can we hope to understand business activity if we view it as a process directed by companies towards some generalized “other”, such as a market of customers or suppliers” (p. 4). A conscious decision has therefore been made for this thesis to not study how a single firm interacts strategically in relation to a counterpart in isolation but instead to study how two connected firms simultaneously try to act strategically in relation to each other. The interactive strategies are created in the interaction processes between firms. This process shapes the objectives and concerns that occupy firms at a given point in time. It is also subjective to change as the parties adapt to changing conditions. Thus, strategy is a business activity that the firm is able to perform as a consequence of its interaction processes with others.

An interactive view on strategy builds on the idea that firms’ actions will be influenced by the way they define, perceive, interpret and learn from both previous and present actions and interactions with counterparts, and how it expects counterparts to act and react in the future (Ford and Håkansson, 2006). A basic assumption is the idea that each firm has a distinctive view and understanding that influences the way it defines and understands what the relevant problems, needs, objectives and abilities are. Therefore, this influences how it chooses to act and interact with specific counterparts. This also involves that firms will have a unique understanding regarding what characterizes the connection between firms at specific points in time, and how certain relational features develop and change over time.

This calls for a strategic approach that is adaptive and derived from interaction processes with counterparts. Ritter (2000) argues that firms need both information and knowledge that mirrors development and change that goes on outside its own organisational boundaries elsewhere in the network.

He claims that such insight form the basis for organisational actions and also how others perceive the relationship connections to have been changed (Ibid). This is essential in order for firms to consider how their actions potentially can impact other firms. Thus, developing effective communication structures is an important strategic determinant providing the firm with access to critical information and insight when acting in relation to others.

1.3.3 Research questions and issues

How is the term ‘strategising’ understood in the thesis? Here it is viewed as a process that involves firms’ “identifying the scope for action, within the existing and potential relationships and about operating effectively with others within the internal and external constraints that limit that scope” (Ford and Håkansson, 2002, p. 137). Strategising is therefore viewed as a process in which actions and interactions occur over time as sequential acts with a certain interplay and pattern within the dyad. The processual dimension implies that the firms will act and interact based on how they consider they can economise on the resources that are available to them at several points in time. These views and concerns are not static, and can undergo minor and major changes over time as firms learn from the outcomes of their previous action and interactions. Furthermore, the parties can influence each other in order to prioritise certain issues differently. A challenging aspect for firms trying to interact strategically within a specific business relationship is then how to act in relation to both individual and collective views and concerns simultaneously.

A central question to address when studying firms’ strategic actions is therefore who is acting. The interaction process in general and the actor bonds in particular are in focus when interpersonal communication channel and negotiations lead to collective actions. There are three potential actors and acting arrangements within the focal dyad: firm A (individually), firm B (individually), and firm A and B (collectively). As the research question below depicts, the study is interested in capturing the underlying factors that characterize strategy as process. There is particular focus on identifying those factors that support and/or constrain the parties from economising on resources coherently. The tension between individual and collective actions is therefore identified as an interesting area to examine. The main research question is formulated as follows:

- *How do firms involved in dyadic business relationships deal with the tensions that arise when trying to determine what actions to undertake individually and collectively?*

Other central issues to be addressed when studying strategising are questions such as ‘what is impacted’ and ‘how is it impacted’. The answer to these questions is twofold given the way this thesis has chosen to define its main research question. First, the IMP perspective in general and the impact strategic action has on the resource ties with the focal dyad in particular will be central. The focus is on the firms’ ability to organise and economise on resources in specific ways that the parties consider to be coherent. The term economising is understood as “to make prudent use of money or the means of having or acquiring property” (The New Webster Encyclopaedic Dictionary). In this study the term ‘prudence’ is understood as “acting only after careful thought and planning” (Oxford Advanced Learner’s Dictionary of Current English – see also Jahre et al., 2006). However, the changes in the way resources are economised on within the dyad are a result of changes in the way resources are organised between the firms. Nevertheless, the firms may organise resources differently without this necessarily leading to changes in the way economised occurs. Each firm will try to organise their resource collection in relation to multiple counterparts simultaneously. This interest concerns measuring outcomes as changes in resource ties within business relationships. The tension between organising and economising on resources within and outside one specific dyadic business relationship is therefore identified as an interesting area to examine. The second research question is formulated as follows:

- *How do firms’ strategic actions support and/or constrain the way they economise on resources within a business relationship?*

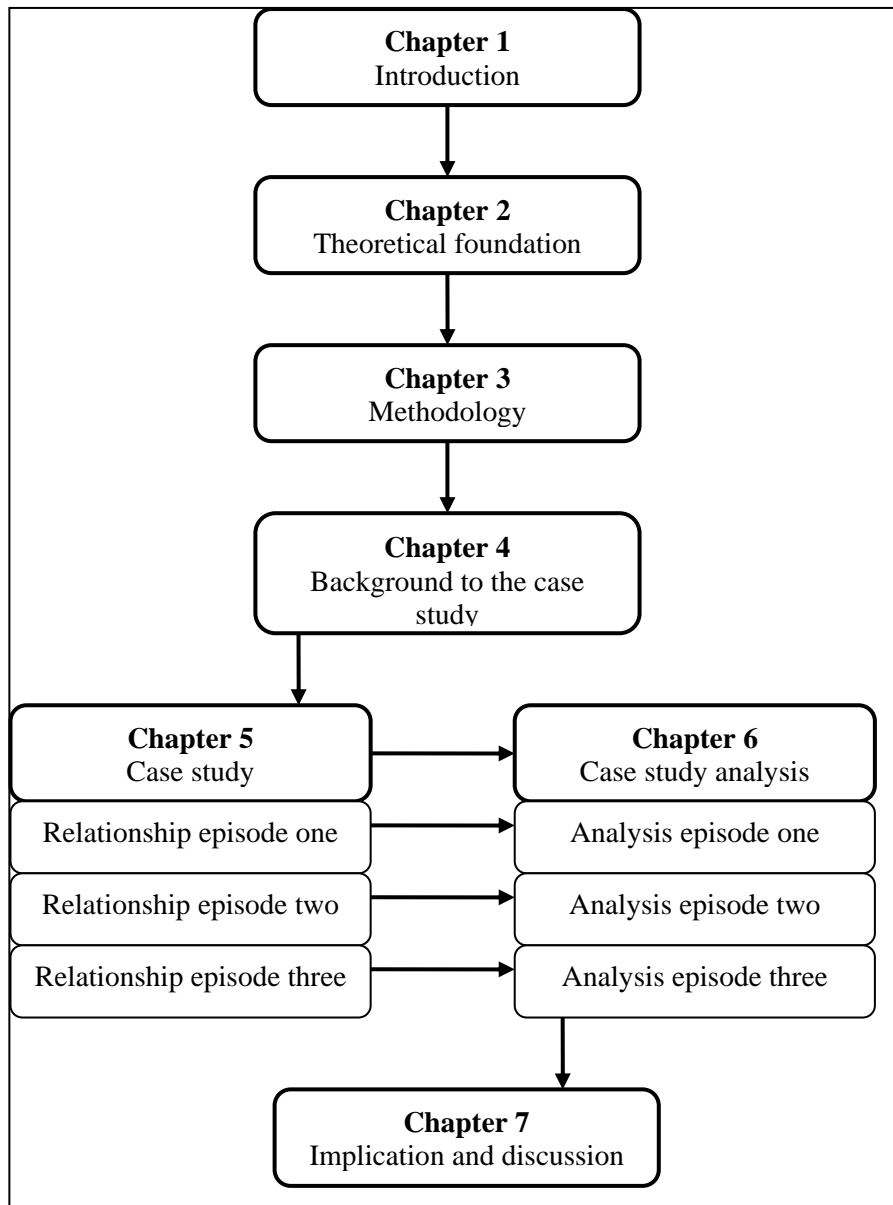
1.4 Outline of the thesis

The outline of the thesis is as follows. In chapter Two the theoretical foundation is presented. This chapter introduces the background to the INA, the strategy field within the INA, and the main building blocks such as the Interaction Approach and Resource Approach that will be used to examine strategy as process, content and outcome, and the analytical framework devised for this study. In chapter Three the methodological foundation is presented. The research strategy, techniques, process and data collection is described in detail. The case study methodology serves as the main research strategy, and the nature of the research process is characterized as having both inductive and deductive properties.

In chapter Four the background to the case study is presented. This includes description of the focal firms, their relationship and the established partnership arrangement. This chapter is important as it explains the network conditions that motivated the firms to collaborate in new ways. Chapter Five

then presents the actual case study. The empirical material is divided into three main relationship episodes that are investigated individually. A division of the empirical material in three sub-cases emphasises the unique features that characterizes the firms' behaviour and the development of the focal dyad at different points in time. It also provides some necessary structure that is useful to the analysis that follows in the subsequent chapter. Chapter Six presents the case study analysis. The analysis follows the same structure as the case study, which means that the three relationship episodes are analysed individually. Each sub-case is analysed and compared based on the two main research questions defined in the previous section. Finally, chapter Seven provides a discussion of the main theoretical and managerial implications of the study. This chapter also offers some final remarks.

Figure 1.1 – The Outline of the thesis



Chapter Two

Theoretical Foundation

2.0 Introduction

This chapter presents the theoretical frame of reference of the thesis. The strategy management literature is well-developed and contains a wide and heterogeneous body of literature⁴. This thesis builds on one relational perspective of strategy, the INA. It has distinctive ideas of what constitutes strategy, strategic action and strategising. This body of literature is also heterogeneous and contains numerous streams of thought that deal with the notion of strategy. They share the assumptions of interconnectedness, interdependence and embeddedness.

This thesis will focus on one of the INA strategy perspectives, here termed the Relationship Strategy Approach. It builds on the idea that strategy is a process that occurs within business relationships in interactive and dynamic processes with counterparts. The relationship is also the arena where strategic outcomes are manifested as changes in the connections between firms. Chapter Two is outlined as follows. Section 2.1 introduces the INA. Section 2.2 presents the strategy perspective within this perspective. Section 2.3 introduces the Interaction Approach and Four Resource Interaction Model as ways to conceptualise the underlying factors in which the idea of relationship strategy is based. Section 2.4 then presents the analytical framework of the study.

2.1 Background to the INA

The INA represents a research tradition that deals with organisation-environment related phenomenon (Araujo and Easton, 1996). The one term that encapsulates how this paradigm views the business environment is networks. The term network has, according to Araujo and Easton (1996), become “fashionable” within a range of research schools over the years.

The INA developed from a group of Swedish researchers at the University in Uppsala and the Stockholm School of Economics (Sweden), in the late 1970s. From there it developed into a European movement referred to as the

⁴ See for instance Cousins and Spekman (1999), Venkatraman and Prescott (1990), Mintzberg et al. (1998), de Wit and Meyer (1994).

Industrial Marketing and Purchasing Group or the IMP group (Harrison, 1999; Håkansson and Snehota, 2000). Håkansson and Snehota (2000) explain how the initial research of the IMP Group developed in line with two main inter-twined projects referred to as IMP 1 and IMP 2.

The IMP 1 project began in 1976 and lasted until 1982. This project revealed many shortcomings in the marketing theory when it came to explaining the characteristics and functions of buyer-seller relationships (Ibid., p. 36). IMP research has a strong focus on providing descriptive empirical inquiries to industrial relationships. Research projects are designed to capture social exchange and interaction across firm boundaries and the variation in substance and function across different relationships (Håkansson and Snehota, 2000). The IMP 1 project formed the basis for what later would become the Interaction Approach and the interaction model (as reported in Håkansson, 1982).

The IMP 2 project began in 1986 and built on the empirical findings of the IMP 1 project. Researchers from different European business schools participated⁵ in the project in addition to these from the IMP 1 project (Håkansson and Snehota, 2000, p. 37). The result was the concept of industrial networks. The empirical inquiries addressed issues related to connectedness and effects of interdependence in and between business relationships.

The two research projects led to what later became known as the IMP. In line with the notion of inter-connected business relationships, the cornerstone within this approach is the idea that firms are embedded in a network of inter-connected exchange relationships (Cook and Emerson, 1978). Granovetter (1992) claims that “embeddedness refers to the fact that economic action and outcomes, like all social action and outcome, are affected by actors’ dyadic (i.e. pair wise) relations and by the structure of the overall network of relationships” (p. 33). Actors become connected in relationships as a consequence of their efforts to adapt resources and activities to support effective exchange processes. The network structure can be viewed as an aggregation of dyadic structures (Easton, 1992, p. 8).

As noted above, the large-scale empirical IMP 1 project culminated in what is termed the Interaction Approach. The interaction model was later developed into the first generation network model (Håkansson, 1987) that described networks as consisting of three main variables: actors, resources

⁵ The IMP 2 project included the researchers from IMP 1 in addition to other researchers that came from Australia (Wilkinson and Young, 2002), Japan (Teramoto, 1990) and the United States (Anderson and Narus, 1990).

and activities. These three variables constitute the basic features of business networks and are known as the ARA model (Håkansson and Johansson, 1992). Each variable can only be defined and understood in relation to the other variables. The actors have a central role in the model as they perform activities and control how resources are used. The actors are capable of acting but those actions are circumstantial and dependent on the actor's relations to other actors and how these other actors act.

Holmen (2001) sums up the characteristics of actors by stating that actors are goal oriented, base actions on their bounded knowledge of activities, resources and other actors, and that they develop relationships with other actors through the exchange process (p. 116). In this way, the individual actor get access to resources that it controls directly through ownership and those it controls indirectly through its relationships.

The ARA model was later developed into a second generation network model in Håkansson and Snehota (1995). The unit of analysis in the model is the business relationship and the model here separates the substance from the function a relationship has to the firm. This distinction allows us to look at elements being connected in a relationship and the effects produced by the connections produce. The substance aspect concerns what is affected by the relationship; that is, actors, resources, and activities (Håkansson, 1987).

The 'function' of relationships has three main levels: (1) the firm, (2) the relationship and (3) the network (i.e. triads or more connected relationships). In line with Håkansson and Snehota (1995), the function for the individual firm is related to the effects a relationship has on the firm's ability to do certain things internally. The function for the dyad is related to activity links, resource ties and actor bonds that reside within the individual relationship. The basic idea is that the individual relationship is unique in these three dimensions and that the way these three are integrated will highly impact both firms. The function for third parties concerns how relationships build network structures. In other words, what is produced within single relationships can affect and be affected by what is produced elsewhere in the network (ibid., p. 27).

The first and second generation network models have been influential to the research within the INA paradigm. They have helped delimit networks that at least theoretically are viewed as borderless and with no centre (Prenkert and Hallèn, 2006). Empirical attempts to study industrial networks, however, are dependent on such borders and centres being defined and created for analytical purposes. A common empirical and analytical assumption is that firm-centred and relationship-centred views describe firms' sense-making

with regard to both the characteristics of the network and how the firm/relationship fits into the network (Ford et al., 2003).

The term network is an ambiguous concept for reasons such as the idea that networks are borderless, are context dependent and that connections among actors are invisible and difficult to grasp in complete form. Campbell and Wilson (1996) underline this when stating: “the descriptive networks are in some respects without boundaries for it is arbitrary to say where it begins or ends. When networks are used by researchers to describe the broad net of all direct and indirect interconnections between firms, the network setting extends without limits through arbitrary” (p. 128). A common way researchers within INA traditionally have drawn such boundaries is to allow the “empirical situation draw its own boundaries” or that the researchers put his or hers own judgements and question of interest to delimit what is focused on (Harrison, 1999). Now that we have introduced the background to the INA, we continue with the strategy perspectives within the INA in Section 2.2. below.

2.2 Strategy within the INA

A common way that writers on strategy⁶ define and understand the term strategy is through distinguishing between the process of strategy making and strategy content (Harrison, 1999). Harrison (1999) claims that “this is a dichotomy between ‘what’ and ‘how’”. Harrison (1999) also points out that studying the two halves of the dichotomy as to inter-related and inter-twined parts makes more sense than studying each in isolation. The Industrial Network writers on strategy are also concerned with these two aspects of strategy, but in addition also focus on the network context in which strategy occurs. Strategy can then be understood as a mixture of the three points (1) context, (2) process and (3) content, and different writers may emphasise all three aspects or a combination of these (Pettigrew, 1985).

In line with how the INA views of business markets, the ‘context aspect’ refers to the business relationship (whether it be a single dyad or groups of inter-related business relationships/networks) as the arena where strategic actions and interaction between firms occur (Turnbull et al., 1996). The ‘process aspect’ concerns the manner in which strategy is formed. As the interaction process between firms is the central co-ordination mechanism, firms may opt to act individually (i.e. unilateral process) or collectively (i.e. bilateral process) and choose from a range of strategic decision options when

⁶ Harrison (1999) references authors such as Ansoff (1965) when referring to writers that distinguish between strategy as process and content.

acting in relation to others (Mouzas, 2001). The 'content aspect' then has to do with the factors or characteristics that constitute firms' strategic actions (i.e. means) and the strategic outcomes resulting from those purposeful acts (i.e. ends) (Wilkinson and Young, 2002). The content is usually referred to as the approach or attitude the actor has when acting and interacting in relation to others, and it is something that often is described after actions and interactions have occurred and the outcomes revealed.

The way strategy is approached within the INA could arguably be said to centre on the question of 'why' actors behave and act the way they do. This in turn is directly related to the research interest of why actors come together to form relationships –and network of interest (Zerrillo and Raina, 1996, p. 207). There are several reasons why firms develop relationships and Zerrillo and Raina (1996) discuss some of these. First, the firms develop relationships out of necessity referring to the need to access particular resource types controlled by others in order to solve particular problems (Ibid., p. 209). Secondly, the notion of asymmetry refers to how firms are motivated by the possibility to exercise power and control over counterparts and their resource collections (Ibid., p. 209). Thirdly, the notion of reciprocity refers to how co-operative relationships and co-ordination between firms is seen as the appropriate way for firms to achieve mutual benefits and goals (Ibid., p. 209). Fourthly, efficiency is a factor that all firms focus on in that it refers to their internal input/output ratio. In this respect, adaptations within relationships and effective exchange processes have been referred to as the single most important factor enabling a firm to achieve internal efficiency (Gadde et al., 2003; Zerrillo and Raina, 1996, p. 210). Fifthly, adaptive responses to changing network conditions and managing simultaneous stability and change in the environment is possible within and through the management of relationship. These factors imply that the business relationship is the arena and frame in which firms strategise in relation to others.

As noted earlier, the INA embodies several streams of thought that that deals with the strategy concept. They have the acknowledgement that there are limitations and opportunities within networks, and the embedded nature of firms requires that they develop strategies that focus on developing and managing their relationships (i.e. connectedness and dependencies). These perspectives have been summarised in Table 2.1. We will outline these perspectives briefly to illustrate the diversity that exists within the INA with regard to the strategy concept and what constitutes strategic behaviour. Special attention is given to the main perspective focused on in this thesis; the Relationship Strategy Approach.

2.2.1 Positioning approach to strategy

The concept of 'network position' has long been of interest to researchers within the IMP research tradition (Johansson and Mattsson, 1985, 1988, 1992; Henders, 1992; Axelsson and Easton, 1992; Ford et al., 1996; Ford et al., 2003). These researchers have made conscious attempts to develop an understanding of what the position concept means within the INA. Henders (1992, p. 1) refers to these attempts as efforts to "describe, quite simply, how an actor (i.e. a profit-making company, a governmental body, or an individual) fits into an industrial system". The INA uses the term position in a structural and temporal manner. The structural dimension refers to a specific state of an organisation in relation to other organisations, where both are bound in time and space. This implies that a firm's position is the outcome of how different structures of relationships can be identified within the borderless industrial network, and that their structural properties are a result of the way the 'units' are defined (e.g. the firm, the distribution channel member, product, individual) (Ibid., p. 131). The temporal dimension refers to the way in which positions are subject to change as a consequence of minor and major changes in the relational connections between firms. This means that it is possible to regard a network position as something that is bound in time in terms of the past, present, and future state of the firm and how the firm has fitted, fits, and wishes to fit within its business context in relation to others.

Table 2.1 – Five INA perspectives on strategy

INA on strategy	Descriptions (References)
Positioning Approach Strategy	<ul style="list-style-type: none"> Strategy concerns directing actions <i>at</i> the relationships with counterparts. The strategic base of the firm is made up of three components that become the main focus for managers: (1) network position, (2) resources and (3) network theories. The aim of the strategic action is to change or preserve the firm's network position through directing actions and influencing efforts at its relationships (<i>Johanson and Mattsson, 1992</i>). (See also <i>Johanson and Mattsson, 1985, 1988, 1992; Henders, 1992; Axelsson and Easton, 1992; Ford et al., 1996; Ford et al., 2003</i>)
Adaptation Approach Strategy	<ul style="list-style-type: none"> The strategy is viewed as an <i>adaptive process</i> that involves trying to match the activities of an organisation to the environment in which it operates (See <i>Canning and Brennan, 2004, p. 3</i>). This implies creating the <i>right level of coherence</i> between internal resources and abilities and the network conditions (See <i>Canning and Brennan, 2004</i>). (See also <i>Brennan and Turnbull, 1995, 1996, 1997, 1998; Turnbull and Valla, 1986; Johanson and Mattsson, 1987; Håkansson and Snehota, 1995, Håkansson, 1982</i>).
Network Picture Approach Strategy	<ul style="list-style-type: none"> The network pictures function as 'meaning creators' and 'decision tools' in the strategising process. These pictures allow the firm to delimit its network and devise strategic initiatives to mediate and develop relationships with counterparts. (See also <i>Henneberg et al., 2003; Ford et al., 2003; Johanson and Mattsson, 1992; Mouzas and Naudé, 2003; Holmen and Pedersen, 2003; Ritter, 2000; Anderson et al., 1994; Halinen et al., 1999</i>)
Networking Approach Strategy	<ul style="list-style-type: none"> Strategy is viewed as a dynamic and interactive process, and an inventive stream of finding and doing what is possible. The networking organisations that master these types of processes are viewed as more adapted to respond to environmental change through its interactions with others. (See <i>Zerrillo and Raina, 1996; Håkansson and Sharma, 1996; Ford et al., 2003; Snehota, 1990; Spekman, 1996; Håkansson and Snehota, 2000; Mouzas, 2001; Wilkinson and Young, 2002</i>)
Relationship Approach Strategy	<ul style="list-style-type: none"> Strategy is formed within the frame of relationships. It is here strategic options are formed through interaction with others. It is also the arena where strategy is manifested as changes in the connectivity (i.e. resource ties) between firms. (See <i>Galaskiewicz, 1996; Turnbull et al., 1996; Håkansson and Ford, 2002; Wilkinson and Young, 2002; Turnbull and Valla, 1996; Ford et al., 1986; Ford, 1980; Stern, 1996; Mouzas, 2001; Ford et al., 1996</i>)

In line with the Positioning Approach to strategy, the firm's strategic base is formed on three main components. First, network positions are in themselves viewed as strategic objectives or goals that firms' pursue through purposeful strategic actions. Such acts are often understood as attempts to preserve or change specific positions in relation to individual dyads or groups of inter-related firms (Axelsson and Easton, 1992). The general idea is that the firm can direct its actions on its direct and indirect relationships, whereby positions can be changed through "breaking old relationships, changing the character of existing, or preserving relationships endangered by adverse actions by other firms" (Johanson and Mattsson, 1992, p. 189).

Secondly, positions can be changed as a result of the way a firm manages and develops its resource collection and resource ties (i.e. resource interfaces and interdependencies) with counterparts (Håkansson and Johanson, 1992; Håkansson and Snehota, 1989, 1995). The basic argument is that the type of resources and adaptation mechanisms a firm chooses to invest in impact its ability to achieve effective exchange processes with counterparts. A basic assumption regarding strategic action is that the firm can "restructure the web of dependencies in the production system" through either weakening or strengthening dependencies in relation to counterparts (Johanson and Mattsson, 1992, p. 189). It could in other cases involve changing the role or function the firm plays in relation to others, via altering the way resources are allocated and organised in the specific relationship (Johanson and Mattsson, 1988).

Thirdly, positions can be changed through the way in which a firm develops its cognitive structures on which actions are based (i.e. network theories). These network theories are a function of the actors' experiences, memories of the past, beliefs about the future, perceptions about "realities", strategies, intentions, and how the firm views the status quo of the focal firm and its direct and indirect business relationships (Johanson and Mattsson, 1992). An essential element in directing actions at others is the idea that firms can influence the network theories of counterparts through the communication processes that exists between firms (i.e. the perceived mediating connections between relationships). This influencing could in some cases mean creating new and/or dominating network theories among the inter-related firms. In some cases the parties will try to increase the level of consistency in the network theories as a way to handle interdependencies in a coherent and co-ordinated manner (Ford, 1980).

The Positioning Approach to strategy has been influential to the idea of strategy within the INA. Nevertheless, it can be criticised for being somewhat static and for lacking a necessary dyadic focus on strategic action and outcome, and how such actions allows a firm to develop and manage its

network positions. While this approach builds on both, the structural and temporal characteristics of networks, the writers on positioning fail to explain the dynamism and bilateralness involved when a firm tries to direct actions at its relationships, when it attempts to influence the network theories of others, or when it tries to restructure the webs of interdependencies within its relationships. The theoretical concepts and assumptions that serve as the basis for this approach build on the idea that interaction within dyadic relationships is the central co-ordination mechanism, but there is little explanation provided of the intricate process involved when strategic actions are enforced within the frame of the dyads. The idea of strategy is portrayed as an individual firm activity and something that is planned unilaterally, which does not fit with the central argument in INA that “no firm is an island”.

2.2.2 Strategy as the management of adaptation

The expression ‘management of adaptation’ has been a central theme within the INA. The term adaptation is used to describe how actors’ co-ordinate the activities they perform and integrate the resources they control in exchange process performed within the frame of business relationships. The importance of the term to the INA became manifested in the large-scale research projects of dyadic business exchange conduction during the 1970s and 1980s by the IMP Group (Håkansson, 1982; Turnbull and Valla, 1986; Johanson and Mattsson, 1987). In line with the idea that interaction between actors is the central co-ordination mechanism within business networks, then adaptation between firms could be viewed as the outcome of such interaction. A common understanding of adaptation is that it involves some sort of change in “something”, and many of the problems with trying to define what adaptation is are concerned with the problems of defining what this ‘something’ is (Brennan and Turnbull, 1995). The INA does not operate with one definition of adaptation and Brennan and Turnbull (1995) argue that one reason for this is because the concept is “too intangible to yield a straightforward definition” (p. 9). The authors instead point out how INA writers instead rely on explaining what constitutes adaptation through a series of examples (e.g. Håkansson, 1982 and Ford et al., 1986).

As the IMP tradition do not share common construct definitions and little progress has been made to the taxonomy of adaptation behaviour (Brennan and Turnbull, 1995), researchers such as Brennan and Turnbull (1995, 1996, 1997, and 1998) and Canning and Brennan (2004) have dedicated much of their research to furthering our understanding of the notion of adaptation strategy. Building on their previous work regarding adaptations, the authors Canning and Brennan (2004) also introduce a framework for understanding the idea of strategy as the management of adaptation. In their efforts to

explain what constitute adaptive strategies, the authors decided to move away from the debate over formally planned versus emergent strategy formulations. Canning and Brennan (2004) instead argued that strategy concerns the degree of coherence with external conditions and compatibility with internal resources and capabilities. The basic idea is that the firm needs to perform relationship-specific modifications in, for instance, technical, logistical and administrative exchange variables in order to achieve “fit”. Modifications of these types continue for the duration of the relationship as conditions and expectations change and firms seek to respond to the changes in its business environment (Canning and Brennan, 2004, p. 5). Their framework describes the connection between strategy and adaptation in three dimensions: generic strategy, marketing strategy and relationship strategy. Generic strategy concerns establishing coherence in adaptation between the firm and the product market. The marketing strategy centres on the macro-level segment and involves catering for specific groups of consumers with similar characteristics (i.e. macro target segments and market offerings). The relationship strategy is designed to handle the micro-segments, (i.e. individual relationships) where the basic idea is that the role and importance of specific customers calls for unique strategies where customisation in adaptation is needed (Canning and Brennan, 2004).

A main critique to the notion of strategy as the management of adaptation is that the field is still somewhat ambiguous. It is difficult to define what exactly it means within the IMP tradition. A common issue regarding the writings on adaptation is that researchers often discuss adaptation without fully explaining how the term is defined and what it means for strategic behaviour and action. While some progress has been made, it is possible to argue that researchers such as Canning and Brennan (2004) assume a single firm perspective when they discuss strategising within dyads. The authors, for instance, do not focus on implication of firms’ strategic actions derived from unilateral decision-making processes, and it is difficult to grasp how differences in perceptions and concerns impact the strategy process and the adaptations the parties are trying to achieve. One would expect that the differences in perceptions, intentions, organisational structure and needs that make up the strategies could cause adaptation problems in that two firms may have significantly different understandings of whether specific adaptations are complex or not. This is also the case for how the parties assess whether certain situations call for individual or collective adaptive efforts to achieve what Canning and Brennan (2004) refer to as mutual benefits for counterparts. The way firms’ achieve coherence when managing single dyads within relationship portfolios of inter-connected relationships is another aspect that is left somewhat unexplored.

2.2.3 Strategy as the management of network picture

The Network Pictures perspective has developed into one of the central approaches within the INA that deals with strategic issues. The term 'network picture' has, according to Henneberg et al., (2006), received increased attention from researchers over the last two decades and has been at the forefront in the development of the strategy concept. The term 'network picture' is an umbrella term that includes other concepts that also deals with issues of "sense making" (Ford et al., 2003; Henneberg et al., 2006). These concepts are among others 'network theory' (Johanson and Mattsson, 1992; Mattsson, 2002), 'network insight' (Mouzas and Naudè, 2003), 'network horizon' (Holmen and Pedersen, 2003), 'network competence' (Ritter, 2003), 'network context' (Anderson et al., 1994), and 'enacted network' (Halinen et al., 1999). In broad network pictures refer to the subjective mental representations of what the individual actor (i.e. person, department, firm, etc.) defines and understands to be its relevant business environment (Henneberg et al., 2004, p. 408). Ford et al. (2003) uses the term quite broadly when referring to it as "the views of the network held by participants in that network" (p. 176).

The Network Pictures perspective on strategy centres on the function these pictures have as 'meaning creators' and 'decision tools'. A basic assumption is that these pictures are a matter of choice (Henneberg et al., 2004, p. 411). This implies that the way actors view the world is a result of the process of defining what is important to them. Pictures therefore arise from conscious attempts to define and articulate what the world is. The pictures have their own unique content representing the views, attitudes and understandings in which actions are based. Henneberg et al. (2004) distinguish between the perceptions actors' have regarding specific situations, and how actors choose to deal with these situations. A basic assumption is that the actor can choose among different decision options with regard to how specific situations and issues should be dealt with. The perceived option set (i.e. the decision alternatives that the firm perceives as relevant to them and that are considered) implies that the firm can have one picture content regarding a certain situation, and then choose to define another more explicit view, which represents how the firm wants to communicate to others how it chooses to perceive and understand the situation (see Henneberg et al., 2004, p. 411). The way meaning is created therefore serves as the foundation for which decision options are formulated. Through this, the pictures can provide the actors with direction and a basis for the ways in which the firm networks with counterparts (Ford et al., 2003).

Three important contributions (among others) within the Network Picture perspective have been managing expectations (Mittilä and Järvelin, 2001),

managing interdependence through mediation (Ritter, 2000) and managing network horizons (Holmen and Pedersen, 2003). The first perspective views expectations as an important strategic parameter in that they influence a firm's strategic and tactical considerations, in terms of how it chooses to relate to others. Mittilä and Järvelin (2001) argue that firms' need to examine, confront and evaluate the source of expectations if they want to develop expectations that support coherent decision making and adaptation between counterparts. The second mediation perspective has been identified as an important strategic element that influences the ways firms' can act purposefully when trying to change or preserve the structure of relationships in which it is embedded. Ritter (2000) understands the term mediating as active efforts to promote, relate and influence a firm's direct and indirect relationships (p. 318). One central element in the mediation is the idea that one considers the effects mediation within specific relationship can have on other relationships and Ritter (2000) provides a ten-point classification of these effects.

The network horizon perspective was introduced by the authors Holmen and Pedersen (2003). It refers to the way in which firms can draw boundaries to ever borderless and fuzzy business networks. The term is used with regard to how firms can delimit the network and select a specific number of direct and indirect counterparts to focus on when strategising. The authors build on much of the basic thoughts addressed in Ritter (2000) regarding interconnectedness within portfolios of inter-related relationships. Network horizon is a conscious selection by the firm of what counterparts to prioritise. Holmen and Pedersen (2003) argue that the individual firm will have a limited number of business counterparts and relationships that it is aware of and that it can include in its decision basis when acting purposefully. In this way, they add to the discussion in Ritter (2000) by providing a necessary filter when looking into the "black-box of interconnectedness" that is manifested in total networks (p. 323).

The research areas dealing with sense making have experienced an increased number of publications in the last decade. Still, while the contributions have been many when it comes to defining and understanding the nature of network pictures, very few authors have attempted to address the role sense making plays in strategising. The management of sense making is a process whereby network pictures have a specific content that is both time and actor specific, and subject to change as firms learn and interact with others over time (Johanson and Mattsson, 1992). The way firms manage stability, change, conflict of interest and heterogeneous views when strategising could be identified as an area that ought to be researched further in order to understand the underlying factors that form the basis for strategic action and interaction.

2.2.4 Networking approach to strategy

The networking concept has emerged in the literature as an umbrella phenomenon emphasising what firms can and wish to do in relation to counterparts. The term 'networking' is understood as "all the interaction of a company or individual in the network" (Ford et al., 2003, p. 178). It is viewed as an interactive and dynamic process that goes on between two actors or more, where the central idea is that the parties have restricted freedom to act individually. This motivates them to engage in communication, co-operation and decision-making with others. The networking can be formal and informal in nature and it is believed to be what ultimately enables the firm to solve its problems and meet its needs (Ford et al., 2003). In line with the idea that firms assume, plan, act and interact on the basis of imperfect, bounded knowledge, Snehota (1990, p. 129) argues that firms the behaviour and plans have to be revised when relevant knowledge is altered. A change in network picture, for instance, could easily lead to a revision of the concerns that occupy firms. These changes could in turn motivate the firms to revise and change the adaptations implemented in their relationships (Ibid.). The behaviour pattern that constitutes networking is viewed as what ultimately can allow firms to deal with the problems and paradoxes of networks (Ford et al., 2003). This implies that the networking between firms is the arena where such revisions occur and the catalyst leading to actions and interactions that trigger changes in the firm's relationships.

The Networking Approach builds on the idea that firms are organic organisations that respond to environmental change through interactions with others (Spekman, 1996). Network development can then in itself be viewed as an organic process, where changes result from interaction between firms through the stepwise alterations that occur within inter-related relationships (Håkansson and Sharma, 1996, p. 116). The organic process is manifested in the social exchange between firms, and the process itself can be made up of multi-faceted and multi-dimensional communications and decision-making processes in and between firms. This perspective deals with the fundamental question of why certain relationship structures and arrangement evolve (Zerrillo and Raina, 1996, p. 207). Spekman (1996) underlines the importance of being an organic organisation when claiming that such organisations "were more likely to make "better" decisions because they were more adept at gathering and processing relevant external information" (p. 9). The organic organisation is one that is oriented towards gathering information and insight into the way the counterpart performs decisions (Ibid.). Such insight is essential in order to be able to target influencing efforts towards specific counterparts. It is also important in order for the parties to be able to align various internal and external decision-

makers (such as for instance the buying and selling centres), thereby co-ordinating the direction of those action on specific relational objectives (Ibid., p.10).

The Networking Approach to strategy could therefore be labelled as one that is interactive and adaptive in nature. Such a process could be defined as follows "...it is a process where the next act is always dependent on the earlier ones and where the act also will be seen as a reaction to earlier actions. It is not a series of separate actions but parts in a continuous process framed by the actors involved. The dynamic aspects are obvious. What can be achieved is more related to what is happening during the process than to predetermined goals or ambitions. Each of the two counterparts in an interaction process can throw in whatever type of problem and opportunity they have internally, or in relation to other parties. The process can thus become very much embedded into other processes" (Håkansson and Sharma, 1996, p. 117). In such a process, strategy options emerge as interactive choices that are subject to individual and collective examination and evaluation in the specific moment in time rather than conceived a priori (Håkansson and Snehota, 2000, p. 45). Mouzas (2001) supports this idea of strategy and describes the process as "an inventive stream of finding and doing what is possible for each organisation in its respective network" (p.1). He also argues that being able react to events as they unfold in combination with the ability to create and exercise "a series of real options that best reflect the organisations' strengths and their capacities derived from network memberships" is an essential aspect in strategising (p. 1). The author's basic argument is that the problems related to how to assess what actions to pursue today in order to achieve specific "unknown" outcomes in the future is one that demands a certain level of flexibility in the firm's strategic approach. The strategic options that a firm defines at a certain point in time need to be revised and adapted as unexpected episodes are experienced (Ibid., p. 2). The initial strategic approach has to be confronted as the firm acquires new information and experiences changing network conditions.

The Networking perspective to strategy contributes to the prevailing strategy literature in INA in that it focuses on the interactive and dynamic processes that led to decisions and ultimately change. However, as it stands alone it is somewhat weak in terms of how firms manage networking and to the extent this is even possible. Much of the traditional ideas on strategy build on strategy as something that is deliberate and planned, and in this way the networking perspective offers an alternative perspective to what strategy really is. The way the networking concept is defined, however, as something that includes all the interaction a firm is involved in basically without restrictions and boundaries, makes it difficult to grasp the link and distinction with between deliberate processes and the outcomes that follow,

including unplanned developments and outcomes. Now that we have outlined four important perspectives on strategy within the INA paradigm, we continue to a fifth perspective that is central for this thesis.

2.2.5 Relationship strategy approach within the INA

The term ‘relationship strategy’ functions as an umbrella term within the INA. It represents a phenomenon that encompasses all the other perspectives on strategy within this paradigm discussed in the previous sections. The term relationship strategy could also be viewed as perspective on strategy in its own right. It builds on fundamental understandings and assumptions regarding how the individual firm can behave in a strategic manner in relation to others. The relationship strategy perspective centres on the role relationships play in strategising, where it is assumed that managers need to understand the relational context in which social exchange functions before they can understand the behaviour elements that reside within them (Galaskiewicz, 1996, p. 20). This implies that in order to be strategic, firms must base decisions on analysis and considerations of how to exploit and enhance resources across firm boundaries (Turnbull et al., 1996). This then demands a strategic focus whereby the individual firm looks beyond its own boundaries to try and understand how its counterparts intend to relate to changing interfaces with immediate and more distant counterparts (Håkansson and Ford, 2002, p. 134). Turnbull et al. (1996) underlines the importance of developing relationship strategies with the basic argument being that firms must “understand those wider factors which strategy must bear in mind and seek to change” (p. 5). The authors also point out that “without a wider network view, any approach to relationship strategy runs the risk of degenerating into short-termism” (Ibid., p. 5).

The relationship strategy perspective requires a firm to analyse itself, its individual relationships and its overall relationship portfolio simultaneously in order for resources to be organised and utilised in an effective way (Turnbull et al., 1996, p. 5). This implies trying to balance between individual and collective needs and requirements. An equally important aspect is how the firm deals with the limitations and opportunities that reside within these business relationships, by relating these to the internal conditions of the firm. The authors Håkansson and Ford (2002) underline the importance of relationships from a strategy perspective when claiming that “strategizing is about identifying the scope for action, within existing and potential relationships and about operating effectively with others within the internal and external constraints that limit that scope” (p. 137). This implies that managers need to focus on potential constraints arising from the adaptation mechanisms that are developed and nurtured within its relationships. The organisation of a firm’s resources collection should be

based on an analysis of how the firm manages its relationships to exploit and enhance resources within individual relationships, and as part of an inter-related portfolio of relationships (Turnbull et al., 1996). A difficult aspect is then how the individual firm pays attention to potential constraints within its portfolio of relationships, while at the same time managing individual relationships where each has a different function for both parties (Turnbull and Valla, 1986).

The focus on managing relationships as an intricate part of a firm's strategies has led to different ways to classify relationships and/or approaches to strategy as the management of relationships (Ford, 1980; Ford et al., 1986). Portfolio models attempt to classify and differentiate between relationships based on criteria such as where in the life cycle the relationship is (Ford, 1980), or the manner in which the interacting parties manage variables such as mutuality, particularity, capabilities, etc. (Ford et al., 1986). Such models have often been criticised for being too static or because they do not consider the indirect relationships a firm has (Wilkinson and Young, 2002, p. 9). Wilkinson and Young (2002) argue that these models are static when they fail to consider how relationships classified as valuable and important today may not be that tomorrow, given that changes occur over time within the specific counterpart, within the focal firm, or with other relationships in the portfolio. Wilkinson and Young (2002) therefore claim that relationship management and selecting how to approach counterparts is a matter of deciding whether to explore or exploit relationship opportunities at different points in time. The exploration aspect concerns decisions regarding when to search for new counterparts in order to gain access to new sources of valuable resources, whereas the exploitation aspect refers to how to improve the way resources are utilised and exploited within existing relationships (Ibid.). On the assumption that the atmosphere within business relationships can have elements of both co-operation and competition (Stern, 1996), managing in these relationships demands that managers treat them as two-dimensional entities. The first dimension involves the parties' efforts to try and exploit existing relationships (and existing resource combinations) by competing on getting the "biggest slice of the pie" (i.e. distributing profit margins among the interacting parties). In the second dimension they may engage in collaborative processes with others to search for and develop new ways to relate and exploit resources (i.e. new resource combinations) in an attempt to "increase the size of the pie" (i.e. creating new profit margins).

A common understanding regarding the strategy process is that strategy making needs to be interactive and adaptive. In this way the relationship strategy approach shares much of the underlying ideas of the networking approach to strategy. As noted earlier, Mouzas (2001) views the strategy process "not as the ultimate concept of the company's positioning in the

market but as an inventive stream of finding and doing what is seen possible for each organisation in its respective network” (p.1). Mouzas (2001) focuses on the adaptive abilities of the firm when reacting to episodes and events as they unfold. Here, strategy involves choosing among specific acting options that the individual firm believes can allow it to exploit its strengths, resources and abilities manifested in their network membership (p. 1). The need to adapt relationship strategies to changing conditions within and between firms is central, and the firm’s adaptive behaviour involves approaching interaction processes with counterparts. Firm-level decision-making processes are ongoing, demanding modifications in the firms’ strategic approach as conditions change over time (Ford et al., 1996).

The adaptive nature of such strategies are manifested in both the means and ends, which makes it difficult for firms to maintain their original plans as changes in the conditions and assumptions of these plans occur (Wilkinson and Young, 2002). Wilkinson and Young (2002) explain this when arguing that “a firm’s actions contribute to the changing future in which it may or may not be able to continue to act” (p.9). The authors refer to this as a dilemma and underline it by stating; “as a firm acts and reacts through its participations in a business network it learns about means and ends that creates and undermines its ability to act” (p. 10). They are careful not to explicitly try to articulate what characterizes the “optimal or best strategies” but instead cite Stuart Kauffman who states: “The winning games are the games the winners play”. This implies that strategy is highly situation-specific, and that the interaction at a given point in time should be viewed as a unique strategising context in its own right. Therefore, strategic options have to be defined and interpreted in light of the current situation of a firm.

As noted earlier, I have chosen to focus on the Relationship Strategy perspective, and while some authors have elaborated on and contributed to this idea of strategy, it is somewhat ambiguous. As it stands today, this perspective has the potential to be used to examine and elaborate on some of the criticism of other INA perspectives on strategy put forward in this thesis. We turn to two important perspectives within the INA that form the basis for the way this perspective will be interpreted and used in the thesis; the Interaction Approach and the Resource Approach respectively.

2.3 Strategy through interaction and manifested in resources

The Interaction Approach is important to the idea of strategy in two ways. First, interaction is viewed as the central co-ordination mechanism within industrial networks (Håkansson, 1982). Secondly, interaction is perceived as the process in which strategic actions are defined and enforced, and the

setting in which firms communicate, influence, confront, decide and react to the actions of others (Turnbull and Valla, 1986; Ford et al., 1996; Ford et al., 2003; Mouzas, 2001; Gadde et al., 2003). The Resource Approach is also important to strategy in two ways. Firstly, given that resources constitute networks and are in themselves the focus of strategic actions and interactions, these passive and fragmented entities become activated as a consequence of the interaction between firms (Håkansson and Waluszewski, 2002). This implies that resources can be viewed as objectives and goals in their own right and thus form the basis for firm strategising. Secondly, the implications of strategising can thus also be measured in terms of changes in resource properties. This implies that changes in resources could be viewed as strategy, manifested where the values and profits that certain resource combinations render can be measured and viewed as economising outcomes (Jahre et al., 2006). We will now introduce these two perspectives, which form the basis for the analytical framework presented in section 2.4.

2.3.1 Interaction approach

As noted earlier, the interaction approach stems from large-scale empirical projects carried out by the IMP Group during the 1970s and 1980s. The researchers involved demonstrated how the connections between firms were manifested in long-lasting exchange relations. Their primary focus was to investigate and describe the conditions and characteristics of such exchange relations. Their research focus came as a reaction to the prevailing literature on what happens in business markets. The pioneers within the IMP Group had early on questioned the view that business markets consisted of “individually insignificant customers” and instead argued that customers varied significantly both in size and needs and thus could not be approached in a uniformed way (IMP Group, 1982). The group had also registered how exchange relations between customers and suppliers frequently consisted of two active counterparts, rather than situations where one side was passive and the other active. Finally, the group believed that firms would interact in a number of ways outside the frame of the actual exchange situation. That is firms would interact pre and post the individual business transaction and exchange episode (Ibid.). Thus, the dyadic business relationship became the unit of analysis, and the IMP projects resulted in an interaction approach and model that had the focus on understanding and analysing industrial exchange activities manifested in the interaction processes between firms (Håkansson, 1982).

2.3.1.1 The first generation interaction model

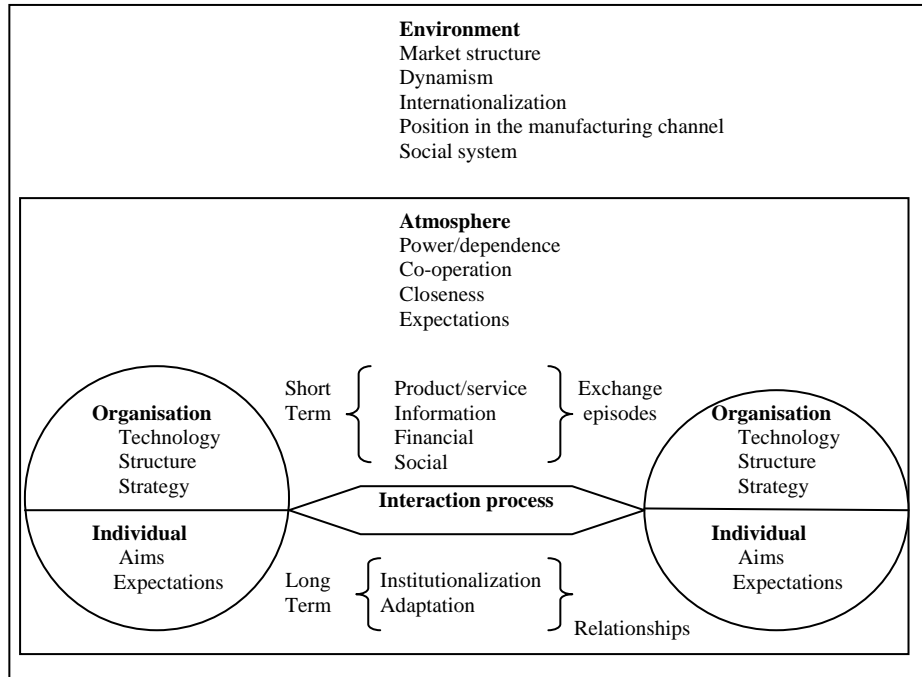
The first generation interaction model was introduced in Håkansson (1982). It focuses on four main dimensions; the interaction process viewed as having a distinctive content and processual characteristics, the variables that

constitutes the organisations as individual participants, the environment in which interaction occurs, and the atmosphere affecting and affected by the interaction. A central outcome of the earlier IMP research that serves as the basis for this model was an understanding of ‘how do companies interact’ (Ford et al., 1986). A basic assumption was that business exchange was defined as inter-related activities across firm boundaries that in turn were “interwoven with activities in a larger industrial network” (Ford et al., 1986, p. 79). The interaction model illustrates the frame in which business exchange is carried out, and describes the various dimensions that are connected as firms interact in order to affiliate business exchange. The model illuminates the basic assumptions of the interaction approach, and forms the basis for other interaction models and views regarding what constitute business markets. One such model is presented later in this section, and is here termed a ‘revised interaction model’. In the following section, however, is a short presentation of the four dimensions that constitute the first generation interaction model.

THE INTERACTION PROCESS

The interaction model distinguishes between the individual exchange episode in a relationship and the long-term aspects related to how individual episodes are connected within business relationships. These episodes can be divided into four main categories; products and services, information, financial and social exchange. The exchange of products and services is the core of the interaction process (Håkansson, 1982). A central aspect with regard to the products and services is the uncertainty related to how the parties identify the customer’s needs and requirements and also the supplier’s ability to service those needs (Ford et al., 1986). The way such uncertainties are handled will be dependent on the type of information exchanged (i.e. economic, organisational, technical, etc.) through interpersonal channels or through technical systems such as databases. The degree of formality related to information exchange has been identified as a critical determinant impacting the firms’ ability to adapt intra-firm operations to those of the counterparts. Inter-personal dialogues in particular form the basis for inter-firm discussions to clarify and answer questions such as what can you do for me, and how are you prepared to do this for me (Ford et al., 1986, p. 80). Furthermore, the financial exchanges offers valuable information regarding the economic importance of the parties to each other.

Figure 2.1 – An Illustration of the Interaction Model



(Source: Håkansson, ed., 1982, p. 24)

Finally, social exchange is arguably the primary factor ensuring that inter-firm industrial activities are co-ordinated. It is through communications that firms discuss and confront their individual concerns, negotiate and consider different decision options and form solutions to their problems. This can allow them to integrate their operations. The inter-personal communications can reduce various exchange-related uncertainties as the parties learn more about the factors that are important to the counterpart, and the limitations and opportunities that need to be considered when acting in relation to each other. In this way the parties can increase predictability through clarifying certain expectations of how each side expect the other to behave in the future. Features such as trust, commitment and mutual orientation are the outcomes of social exchange. Social exchange episodes executed over time gradually interlock the parties and bonds are created among the members of the interacting organisations (Håkansson, 1982).

A long term relationship between firms is the outcome of these four exchange episodes carried out over time. A basic understanding is that each relationship is characterized with unique relationship features that become institutionalised in the dyad. The information exchange and inter-personal communication result in specific contact patterns between the parties that

can be both formal and informal in nature (Cunningham and Homse, 1986). The parties will also invest in specific resources to affiliate business exchange and various adaptations are made both in technical and organisational resources in order to support an effective exchange process (Gadde et al., 2003). The adaptations are unique in each relationship, can be modified in relation to all four exchange episodes, and can lead to potential benefits such as cost reductions through frequent/repeated exchange episodes. However, the idea behind the model is that in order to achieve such benefits the firms need to consider both internal and external issues and concerns at the same time, to avoid either intra-firm or inter-firm sub-optimal solutions (Canning and Brennan, 2004).

THE INTERACTING FIRMS

The interaction model highlights two specific aspects regarding the interacting firms. The first is organisational characteristics that refers to the firm's structure (i.e. organisation of internal actors, resources, and activities), technology (i.e. expertise, application, system) and strategy. The second characteristic is the individuality and uniqueness within the actors such, as their aims and expectations. It is assumed that the individual firm will have a unique organisational identity and characteristics such as size and power, which in turn gives each party a specific position vis-à-vis the other that it uses to influence and negotiate exchange conditions with the counterpart. This position is manifested in the type and amount of resources the firm controls such as market position, competence and portfolios of relationships. It is those factors that give the firm a certain negotiation power in relation to the counterpart (IMP Group, 1982; Håkansson, 1982; Johanson and Mattsson, 1988; Håkansson and Johanson, 1993).

A basic assumption regarding strategy is that firms should be aware of "the potential effects on its self and its relationships arising from the actions of other companies elsewhere in the network" (Turnbull et al., 1996, p. 5). In this way, any attempt to direct actions at counterparts should be based on analysis and considerations on how such actions can affect the properties of the relationship. This includes the ways resources are exploited and activities co-ordinated in relation to others (Håkansson, 1982; Turnbull et al., 1996; Gadde et al., 2003). Another central aspect regarding strategy is how firms try to influence others to comply with specific demands, and to make the necessary internal adjustments to support an improved inter-firm fit (Håkansson et al., 1976; Johanson and Mattsson, 1992). Interpersonal communication concerns the dialogues that determine whether and how specific modifications can be made within each organisational set-up to affiliate effective business exchange processes (Gadde et al., 2003).

THE ENVIRONMENTAL CONDITIONS

In line with the idea that interaction between firms is not an isolated phenomenon, the interaction model proposes that any attempt to describe, analyse and understand interaction demands an orientation whereby interaction is studied in relation to the wider context in which the parties are embedded (IMP Group, 1982, p. 26; Ford et al., 2003). Here the interaction model focuses on five main contextual factors: market structure, dynamism, internationalisation, position in the market channels and the social system (Håkansson, 1982; IMP Group, 1982). The market structure concerns the actor concentration in specific regions or product/service markets and the stability or change rate in the market. These factors impact the firm's ability to choose whom to do business with due to the availability of alternative counterparts (IMP Group, 1982, p. 27). Dynamism refers to the close or open nature of the firm's business relationships. In close relationships the firm can exploit inside information about the counterpart to increase predictability in behaviour to support inter-firm adaptation (Ibid.). In more open and dynamic arrangements, however, substantial opportunity costs can arise if a firm is reliant on the counterpart and therefore also more 'sensitive' to the developments that goes on with the counterpart and its relationships. The internationalisation aspect is emphasised as it describes whether and how the firm is interested in or diversified in several national regions and how the firm's organisational set-up is adapted to various regional conditions (Ibid.). The position each firm has in the manufacturing channel is manifested in the type of relationships and connections that exist between the firms. Such connections are important as they shed light on how firms are interdependent on each other based on both direct and indirect relationships, and the fact that positions can change due to structural changes with these other relationships (Ibid.). The social system includes the attitudes and perceptions that are viewed as "common truth" amongst different groups of firms in the industry. Such views can function as possible obstacles for those trying to establish new relationships (Ibid.).

THE ATMOSPHERE OF THE RELATIONSHIP

The term atmosphere resides in the social bonds between the individual interacting on both sides of the dyad. The atmosphere results from the ways the parties interact in relation to specific episodes. The atmosphere is a perceived understanding of the ways the parties understand factors such as co-operation (or conflict), power-dependence, expectations (individual and mutual) and closeness (close or distant) (Ibid.). The basic idea with the model is that the atmosphere influences and is influenced by economic and control dimension of the business relationship. The economic aspect sheds light on the benefits to be reaped from being close, when certain adaptation mechanisms can offer an effective management of inter-firm operations. In

addition, the economic aspect draws attention to how efforts to capture specific economic outcomes can be hindered by the nature of such connections and the interdependencies that resides within them. Ritter (2000) has later elaborated on the issue of how relationships can be impacted from the firms' actions within relationships. Using his terminology, the economic outcome following from interaction can be defined as no change, one-sided positive, one-sided negative, two-sided negative, and two-sided positive (Ritter, 2000). The control dimension refers to the way the firms handled the uncertainty in the expected outcomes from interaction and the efforts and initiatives that they believed would allow them to control what the outcomes would be. The access to information and the ability to reward or coerce the counterpart to behave in specific ways in the exchange process is highlighted, as is the parties' perceived understanding of the power-dependence aspect of the relationship (IMP Group, 1982, p. 28).

Now we turn to a revised version of the interaction model that will be applied in the analytical framework of this study. It is used to examine the processes behind resource activation and economising in a relationship setting.

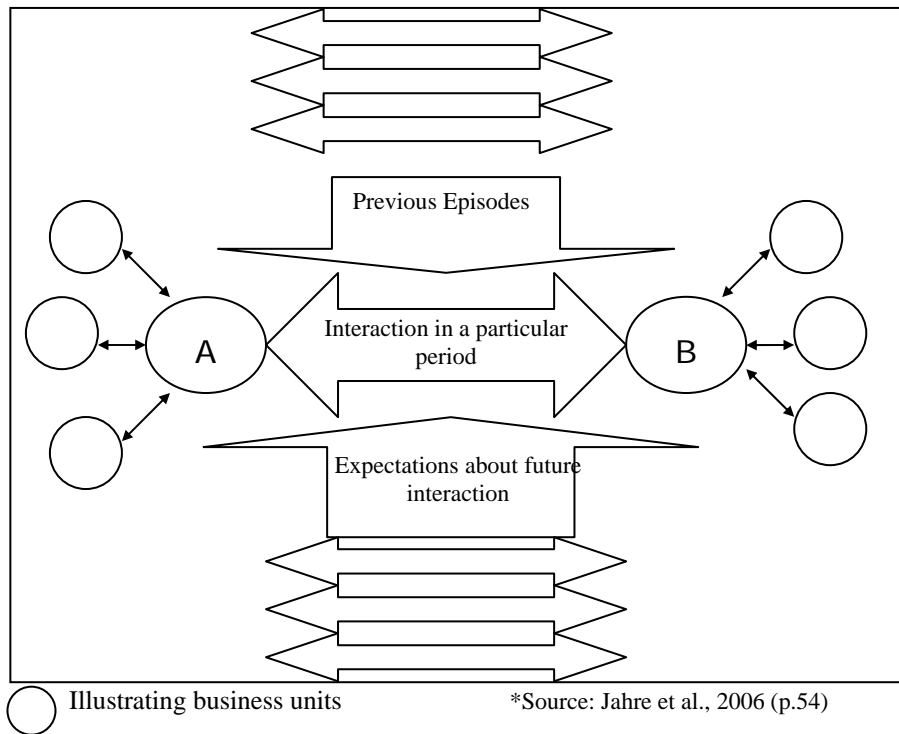
2.3.1.2 A revised interaction model

As noted in Chapter One, this thesis is interested in a particular type of interaction process; the communication process within dyadic business relationships. This type of interaction process is understood to be an important component in which strategic action and interaction is manifested. It is in the communication process where the parties exchange information and knowledge. It is their bilateral dialogues in the form of flows of questions and answers that enables each actor to try and understand the intentions, aims, limitations, constraints and opportunities as perceived and articulated by the counterpart (Ford et al., 1986). These communications calibrate the relationship between the interacting parties repeatedly. They are deemed particularly interesting in order to investigate the notion of strategy as process. In line with the understanding that firms in dyadic relationships seldom have a clear, consistent and common view of where they stand with each other, questions such as 'what can you do for me' and 'how can you do this for me' form the basis for their efforts to influence and negotiate solutions to their specific problems (Håkansson et al., 1976; Ford et al., 1986; Ford et al., 2003; Jahre et al., 2006). The inter-firm dialogues therefore serve as the arena where firms obtains access to critical relationship-specific information and knowledge needed in their strategic decision-making.

The first generation interaction model (Håkansson, 1982) has become the basis for other models dealing with interaction within business relationships. One such model has been a model suggested in Jahre et al. (2006), which in this thesis is characterized as a ‘revised interaction model’. The model analyses dyadic business relationships and interaction, and is one that builds on a resource perspective. This implies the role of interaction is discussed in relation to its impact on resource development and use (Ibid.). It could be argued that the model sheds light on the interaction process in which strategising and strategic action occurs. The interaction approach in general and this model in particular offers insight into how interacting parties and decisions makers manage their subjective understandings and interpretations when trying to assess the best way to interact with the counterpart. The process dimension implies that what is considered best in each point in time will be both time and context specific. This same goes for the ways the parties assess the outcomes that are gained for the firm and the relationship. In this way the model serves as a necessary link between the factors that determine strategic action and behaviour and how the parties perceive the impact their interaction has on the connections and features of specific dyads.

The revised interaction model distinguishes between two main contexts in which interaction is studied; the current situation of a particular interaction episode (i.e. specific point in time) and connecting specific current episodes to past and expected future episodes (i.e. specific period in time). A basic assumption regarding the first context is that interacting parties always will be concerned with “the right now”, referring to the concerns and issues that occupy firms at a specific point in time (Ibid.). The way the current situation is defined is similar to the interaction “episodes” discussed in relation to the Interaction Approach and the first generation interaction model presented earlier in this chapter. Jahre et al. (2006) point out that each episode has its own logic and involves specific actors which will have their own unique subjective view and interpretation of the situation. This implies that the interaction is both time and situation specific (Ibid., p. 53). The way the parties choose to interact in relation to the current situation then depends on the particular issues that occupy them (Ibid.).

Figure 2.2 – Factors determining interaction in a particular episode



The second context is based on the idea that “each episode is also a part of a more extended time context” (Ibid.). This implies that what is focused on in the current situation is connected to the memories and experiences the parties have from previous interaction episodes, and also to the expectations they have regarding the future episodes that may arise. The link between the current and the past episodes implies that firms can learn from previous interactions and use this insight to determine how the current situation should be handled in order to achieve the best results today. The link between the current and the future episodes implies that current interaction and decision-making forms for future interaction. Managing interaction in relation to different episodes occurring at different points in time is a complex process potentially causing tensions both within and between the interacting parties (Ibid.).

The revised interaction model builds on other research and publications within INA and several concepts discussing how interacting parties through the interpersonal communications within a relationship try to handle various problematic issues related to time and context. One such concept is the ‘subjective interpretation’ which is considered to be an important component

in the social exchange between firms (Ford and Håkansson, 2006). In line with what has been discussed earlier in relation to 'network pictures', Ford and Håkansson (2006) point out that the attitudes and subjective norms of the actors is an important element believed to influence the behavioural intentions and thus also the actual behaviour (Bagozzi et al., 1996, p. 368). The corporate and personal beliefs systems, for instance, impact how managers view certain situations and issues and ultimately also how they believe they need to act and interact in order to handle specific problems (Ford et al., 1996, p. 166). Ford et al. (1996) explain: "these beliefs encompass the nature of the participants' role in their jobs and in society, and the values to which they add here. The beliefs can be differentiated from, but they underpin the specific values that an individual would apply to the effects of a particular decision...." (p. 166). This implies that interacting firms have to manage complex belief systems, whereby a major challenge is how to manage subjective views that contain simultaneously similarities and differences both within and between the firms.

It is often argued in the INA that actions and interactions affect the attitudes, perceptions and beliefs of the interacting parties as these are formed, reformed, reinforced or undermined (Wilkinson and Young, 2002, p. 3). A central aspect of managing subjective interpretations is how firms view and evaluate the outcomes of interaction, and how such effects impact the present and future interaction and decision-making. Ford et al. (1996) point out how 'relationship effect' is valued will influence the decisions actors pursue. A basic assumption is that firms will act based on how they believe certain value entities can be obtained from their decisions. The interesting question is then how do the firms manage in relation to each other when they operate with different understandings of how value is created and the value objectives they want to obtain. This is particularly problematic when firms try to act in relation to portfolios of relationships that are connected. In some cases the effects in the relationship can be revealed relatively immediately and are "easily identifiable and attributed to the firm's decision" (Ford et al., 1996, p. 163). In other cases these effects do not become revealed immediately or not at all, which makes it difficult to determine whether the effects are caused by one specific relational decision or from decisions of other counterparts connected to the focal dyad (Ibid.).

Another important aspect regarding subjective interpretations is how the time dimension is handled within business relationships. It is frequently noted in the INA that networks are simultaneously stable and changing. The interaction approach proposes that firms have to examine both individual episodes and series of episodes simultaneously in order to relate to the overall development of a relationship (Ford, 1980). Ford (1980: 66) underlines this when stating: "...each episode is affected by the norms and

procedures of the relationship as well as the atmosphere of co-operation or conflict which may be established". Ford and Håkansson (2006) identify two problematic issues when studying strategic acts and managing time within relationships. The first problem relates to the issue of determining where interaction begins and ends. Here the authors argue that deciding this is a matter of choice, and that those choices impact upon whether something can be defined as being in the past, present or the future. As these choices impact the concerns and attitudes in which the current interaction is manifested, the current interaction should therefore include efforts to clarify the concerns be prioritised in current and future interaction (Ford and Håkansson, 2006).

The second problem concerns the idea that there are always certain elements of newness related to interaction episodes. Ford and Håkansson (2006) argue that this newness both restricts and forms the basis for opportunities for future interaction (p. 12). The authors point out that "...each single element of newness may have multiple sequential effects in many direction" (Ibid.). The fact that interaction is causal and difficult to define, also means that it is difficult to grasp the sequential manner in which it occurs. It is equally difficult to grasp the potential outcomes that can follow from the interaction. The idea that at least two actors within a relationship will perceive and place judgments on the nature of the interaction, its sequence, its direction and possible future outcomes implies that actors have to relate to multiple views and understandings of the same issues.

What have we learned about interaction and the role it plays in business relationships? Understanding interaction and business relationships is essential in order to understand the processes that lead to specific resources outcomes being rendered (Jahre et al., 2006, p. 20). The interaction model proposed in Jahre et al. (2006) focuses on interaction at different points in time, which provides the firms with new insights from interacting with the specific counterpart, and/or an opportunity to adapt to perceived/experienced changes as communicated by the counterpart. This means that what constitutes the 'best' way to combine and use resources, or what is considered to be the potential outcome of combining particular resources, is something that can change over time (Ibid., p. 38). We now turn to the Resource Approach to provide further insight into the idea of strategy manifested as changes in resource connections between firms.

2.3.2 Resource approach

The Resource Approach is an umbrella term used to describe a heterogeneous body of literature within the INA that centres on the resource concept. The term resource emerged as central concept in numerous network studies carried out within the IMP research tradition and is viewed as a

cornerstone within the INA (Wedin, 2001; Håkansson and Waluszewski, 2002; Baraldi, 2003; Lind, 2006; Håkansson and Gadde, 2001; Jahre et al., 2006). This body of literature offers different terminologies to describe the characteristics of resources (see table 2.2). In line with the second generation network model (also known as the ARA model), the substance of resources can be understood as a resource layer divided into three categories: resources collection, resource ties, and resource constellations (Håkansson and Snehota, 1995).

The resource collection conceptually refers to a 'pool' of varied resources that includes both organisational and technical resources that the firm controls/owns and gets access to through its relationships with others (Holmen, 2001, p. 139). In terms of controlling resources outside the firm's boundaries, a basic assumption is that the individual firm can exercise control through influencing counterparts to organise and use resources in specific ways that are favourable to the firm. The individual firm's resources are connected to the resource collection of counterparts through what is called 'resource ties'. Such ties are seen as blurry borders that refer to the 'multidimensional' resource interfaces manifested in the specific ways in which resources are adapted and used among specific dyadic business relationships (Holmen, 2001, p. 140). Finally, the resource constellation is a term used to describe how "resources of several different counterparts can be related to the same resource in the focal firm" which implies that resource ties in different/multiple relationships can be connected (Ibid.). The basic assumption is that resources in such constellations become more embedded into its structure over time, which makes it difficult to change such structures due to the interdependencies that arise amongst the resource entities or the resistance of the actors controlling them (Håkansson and Waluszewski, 2002; Lind, 2006, p. 34).

Table 2.2 – Important resource concepts within the INA

Term(s)	Description
Resource collection	A ‘pool’ of varied resources that included both organisational and technical resources and resources that the firm controls/owns and gains access to through its relationships with others (See Holmen, 2001, p. 139; Håkansson and Snehota, 1995).
Resource ties	The individual firm’s resources are connected to the resource collection of counterparts (see Holmen 2001; Håkansson and Snehota, 1995).
Resource constellations	Resources of several different counterparts can be related to the same resource of the focal firm which implies that resource ties in different/multiple relationships can be connected (Holmen, 2001, p. 140; Håkansson and Snehota, 1995)
Resource heaviness	Characterises the friction between individual resources a part of a certain structure or constellation of resources (See Håkansson and Waluszewski, 2002)
Resource heterogeneity	Value of resources is not given but dependent on how resources are combined and used (See Penrose, 1959; Alchian and Demsetz, 1974; Håkansson and Waluszewski, 2002)
Resource interface	Contact points between resources with emphasis on how resources affects other resources’ technical, economic and social dimensions (See Baraldi and Strömstad, 2006, p. 56).
Standardised interface	A situation when “the knowledge of use and the knowledge of produce are unrelated to each other” (See Araujo et al., 1999, p. 498)
Specified interface	A situation where a buyer and seller need to adapt to each other, but where one party is dependent on the other for information regarding specific needs and requirements (See Araujo et al., 1999, p. 498).
Translation interface	A situation where the supplier has to translate the functional characteristics supplied by the customer into a product (See Araujo et al., 1999, p 498).
Interactive interface	A situation where both parties engage in open-ended dialogues to facilitate joining and integration of the firms’ individual contexts by developing specifications through bilateral co-operative efforts (See Araujo et al., 1999, p. 498).
Team production	Combination of resources used in productive processes (i.e. production in which several types of resources are used and the product is not the sum of separable outputs of each co-operating resource) See Alchian and Demsetz (1974, p. 779).

The idea of resource heterogeneity is central to the INA. A basic understanding is that the value of resources is not given, but is instead dependent upon how resources are combined and used (Håkansson and Snehota, 1995). The heterogeneity assumption has been inspired by authors such as Penrose (1959) and Alchian and Demsetz (1972), which were occupied with how firms combine their distinctive resources when performing certain activities. According to Penrose (1959), the focus when investing in resources and combining them to achieve certain profitable outcomes should not be on monitoring the level of input material, but rather on the services these combinations generate in production. Penrose (1959) referred to this as 'services rendered', and argues that productive resources "are not man-hours or machine-hours..., but the actual services rendered by the men, machines, cotton... in the productive process" (p. 74). According to Penrose (1959), productive gains and opportunities come as a result of the way heterogeneous resources are combined, and it is these combinations that gives the firm its unique character and renders a variety of heterogeneous services that it could offer to others (p. 75). Alchian and Demsetz (1974) also focus on resource combinations in production, and introduced the term 'team production'. This is defined as "production in which several types of resources are used and the product is not a sum of separable outputs of each cooperating resources" (p. 779). The authors point to the problems related to how to measure and control input productivity and the individual member's contributions to the total output. This is especially problematic when firms wish to distribute rewards across team members that reflect the input productivity of the individual member (Ibid.).

Another important term in the Resource Approach is the idea of resource interfaces. The term is used to describe the contact points between resources, with emphasis on how any given resource affect the technical, economic and social dimensions of other resources (Baraldi and Strömsten, 2006, p. 56). It is these interfaces that create value for firms. An important managerial responsibility is to determine what resources to invest in, how to develop and combine them and also how to use specific combination of resources in effective and value creating ways. This can be referred to as the process of organising resources, where the organisation involves managing various resources interfaces that can stretch across formal firm boundaries (Håkansson and Strömsten, 2006). According to Håkansson and Strömsten (2006), firms need to select which resources interfaces to prioritise. This would, from a dyadic relationship perspective, mean that both sides of the dyad need to discuss and decide what these relevant interfaces are. This would ensure that resource interfaces are adapted and managed in such ways that they do not constrain other resource combinations that the firms manage. The overall objective is to manage resource interfaces that support an effective organisation of resources within the individual relationship and

portfolios of inter-related relationships simultaneously. In this way, managing resource interfaces is in itself viewed as a strategic task. Baraldi and Stömsten (2006) underline this when stating: "...resource interfaces are sources of value that can be target of managerial action to create value. Differently put, resource interfaces are the tools that firms can, at least partially, handle to create value. However, attempts at value creation are affected by the configuration of the resource interfaces around a focal resource..." (p. 55). The way these interfaces are managed will have direct consequences on the way productivity and innovation outcomes are acquired and therefore also the extent to which firms are able to obtain access to resources outside their boundaries. Araujo et al. (1999) address this issue by arguing that two questions in particular should influence how interfaces are managed: "what resources should be controlled internally and what resources should be accessed externally from suppliers?; and how should the buyer access suppliers' resources?" (p. 498). Araujo et al. (1999) introduce four types of resource interfaces based on the division of work between designers and manufacturers: standardised interface, specified interface, translation interface and interactive interface (see Table 2.1 for definitions).

We will now introduce a model for studying resource interaction (i.e. resources activated through interaction) called the four resource interaction model. This will be applied in the analysis in Chapter Six.

2.3.2.1 The four resource interaction model

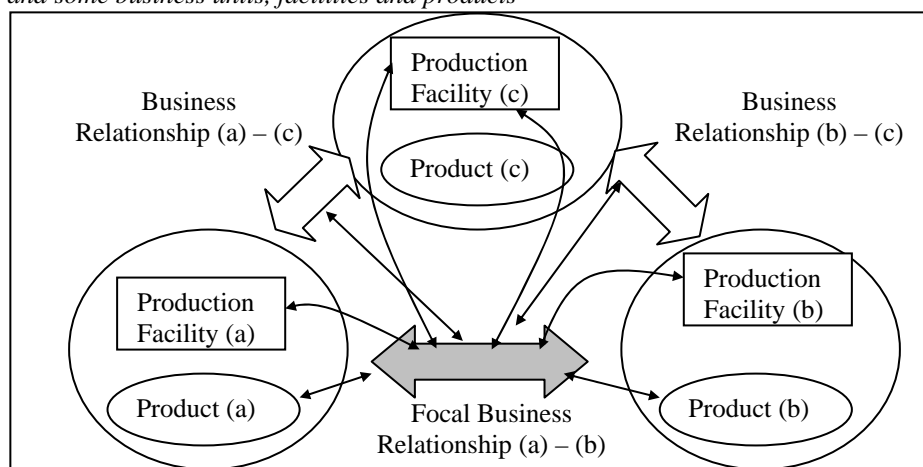
The four resource entity model builds on the prevailing literature within the Resource Approach. The model was first introduced in the publications of Wedin (2001), Baraldi and Bocconcelli (2001) and Håkansson and Waluszewski (2002). Since then other researchers within the IMP research tradition (e.g. Gressetvold, 2004) have applied it. This model classifies resources into four basic types: products, facilities, business units and business relationships⁷. The first two types (products and facilities) are considered technical resources, whereas the other two types (business units and business relationships) are characterized as organisational resources (also referred to as social resources⁸). The organisational resources organise the technical ones, regardless of whether it is a firm or department as a business unit or a specific business relationship as a quasi-organisation (Håkansson and Strömsten, 2006, p. 56). The basis for the model is the idea that resources are developed in interaction, which gives rise to the term

⁷ See Håkansson and Waluszewski (2002) for further information on the nature of the four resource types (p. 32-38).

⁸ The resource types business units and business relationships were first named organisational resources but later in an article in 2006 the authors Håkansson and Strömsten referred to them as social resources.

resource interaction. Håkansson and Waluszewski (2002) explain what resource interaction is in the following way: “Interaction is understood as a process that can include ambitions to create stability and change in the interfaces between resource elements. Put simply, the interaction often includes complex problem-solving processes where problems other than the exact evaluation of the product are handled” (p. 31).

Figure 2.3 – Illustrating resource interaction between a focal business relationship and some business units, facilities and products



Source: Wedin (2001)

The idea that resources have multi-dimensional features means that it would be possible to define and describe value characteristics by breaking them up in a numbers of different ways (Håkansson and Strömsten, 2006). Håkansson and Waluszewski (2002) argue that resources should be seen as an objective in themselves as well as an image object. The image objective refers to the way actors perceive the nature of resources to be at a given point in time. This in turn becomes an important ingredient in the way they manage *in* the business context (e.g. within business relationships). The authors’ basic argument is that managers need to relate different images of resources when interacting within business relationship, in addition to relating the objects of resources themselves (Håkansson and Waluszewski, 2002, p. 40). This means that images that firms’ base their actions and interaction on could be illustrated in many ways using a resource ‘language’. As the acting abilities reside within the organisational resources these have significant impacts on the ways firms choose to co-ordinate and integrate resources in relation to inter-firm exchange processes (Håkansson and Strömsten, 2006). It is therefore possible to use the four resource interaction model to shed light on firms’ actions and the implications these have on the way in which resources are organised and economised. The strategic actions

and interaction resides within the organisational resources. It is also the place where firms evaluate resource values, and where the knowledge on how to use resources resides. It is the place where firms address questions such as 'what is value', 'value for whom' and 'value in relation to what'. Each firm will combine resources in relation to a particular purpose and understanding of use (Ibid). The organisational resources are therefore treated as the arena where firms confront existing resource combinations and individual network contexts and where new ideas on how to combine resources are produced (Håkansson and Strömsten, 2006, p. 56). Håkansson and Strömsten (2006) point out that use and technical resource are closely connected. This is because use deals with issues of "how to combine physical resources to perform transformation activities" (Ibid., p. 56). Here the authors claim that exchange value depends on the way the organisational resources are combined to perform exchange activities" (Ibid., p. 56). Thus, focusing on the organisational resource provides a necessary link between how firms relate to different resource contexts when trying to develop effective exchange relations.

The idea of resource heterogeneity also connects to the idea of the interactive effects of resources on firms and relationships (Håkansson and Waluszewski, 2002, p. 32). The effects of combining heterogeneous resources has been thoroughly studied and discussed by Håkansson and Waluszewski (Ibid., p. 32) who state: "It is from these combinations that their features are created. One important consequence of this is that a resource always has hidden qualities, since there are always new ways to combine it with existing or new resources. Thus, it is always possible to discover new features of a resource". The management of such combinations is therefore what creates value (Baraldi and Strömsten, 2006, p. 52). A basic assumption regarding how to render valuable outcomes from specific resource combinations is the idea that trial and error and exploration is often needed to reveal the richness that exist with the specific features of resources (Håkansson and Waluszewski, 2002; Prenkert and Hallén, 2006).

Håkansson and Strömsten (2007) argue decisions regarding how to prioritise and invest in specific resource interfaces is dependent on the knowledge interacting parties have of such interfaces. They claim that the outcome of resource combinations across firm boundaries depend on how both sides of the dyad prioritise individually and/or collectively (Ibid., p. 3). The authors turn to the interaction process to explain how both general and specific knowledge processes are produced (ibid: 499). The general interface knowledge processes refers to knowledge of how certain resources behave in general terms in relation to each other (Ibid., p. 3). Håkansson and Strömsten (2007) have referred to this type of knowledge as 'scientific' and closely related to "scientific" models for how and why certain resource

combinations function as they do and should be organised in specific ways. This logic can for instance be manifested in working manuals, project plans, technical procedures, etc. The specific interface knowledge processes refers to understandings of “what happens with specific interfaces in specific context (Ibid., p. 3). The experimental nature of testing different way to organise resources means that this could be seen as a learning process where the particular setting helps explain why resources have certain features (Ibid., p. 4). We will now shift to the analytical framework of the study that is formed on the Interaction Approach and the Resource Approach.

2.4 Analytical framework of the study

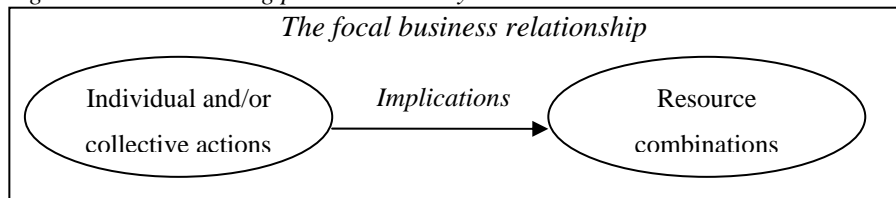
The analytical framework devised for this study builds on the concepts, assumptions and models from the Relationship Strategy Approach, Interaction Approach and the Resource Approach. The dyadic business relationship serves as the unit of analysis. The empirical material is organised following the chronological developments within the focal dyad, with special emphasis on how the focal firms act and interact in relation to three main events. The empirical materials follows the developments of the dyad by monitoring its progress during and after these events, where a decision has been made to treat each event, as an individual relationship episode with a specific time frame. These relationship episodes are analytically examined individually, even though they are overlapping.

2.4.1 The starting point of the analysis

The starting point in the analysis is the focal business relationship between the focal firms Kitron and KDC. The firms newly-established partnership arrangement provides empirical boundaries to what is considered the relevant parts of the focal dyad. The main focus of the partnership is to confront the existing division of work between the focal firms. They shared a mutual interest and belief that collective actions would determine how resources would be organised in joint industrialisation projects (i.e. products) in their relationship. The empirical material focuses on two products in particular MRR and Stella, and these products also provide empirical boundaries as to what is studied. The actual starting point of the analysis begins with examining the specific actions that the focal firms perform individually and/or collectively. The aim is to capture the impact these actions have on their ability to organise and economise on resources available to them in operations of an inter-firm nature (see Figure 2.4). This means that the case analysis is concerned with two main themes, that is; how firms organise and economise on resources within business relationships,

and how firms act and interact in order to affiliate this within business relationships.

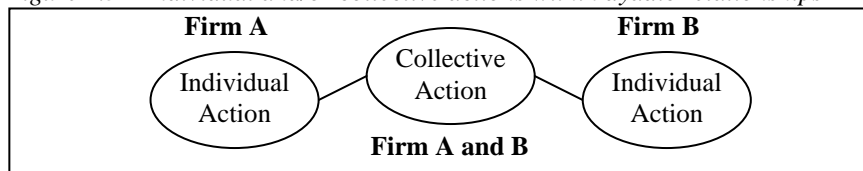
Figure 2.4 – The starting point in the analysis



2.4.2 Individual and collective actions as the starting point

The study focuses on the firms' individual and/or collective actions in relation to one focal dyadic business relationship. These actions can therefore be performed by three main actors; firm A, firm B, and firm A and B collectively (see Figure 2.5). This means that emphasis will be on actions of firm A and B performed either within the partnership/relationship (i.e. collective actions), or outside the partnership/relationship (i.e. individual actions). It is assumed that the members of the relationship project are responsible for getting various decision-makers from firm A and B to base their actions on a relationship-oriented information base and concerns created through bilateral dialogues and co-operation within the dyad. It is also assumed that both firms believe when they entered into the partnership that they needed to pursue collective actions in areas that were deemed crucial for their joint industrialisation projects. In this way the relationship project (and not the business relationship per se) functions as an arena where the parties determine what those areas are. The communication process between firm A and B includes efforts to inform, present ideas, discuss, influence and negotiate solutions: The nature of firms' actions ultimately impacts the ways resources are organised and economised on at different stages in the industrialisation process.

Figure 2.5 – Individual and/or collective actions within dyadic relationships



* Firm A (subcontractor); firm B (product developer); firm A and B (business relationship)

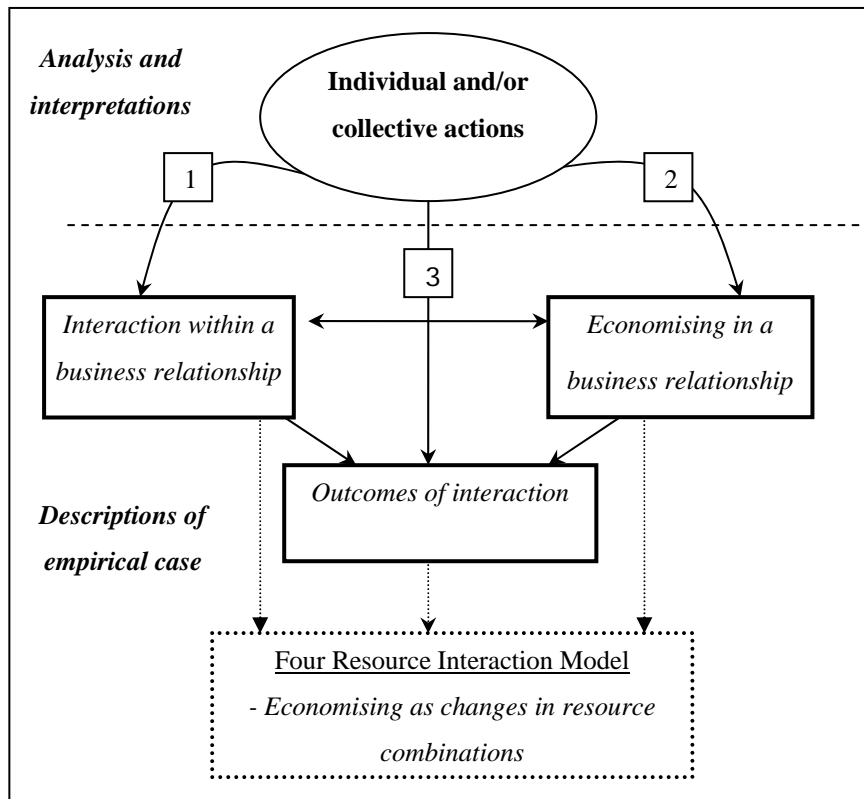
2.4.3 Changes in resources combinations as outcomes

The distinction between individual and collective actions is central to the case analysis. These actions are interesting due to their impact on the firms' ability to organise and therefore also economise on resources. In line with the ARA-model, the focal firms will each have a distinctive resource collection, where some resources are tied to those of the counterpart as resources are combined in different ways across firm boundaries. The changes in these resource combinations are treated as the outcome of the firms' actions. An important distinction, however, is made between organising resources differently and being able to economise on them differently. The basic assumption is that firms can organise resources in different ways without this necessarily leading to changes in the economising of the same resources. The term economising is here referred to as "to make prudent use of money or the means of having or acquiring property" (The New Webster Encyclopaedic Dictionary). In this study the term 'prudence' is understood as "acting only after careful thought and planning" (Oxford Advanced Learner's Dictionary of Current English – see also Jahre et al., 2006). The analysis in this study therefore deals with how Kitron (firm A) and KDC (firm B) can organise and/or economise on resources within their business relationship after interacting after careful thought and planning.

2.4.4 The analytical focus of the study

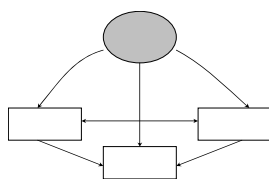
This researcher is aware that the choice of theoretical concepts and models applied will highly influence what is seen in the case and how the data is interpreted and understood. These elements also affect the output of the case analysis, both in terms of the findings and what conclusions that are reached. Lundgren (1995, p. 70) addresses the problem in this way: "The underlying frame of reference does not only affect what we will see, it also indirectly determines the results". As previously argued, this research study follows in the tradition of the INA. This means that many of the views and assumptions within this paradigm will form a foundation for the study and frame what is 'seen' in the analysis. The analytical focus of this study is then illustrated in Figure 2.6.

Figure 2.6 – The analytical framework of the study



2.4.4.1 Individual and/or collective actions

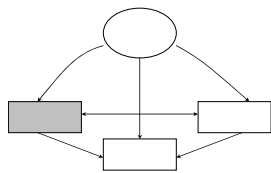
The firms’ individual and collective actions are in focus and are considered as the heart of the analysis and interpretation of the empirical material. The questions of “who is acting and interacting” are essential to the analysis. Several actors will perform actions on both sides of the dyad, and the study focuses on actions made by actors on either the firm-level or the department-level. The individual actor, whether viewed as a single firm or a single department will have a unique position in the business relationship. These actors will also have a distinctive view of how the firms should act and interact in order to support a systematic and efficient use of resources. An important assumption in the study is that actions will be influenced by the position and views of the actors. The actors also possess the ability to learn from past experiences from acting and interacting, and they will obtain more insight into the economising properties of resources as they try and re-



try different ways of organising resources. Furthermore, as the focal firms interact through dialogues they may also influence each other to behave and act in certain ways. The learning and influencing aspects are two essential aspects that will be focused on in the analysis. As Figure 2.6 illustrates, the description of the empirical material presented in the case study focuses on the interaction within the business relationship, economising within the relationship and the outcomes of interaction for the relationship. These three areas will be examined in a circular manner, opposed to in a sequential manner even though the actual structuring of the analysis may follow this sequential structure. The empirical material will be analysed based on the link between the individual and/or collective actions and these three areas.

2.4.4.2 Interaction within business relationship

The focal relationship is multi-faceted, which means that the two focal firms will act and interact with each other on different levels in the dyad as part of their everyday co-operation. The focal business relationship consists of several individuals and departments from different levels of the organisations that interact with each other on a regular basis, both directly and indirectly in relation to their joint industrialisation projects. However, the study focuses on the interaction within the dyad with emphasis on those actors that are directly or indirectly involved in the partnership arrangement. Examining the contact patterns related to, for instance, decision-making is one way to capture the relevant inter-firm communication.

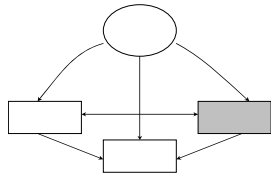


In line with the research question devised for this study, special interest is given to capturing the factors that support and hinder firms from economising on resources in a desirable manner within the focal business relationship. Of equally interest is to obtain insight into the tension that can occur when firms determine what actions to do individually and collectively. It is assumed that the firms can learn how to interact as the relationship evolves, and they can also learn how to influence the counterpart to presume certain positions and views when acting and interacting. The revised interaction model (Jahre et al., 2006) that was introduced earlier in this chapter is applied to capture the distinctive nature of the firms' interactions at specific points in time (see Figure 2.2). It is modified in order to capture the interaction that occurs both on the firm and department level. The time element is furthermore emphasised, as the interaction within the dyad at a specific point in time can focus on dialogues regarding past episodes, how to interact today in relation to current situations, or how to interact in the future. The model is applied to illustrate who is acting, how the parties

interact at different points in time and how the nature of their interactions may shift character over time. The model will be used to present snap shots of the interaction within the focal dyad at different points in time. In line with what was discussed in relation to Figure 2.2, this is deemed suitable in order to capture the circular process of strategy as process.

2.4.4.3 Economising in a business relationship

It is assumed that the individual firm will view situations and episodes that arise within the relationship in a unique way. Their views will influence how they decide to act and interact in relation to the situation. The analytical framework builds on the idea that firms will act and interact based on how they believe they can best economise on resources available to them. The changes in how resources are economised on within the dyad, however, are a result of changes in the way resources are organised between the firms. As noted earlier, the parties may organise resources differently without this necessarily leading to changes in the way these resources are economised on. Nevertheless, the assumption is that the firms' views regarding resource organisation and economising is what determines whether they decide to act individually or collectively. Thus, special attention is given to how actors view⁹ the status quo of resources, the opportunities that exist from combining resources in a certain way and the possible impacts on the future economising on resources from their actions and interactions today.



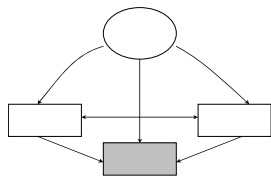
The case analysis will provide descriptive pictures of how the firms view the way resources are organised within the business relationship when acting and interacting. These pictures can be viewed as snap shots of the actors' views at specific points in time. It is important to note that the presentation of the resource pictures comes as a result of how the researcher interprets the firms' views. Håkansson and Waluszewski (2002) underline this point when arguing that the researcher will only understand and grasp fragments of the process, and that what is 'seen' will be highly influenced by the research tools and methodology used. They also state: "to strive for "consciousness" appears, on one hand, as an important quality demand and, on the other, as totally impossible ever to fulfil. If the research tools are the only possible fixed points of reference, then these and their uses are the only ways in which we can extend our knowledge" (p. 25). The four resource interaction model is applied, and the resource pictures represent how the firms' perceive the nature of the resources that are available to them and how these should

⁹ Referring to the term view as the actors' sense making or network pictures presented earlier.

be exploited (Wedin, 2001; Håkansson and Waluszewski, 2002). This model represents a way to describe how resources are combined, and also how the parties wish to change the resource combinations in order to achieve specific economising outcomes. This includes their concerns regarding what resources to adapt, how to adapt them, when to adapt them, and also what they believe the potential economising outcome will be. The four resource interaction model is particularly useful to capture snapshots regarding resource interfaces at different points in time, and can in this way be used to capture the ‘before and after’ situations as changes in resource combinations (i.e. outcomes of interaction).

2.4.4.4 Outcomes of interaction

The outcome of interaction is viewed from an economising perspective, where economising is understood as changes in resource combinations and use. The analysis will focus on economising as the firms see it, and a problematic issue that immediately arises is how one can measure and/or monitor economising within the relationship. The analysis and interpretations will be drawn from the manner in which the firms handle and relate to the issue. In some situations, the four resource interaction model could be useful to describe how the outcomes of interactions are understood by the firms, whereas in other situations other illustrations might be more useful. An important part of the analysis is to discuss the outcomes as changes in resource combinations. Attempts will be made to describing how I interpret these outcomes. The analysis of outcomes will focus on the organisational resources and combinations of these, and the technical resources will be used to exemplify how the firms are able to economise on their organisational resources¹⁰.



¹⁰ The organisational resources control the technical resources, which mean that the technical resources will be viewed as embedded in the organisational resources.

Chapter Three Methodology

3.0 Introduction

This chapter describes and discusses the methodological approach that has been used in the study. The case study methodology was found the most suitable for the thesis. The method used in the research to collect data included interviews, participation in business meetings, etc. Furthermore, this thesis should be viewed as an outcome of a large research project called NETLOG at the Department of Logistics and Strategy at the Norwegian School of Management BI.

Chapter Three is divided into five sections. Section 3.1 introduces the case study research methodology as the research strategy. Section 3.2 presents the research design, and illustrates the frame in which the research process has been carried out. In Section 3.3 the research process is described in detail. This involves describing how the research topic and issues were selected (Section 3.3.1), how the case was selected (Section 3.3.2) and how the case study itself was structured (Section 3.3.3). Section 3.4 describes the data collection process with particular emphasis on how the interviews were carried out (Section 3.4.1), how the business meetings I attended were set up (Section 3.4.2), how the feedback to the respondents was organised (section 3.4.3), and the use of other sources of data (Section 3.4.4). Finally, Section 3.5 contains some reflections regarding the trustworthiness of the research.

3.1 Case study research

The research strategy chosen for this research project is the case study. This is a type of qualitative research design that is often descriptive in nature, and has been deemed highly suitable for studies whereby the researcher aims at investigating specific issues in depth and detail (Easton, 1995; Patton, 2002). Some researchers argue that the qualitative case study opens up for interpretative sense making in that it allows the researcher to seek meaning rather than causal explanations. In addition, the qualitative case study is considered to be particularly well-suited for exploratory studies where the researcher has little control over the actual events occurring during the research process and when the research is built on “how” and “why” questions (Yin, 2003, p. 1). Both arguments are highly applicable for this study.

The case study can be used in many situations where it can contribute with knowledge of individuals, groups, organisations, social, political, and related phenomenon. It has been a preferred research strategy in fields such as psychology, sociology, political science, social work, business and community planning (Yin, 2003, p.1). In business and economic studies, the case study has been used to investigate and provide explanatory insights into individual or a small number of variables. In other situations, whole structures of a given industry or region has been investigated using this method. The case study approach has also been the most frequently used method in studies conducted within the IMP tradition (Easton, 1995; Dubois and Gadde, 2002; Dubois and Araujo, 2004). Easton (1995) argues that industrial network researchers “have been driven to cases because they make sense of the phenomenon we have sought to understand” (p. 385-6).

A common understanding is that there are endless varieties of possible cases. Punch (1998, p. 150) introduces an interesting definition of what a case is and can be summed up in the following statement; *The basic idea is that one case (or perhaps small number of cases) will be studied in detail, using whatever methods seem appropriate. While there may be a variety of specific purposes and research questions, the general objective is to develop as full an understanding of that case as possible.* The ‘case’ in case study research is often a combination of theoretical and empirical insights. Here a theoretical framework is used to make sense of the empirical realities. Eisenhardt (1989) views the case study research as a useful strategy in the development of theory. The author highlights the idea that the process allows the researcher to gain further knowledge and insights that can lead to clarifications of “unanswered” and “unresolved” issues and problems, or to redefine specific concepts or models.

Some theoretical assumptions often form the starting point for a case study. A common argument is that this enables the researcher to focus and to know what to look for in the empirical world (Dubois and Araujo, 2004). A case may be viewed as a methodological “product” (Ragin, 1992) and as a “tool” (Dubois and Gadde, 2002). The research purpose remains one of the most challenging aspects regarding case studies. Here the goal of the researcher is to design ‘good’ case studies where data is collected, presented and analysed in a “truthful” and fair fashion. Another challenging issue is how to draw boundaries to what is studied. Boundaries represent the frame that depicts what the case is a case of. Dubois and Araujo (2004) argue that knowing what the case is of should not be the starting point, but rather one of the final steps in the research process. The authors underline this when stating: “What constitutes the phenomenon of interest and its boundaries is often the outcome of the study rather than a decision that can be firmed up prior to

conducting the study” (Dubois and Araujo, 2004, p. 225). Thus, drawing boundaries to the case is possible when the researcher knows what the case is an example of.

In this study, a decision was made to have one ‘big’ single case study. The desire to explore and understand strategic behaviour, while at the same time appreciating the uniqueness that this case had to offer, made it seem appropriate to let the research journey draw its own boundaries and reveal interesting features with what constitutes strategy in this particular setting. In line with Andersen (1997), a case could be an example of several empirical phenomena. I jumped into the empirical inquiries early in the PhD studies. Due to this, having the focal business relationship and the partnership arrangement set the preliminary boundaries seemed appropriate.

This single case study would represent a powerful example in its own right, in that it may open up for comparison with other case studies carried out within related fields of research. In addition, this study concerns a case that has been limited to a particular set of interactions whereby the way the case study is organised allows us to examine how particular sayings and doings are embedded in particular patterns of interaction.

Dubois and Araujo (2007) argue that there are no ready-made ways to analyse the social world. This researcher experienced how difficult it was to devise an analytical framework at the outset of the research process. This challenge was dealt with by progressively trying to construct the context and boundaries of the phenomenon under investigation as the empirical reality evolved over time (Ibid., p. 171). I relied on flexibility in terms of changing the sample size and the direction of the case during the course of the research. Sometimes new factors were revealed that motivated me to gather more data about events that had happened in the past, whereas other times other unexpected issues appeared that made me want to seek out new information (see Silverman, 2005, p. 133). Alasuutari (1995) underlines this aspect when stating: *“a narrow case-analysis is broadened...through the search for contrary and parallel cases, into an example of a broader entity. Thus the research process advances, in its final stages, towards a discussion of broader entities. We end up on the bottom of the hourglass”* (p. 156).

In line with the notion that cases are complex configurations of events and structures embedded in temporal contexts (Dubois and Araujo, 2007, p. 171), the single case was gradually decomposed into three subcases. Each centres upon an important relationship episode. These cases represented complex configurations in their own right occurring at different points in time and all tied to the development of the focal dyad. Such a single case approach is contradictory to what is recommended when it comes to

generalisability where it is often argued that one should compare cases in order to be able to generalise. Still, the single case could serve as the basis for future research where the findings could be tested out in comparative case studies. Dubois and Araujo (2007) address the value of an exemplar when stating: *“the value of an exemplar for a discipline is not fixed once and for all, but will change as new questions are put to old cases and new interpretations based on new theoretical frameworks emerge. We regard strong exemplars as both necessary for the development of a discipline as well as providing templates against which different theoretical and methodological positions may sharpen their differences”* (p.173).

3.2 An emergent and iterative research design

The research design that is used to carry out the research strategy is often divided into two main stands. Both focus on the relationship between theory and empirical findings, that is, an inductive and deductive research respectively. An inductive study is one where results are derived from the empirical findings, whereas the deductive study concerns research when theory is tested with regard empirical findings. This study cannot be defined as purely inductive or purely deductive in nature, but rather something that has both inductive and deductive properties.

In many ways the theoretical frame of reference and the empirical findings have emerged gradually hand-in-hand in an iterative manner. The overall research topic, the theoretical interests and the specific issues have during the course of the research changed in an iterative manner. An iterative research process is a basic feature of conducting a case study when “...the accumulation of knowledge involves a continual cycling between theory and data” (Eisenhardt, 1989). Dubois and Gadde (2002) refer to this as “.....a successive refining of concepts” (p. 558). This process was not conducted in a systematic fashion in the same way as for instance is the case with the abductive research design referred to as systematic combining (Dubois and Gadde, 2002). Nevertheless, the research process was characterized by the researcher going back and forth between empirical observations and theory.

Overall, it is fair to argue that the research design of this study has more inductive properties than deductive ones. I began gathering the empirical material before defining and clarifying the research topic in detail. This was also before I selected the relevant problem areas in the literature. The empirical data collection began almost immediately going into the doctoral programme. The consequence was that data was gather based on an overall

research topic and issues that would later be confronted and re-defined several times during the research process.

Throughout the research process I wish to contribute to the notion of strategising (i.e. acting in relation to others). I decided early on that I would not select one specific approach or definition of strategy, but instead use the empirical material to study and capture some interesting features as to what it meant from an INA. The early entrance into the empirical field allowed me to “hang-out” and study the business relationship close up. I was able to use the experiences from the firms’ partnership arrangement to say something meaningful about the factors that support and constrain the firms from acting in a coherent and ‘strategic’ manner in relation to each other.

However, the claim that this study leans more towards the inductive side than the deductive does not mean that its design could be labelled as a purely inductive one. The purely inductive approach would in this case refer to something that is unstructured, and that the ‘situation’ or ‘reality’ was being studied as a single, static object awaiting observation (Singleton et al., 1988). The researcher had some experiences from the electronics industry in general, and from one of the focal firms from a previous research project. This led me to acknowledge that the focal business relationship could not be treated as a static entity for observation and examination. Instead it was a dynamic entity going through minor and major changes over time.

The researcher’s experiences from an earlier case study made him aware that the firms in this industry on a general basis underwent frequent organisational changes, which ultimately also could affect the business relationships in a major way. Hence, I was structured in my approach to gathering the data. At the same time I was flexible and unstructured in terms of going back and forth between the empirical reality and theory. The focus was on following the direction the business relationship was taking.

The inductive properties of the research design did not mean that theory was not important to the way the research was performed. On the contrary, the INA influenced how the study was conducted through theoretical models such as the four resource interaction model (Håkansson and Waluszewski, 2002; Jahre et al., 2006) and the interaction model (Håkansson, 1982), which shaped the manner in which data was collected and the research process structured. In this way, the research could be considered to be somewhat ‘grounded’ in data (Glaser and Strauss, 1967). However, through the identification of specific theoretical interests (see Chapter One) within the INA the researcher went into his “inductive study” hoping to contribute to INA.

The inductive properties were combined with a specific method for gathering empirical data referred to as 'participant observation' (Fangen, 2004). The term participant observation has often been used when referring to field research. This method concerns the researcher 'being out in the field' amongst the research subjects in situations that are natural to them. The term says more about the researcher's way of working than the field work itself. It sheds light on the often difficult task of balancing between being among people and participating in their interaction, while at the same time being there to study and observe them (Ibid., p. 28).

This method inspired and influenced the way the specific techniques such as interviews and participation in business meetings between the firms were carried out. I participated in these situations through engaging in conversations with a few persons or all the persons involved in a given situation. Through this I discovered their unique interpretations and understandings of the situations being observed. This method has been deemed suitable also for situations and episodes that are unique to the subjects' daily lives.

3.3 The research process

The research process builds on what had been discussed in Sections 3.1 and 3.2. In this section particular emphasis is placed on describing how the research topic and issues were derived, how the case was selected and how the empirical material was structured in the case study.

3.3.1 Selecting the research topic and issues

There are both practical and social reasons for choosing a clear research topic (Silverman, 2005, p. 77). A general notion seems to be that the research topic can be clarified and the research focus narrowed through the formulation of research questions. These questions provide the research project with direction and coherence, they keep the researcher focused, they provide a framework when writing up the research, and they pinpoint the methods and data that will be needed (Ibid).

I was sympathetic to the strategy concept when entering the doctoral programme after completing a Master of Science degree within the strategic management field. The MSc thesis was a research study of single case of a strategic co-operative business relationship within the electronics industry. This data was analysed based on a theoretical frame using literature from the activity perspective (Porter, 1985, 1996) and the resource perspective

(Wernerfeldt, 1984; Barney, 1991), within what here is referred to as the “traditional” strategic management field. This experience motivated the researcher to apply for the doctoral programme. The strategy concept in particular served as overall research theme.

The researcher decided early on that the INA would serve as the main theoretical basis of the study. This literature also uses the term strategic, strategy and strategising but defines these concepts differently from other schools of literature. The researcher was therefore on some level stuck with his original ideas regarding strategy gained through the MSc programme, which meant I needed substantial time to understand the uniqueness regarding the fundamental assumptions, concepts and models within the INA.

The researcher was shortly after his MSc studies recruited as a PhD student to a newly established research programme called NETLOG located at the Department of Logistics at the Norwegian School of Management BI. The NETLOG programme was a 4-year research project with seven PhD students and six senior researchers. The focus was on logistical resources within industrial networks. NETLOG had the overall research objective to investigate how firms exploited their strategic opportunities through the manner in which they organised, developed and economised on resources within and between firms (Jahre et al., 2006). The NETLOG programme was built on the resource interaction perspective within the INA in general and the four resource interaction model in particular (Håkansson and Waluszewski, 2002).

The researcher’s MSc studies and involvement in the NETLOG programme highly influenced the decision to focus on the strategy and resource perspectives as the two main theoretical stands. While I decided early on that the INA would serve as the main theoretical basis of the study, I began gathering the empirical material before I really had absorbed much of the literature. This meant that what was ‘seen’ and how the empirical material was structured in the beginning to a large extent was influenced by what the researcher had learned regarding strategy from his MSc studies. The interaction approach quickly emerged as a central perspective that was highly relevant to the notion of strategy within INA. The strategy, resource and interaction perspectives would ultimately make up the theoretical base of the study.

The inductive properties of the research process made me decide to develop an empirically-driven research question. The focal firms in the case study had formulated an overall purpose for their partnership arrangement, which was to confront the status quo of the accepted ways of operating within the

business relationship. The firms translated this into the objective to “confront how the divisions of responsibilities between them were defined and distributed at different stages in a product’s industrialisation process”. The focus on strategy and resources and the empirical basis then led to the following working title being formulated: “How to utilise a supplier as a resource”.

The literature on strategy within the INA is not that well-developed for reasons that are obvious to those familiar with this research tradition. The overall aim of the research was to reveal something that would offer insight into the gaps that had been identified in the literature related to the main theoretically loaded research topic; strategy. Here the hope was that the research study would offer insight into a well-established notion; acting strategically in relation to others. This theoretical interest was treated as a narrow problem area and the aim of the research was to investigate in depth and identify those factors that would help explain what acting in relation to others means within this paradigm.

The preliminary working title of the thesis remained unchanged until halfway into the research process. As the empirical material was gathered and the empirical findings gradually were revealed, it became apparent that the interactive dimensions related to how actions are performed and how resources were exploited as a consequence of these actions were essential aspects. Thus, *interaction* and *economising* became important concepts. According to Strauss and Corbin (1994), theory concerns the plausible relationships produced among concepts and sets of concepts (p. 278). In this way, focusing on the plausible relationship between these five concepts throughout the study gradually allowed the researcher to delimit the literature and to develop the theoretical frame of reference.

In line with the discussion so far, the researcher did not bring to his research any well-defined sets of theoretical ideas. Instead I used the empirical material and parallel literature reviewing as a way to identify the interesting gaps and problematic issues. This led to a change in focus midway into the study. Here, the focus shifted from a single firm perspective on strategising to a dyadic perspective. This resulted in the research focus being changed from acting strategically to interacting strategically within business relationships. The old working title was then replaced with the following; “Interacting strategically within business relationships”. At the same time the empirically-driven research question was replaced by a theoretically-driven research question formulated as; “How do firms’ strategic actions support and constrain the way resources are economised on within business relationships?”.

3.3.2 Selecting the case

Silverman (2005) states “...in qualitative research the relevant or ‘sampleable’ units are often seen as theoretical defined” (p. 131). This could for instance mean that it can be inappropriate to sample industrial networks based on such concepts such as ‘interacting firms’, ‘strategic business relationships’ or even ‘partnerships’ because how such concepts are routinely defined can in itself be the topic of the research. On some level the case study of this thesis was deemed interesting because the researcher believed that the case from a theoretical perspective could offer interesting insights into the theoretical interests and problem areas identified upfront.

In this respect, the case study could be said to be “chosen” because it was deemed a relevant sample (i.e. one specific dyad) in a larger population (i.e. multiple dyads within the electronics industry). As noted earlier, however, the main reason why this particular focal dyad and industry was chosen was due to the fact that the relationship was accessible at the time. A senior researcher in the NETLOG programme was working with the focal product developer in an affiliated project. Here, the firm had expressed a desire to form a partnership arrangement with the subcontractor I had been working with during my MSc studies. The senior researcher linked me to the firms and the firms responded positively to allowing me to research and follow their newly established partnership arrangement.

The decision to choose this case meant that the notion of strategising would be investigated within a particular setting defined by the distinctive nature of the focal business relationship. The relationship was long-term, project-oriented, and built on common and integrated industrialisation processes,. The organisations shared a historical heritage where specific parts of their organisations used to be owned within the same corporation. The focal firms decided to focus on two industrialisation projects in particular within the partnership arrangement. The projects provided empirical boundaries as to what was focused on in the study. These contextual elements provided a distinctive frame in which the theoretical interests would be studied.

3.3.3 Casing the study

The researcher is expected to draw up appropriate boundaries when researching networks or the basic components that constitute such networks such as firms and dyadic business relationships. This is easier said than done and treated as a challenge; what were the boundaries to the dyadic business relationship? According to Harrison (1999), researchers within the INA traditionally rely on the empirical situation to determine where the

boundaries should be drawn or rely on their own judgement and question of interest to delimit these. This has also been the case for this research study. I decided early on that I would use the empirical situation to draw boundaries as to what the relevant parts of the focal relationship would be and how I would focus the data gathering. The empirical focus made me confident that the case could offer some meaningful insights regarding the theoretical areas of interest; strategy and interacting strategically. The partnership arrangement and the research question that was devised for the study would then highly influence the casing of the study. In particular, it became 'natural' to study the two aforementioned industrialisation projects.

The INA literature provided me with known concepts and models suitable for structuring 'unknown' and 'unexplored' properties revealed in the empirical material. Together with an iterative and emergent research process, these elements provided me with a systematic way to case the study. According to Silverman (2005), the way main concepts and models are chosen from the literature are defined and used throughout the empirical gathering can be self-confirming. In other words, they instruct the researcher to look at the phenomenon in a particular way (p. 99). Arguably, the main concepts and models from the INA have also influenced the way the empirical material was gathered in this study, and have also influenced both the techniques used to gather the data and the later analysis.

The main theoretical models, the interaction model (Håkansson, 1982) and the four resource interaction model (Håkansson and Waluszewski, 2002) have been important to the way the data was gathered and structured. It was deemed necessary to include both models in the study in order to be able to say something meaningful related to the main research question. A basic assumption is that firms' actions and interactions may lead to changes in the way their resources are organised within a business relationship, without this necessarily leading to changes in the way firms economise on resources. Hence, separating between the actor and resource layer of the focal dyad was deemed necessary to give the data collection focus and when casing the study.

The interaction model (Håkansson, 1982) allowed me to understand the interactive dimensions related to how actions and interactions were carried out in the focal business relationship. The actors were examined both as decision makers, as perceivers, as thinkers, and as social entities capable of interacting with other actors. In order to capture what constitutes such interaction processes, Cunningham and Homse (1986) suggest that one examine the contact patterns (i.e. person-to-person) between departments on both sides of the dyad as a way to understand the mechanisms that activate resource allocation and development within and between the firms (p. 261).

Adding this element to the interaction model (Håkansson, 1982; see also Jahre et al., 2006) can therefore provide a necessary in-depth understanding into the intricate communication, decision-making and co-operation that ultimately leads to changes in both the structure of relationships and the resources ties between firms (Jahre et al., 2006, p. 52).

A common understanding is that it is impossible for researchers and professionals to get a complete picture about resources, and that actors need to be open to various perceptions and understandings regarding what the nature of certain resources are (Håkansson and Waluszewski, 2002). A basic argument is therefore that one needs to focus on fragments of resources and study how specific resources are connected to each other in delimited subsets. It still leaves us with the challenge to try to know what the nature of these fragments are.

Here it will be assumed that what is seen is determined by the starting point of the analysis and the user's context (i.e. the user's subjective understanding of properties of the resources and their potential value/importance) (Håkansson and Waluszewski, 2002). The decision to use the four resource interaction model as a way to describe how resources were combined between the focal firms was made on the assumption that this model can allow the researcher to say something meaningful regarding resources (Håkansson and Waluszewski, 2002, p. 32). The model is suitable for capturing the interactive dimensions of resources where 'resource interaction' allows us to describe whether and how the parties perceive the impact their actions and interactions have on the passive and fragmented resources that are available to the firms. The focal firms' perceptions regarding the nature of the resource ties between them before and after certain actions were enforced made it possible to capture whether these actions led to changes in the way resources were organised and economised on in the relationship.

The researcher did not rely on specific hypothesis at the outset of this research study, but would instead rely on several research issues that were gradually defined and redefined as the empirical inquiry progressed. The researcher would constantly remind himself that theorising from the data demanded that he question "what is the case a case of" continuously as the data was gathered. This was necessary in order for him to be able to redirect questions in interviews and/or when participating in business meetings. This was also necessary in order to delimit what was seen and gathered and not risk an overkill of data.

The time dimension was a central theme in the study and influenced how the data was gathered and cased. Time is closely connected to the change aspect,

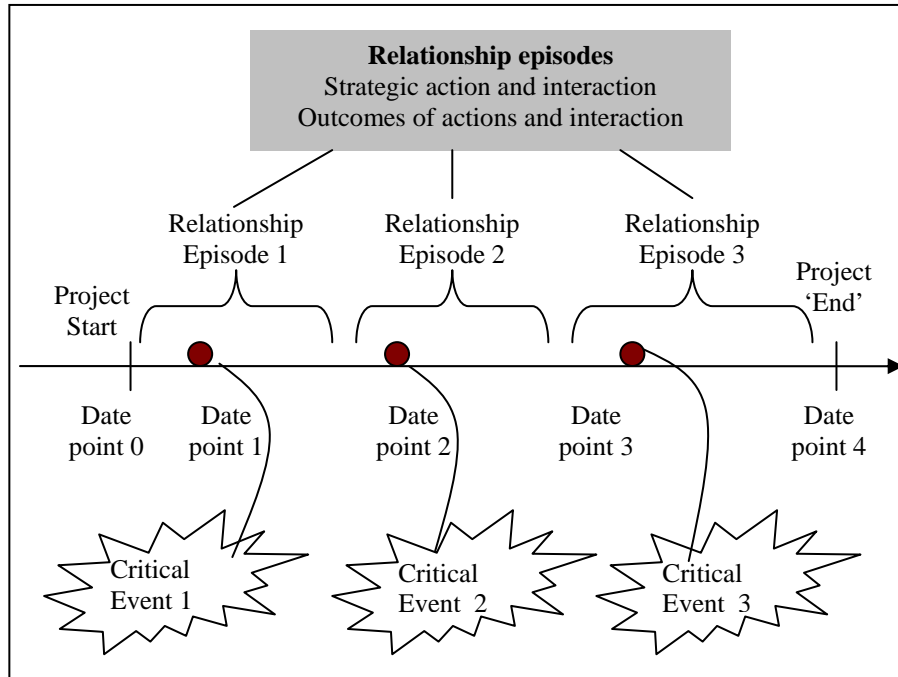
and having a chronological focus when gathering data and casing the study made it possible to capture the processes of change. Particular focus was on capturing how the firms' interactive behaviour and economising on resources changed over time. A way to set boundaries to the empirical material would then be to focus on providing descriptive snapshots related to actions/interactions and organising/economising on resources opposed to trying to describe and capture the whole process related to change and the areas of interest.

This case study was particularly oriented towards focusing on specific relationship episodes. The term episode is in INA used about the (business) exchange between two parties (IMP Group, 1982). These episodes can be related to the exchange of products or services, financial data, information and social interactions. A basic assumption in INA is that these business activities or episodes can not be examined in isolation but should instead be viewed in connection to each other as part of a common processual context (Turnbull et al., 1996).

Business relationships are often conceptualised through describing the series of episodes that take place between two interacting parties (or more). Each business activity or episode is then directly and/or indirectly connected to the exchange process between firms. The single episode is in itself considered an important element in what ultimately shapes the structure and process of a dyad. These episodes are bound in place and time and a basic view in INA is that the single episode (or series of episodes) can only be understood when examined in a larger context. This is in terms of the frame that the individual business relationship represents (Håkansson, 1982).

This thesis is particularly interested in following the social interaction episodes that occur within the focal dyad. The empirical data gathering quickly turned out to be quite challenging, especially when the researcher was faced with the task of trying to define what constitutes an episode in terms of where one begins and ends and its distinctive nature. In order to provide the research process with further boundaries I decided to focus on the specific 'critical events' (i.e. important happenings) that often involved radical changes for the firms, their relationships and partnership arrangement. Halinen et al. (1999) refer to critical events as "those events that have decisive effect on relationship development" (p. 786). I identified three such events and decided to case the empirical material around them. These events were then used to draw boundaries as to what would constitute the three sub-cases that I chose to call Relationship Episodes (see Figure 3.1). The interacting parties would then be subject to numerous social interaction episodes that had varying impact on the nature of the focal dyad.

Figure 3.1 – The relationship episodes follows a time logic



3.4 Data collection

The empirical data has been collected through interviews, observation and participation in business meetings, active participation in feedback meetings and other sources of data. The data collection was conducted between August 2002 and February 2006. During this period, the researcher was involved in 72 semi-structured interviews, eleven business meetings and six feedback meetings. In addition, the researcher had access to information available on websites, the firms’ internal websites, plus confidential documents such as strategy plans, business contracts, formal project plans, annual reports, etc.

The researcher and the focal firms had two meetings prior to the start of the data collection. Here the parties discussed the premises for the research study and data collection. In the first meeting, the researcher informed the firms about his theoretical and empirical interests, research topic and the issues that he wanted to examine using a case study methodology. The focal firms in turn informed the researcher about how they intended to organise the partnership arrangement, the specific problem areas and needs that they had identified within their relationship and the objectives and goals that they had defined. These dialogues resulted in the agreement that the researcher

would centre his research on actively mapping and monitoring the development of the focal business relationship and the progress of the partnership arrangement in exchange for full access to respondents and freedom to pursue other issues that were deemed important to his research.

In the second meeting, I informed the firms that face-to-face interviews and observations in business meetings would form the basis for my empirical inquiries and that I would need full access to various formal documents. In return, the focal firms required access to the empirical findings, and to participate in meetings where this was deemed natural. The parties also agreed that the researcher would on occasion organise formal feedback meetings within the partnership arrangement. Here, the focal firms and the researcher had the opportunity to discuss the empirical findings. In that same meeting the focal firms would decide that the partnership arrangement would focus on two specific industrialisation projects (MRR and Stella). These projects provided empirical boundaries to the empirical inquiry and would for instance influence what respondents that were selected, what episodes or developments that were focused on and the information that was deemed relevant for the research.

It is fair to say that the focal firms were highly committed to my research study. They went out of their way to ensure that I received full access to the resources, respondents and other material needed. Each firm had appointed one senior manager responsible for co-ordinating and integrating the firms' efforts in the partnership. These individuals became 'door openers' for me, as they informed their organisations about the purpose of the research, the researcher's mandate and how they expected others to accommodate the research process.

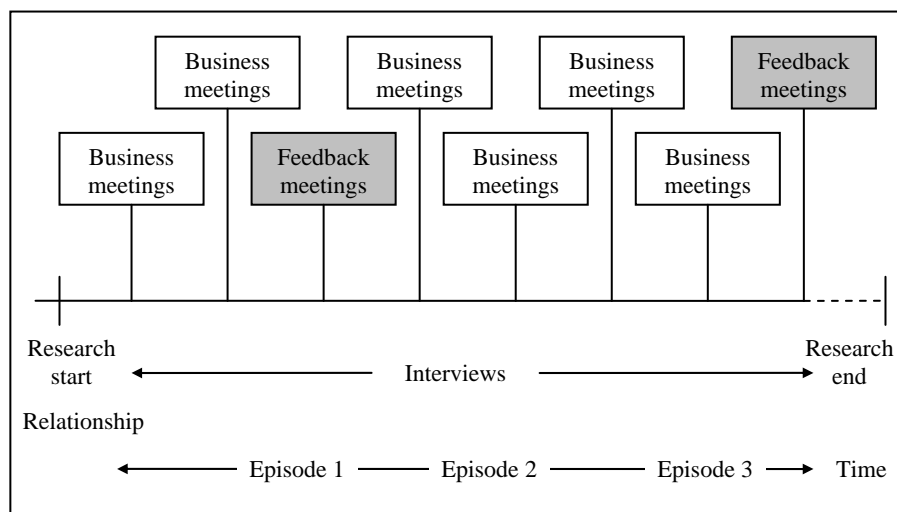
As the partnership arrangement and research study evolved, it became apparent to the firms and the researcher that the two processes were merging into one common arrangement. The researcher would refer to his research as related to the partnership arrangement and the focal firms would often state that their arrangement was connected to a 'BI research study'. This development made it possible for the researcher to contact the respondents directly and schedule meetings when respondents were committed to the research process and to the work of the researcher. As the research progressed, I would often hear others refer to me as "that guy from BI", which to me illustrated how I to some extent gradually became a "household name within the relationship".

The empirical material was gathered, organised and analysed continuously as the research process progressed. The business meetings and feedback meetings functioned as natural pauses, which allowed both the firms and the

researcher to reflect on the empirical findings. The focal firms would in these meetings determine what specific events to focus on. Through observations in these meetings, specific concerns were revealed that the focal firms and/or the researcher would prioritise in their efforts. The ‘common themes’ emerged through these meetings and provided the empirical data gathering with focus and structure.

The majority of the interviews were based on these common themes. In addition, the researcher would identify specific themes that were more theoretically loaded and not necessarily matched with the focal firms’ stated interests. The researcher would in this case conduct specific interviews, or he would merge both common and specific themes in interviews. In either case, the focal firms would have access to the empirical findings regarding both common and specific themes in the feedback meetings. However, I did not try to force my interest in the specific themes when participating in the regular business meetings.

Figure 3.2 – The research techniques used at different points in time



The researcher would analyse the data as it was gathered. The observations and participation in business meetings allowed me to identify three main events that occupied the partnership arrangement (see Section 3.3.3). These events were treated as important relationship episodes that would influence the amount and type of data collected, and the questions and issues addressed. The time element was (as noted earlier) important to the study. For that reason, it became natural for the researcher to analyse the empirical material while simultaneously gathering more data. The individual

relationship episodes formed the basis for the specific research issues that were identified, and particular attention was given to how the parties dealt with these episodes before, during and after the fact. The respondents were in turn selected based on the role they had in relation to the critical events.

The researcher would try to focus on four main dimensions when gathering the empirical material: resources, actions, interactions, outcomes. In all four dimensions examining the status quo and change was important. This involved examining the respondents' perceptions, viewpoints and understandings of the four dimensions and other specific issues and problems connected to them. Furthermore, investigating how the parties handled planned and unplanned developments was important. As the empirical material was gradually being analysed and as the theoretical frame of reference was developed, other issues related to individual and collective actions, influencing and learning within the dyad, and the organisation of economising on resources became important focus areas. All these elements would influence how the data was collected, what was collected and how the data was analysed at different points in time.

My background and previous research experience led me to three conscious decisions regarding how I wanted the respondents to perceive me and my research. First, after a short presentation of who I was, I would inform the respondents upfront why I was there and the purpose of the interview. This included informing the respondent about the common and specific themes that occupied the partnership arrangement and the researcher. I made sure that the respondents were informed without revealing confidential information. This also meant informing the respondent why interviewing him/her was deemed relevant and important to the study and in this way placing the specific respondent and interview in a larger context so that he/her would see how this was connected to their daily business life. The latter was to give the respondent a sense of purpose and meaning with the interview. This was deemed important as I wanted the respondents to respond to my questions by connected them to his/her real-life concerns and reality.

Secondly, I informed the respondents about what I was trying to achieve with my research. This involved me sharing the objectives and goals of the partnership arrangement with the respondents. This two-levelled informing was deemed necessary in order for the respondents to understand what "this was all about" and to get their commitment and willingness to share their "inner thoughts and views" on issues that they traditionally did not get the chance to share with others from outside their daily business life.

Thirdly, I made it clear upfront how the empirical data was going to be used in the research project and in relation to the partnership arrangement. This meant explaining how the data was to be structured and communicated in written and oral presentations. In doing so, I wanted to capture how specific departments perceived certain themes and issues differently or in the same way. It was made clear that the responses under no circumstances would be used against the respondents and the researcher would ensure this by keeping their identity anonymous both in the written and oral presentations related to the thesis, reports, feedback meetings, etc.

As noted earlier under Section 3.3.1, this researcher was familiar with the electronics industry and with the focal subcontractor Kitron through his MSc studies. This experience made me acknowledge two things. First, it made me consciously think about the differences in business atmosphere and culture that can exist within a business relationship based on where in the organisational hierarchy the employees are operating. I was therefore very conscious about following the dress-codes and linguistic codes used within the specific sub-cultures and I would communicate and sometimes also translate questions into “a language” the respondents was familiar with. This was deemed important in order to avoid an interview situation where the respondents felt intruded by an outsider disturbing their regular business life, or that the respondents simply did not understand the question and what I was trying to achieve.

Secondly, I decided not to use tape recorders during the interviews because I wanted the interview to be built on open-ended and flexible conversations. I made it quite clear to the respondents that they were not to be quoted on their responses using their name or position and that the information that I received would be coded and structured in such a way that it would not be possible to hold specific individuals accountable for statements or views. I instead kept notes using a notebook to structure and register responses.

3.4.1 Interviews

This study builds mainly on 72 semi-structured interviews (63 face-to-face interviews and 9 telephone interviews) with managers and technicians directly or indirectly related to the focal business relationship and/or the partnership arrangement. Furthermore, the majority of the interviews were conducted with respondents directly connected to the industrialisation projects called MRR and Stella. The common themes were subject to change as these were focused on the specific issues that occupied the firms and their partnership arrangement at different points in time. The specific themes were also subject to change as the researcher would identify new issues that he

wanted to pursue or issues already identified that he wanted to elaborate further on. The common and specific themes offered the interviews direction and where the themes were influenced by the theory that was focused on during the research process. In this way they formed a reference point which allowed the researcher to collect and double-check findings (Huberman and Miles, 1994).

The emergent and iterative nature of the research process led to interviews being collected through a “snowballing” interview strategy (Patton, 2002¹¹). This refers to interviews that are dependent on each other and that involves designing a research process that allows the researcher to use “what is seen in the empirical data” to form the basis for questions on which further interviews are based on. There were huge variations in the way the interviews were carried out. In some cases the interviews could be quite rigid where the focus was on getting answers to a list of predefined questions, whereas in other cases the interviews were more unstructured and loose.

In some cases the researcher could go into a planned interview with the intention to raise a series of predefined questions, but as the interview progressed the researcher would experience that the respondents had other interesting “stories to tell” which led to responses shifting the initial focus of the researcher. In other cases the researcher would have a conversation around specific issues where the respondents often could “lecture” the researcher about technical-related subjects using for instance a whiteboard or demonstrating “the production in action”. Here taking notes became more important than keeping to the predefined questions.

The respondents were selected based on four main criteria: their position within the firms, their position within the business relationship, their position within the two focal industrialisation projects, and their role in relation to the three main relationship episodes identified in the case study. There were three ways of determining which specific individuals to interview. First, the respondents could be selected based on the researcher’s own assessments regarding what individuals he needed to interview to get the information he was interested in. Secondly, the respondents were selected after the researcher had asked those in the partnership arrangement for names of relevant respondents. Thirdly, the respondents were revealed through interviews with specific respondents where respondents could often recommend me to speak with this or that person.

The interview guide was designed with the overall objective to capture interesting aspects directly related to the research topic and issues of the

¹¹ See also Patton (1990).

thesis. These dimensions were used as a way to write down the responses. The interview guide was designed as a format that contained two parts. The first part had a focus on the common and specific themes identified at that particular point in time. These were then decomposed into specific topics and questions where the four dimensions became a way to code the data. In the second part, the focus was on capturing the unique perceptions and views of the individual. By placing the respondent and his role in the relationship and addressing certain issues from that perspective, the hope was to capture detailed insights, ideas and reflections on how specific issues could be handled differently in the future. The responses received were often such that the researcher had to re-direct questions in the interview situation. Alternatively, several questions could be left unanswered and had to be re-directed in later interviews.

According to Holstein and Gubrium (1995), an important methodological issue that the researcher has to be aware of is whether the interview responses are to be treated as giving direct access to 'experiences' or as actively constructed narratives. This researcher treated the respondents' responses as their formal standpoint and views at the time of the interviews. The researcher made the respondents aware that their responses could become subject to interpretation and examination by other respondents during other interviews and meetings. This could mean that specific responses offered by one respondent would then be subject to interpretation and conversation in another interview, especially when the objective was to capture common and differing understandings.

The researcher acknowledges that his questions were a part of the process through which narrative is collectively assembled (see Holstein and Gubrium, 1995). I actively pursued as rich a picture as possible, through re-directing questions, using follow up questions, informing the respondents about other respondents' views, and confronting respondents about their conflicting answers. In this way, the interview responses were highly influenced by the interview-situation and the 'directing role' (i.e. the researcher influencing "the stories the respondents got to tell" and not necessarily the stories in themselves).

3.4.2 Business meetings

The researcher participated in eleven business meetings where members from one organisation or members from both organisations were present. The techniques used to gather empirical material from these meetings were, as noted earlier, influenced by the method referred to as participant observation (Fangen, 2004). In these meetings the researcher would rely on a combination of participation and observation. Fangen (2004, p. 29) argues

that ‘participant observation’ can be viewed as a scale ranging from pure observation to pure participation. Here ‘pure observation’ refers to a situation where the researcher is standing on the sideline and “looking at” what the research subjects are doing. The ‘pure participation’, on the other hand, refers to a situation where the researcher is participating on the same level as the researcher subjects as a primary participant (Fangen, 2004, p. 29). Balancing between when to observe and when to participate was an area that this researcher would struggle with throughout the process.

In the original agreement between the researcher and the focal firms, the parties had agreed that the researcher would be present in formal meetings between the firms arrangement within the partnership arrangement. The general rule was that I would assume an observatory role in these meetings, and on occasion participate in the conversations between the firms when asked to. As the research process progressed, I would also participate in firm-specific meetings when an individual firm would discuss how they would act and interact with the counterpart within the partnership arrangement and/or the relationship in general. In these meetings the individual firm would often approach me for my opinions on certain issues and expect me to contribute to the production of ideas and decisions. I would then make it perfectly clear that I did not want to participate in that way and that I was only there to observe. I was not willing to deviate from that standpoint and I put extra efforts into letting the firms know that participation would occur within the relationship-specific meetings.

3.4.3 Feedback meetings with the respondents

The researcher participated in six feedback meetings. While the researcher would maintain mainly an observatory role in the business meetings, the researcher agreed to have a more active participating role in formal feedback meetings organised within the partnership arrangement. Here data collected in relation to the partnership arrangement was structured and analysed with particular focus on the main episodes that was identified. I got the opportunity to share my insights and reflections on what I had seen and heard, and through categorising the respondents’ responses into meaningful themes the researcher would communicate the “findings” through various issues (ideas, problems, opportunities, constrains, etc.) that have emerged through the research process. I would prepare an agenda, which would then influence what was discussed in the meetings. The feedback would then become subject to discussions between the firms. Here I had a more passive role, and observed how these individuals understood, discussed and judged the empirical findings. I also produced a report two years into the research, which functioned as a formal outcome of my research. The report was a

descriptive document containing approximately 100 pages. I summarised my empirical findings using terminology I knew the firms were familiar with.

3.4.4 Additional sources of data

The additional sources of data used in the study were annual reports, strategy plans, project plans, websites and other descriptive material. These would explain the distinctive features of specific business functions, technologies, processes, etc. In annual reports, I obtained information that described the nature of the firms' official presentations of their business. In the strategy plans, the firms expressed how top management and middle management evaluated the past developments and their expectations about the future. This included some statements about how objectives and goals were to be achieved in the future. In the project plans I got access to detailed information about the nature of the industrialisation processes. The project descriptions in turn were commented on by other respondents in order for them to explain how the parties interacted and were to interact in accordance with their strategic aims. On the websites I got useful information regarding the electronics industry including the trends and recent developments. These other sources of data supplemented the primary material.

3.5 Trustworthiness

3.5.1 Understanding the empirical context

The electronics industry was not a completely new industry to me due to previous research related to my MSc studies. Through more than fourteen interviews, five business meetings and two workshops connected to my MSc thesis, I got access to valuable insights into the characteristics and dynamics of the industry, in addition to first-hand experience with the focal subcontractor Kitron. These empirical inquiries were, however, more technologically-oriented and responses technically loaded, which provided me with basic insights into the industry, the industrialisation process and other business processes that would become useful in my PhD research project.

In October 2004 I participated in the CLM (Council of Logistics Management) conference held in Philadelphia, Pennsylvania, in the United States. This conference offered specific tracks that addressed the major trends and developments related to logistics challenges within the electronics industry. This conference improved my knowledge regarding other firms

directly and indirectly connected to the focal firms, and how they were developing and manoeuvring in the network in order to adapt to changing industry conditions. This was relevant knowledge that would help me direct and re-direct questions when performing interviews. It also directed me towards other sources of data describing the nature of this industry.

I spent six months during the spring and summer of 2005 as a visiting scholar at the University of California, Berkeley. The region called Silicon Valley located in California is known for its electronics industry cluster and substantial research on the field was available in libraries and with renowned scholars within the University. During my stay, I got the opportunity to discuss my empirical findings with others and I also received detailed feedback on my work.

I was invited to participate in a workshop organised at Kitron in 2001, when a leading consulting firm called iSupply was invited. It was a two-day workshop where the participants got first hand insight into research and consultancy work conducted within the electronics industry with specific emphasis on trends, technological developments, life cycle development of components and major structural changes. Amongst the participants were the purchasers, logisticians and sourcing managers within the Kitron Group. The workshop involved group work where I got the chance to discuss my views with specialists in the field.

3.5.2 Triangulation and deviating cases

Validity is another word for truth, and in a research project the researcher is expected to explain how he/she dealt with contrary cases. Silverman (2005) note that qualitative researchers with access to single cases have to overcome a special temptation, in other words, to convince themselves and others that their empirical findings are “genuinely based on critical investigation of all their data and not depend on a few well-chosen ‘examples’ (p. 211). Silverman (2005) refers to this as the problem of anecdotalism.

One way to deal with this is what is known as respondent validation. This suggests that the researcher should go back to the subjects with his/her tentative results and refine them in the light of subjects’ reactions (Ibid., p. 215). Such a process is there to check and test whether the empirical material have been correctly understood and interpreted. It is assumed that the respondents are the ones best qualified to determine this. The respondent validation was considered relevant for specific parts of the empirical gathering. This was the case for inquiries related to checking whether

historical episodes and developments occurred in the chronological pattern that was understood by the researcher, checking whether historical episodes related to change (what happened and when did it happen), and checking facts related to numbers (price, number of employees, etc.) provided in the interviews/business meetings. Other than this, respondent validation was not deemed relevant. Silverman (2005), for instance, argues that the respondent validation can often be flawed method if it is assumed that the respondents have privileged status to their actions. I share this understanding, and while I considered sending out the interview transcript to the respondents for verification on other issues than those mentioned above, I decided not to and instead used other methods to preserve validity.

The deviant case analysis, in contrast to respondent validation, is rooted in the understanding that the researcher should not be satisfied with explanations provided by the respondents. Instead, we should pay attention to the variation in data and spend time digging into the variation until the it has been accounted for (Ibid., p. 215). In this study the researcher investigated and directed interviews with the understanding that respondents may have varying perceptions and understandings concerning the same phenomenon and issues. It was important for me to capture their distinctive position. I therefore decided to dig into the deviating positions and examine these in greater detail. This was to access if a respondent's initial position needed to be modified and if not, investigate the factors underlying his/her position. It was this method that allowed me to capture explanations such as how various elements of tension existed within and between actors holding different positions. This could be the tension between individual and collective concerns, the tension between short-term and long-term economising on resources, and the tension between pursuing economising objectives within individual business units or across business units.

Another method is triangulation, which refers to the "rationale for using multiple sources of evidence" (Yin, 2003, p. 97). Patton (1987) discusses four types of triangulation. These are; triangulation of data sources, using multiple evaluators, using multiple perspectives of the same data set and using different methods. The triangulation that describes the way this research study was carried out is the triangulation among different evaluators, which Kvale (1997) calls "informant triangulation" (p. 67). The specific and common themes that formed what was focused on during the interviews would often reveal other interesting findings that the researcher wanted other respondents to interpret and reflect on.

This triangulation revealed how the respondents holding various positions within the same firm could have completely different perceptions regarding these issues, whereas other respondents holding similar or different positions

within two firms could share the same understanding. These deviations were communicated to those respondents that participated in the partnership arrangement, which got access to them in the feedback meetings and in the research report that I devised. In the feedback meetings, the parties got the chance to discuss the deviations and through this, explain the background behind the specific positions. The researcher would in this case observe and note whether the parties managed to achieve some sort of consensus or agreeing to disagree.

3.5.3 Continuous review and elucidation

The trustworthiness of the thesis has also been ensured through continuous review and elucidation. The researcher has participated in conferences such as the NOFOMA conference, IMP conference, and the CLM conference with papers that other researchers got the chance to comment on and provide feedback. The NOFOMA conference, for instance, consists of researchers from various theoretical streams that have logistics business environments as a common ground for their research. The papers drawn from this thesis that was presented at NOFOMA provided me with an opportunity to ‘test out’ a relatively unknown theoretical perspective to an audience who were more familiar with the empirical setting characterized as logistics networks. This feedback and their responses forced me to reflect on and reassess specific issues in my research in order to be able to explain and defend my theoretical ideas in a coherent manner and at the level that was expected.

I also participated in a special session for doctoral students at the CLM conference. The idea was that the doctoral student would get to present his/her research proposal in an early stage of developments. Because I began gathering the data quite early, I used this session to reflect on and discuss the research problems and issues that would be focused on in the study. Here senior researchers from Universities throughout the world would dedicate their time on examining my research proposal and preliminary data collection. They provided me with advice and feedback on the methodological problems that I had to be aware of in my research.

I went through a Predoctoral Defence session during my research process, when a committee evaluated my work and give me feedback on a 30 page document that contained a mini-version of the thesis. One of the committee members came from a different research tradition that also dealt with the main phenomenon of interest of my thesis, strategy. This feedback forced me to make specific choices regarding my theory, which at that point used both concepts and models from the traditional strategic management literature and the INA. It also forced me to reflect on what concepts to focus on and the relationship between them. This session revealed how the theoretical

foundation was somewhat detached from the empirical gathering, and that it had to be redefined in order to improve the structure and focus of the case.

The formal and informal NETLOG seminars and workshops held at the Department of Logistics was probably the single most important arena that contributed to the methodological approach and quality of the study. These seminars were organised as an arena in which the thesis in general and the empirical material in particular would be presented to colleagues. I benefited from these sessions in that I got to present my work and get feedback at different stages of the research process. I also benefited from learning from what other fellow PhD students researching.

In conclusion, the thesis can be considered trustworthy based on two main arguments. First, the triangulation and deviating cases provided a certain degree of trustworthiness in that the responses were not treated as 'the truth', but rather different perceptions on the truth, and when heterogeneity in perceptions revealed interesting features that demanded closer attention. Secondly, the continuous presenting and feedback given to me on various thesis drafts throughout the process through seminars, conferences and workshops also adds to the trustworthiness of the study.

Chapter Four Background

4.0 Introduction

This chapter introduces the background to the case study, whereas the actual ‘case’ is presented in Chapter five. Chapter four provides information concerning the nature of the focal organisations, their business relationship and some of the important episodes and developments leading up to the partnership arrangement. The chapter is divided into three sections. Section 4.1 introduces the focal firms. This section builds on six interviews (three within each focal organisation), annual reports and strategic documents from 1990 to 2002, one workshop with the subcontractor held in 2001, plus information available on websites and the firms’ intranet. Section 4.2 presents the focal business relationship with a particular emphasis on joint industrialisation projects. This section also describes some of the important developments in the electronics industry. This information was gathered from twenty interviews (eight with the subcontractor and twelve with the product developer) and other documents describing the industrialisation process, contracts, project plans, etc. Section 4.3 describes the ideas behind the partnership arrangement formed between the focal firms during autumn 2002. This arrangement was manifested in a relationship project, and as such this section offers insight into the conditions underpinning the project. The main sources used concerns four inter-firm business meetings, when the original ideas and expectations concerning the arrangement were discussed.

4.1 The Focal Firms

4.1.1 Kitron

The Kitron Group ASA (hereafter Kitron) was the second largest EMS-provider¹² in Scandinavia in 2002 in terms of revenue and volume. The corporation grew dramatically in size and scope in between 1995 and 2002, mainly through mergers and acquisitions of firms offering production and product development services. During this period, the corporation went from controlling two production firms/facilities in Norway generating 500 million NOK in 1995 to controlling eight production firms and six development firms located in Norway, Sweden and Lithuania generating 2350 million

¹² EMS (Electronics Manufacturing Service) produce and/or develop electronics products on a contract-basis for the product owner.

NOK in 2002. Kitron offers customers contract services in production or product development. Each individual firm within Kitron specialises in either of the two business processes. All operate independently of the others with individual management, business strategy, business operations, products and customer and supplier base.

Table 4.1 – The internal firms owned and controlled by the Kitron Group

Production firms	Design –and development firms
Kitron Kongsberg	Kitron Development Kongsberg
Kitron Hisøy (Arendal)	Kitron Development Arendal
Kitron Kilesund (Arendal)	Kitron Development Oslo
Kitron Oslo	Kitron Billingstad
Kitron Røros	Kitron Karlskoga
Kitron Karlskoga	Kitron Gothenburg
Kitron Felen	Kitron Jönköping
Kitron Lithuania	

Kitron’s business model is built around two important cost and value drivers: (1) logistics and purchasing on the supply side and the (2) customisation and standardisation of customers and products on the customer side. The logistics and purchasing costs generate most of the total costs¹³. For example, the purchased input material on average could amount to 75 % of the total production costs¹⁴. Kitron’s ability to reduce these types of costs is dependent on whether and how they participate in the component and supplier selection processes of their customers. Being involved in these types of decisions is deemed vital in order to be able to use frame agreements and supplier relationships in such a way that it provides them with economies of scale in, for example, sourcing.

A major challenge for Kitron resulting from a period of growth between 1995 and 2000 has been to standardise operations towards a customer base that is multi-faceted both in terms of the product-technologies (i.e. components, modules, suppliers) and volumes within each product category. This has made it challenging for the firm to achieve economies of scale and scope across product segments. To meet this challenge, Kitron decided in 2000 that they would focus on four product segments; Defence/Marine, Industry, Medical and Telecom respectively. Simultaneously, a decision was made to rationalise the customer base through systematically declining

¹³ Approximately 1350 million NOK in total

¹⁴ The costs related to the purchased input material were distributed as follows: electronics components (70 %), Printed Circuit Boards (PCBs–10 %), mechanical components (10 %) and others (10 %).

customers with the 'wrong profile' (i.e. technological applications or size). A more homogeneous customer base was believed to be the appropriate way to improve resource sharing and utilisation across internal firms, products (i.e. industrialisation projects) and product segments. A major challenge would be to achieve standardisation internally without losing customisation towards the individual customer.

4.1.2 Kongsberg Defence and Communication (KDC)

KDC is a major designer and developer of Tactical Communication Systems to the defence industry. They are ranked in the top five in the European market. Their customers are primarily within NATO and from the Middle East. KDC had approximately 1150 million NOK in revenues in 2002. The firm is owned by the Kongsberg Group, but operates as an independent firm with its own management, business strategy, products, relationships, and resources.

KDC considers product design and development as its core business process. The firm also delivers complete end products to customers. This means they supervise and co-ordinate efforts from a wide range of suppliers and partners. KDC is always considered the product owner in relation to these counterparts even though other actors may have financed the product and therefore legally own it. The firm divides its product portfolio into five categories; (1) Border Surveillance, (2) Combat, (3) EriTac, (4) Encryption and (5) MRR. There are 150 different products within these categories, with each product containing between two and fifteen different types of modules. An individual product goes through an industrialisation process organised as an independent project with two main industrialisation phases. These are design and development, and production. KDC is usually responsible for the design and development operations, whereas production is outsourced to subcontractors.

KDC was established as a joint venture between NFT (now called Kongsberg Group) and Ericsson in 1990, and was at that time called NFT-Ericsson Communication. At first, the firm viewed itself as a 'trade-house'. The implication was very little design and development in-house, and instead the purchase of the majority of other services. Demand for Tactical Communication Systems increased throughout the 1990s, with the firm obtaining access to large-scale industrialisation projects. This led to a change in strategy to invest in and control more of the needed development resources such as component engineering and component design.

In the mid 1990s, NFT changed its name to the Kongsberg Group. By 1998 Ericsson had decided to outsource their production capabilities, whereby the Ericsson Hisøy facility was sold to the subcontractor Sonec. The following year, the Kongsberg Group decided to outsource production, which was also sold to Sonec. That same year, the two leading subcontractors in Norway, Kitron and Sonec, merged (keeping the name Kitron). This meant that Kitron now owned the two production facilities. In 2000 NFT-Ericsson Communication AS was renamed Kongsberg Defence and Communication AS, and organisationally it became a division within the Kongsberg Group.

KDC grew considerably between 1990 and 2000. The strategic approach in 2000 was predicated on the firm needing to control and own all critical resources offered by their suppliers and partners in their projects. This was for improving the co-ordination, integration and communication with these other actors. An important part of the strategy relative to purchasing production services from subcontractors such as Kitron was that the firm would wait until the product was fully designed and developed before selecting the main subcontractor to produce the product. KDC believed that 'playing the market' was the best way to achieve the 'best' price for the production phase.

4.2 The Focal Business Relationship between Kitron and KDC

The business relationship between Kitron and KDC is longstanding. There are close organisational, financial and cultural ties between the two companies. The focal firms themselves view the beginning of the relationship in its current form in 1995 when the Kitron Group obtained the MRR contract¹⁵. The numerous restructuring programmes within each firm throughout the 1990s have, however, led to frequent structural changes within the relationship and the nature of their joint industrialisation process. The relationship has developed into one that is financially very important to both firms. Kitron was in 2002 responsible for the production of four products (MRR, Stella, CPX and ATX) that combined generated more than 250 billion NOK in revenues. This makes the focal relationship the single most important relationship to each firm.

¹⁵ MRR (Multi Role Radio) is a mobile communication system that is owned by the Norwegian Armed Forces.

4.2.1 The industrialisation process

The focal business relationship involves a joint industrialisation process for the production of the four products MRR, Stella, ATX and CPX. All four are produced at Kitron Kongsberg and Kitron Hisøy. Each product is organised as an independent project that the firms are co-responsible for. That is, KDC is responsible for and controls the product during the design and development phase, whereas Kitron controls the production phase.

The industrialisation process is not a linear process as Figure 4.1 may imply. Instead it should be viewed as an ongoing circular process with parallel stages within and between the design and development phase and production phase. The product will also go back and forth between stages over time. For example, the product may go through minor and major changes in its design (in some cases also after the product has reached the production phase). Kitron's involvement in the process will vary from product to product. In some cases they are involved in the project as early as at the concept stage. Alternatively, Kitron may not be involved in the project before the product has been fully developed, tested and verified, which is considered the norm in projects within the focal relationship. Hence, no two products or industrialisation processes are completely the same.

DESIGN AND DEVELOPMENT PHASE

The design and development phase includes different stages from the initial idea and concept formulation until the last prototypes have been designed, built, tested and verified and the product is ready to be produced in high volumes. Table 4.2 provides an overview of the stages KDC traditionally is responsible for. The table also illustrates the important business units and business functions involved at the various stages.

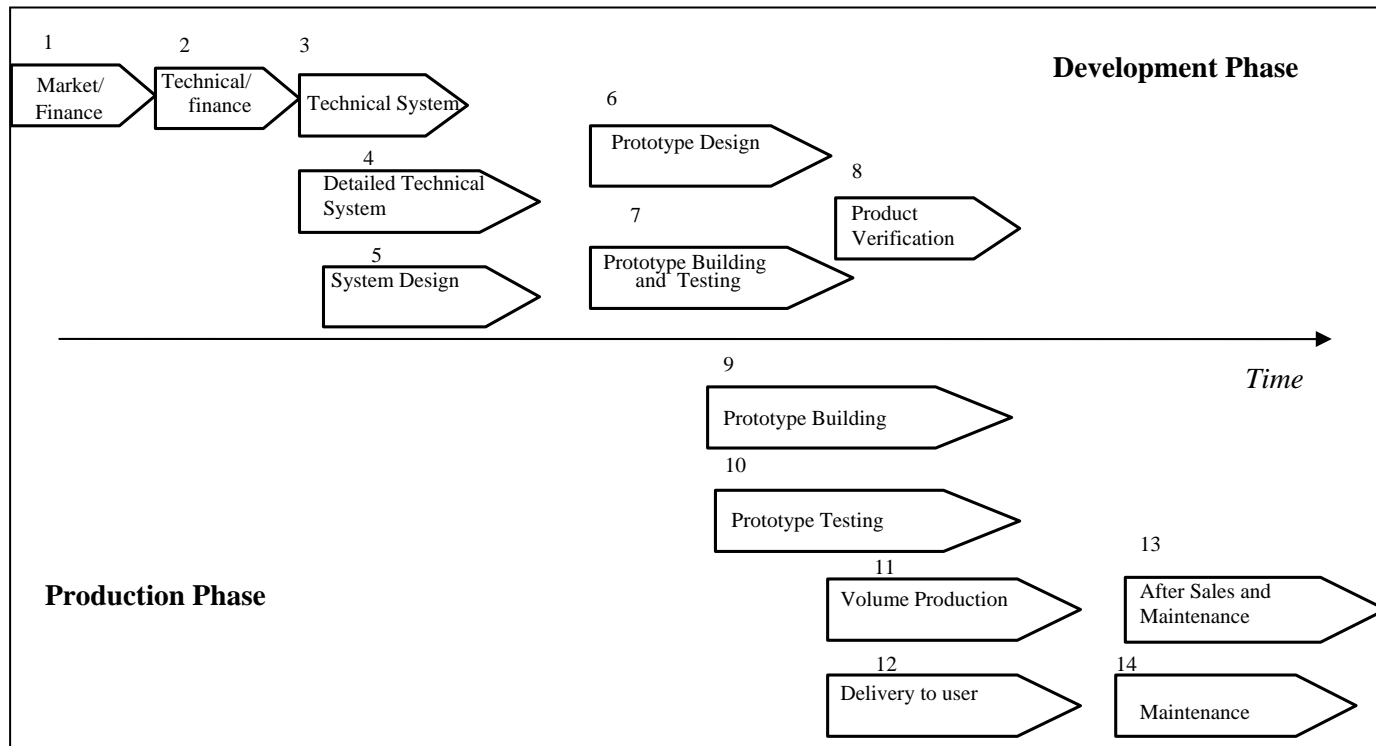
The first stage in the pre-analysis called Market/Finance is handled by sales managers and financial analysts from KDC. A formal project is established when the product-owner believes that a concept has a market potential and wants to invest in the product. In the second stage called Technical/Finance the system engineers and component engineers are assembled from KDC's technology department and they work closely together with the marketers to evaluate the technical capabilities needed in the project. In Stages one and two the product developer searches for potential buyers and they acquire insight into the customers' specific needs in two ways through so-called RFO (request for quotation) and RFI (request for information).

Table 4.2 – The industrialisation process in the development phase

Development phase (functions)	KDC
<i>1. Pre-analysis</i>	<i>Business units</i>
1. Market/finance	Marketing department
2. Technical/finance	Marketing and Technology departments
<i>2. Design</i>	<i>Business units</i>
3. Technical system	Technology and Radio departments
4. Detailed technical system	Technology and Radio departments
5. System design	Technology and Radio departments
6. Prototype design	Logistics,, Radio, and Technology departments
7. Prototype building and testing	Logistics, Radio, and Technology departments
8. Product verification	Logistics, Radio and Technology departments

A decision to go through with the product in the pre-analysis phase brings the product to the design stages. The first three stages called ‘Technical System’, ‘Detailed Technical System’ and ‘System Design’ are closely related and so the product developer assembles a team of experts from the technology and radio departments. These stages are considered the actual ‘design’, and it is when the product is created on the drawing board. The outcome of these three stages is usually a preliminary drawing and BOM (Bill-of-Material) that then services as the basis for prototype building and testing in stages six and seven. Here it is quite common that KDC selects the main subcontractor, and in the case of the focal relationship Kitron is usually chosen to take part in building test-equipment, prototype building, testing components, etc. The final outcome of the entire development phase is then a product that is completely verified in stage eight.

Figure 4.1 – The industrialisation process within the focal dyadic business relationship (an example)



The interaction within the product development phase involves the focal firms and direct and indirect counterparts. In the pre-analysis phase, KDC's marketing and logistics departments interact. During the design stages the design team interacts with suppliers of 'customer-specific' components. The radio department also interacts with the NPI department at Kitron Hisøy where they get prototype support in stages six and seven. At this point, the logistics and operations departments within KDC get involved in the process to begin negotiating delivery contracts with the suppliers of standardised components. They also choose the main subcontractor to be responsible for the volume production stage later on. A project leader from the operation department is assigned and together with the logistics department begins planning for the production phase.

PRODUCTION PHASE

The production phase is usually split into two parts. One part concerns the volume production, and the other refers to after sales and maintenance. Table 4.3 provides an overview of the central stages within the production phase. A production team consisting of individuals from the NPI, logistics and production departments is usually assembled right after the subcontractor receives the production contract. In stage nine, the NPI department from Kitron Hisøy offers design expertise on how to make the product more 'production friendly'.

Table 4.3 – The industrialisation process in the production process

Production phase (functions)	Kitron ASA
<i>3. Volume Production</i>	<i>Business units</i>
9. Prototype building	NPI department
10. Prototype testing	Kitron Development Hisøy
11. Volume Production	Production and Logistics departments
12. Delivery to user	Production and Logistics departments
<i>4. After Sales/Maintenance</i>	<i>Business units</i>
13. After sales	Production, Corporate Marketing and Logistics departments
14. Maintenance	Production department

The interaction between the focal firms during the production phase is often intense. Kitron is at this stage considered as the product-owner in relation to the numerous suppliers participating in the industrialisation projects. Kitron

Hisøy and Kitron Kongsberg share responsibility for production and each facility has an individual product team. These teams also interact with suppliers of both standardised and customer-specific components during the purchasing process. Kitron's sourcing department does not interact with KDC directly, but they are indirectly involved as they support the local purchasers at Kitron Kongsberg and Kitron Hisøy.

4.2.2 Trends in the Electronics Industry

The focal firms' organisational growth and strategic choices throughout the 1990s has been influenced by the trends and developments within the Electronics Industry. Three important trends have been increased globalisation, frequent mergers and acquisitions (M&As) leading to structural changes throughout the distribution channel and increased focus on specialization and nurturing fewer core competencies.

The globalisation of the industry began with the manufacturers and distributors, and gradually continued downstream in the distribution channel. Globalisation was characterized by high investments by large manufacturing firms that grew in size mainly through M&As. The US-situated manufacturers in particular benefited from the high capital accumulations from the stock exchange allowing them to grow, increase volumes and enter new geographical regions. Their investment strategy was primarily aimed at specializing in a limited number of core operations and products where economies of scale and scope were two important objectives.

These developments gradually also became apparent among subcontractors and distributors throughout the 1990s. The pressure to reduce costs and to be at the forefront of technological development were apparent to the focal firms, who pursued similar 'selective growth strategies' throughout the 1990s. The segmentation of the industry and dramatic changes in resource ownership and control left the firms with the challenge to devise organisational mechanisms that supported an efficient and co-ordinated business exchange.

Firms (such as the focal firms) that had grown in size through M&As now found themselves in a situation where they struggled to integrate in-sourced resources and business functions in-house with the existing resource structures. For example, they struggled to integrate business functions and units that had significantly different cultures, systems, technologies, relationships and histories. In addition, the significant changes in resource ownership and control among the industry members pressurised firms to

revise how the division of responsibilities was defined and distributed between them. These challenges were also apparent to the focal firms, which responded to them via a series of restructuring programmes aimed at improving internal organisation and economising on resources.

4.2.3 Internal restructuring programmes at Kitron (2000–2002)

The firm struggled to formulate the right organisational structure that would allow them to organise and economise on resources. After the last major merger between Kitron and Sonec in 1999, Kitron experienced negative financial results for the first time. Top management believed that the challenges were due to internal co-ordination and integration problems. A decision was made to undertake three major restructuring programmes carried out between 2000 and 2002. The stated overall objectives were to reduce costs related to purchasing and logistics, to improve internal inter-firm co-operation, and to develop systems that supported a better organisation within and across the customer-driven industrialisation projects.

FIRST PROGRAMME

This started in 2000 when Kitron began re-evaluating their position and relationships to major customers and suppliers. The firm wanted to standardise material management through re-organising the way the purchasing, logistics and warehouse functions were managed across internal firms and industrialisation projects. Kitron decided to implement one common Material Planning System (MPS), called Clockwork, throughout all their production firms. Kitron also removed some of the decision-making responsibilities from the individual firms to sourcing personnel located at the corporate level.

SECOND PROGRAMME

This started in 2001 and was aimed at reducing complexity in the organisational systems supporting material and supplier management. Kitron struggled with a heterogeneous material base with more than 200,000 different component¹⁶ definitions registered in Clockwork. The actual number of unique ‘component-types’ was less than 50,000. The heart of the problem was believed to be that Kitron used its customers’ component definitions specified in the BOM. In addition, each internal firm had their own business practice for component registration. This could mean that the same component type could be registered in the database with five or six

¹⁶ In this case study the term component is used about all types of input material needed in the production products, not only the electronics ones.

different definitions. Kitron recruited a new marketing and sourcing director from Future Electronics. The director introduced a new component registration system that was already in use with the distributors. The basic idea was that components would be defined and registered according to their origin using the manufacturers' definitions.

THIRD PROGRAMME

The third restructuring programme in 2001 was the most comprehensive of the three. Kitron introduced a central sourcing department that would be responsible for strategic purchasing, logistics and marketing functions. This meant transferring key personnel from the internal firms that had in-depth component and supplier expertise. They were organised into four groups, each representing one component category: (1) PCBs, (2) mechanics, (3) electronics components and (4) other. The new sourcing department would be located at the corporate level. It was responsible for developing supplier and customer contracts, delivery conditions, gathering critical supplier and component market information, etc. The central sourcing department introduced a modified version of a database already available within the corporation¹⁷ called CIS (Computer Information System). This would store critical supplier and component sourcing information to be used by the production and design teams. Kitron hoped that this restructuring programme would improve the co-ordination and integration between the development and production phases and ultimately lead to reductions in purchasing, logistics and production costs.

OUTCOMES

Kitron's top management concluded in 2002 that the restructuring programmes had not led to the desired outcomes. There were continued negative financial results. A common understanding within the corporation was that the restructuring programmes had achieved little impact on the way in which resources were organised in the industrialisation process.

4.2.4 Internal restructuring programmes at KDC (2000-2002)

The three divisions within the Kongsberg Group were also faced with similar co-ordination and integration challenges. While KDC was experiencing a growth in revenues between 1999 and 2000, the firm found it difficult to economise on its vast collection of design resources now controlled in-house. KDC was also experiencing that customers were frequently asking for customised products built on 'state-of-the-art technologies' at a reduced price. This forced top management to design an industrialisation process that

¹⁷ CIS was developed by Kitron Karlskoga and at that time only used by that particular firm.

contributed to significant reductions in the total production costs. These developments motivated top management to implement three restructuring programmes that had the stated objectives to position the firm as a specialised leading edge design-house and restructure the way the production function was organised.

FIRST PROGRAMME

This programme in 2000 was directed at the corporate level. The Kongsberg Group decided to outsource their production function. This decision impacted upon how KDC managed their industrialisation projects. KDC decided to keep some production resources in-house because they believed this could improve the communication between the design team and the production team now located in two independent firms.

SECOND PROGRAMME

This programme in 2001 was in line with the firm's overall growth strategy. The firm wanted to strengthen its design capabilities within their radio and technology departments. The restructuring programme also involved significant changes in the way human resources were organised within and between internal departments. One manager from KDC would later refer to these changes as 'moving boxes and persons around the written organisational charts' with the basic view point being that few changes were made to the way the industrialisation process was organised.

THIRD PROGRAMME

This programme came in early 2002 when KDC decided to outsource 60 employees responsible for functions such as component engineering and component purchasing. This initiative was meant to specialise the firm even further by reducing their involvement in certain business functions. Top management now felt they were better off purchasing these services from other actors. The number of employees was trimmed down to 195.

OUTCOMES

The restructuring programmes did not contribute to any significant cost reductions relative to the production function. Top management therefore perceived the need to re-evaluate the way they handled their industrialisation projects. In doing so, the firm wanted to confront how the division of responsibilities were distributed across the various members participating in their projects. Furthermore, top management could not register any positive results from their efforts to 'force' their subcontractors to reduce total production costs. They were therefore prepared to include their suppliers in

discussions on how the parties collectively could help each other to make their joint industrialisation process more cost-efficient.

4.3 A new partnership arrangement is formed

Kitron and KDC founded a new partnership arrangement in October 2002, which was termed ‘the relationship project’. The project consisted of a group of persons from each firm that held important positions in the focal business relationship (see Table 4.4). The main idea behind the relationship project was to get dedicated persons to meet, discuss and engage in collective decision-making. The main issue was to confront and pursue radical changes in the way resources were organised and economised on in their joint industrialisation projects. The idea was that these persons were to meet on a regular basis and be taken away from their daily routines and responsibilities within each firm. It was KDC that initiated the partnership and their main concern was to get the subcontractor’s input as to how they could improve the levels of co-ordination and integration between the product development and production phase.

Table 4.4 – The individuals directly involved in the relationship project group

Individuals	Institution	Position
Inge Flaten	Kongsberg Group ASA	Financial Manager Kongsberg Group ASA
Morten Vatneberg	KDC	Purchasing and Logistics chief KDC
Vidar Hole	Kitron ASA	Corporate Purchasing and Logistics chief
Bengt Ivar Edland	Kitron ASA	Senior Manager; Defence segment
Torbjørn Aune	Kitron Kongsberg	Team leader Defence
Torgeir Krogen	Kitron Development Kongsberg	Site leader
Rune Omdal	Kitron Group ASA	Quotation/Sourcing Manager

4.3.1 The purpose of the relationship project

The partnership was formed on a mutual goal to confront the status quo of the accepted ways of operating within the relationship in general and in their joint industrialisation projects in particular. This meant confronting the divisions of responsibilities between the focal firms throughout the entire industrialisation process. The focal firms wanted the future division of responsibilities to reflect the type of resources and abilities each firm had access to and wanted to nurture in the future.

There were several reasons why the firms made confronting the division of responsibilities a focus area in the partnership. First, the firms believed that each actor had a number of responsibilities 'today' that they for different reasons should not have. This hindered them in achieving economies of scale and scope in-house as well as economies of integration within the relationship. The division of responsibilities within the focal relationship had stayed more or less unchanged for many years even though each firm had gone through significant changes in the type of resources and capabilities they controlled.

Secondly, the focal firms agreed going into the partnership that reducing the total production costs was an important goal, and that it could be achieved through improving overall project management and re-organising the way the purchasing, logistics and sourcing functions were handled within the relationship. The firms recognised that the way KDC performed its responsibilities during the product development phase had direct and indirect effects on Kitron's ability to reduce total production costs during the production phase.

Thirdly, the firms also believed that each had access to resources that for different reasons were unknown to the counterpart. The recent restructuring programmes had led to significant changes in each firm's collection of resources. The focal firms therefore hoped that the relationship project could lead to a more updated picture regarding the abilities each firm possessed.

4.3.2 The perceived challenges within the relationship

The relationship project team met in August 2002 to discuss some of the challenges that would be prioritised. The parties pointed to the close financial, cultural, historical and social bonds as potential factors that could hinder them from implementing radical changes in the business relationship. The relationship project put particular emphasis on the social bonds that were institutionalised in formal and informal contact patterns. While some pointed to their common history and in-depth knowledge of each other as an advantage for the partnership, others argued that these elements could have the opposite effect and constrain innovative thinking and problem-solving.

The collective reflections in August led to the consensus that the relationship was simultaneously bureaucratic and informal. Kitron complained that KDC had a tendency to want to control their production function by sending detailed directives and orders that their production team had to comply with. KDC would also apparently frequently develop new concepts, plans and business contracts that Kitron simply had to accept. The relationship project

therefore concluded that future concepts, plans and business contracts had to come as a result of collective efforts.

4.3.3 A mutual understanding of how to co-operate

The relationship project met again in September 2002 to develop a common understanding of how the parties would co-operate in order to make the partnership a success. The parties wanted the relationship project to function as an arena where individual and collective concerns could be discussed. The group agreed that both actors had to provide the other with access to critical information regarding strategic considerations, challenges, needs and future plans that traditionally had been kept in-house. The basic argument for doing so was that the project group believed that this information could contribute to making each firm more proactive.

The relationship project did not formulate explicit goals and objectives. Instead, it focused their attention on the type of atmosphere that could frame future interactions. The group also chose two focal products, MRR and Stella, that would be prioritised in the partnership and that would provide some needed boundaries as to their efforts. MRR was in 2002 at the end of the production phase, whereas Stella was at the end of the design and development phase. Both industrialisation projects would then become the starting point for their collective reviewing of how responsibilities had been defined and distributed in the past.

5.0 Introduction

The purpose of this chapter is to describe how the focal dyadic business relationship and the relationship project developed, after the latter was formally established in autumn 2002. The case study centres on the manner in which the focal firms acted and interacted within the frame of the partnership arrangement, which formally lasted between October 2002 and February 2006. As noted in Chapter Three, the development of the partnership has for practical considerations been divided into three main relationship episodes. The case study focuses on critical events within each relationship episode that the focal firms dealt with within the partnership arrangement and relationship project group.

This chapter is therefore divided into three sections. Section 5.1 describes relationship episode one, based on the event when a major supplier to the MRR-project was declared bankrupt. This section builds on twenty face-to-face interviews, two telephone interviews, participation in three business meetings and two feedback meetings. Section 5.2 presents relationship episode two. It illustrates how the focal firms tried to deal with their individual and collective concerns resulting from the end of the MRR-project and the requirements of the MRR 2 project. This section builds on seventeen face-to-face interviews, two telephone interviews, in addition to participation in two business meetings and three feedback meetings.

Section 5.3 describes relationship episode three, which centres on the critical event connected to the focal firms' decision to co-operate as equal partners from the beginning in a product-development project called Stella 2. This section builds on thirteen face-to-face interviews, three telephone interviews, in addition the participation in one business meeting and six feedback meetings. All three relationship episodes also utilise other sources of data such as project plans, strategy documents, annual reports, etc.

5.1 Relationship Episode One

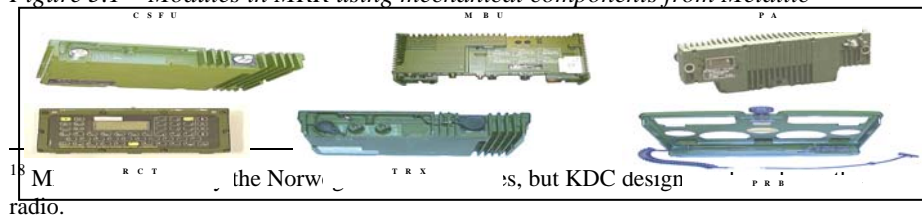
5.1.1 Background

The first critical event that the focal firms encountered within the relationship project happened only weeks after the partnership was formally established. In October 2002, the sole supplier of mechanical components (see Figure 5.1 – the green exterior) to the MRR (Multi Role Radio) project¹⁸ called Metallic was shutdown after being declared bankrupt by a Danish court. This put the MRR project in a desperate need of finding a new supplier in order to maintain a continuous flow of mechanical components. KDC were aware that Metallic was in financial difficulties, but the situation with the bankruptcy still came as a surprise. Their customers were expecting a shipment of MRR products in November 2002 and May 2003. Furthermore, the financial consequences for the focal firms of not delivering on time were estimated to be substantial.

Metallic was chosen as the sole supplier to the MRR project in 1997. It was responsible for producing mechanical components in the following modules in the MRR project: (1) CSFU, (2) MBU, (3) PA, (4) RCT, (5) TRX, and (6) PRB (see Figure 5.1). Metallic co-operated with Provecsa (situated in Sweden) in supplying the mechanical components to the MRR project.

Metallic was responsible for the founding of the components, whereas Provecsa handled the moulding and paint job. KDC designed the equipment and tools used by Metallic and Provecsa together with a design partner called Intermekano. All four firms co-operated closely in the development of equipment and tools, building and testing prototypes, and setting up a suitable production line. The Kitron Group was chosen as the main subcontractor in the project the same year as it reached the volume production phase (1999). Kitron would from then on have a one-to-one relationship with Provecsa. The latter was responsible for ensuring that the complete mechanical components delivered to Kitron Kongsberg and Hisøy had the right quality, functionality and were delivered on-time.

Figure 5.1 – Modules in MRR using mechanical components from Metallic



5.1.2 Interaction prior to the Metallic situation (*Phase One: before October 2002*)

The focal firms met frequently in the months prior to the Metallic-situation. Discussions centred upon whether and how Kitron could become more involved in the selection of customer-specific suppliers. The supplier contracts in the MRR project were studied in detail in order to determine what type of suppliers and components each firm could and should be responsible for. The firms discussed the issue between them in two parallel processes simultaneously.

The first process was between Kitron's corporate managers and KDC's radio department. The second process was between the production department at Kitron and KDC's logistics department. There was no co-ordination between the two processes. This resulted in parallel meetings and discussions within each sub-group within the relationship, without the focal firms being able to reach a conclusion on several of the issues addressed. The focal firms would later in their pre-partnership communications refer to these types of co-ordination and communication problems as critical areas that needed to be dealt with. The decision to later form a partnership arrangement was therefore seen as a way to improve how the actors worked together on what they termed strategic issues, and in ways that were perceived to be timely and resource efficient.

Several individuals from Kitron and KDC (that later would form the relationship project group) came together in August and September 2002 to discuss sourcing-related issues. The parties continued these dialogues when the relationship project group was formally established in early October 2002. Their dialogues during this period centred on the overall question of how to handle the supplier selection processes within their joint industrialisation projects.

The relationship project group would allow each actor to perform individual internal mappings and analysis to identify the type of resources each was in possession of. These mappings were then presented orally in a relationship project meeting. The discussion centred upon what each firm perceived to be the most relevant resources to be mobilised when managing supplier selection. These dialogues led to new ideas on how the firms could have a shared responsibility for selecting suppliers of customer-specific components in projects such as MRR and Stella.

In these meetings, Kitron pointed to their substantial resources within their central sourcing department and two design-firms. According to Kitron, these could 'easily' be utilised in these types of projects. Kitron then argued

that it was vital to have a shared responsibility for the selection of both standardised and customer-specific suppliers. This was in order to be able to reduce and control purchasing and logistics costs. The KDC employees participating in the relationship project group expressed a willingness to let Kitron become partly or fully responsible for these types of decisions. However, they did not detail how such ideas could be put into action. KDC also informed Kitron that they were uncertain about their alleged abilities, especially their ability to localise and allocate various resource types identified in their internal resource mappings exercises in an efficient manner.

5.1.3 Individual reactions to the Metallic situation (*Phase two: late October 2002*)

KDC organised a decision group from their logistics, quality, radio and technology departments shortly after Metallic was declared bankrupt. These individuals held important positions in the MRR project. However, none of them were formal members of the relationship project group. The decision group considered the Metallic bankruptcy a collective challenge for the focal firms and the MRR-project. Their preliminary discussions therefore involved reflections and dialogues centring on questions such as 'who has the right resources needed to handle the situation' and 'who should have the resources and responsibilities for choosing dedicated suppliers such as Metallic in the future'. The decision group made their own internal resource mappings and analysis based on the notion that the group would have to economise on resources available to the MRR project.

In relation to the first question, the group wanted to determine what the relevant resources were in order to identify, evaluate and choose a new supplier of mechanical components. They decided to focus on evaluating the mercantile conditions, technical capabilities and quality conditions (see Table 5.1). The group quickly reached the conclusion that they had all the relevant resources in-house. This meant that the only feasible supplier selection process to them was to handle the situation individually. Their decision to do so was closely related to the second question addressed in that meeting. The group here concluded that the relevant resources needed to choose customer-specific component suppliers such as Metallic was and would be prioritised and controlled internally also in the future.

Table 5.1 – The supplier scorecard used in the supplier selection process

Mercantile conditions	Technical capabilities	Quality conditions
<ol style="list-style-type: none"> 1. Prices 2. Financial situation 3. Warehouse costs 4. Delivery accuracy 5. Maintenance 6. Transport costs 	<ol style="list-style-type: none"> 1. Central melting facility 2. Analysis 3. Equipment and tools 4. Moulding machines – size 5. Moulding machines – fabricate 6. X-ray equipment 	<ol style="list-style-type: none"> 1. Documentation/certification QA system 2. Competence in the QA demands 3. Top management’s competence in the QA system 4. Internal revision 5. Results of the QA evaluation at the FAI (Inspection)

The team of experts could come up with numerous arguments as to why KDC handling the supplier selection individually was the best solution for the MRR project. First, the belief was that no single subcontractor such as Kitron should be responsible for customer-specific components. The argument was that as soon as this responsibility was given to others, they risked that the subcontractor became their component expert. Having the necessary component expertise in-house was considered crucial to the designers and technicians from their radio and technology departments.

Secondly, the group believed that they had superior capabilities relative to subcontractors when it came to handling what they referred to as ‘difficult components’. The decision group did not believe Kitron had the necessary capabilities in-house. They pointed to the fact that they had never seen those types of capabilities being demonstrated in their projects in the past. The head of the decision group¹⁹ explained this in the following way: “...because Kitron does not have the resources needed to evaluate the technical capabilities, there is no reason for them to be responsible for the supplier selection process. Kitron used to have this competence in two individuals at Kitron Hisøy and Kitron Kongsberg that were experts on mechanical components. These individuals are no longer with Kitron and we have yet to see any indications that their competence has been replaced. We trusted these individuals as they had demonstrated to us on numerous occasions that they had the expertise needed to handle these types of components”.

Thirdly, the group also argued that the focal firms managed the time perspective in the industrialisation process differently. It was stated that subcontractors generally operate with a one-year time frame when

¹⁹ The head of the decision group came from the radio department (Appendix 3/Interview no. 18/11.02.04)

purchasing components, whereas KDC operates with a much longer time horizon. For example, the design and development phase could last more than five years. The basic argument KDC put forward was that they had to select customer-specific suppliers that could hold a dual role (both a design/development and production partner) in their projects. This dual role and the fact that subcontractors such as Kitron usually was selected when the product reached the production phase was highlighted as critical factors hindering any subcontractor from selecting the customer-specific suppliers.

The decision group stressed that the subcontractor had little experience with selecting and managing customer-specific suppliers to their projects. They also made it clear that it was highly inappropriate for them to control supplier contracts. This was because KDC, as the product developer, initiated the relationship and co-developed the customised components together with the suppliers during the development phase. Kitron would, according to the head of the decision group, merrily purchase the complete components when the product reached the production phase.

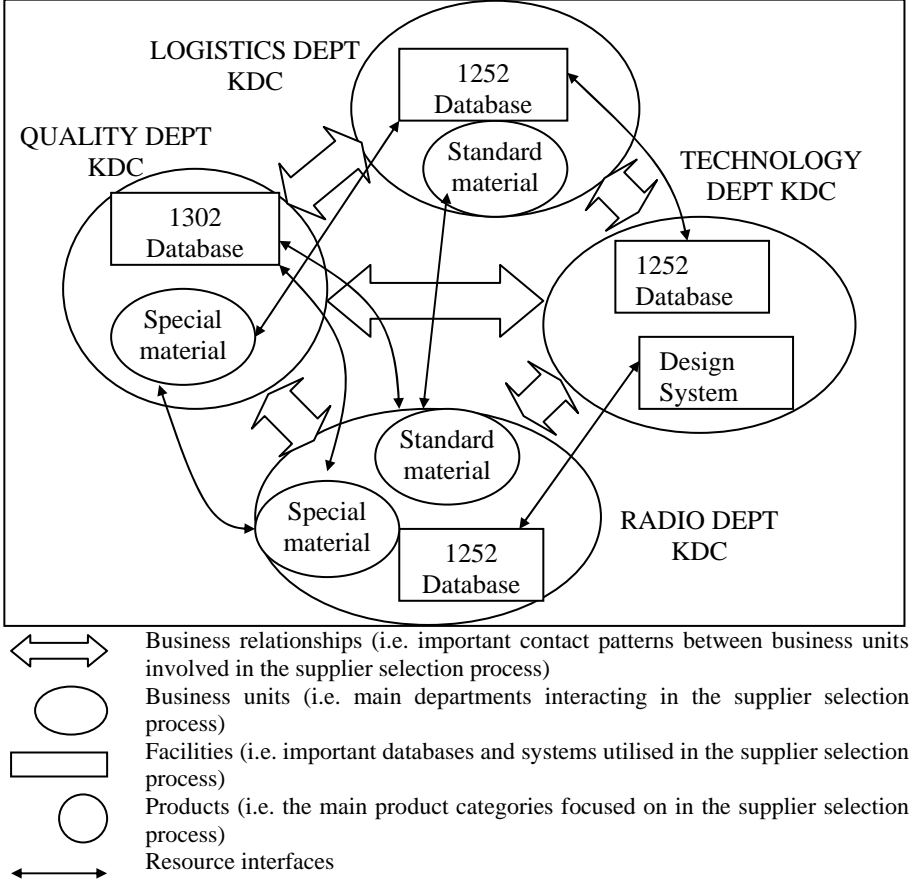
Fourthly, the decision group also pointed out that the subcontractor had not offered to participate in the supplier selection process. This was despite professing in numerous other meetings prior to the Metallic situation a wish to do so. Kitron knew about the decision group and that KDC had begun discussing the situation internally in order to solve the Metallic situation, but remained passive. The decision group interpreted Kitron's behaviour as a confirmation that they were neither willing nor able to handle these types of supplier selection processes. One decision group member²⁰ stated: "In 1997 we went to Kitron and asked them whether they wanted to find a mechanical supplier to the MRR project, and they declined, so why would they want to be involved now?". This understanding illustrates how Kitron, according to KDC, had earned a reputation as being a firm reluctant to respond to urgent matters demanding that they work outside their traditional comfort zone.

The preliminary dialogues within the decision group resulted in the decision to search for and select a new supplier unilaterally. The group began scanning for a new mechanical supplier only ten days after Metallic was declared bankrupt. The individuals responsible for the supplier selection was a purchaser (logistics department), component technician (technology department), quality manager (radio department) and a top manager (radio department). The first three would become responsible for the search and evaluation process concerning different candidates.

²⁰ The purchaser is referring to the situation in 1997 when Metallic was chosen as a supplier.

The group used well-known selection procedures developed over more than a decade in all their previous projects. The candidates were identified and evaluated based on three conditions; mercantile conditions, technical capabilities and quality conditions. After evaluating four main candidates by comparing their scores, the purchaser from KDC's logistics department approached the top manager from the radio department with his recommendations. This supplier selection process then resulted in the selection of Fiast, an Italian supplier. The resources utilised in the supplier selection process are depicted in Figure 5.2.

Figure 5.2 – Illustrating resource interaction within the decision group when the new supplier was selected



Fiast was organised as an umbrella firm that functioned as a mediator amongst multiple smaller mechanical suppliers in Europe. Fiast performed some founding themselves, but also purchased services such as founding, moulding and painting from other suppliers. They were to have the overall responsibility for producing the mechanical components used in the MRR project. Founding services would be purchased from 3EM, moulding services from Moulding C/o and painting services from Paint-house. In addition, Paint-house would use three sub-suppliers called Paint-Pro, GEM and Autopaint to service the MRR-project. Kitron were invited to visit Fiast only after the decision to use them was made. The purpose was to establish the right customer-supplier contact between the two firms.

5.1.4 Interaction within the relationship project after Fiast had been chosen (*Phase three: December 2002*)

The relationship project group met again in December 2002, a month after Fiast had been chosen. The purpose was to discuss how the Metallic situation had been handled and to reflect on how their behaviour was aligned with their partnership objectives. These dialogues involved the group collectively discussing and reflecting on the underlying factors that had led to a unilateral supplier selection process. The Kitron representatives in the group got the opportunity to share their views as to why they had failed to offer to help in finding a new supplier. First, Kitron acknowledged that they currently lacked the managerial capabilities in-house that were needed to pool sourcing resources. They also acknowledged that the firm was not organised to deal with what they considered to be 'extraordinary' situations, and that new governance systems were needed for them to be able to do so in the future.

Secondly, the Kitron representatives interpreted their own behaviour as an indication that they to some extent were perhaps comfortable with letting KDC manage the 'difficult' tasks of finding a new mechanical supplier. They pointed out that the existing financial compensation agreements for their purchasing and logistics services were built on Kitron receiving a fixed percentage of the total material costs. The right incentives to participate in efforts to select a supplier that could lead in reduction in material costs were therefore lacking. They also pointed to unsolved issues between the firms regarding how the parties would split the costs if something went wrong when the supplier selection had been a joint matter. In the current delivery contract between Kitron and KDC, it was KDC which incurred the costs in situations whereby a customer-specific supplier underperformed. Kitron therefore again lacked the incentives to take on new responsibilities.

The insight into how Kitron had perceived the Metallic situation led the relationship project group to decide to engage in closer dialogues with important departments participating in the MRR project. The objective was to obtain their views on the factors that hindered collective efforts. The aim was to find out why they had not been more proactive in ensuring that the focal firms co-operated more in line with what was intended within the partnership arrangement. These dialogues revealed several underlying factors that constrained the partnership arrangement from reaching its goals. First, the dialogues with other departments showed how the relationship project had not been able to communicate its purpose to the rest of the organisations. For example, the individuals participating in the Fiast decision group were not informed about Kitron's alleged abilities, or about its desire to get more involved in the selection of customer-specific suppliers.

Secondly, while several individuals holding middle management positions within Kitron Hisøy and Kitron Kongsberg were informed about the Metallic situation, top management within the Kitron Group were not. The way Kitron was organised meant that only centralised top management held the mandate to radically change and re-negotiate supplier contracts. In other words, the middle management involved in the MRR project from Kitron had few possibilities to take on 'new' responsibilities without discussing such radical changes in the business contracts with their top management.

The discussions in December 2002 resulted in group deciding that they would spend the next few months engaging in dialogues in order to achieve a new jointly managed supplier selection process.

5.1.5 Forming a new supplier selection process (*Phase four: January-March 2003*)

The relationship project group met again in January and February 2003. The group invited other members of the focal organisations to the meetings. This 'extended' relationship project group would in addition to the original members also include individuals from Kitron Hisøy, Kitron Development Arendal and KDC's radio and technology departments. The decision to include others in the dialogues was based on the idea that the new selection process had to include both operational and strategic considerations. In order to achieve this, two types of meetings were initiated; one that was confined to the individual firm, and one that was based on dialogues within the relationship project group.

The purpose of the internal meetings was that each firm would identify, prioritise and create an intra-firm consensus regarding what the relevant resources were. The relationship project also wanted each firm to develop ideas on how these resources were to be organised.

At the same time, also identify what the potential economic, organisational and strategic benefits could be from organising resources in specific ways. The purpose with the relationship project group meetings was to confront each other's analysis were that the parties wanted the new concept to come as a result of collective confronting of each others analysis, assumptions and reflections regarding what the 'optimal' solution was. The parties also believed that the new solution had to come after negotiations within the project group in order for them to be able to prioritise both common and differing concerns.

The interaction within and outside the relationship project group between January and March 2003 dealt with the overall question of 'how to best organise future supplier selection processes involving customer-specific suppliers'. The internal meetings were organised by the relationship project representatives from each firm. They decided whom to include in the internal process. These individuals ensured that each firm made their own assessments of the strategic reality surrounding the firm. The relationship project group would then meet to discuss four alternative ways to organise supplier selection in the future. The alternatives are detailed in turn below.

ALTERNATIVE ONE

The first alternative came from a quality manager working in the MRR project at Kitron Hisøy. He proposed that Kitron could evaluate the mercantile conditions and KDC the technical capabilities, and that the firms collectively could be responsible for evaluating the quality conditions. He claimed that the central sourcing department located within Kitron had the necessary competence and experience to handle mercantile conditions. He argued that significant improvements in supplier quality could be gained as the central sourcing department focused on and weighted the mercantile criteria differently from KDC. His main argument was that involving them when evaluating the mercantile condition could contribute to improved evaluations of the supplier's production capabilities.

The quality manager furthermore proclaimed that it was natural for KDC to be responsible for evaluating the technical capabilities. He stated that their technicians were leading edge specialists in the field, and he could see no positive benefits from transferring this responsibility over to Kitron. The quality manager also believed that the best solution for evaluating the quality

conditions would be to make the quality evaluations a collective matter between the quality supervisor at KDC and a quality supervisor from Kitron involved in the production process. The main argument for involving Kitron was that they could offer valuable experience from other supplier relationships. Kitron Kongsberg and Kitron Hisøy used databases called 'Sofie' and 'Pidtrace' to store information on where previous suppliers have underperformed, what the critical supply-related factors are in the production process and historical documentation of actions undertaken to resolve various supplier challenges.

ALTERNATIVE TWO

The second alternative came from a senior manager from Kitron's central sourcing department. He believed that Kitron had the necessary resources to evaluate the mercantile and technical conditions individually, whereas the quality department at KDC was best suited to handle the quality conditions. The senior manager offered detailed descriptions of how the central sourcing department could undertake life cycle analysis, negotiate frame agreements, and evaluate suppliers using high quality scorecards, etc. This would lead to improvements relative to the way the mercantile condition had been evaluated in the past. He identified where the necessary human resources were located and could provide the name behind the abilities deemed critical to the process. The senior manager acknowledged, however, that Kitron had to develop new organisational systems in order for them to be able to organise and economise on their design and technical resources. Finally, he did not see any great benefits to be gained from altering the way the quality condition currently were handled in the supplier selection process.

ALTERNATIVE THREE

The third alternative came from a senior manager from KDC's radio department. The senior manager believed that Kitron had a lot to offer when it came to evaluating mercantile conditions. He believed there were several benefits to be gained from utilising the producer's experience when handling the mercantile conditions. He was therefore a strong advocate for allowing Kitron to be solely responsible for evaluating the mercantile conditions. However, he stressed that Kitron had to be informed about the design specifications and product requirements depicted in the 1302 and 1252 databases (see Figure 5.2), in addition to being informed about the common components and suppliers in use across the industrialisation projects. He also pointed out that new technical systems allowing Kitron to utilise their 1302 and 1252 database had to be in place between the two firms. Furthermore, the senior manager was against Kitron becoming responsible for the technical capabilities and the quality conditions. He argued that KDC

already employed the best technicians and quality supervisors in the industry.

ALTERNATIVE FOUR

The fourth alternative came from a technician from KDC's technology department. He had been involved in the decision group when Fiast was selected and possessed more than 30 years of experience in the industry. The technician was convinced after working closely with Kitron over more than a decade that Kitron possessed the resources and abilities needed to evaluate the mercantile conditions. On that note he was a strong advocate for allowing Kitron to become solely responsible for this part of the supplier selection process. He suggested that Kitron had to be fully informed about common customer-specific components across their projects/products. Furthermore, he did not see any benefits to be gained from distributing the responsibility to evaluate technical capabilities differently. This was because he considered that KDC already possessed those resources in-house. The same argument was put forward regarding the quality condition, but the technician here expressed a willingness to make this a collective effort in the future given that Kitron copied KDC's quality regulations and procedures.

The four alternatives became subject to close discussions within the relationship project group. At the same time, the group reviewed the outcomes with Fiast and used these reflections in their discussion regarding the supplier selection process. The relationship project group had realised that the MRR project had struggled to fulfil its production needs due to several problems related to Fiast. The delays experienced were due to the supplier's inability to deliver as many components as planned. Kitron also experienced that the components were often poor quality, which meant the several units had to be returned.

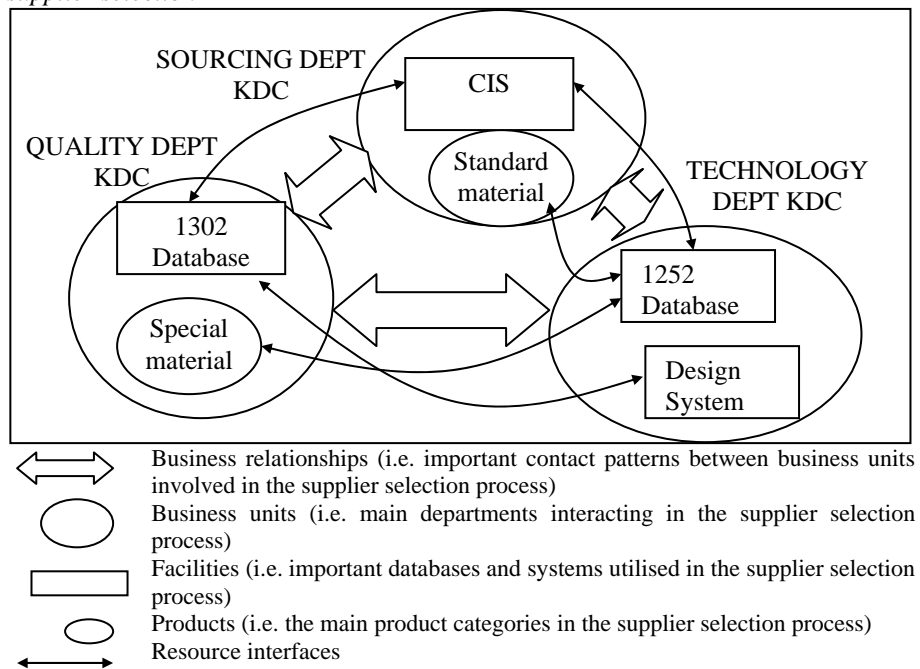
This led to comprehensive meetings between Fiast, Kitron and KDC to try to get Fiast to the desired performance level. KDC sent a team of specialists to Fiast to help them set-up their production line and offer on-the-spot training. Kitron also sent experts in order to put in place systems for improved quality control, communication and a logistics plan that improved the co-ordination amongst many sub-suppliers involved in the distribution channel.

The relationship project group invited several of the individuals that had been directly involved in solving the problems relative to Fiast to join in the discussions taking place between January and March 2003. The actors agreed that the unexpected developments with Fiast were factors that probably could have been detected if the evaluation of the mercantile conditions had been weighted differently in the selection process. The

collective discussions within this extended relationship project group centred upon reflections of the advantages and disadvantages with the four alternatives detailed above. These dialogues resulted in the unanimous decision that alternative three was the best solution for future supplier selection.

The implementation of alternative three did not lead to any significant organisational changes in terms of how departments were organised internally. The changes were more related to the creation of a new supplier selection concept. This showed how the different departments were to interact in order to achieve the expected benefits. The new concept built on the idea that the focal firms needed to interact differently in order to be able to economise on technical and sourcing related resources. The two firms focused on the principles behind the way these resources would be organised in relation to the other. The resource interaction designed in the new procedure for the joint supplier selection process is depicted in Figure 5.3.

Figure 5.3 – Illustrating resource interaction connected to the new concept for supplier selection



Alternative three built on the idea that Kitron's central sourcing department would now be unilaterally responsible for the search and selection of both standardised and customer-specific suppliers to their joint projects. This department had a CIS database²¹ that contained updated component and supplier information. This information made it possible for Kitron to extract relevant and updated information describing the mercantile conditions and the suppliers' performance level. KDC's technology department would have to interact closely with the sourcing department with regard to selecting the customer-specific suppliers.

There was no technical interface making it possible to distribute information between CIS and the 1252 and 1302 databases electronically. This meant that much of the information sharing had to occur through direct communications across the three departments. The idea was that the central sourcing department would on a routine basis suggest alternative suppliers and components that would improve the performance of both through the 1252 and 1302 databases. The central sourcing department would use its services and competence to improve the product documentation (i.e. 1252 and 1302 databases) by identifying suppliers that they had frame agreements with. This should lead to reduced purchasing costs through increased volumes, while at the same time suggesting alternative suppliers that had the right quality level and scored highly in terms of their mercantile capabilities.

5.1.6 Collective reactions to outsourcing plans (*Phase five: April-May 2003*)

KDC's top management informed the relationship project and other key departments within Kitron in April 2003 that they had decided to implement a major restructuring programme. Several business functions, such as component engineering, component technicians, documentation technicians and database technicians were to be outsourced. Some of these functions had been characterized as critical functions to KDC by the decision-group and relationship project only months previously. It was now explained that the motivation behind the restructuring programme was the need to adapt to fewer large-scale design and development projects in the market than estimated. Customers were also becoming more cost-oriented, which pressured KDC to redefine their business model with regard to what services the firm would be performed in-house and what services to purchase from others. KDC's top management argued that the firm in the future had to rely

²¹ CIS (Computer Information System) is a database that registers component and supplier information (e.g. functionality, quality, price, production date, origin, etc.)

more on purchasing semi- or fully developed solutions from others as a way to reduce development costs. They also believed that significant cost savings could be gained from purchasing services from developers situated in low-cost regions of the world.

KDC's top management also informed the relationship project group that they were considering two potential candidates to purchase sourcing capabilities from in the future; Kitron and Norwegian Design House (NDH). Kitron was considered a suitable candidate due to the firm's ongoing partnership and the fact that they were their biggest supplier. NDH was a strong candidate due to their specialist competence in component sourcing, design and engineering. In addition, NDH had recently agreed to recruit several of the individuals previously employed by KDC. This meant they had skilled personnel with extensive knowledge and experience about KDC. The choice of Kitron was however dependent upon them re-organising their technical and sourcing resources. KDC put forward concrete demands on this matter.

The Kitron representatives within the relationship project group reacted to this situation in several ways. They initiated dialogues with their own top management and participated in reflections and discussions in-house. These were established to develop alternative ways in which the technical and sourcing capabilities could be organised differently. The KDC representatives in the group engaged in similar communications with their top management to better understand their views and concerns when contemplating how the existing partnership with Kitron could be adapted to meet their current and future needs. The relationship project group played a role as catalyst and information distributor that would ensure that the two firms' top management understood the views and concerns of the counterpart.

These dialogues revealed that top management focused on other issues than those currently being discussed in the relationship group. The relationship project group's systematic approach to gathering information on the opportunities and challenges prioritised by the firms' top managements became an important component in the negotiations within the focal dyad that followed. The group structured and translated the information and feedback they got from top management into a common picture. This described the nature of the differing and common concerns occupying the firms. The relationship project group's efforts made it possible for the firms' top managements to engage in direct negotiations and decision-making.

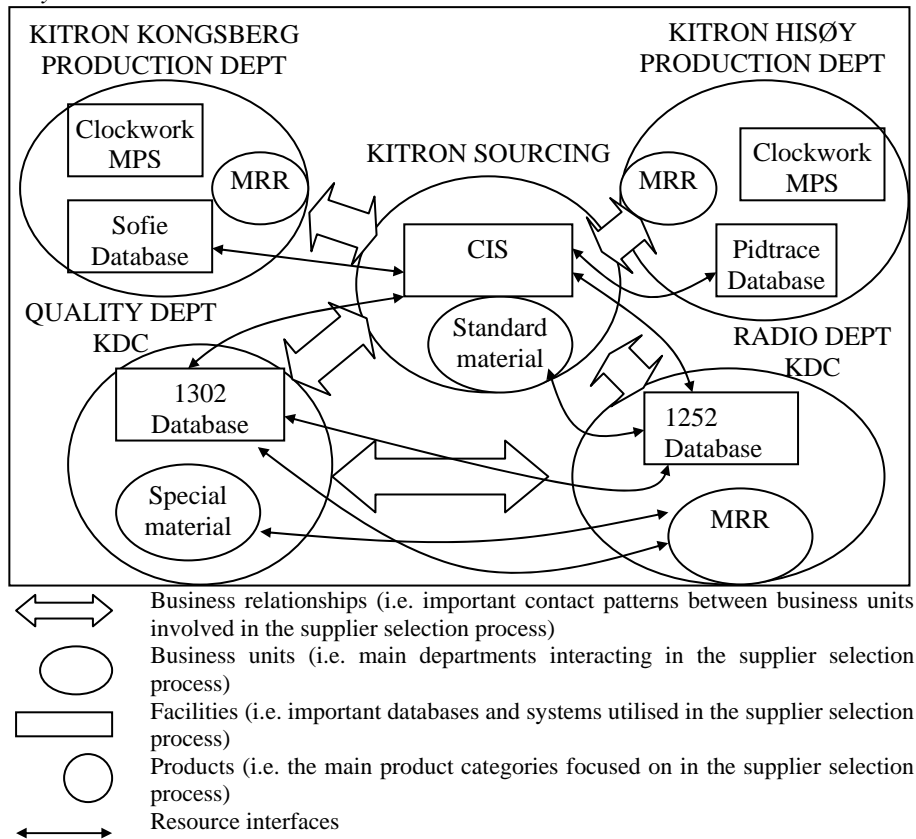
The bilateral dialogues in April that were initiated and co-ordinated through the relationship project group were central in Kitron's top management team

efforts to transform their central sourcing department into an independent firm called Kitron Sourcing AS. This re-organisation built on the idea that the new firm could function as a sourcing partner to Kitron's internal design and production firms, as well as other external customers such as KDC. Kitron also decided to strengthen Kitron Sourcing's technical capabilities by allocating individuals with engineering and technical competence from their internally controlled design firms.

The new sourcing organisation was then discussed internally within KDC. The KDC representatives from the relationship project group led the dialogues. They reviewed the new solution in terms of how it supported the operational challenges and needs confined to their intra-firm industrialisation process. They reflected on the original objectives that had formed the basis for the partnership with Kitron. They concluded that selecting Kitron would be in line with their original ideas to nurture and prioritise fewer subcontractors to service their production needs. The representatives also made sure that the ideas connected to the new supplier selection process were communicated to top management. This ensured that they reflected on several of the potential benefits previously identified within the relationship project group.

The negotiations and discussions between the focal firms convinced KDC's top management to choose Kitron Sourcing as their new sourcing partner. This decision marked a significant change in the way KDC's top management viewed their supplier strategies. The decision was justified as being in line their current strategic thinking, which involved a considerable rationalisation of their supplier base. This decision would also have consequences for the new concept for the supplier selection process developed a few months earlier. For example, KDC would no longer use their old component databases, but instead rely on Kitron's database called CIS when selecting a new supplier. The parties had to find a way for CIS to be made available to KDC's designers. The strength of CIS was that it contained updated information about components.

Figure 5.4 – Illustrating resource interaction in the supplier selection process in May 2003



5.2 Relationship Episode Two

5.2.1 Background

The second critical event that the focal firms encountered happened in the autumn of 2003. It was directly related to declining revenues for both focal firms. This in turn was a result of the end of the MRR contract with the Norwegian Armed Forces. KDC had signed a new contract with an East European governmental agency for several thousand units to be distributed in the next ten years. The Norwegian government, which was the legal owner of MRR, informed KDC that they expected the production costs per unit to be considerably reduced in a newer version of the radio. The parties agreed that redesigning the radio was the only way they could ensure this. The majority of the production costs were related to the costs of material,

and the original MRR radio contained several components that were becoming outdated. As such it made redesigning the radio from a sourcing perspective became a priority.

The delivery agreement signed with the East European actor was for a newer version of MRR called 'MRR 2'. KDC's top management²² made it 'perfectly clear' to Kitron that MRR 2 had to be produced in a way that made it possible for the Norwegian Armed Forces to maintain its repurchasing obligations towards their customer. According to international trade agreements, Norwegian firms had to purchase products and services from East European companies equal to the MRR 2 exchanges between the two countries. The MRR 2 contract therefore forced KDC's top management to search for ways in which to purchase products and services from East European firms. Top management was therefore contemplating different subcontractors to use in the MRR 2 project that made it possible for KDC to fulfil this objective. As a result, it was not obvious that Kitron would be awarded the production contract.

The end of the original MRR contract also resulted in considerably reduced revenues for the Kitron Group in general, and Kitron Kongsberg and Kitron Hisøy in particular. Kitron's top management²³ stated that the end of the MRR contract provided them with an opportunity to change how they organised the production of defence products. Kitron were considering three alternatives for future production within the defence segment; continue with two production facilities in Norway, maintain only one production facility in Norway, or shutdown both facilities and open a new facility overseas.

5.2.2 Interaction Prior to the MRR 2 situation (*Phase one: June-August 2003*)

The end of the MRR contract did not come as a surprise to the focal firms. Each had over the years shared their individual concerns. The Kitron representatives within the relationship project group had also spent substantial time between June and August 2003 reflecting on how they could find a more cost-efficient production organisation and simpler project management structure for future MRR projects. They organised internal meetings with key personnel from the original MRR project and this "extended" group discussed their concerns on the assumption that Kitron would be responsible for future MRR projects.

²² A senior manager from KDC's Radio department (Appendix 3/Interview no. 7/24.05.04)

²³ A top manager at Kitron Hisøy (Appendix 3/Interview no. 12/07.05.04)

Kitron initiated this process with the understanding that they needed to significantly change the way they organised their production process regardless of their access to future MRR contracts. They therefore investigated different production solutions. All of these involved considerable downsizing of their production operations. The Kitron representatives involved in the relationship project group made a conscious decision to share their concerns with KDC. These dialogues centred on the three main decision options regarding how to organise Kitron's Defence production services in the future. Kitron also wanted to receive confirmation that they were going to get the MRR 2 contract.

The KDC representatives within the relationship project shared their views regarding what they considered to be the preferred production solution. KDC explained how they believed that having one strong defence facility in Norway would be optimal. KDC characterized Kitron Hisøy as "quick and flexible", whereas Kitron Kongsberg was referred to as "thorough and reliable". If Kitron were to prioritise one main facility in Norway, the KDC representatives²⁴ stated it was critical to their existing projects that project sensitive resources were transferred between the facilities, in order to ensure that project specific resources could be reused. KDC could not at this point give Kitron a definitive 'yes' that they would be awarded the MRR 2 contract. Nevertheless, both firms discussed various production concerns as if Kitron were to be a preferred partner in the future.

The meetings held between June and August 2003 had a particular focus on reviewing the possible initiatives that could be implemented in the near future as a way to cut costs and improve project management. The relationship project representatives from each firm shared their 'inner thoughts' on possible strategic considerations that they believed their top management were occupied with. This in turn led to discussions within the group as to how the MRR 2 project could be organised differently to meet the firms' future needs and requirements. Each firm went into the dialogues focusing on their individual needs. That is, Kitron focused on the production challenges and KDC focused on rationalising the design and development process.

²⁴ This was stated in a relationship project meeting held in August according to a senior logistics manager (Appendix 3/Interview no. 43/25.02.04)

5.2.3 Collective reactions to the MRR 2 situation (*Phase two: September-October 2003*)

Kitron were informed during early September 2003 that KDC were 'seriously' considering other subcontractors to produce MRR 2. The KDC representatives in the relationship project group explained some of the factors that hindered them from choosing Kitron. The relationship project group responded to the news collectively by holding several meetings in September 2003 to discuss the consequences for the partnership arrangement, and possible countermeasures the group had to consider in order to ensure that the partnership objectives still were valid. The group wanted to avoid a situation whereby top management made decisions purely based on their individual concerns, without understanding the potential suboptimal outcomes that could follow for other industrialisation projects.

After a short first meeting, the relationship project group organised individual meetings within each firm with only the original group members present. Their job was to develop a common picture of the firms' individual concerns. This meant engaging in close dialogues with both top managements in order to obtain insight into their strategic thinking. The relationship project representatives would in addition organise individual meetings in-house with middle management from departments directly involved in the industrialisation process. Here their primary focus was to search for solutions that could solve the repurchasing obligations in MRR 2 in relation to the East European actor.

The Kitron representatives also organised meetings with their top management to make sure that their firm-specific considerations were discussed from a more operational perspective. These individuals wanted to make sure that top management discussed the organisation of defence production in the future, while 'simultaneously' considering the specific issues within the MRR 2 contract. These communications led top management to conclude that it was crucial for Kitron that they got the future MRR projects. In this way the relationship project representatives from Kitron managed to convince their top management that their firm-specific and relationship-specific concerns were connected and that the different decisions had to be co-ordinated.

The relationship project group used the same resource identification procedures applied when the group had interacted between January and March 2003 when developing a new concept for supplier selection. Kitron focused their resource analysis on those resources that were central to the purchasing, logistics and production functions. The Kitron representatives

from the relationship project group interacted closely with individuals holding important middle management positions in MRR.

These interactions resulted in a new sourcing solution that could solve the repurchasing obligations in MRR 2. The new sourcing concept that the Kitron representatives devised involved a solution whereby Kitron could produce MRR 2 modules with high technical complexity at their facilities, in exchange for producing other products with low technical complexity within their portfolio²⁵ with an East European subcontractor. Kitron identified several products that easily could be transferred to other subcontractors. In other words, this was a solution to the repurchasing obligations.

CO-ORDINATED DIALOGUES

The relationship project group collectively discussed the new sourcing solution before presenting it to the firms' top management. This made it possible for the group to develop a common understanding regarding the advantages and disadvantages. There was also a chance to reflect on whether or not the parties were working towards fulfilling the objectives of the partnership. KDC's top management responded positively to the proposal. They did, however, put forward other demands that they wanted Kitron to comply with before reconsidering their candidateship.

They explained that the entire production process in MRR 2 had to be significantly improved from a cost and project management perspective. Kitron were required to devise a new project plan for MRR 2 that described how new rules of conduct would ensure that resources were utilised in a more co-ordinated and efficient manner. The relationship project group would then discuss and search for a new project structure that would enable Kitron to fulfil these demands. In this way they functioned as an open communication channel between the firms' top management. The relationship project organised their communications with the rest of the focal organisations around two main themes; how to reduce production costs and how to improve integration between the development and production phases.

KDC's top management also tried to influence Kitron's top management through their representatives within the relationship project group. KDC's top management believed that Kitron Hisøy had the greatest potential of the two production facilities in Norway. They also explained how the majority of their past investments in products, tools, training and competence-building in the relationship the recent years had taken place at Kitron Hisøy.

²⁵ These products were owned by other customers which gave their approval that Kitron could perform these changes.

Top management also informed their representatives in the group that a new project plan for the MRR 2 project had to contain detailed descriptions regarding how departments and business functions were to interact, the specific resources to be dedicated to the MRR 2 team and how the industrialisation stages were to be organised.

This marked a significant change in the focal relationship. Previously, the project plan for the production phase had been developed by KDC's operations department. Kitron's top management responded positively to the clarification of demands and requirements for a new project plan. It also meant that they could devise a new project plan whereby the traditional industrialisation managers from KDC, which in the past had tried to micro-manage how Kitron's production team executed their production function, were removed from the industrialisation process.

Kitron's top management reacted to KDC's recommendations by engaging in similar dialogues with other important customers. Here the intention was to determine whether their views and needs were unique or common across multiple relationships. These dialogues built on the idea that gaining insight into the concerns and future plans of these customers was an important variable that needed to be included in Kitron's internal strategic discussions²⁶. The relationship project group simultaneously initiated negotiations within the group to devise a new project plan for the volume production stage in MRR 2.

The original MRR project had experienced considerable delays and excessive costs due to poor project management between the two focal firms. The KDC representatives now offered detailed description describing why they felt Kitron Hisøy controlled resources and held abilities that outperformed Kitron Kongsberg. They among other things pointed to their newer machine park, higher capacity, NPI²⁷ department and a business culture that was flexible enough to adapt to sudden changes in requirements and explorative problem solving processes.

The NPI department in particular was thought to have important skills when it came to redesigning the radio (and thus ultimately reducing costs). The dialogues within and outside the relationship project during this period were among the central factors in convincing Kitron's top management to choose Kitron Hisøy as the main production facility. KDC responded shortly after

²⁶ This was stated in a relationship project meeting held in October 2003 (Appendix 3/Business meeting –active role no.5/13.10.03)

²⁷ The New Product Industrialisation department offers services within prototype building and testing.

this with a decision to allow Kitron to be responsible for the MRR 2 contract. Kitron would now demonstrate their ability to radically change and improve the MRR 2 project compared to the original.

The decision to shutdown Kitron Kongsberg meant that Kitron had to decide what the critical resources were that had to be transferred to Kitron Hisøy. The relationship project continued their dialogues in October 2003. This resulted in the firms collectively deciding to use the MRR 2 project as a pilot to test whether and how they managed to improve with the new production set-up at Hisøy. The firms built on their original ambitions going into the partnership to pursue actions that could significantly improve the way resources confined to the functional areas logistics, purchasing and sourcing were organised and economised on. The relationship project group agreed that future initiatives had to involve significant improvements of the information flow, quality control and delivery accuracy within to the industrialisation process.

5.2.4 Collective decision-making to create common objectives in MRR 2 (*Phase three: November-December 2003*)

The relationship project group met in November 2003 to discuss how to implement initiatives that could reduce the informal contact patterns, improve the product quality and improve the delivery accuracy in MRR 2. The group devised a 'single point of contact principle' that they believed could improve the communication flows in general and the informal contact patterns in particular. They wanted to implement a 'quality problem solving procedure' (that had been used at Kitron Kongsberg with good results in the original MRR project) as a way to maintain a high quality level and control costs. The firms also wanted to implement new procedures to monitor the component life cycles and to enforce appropriate warning systems to reduce the vast number of last-time-buy situations (LTB) experienced in the original project.

There were several reasons why the relationship project group decided to make the task of devising a new concept for the MRR 2 project a collective matter²⁸. First, the relationship project representatives considered it crucial that a new concept be the outcome of an inter-firm decision making process. The relationship project meetings were deemed an appropriate arena to ensure that the parties had a common information basis. Secondly, the parties had already identified common economic logics for their joint

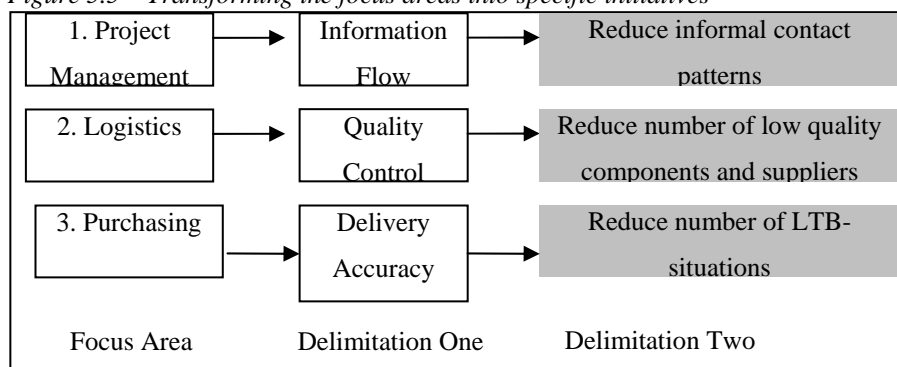
²⁸ This was stated in a relationship project meeting held in December (Appendix 3/Business meeting –passive role no.7/10.12.03)

industrialisation projects. In line with the preliminary relationship project discussions in autumn 2002, the parties wanted to create initiatives that could demonstrate the positive outcomes to be gained from collective actions and co-ordinated decision making. Thirdly, the dialogues and co-operation within the partnership up to this point had also convinced the relationship project group that they had to develop revised and formal interaction patterns. This would illustrate how the parties would have to interact in order to achieve their common economic logics.

The dialogues within the relationship project group in December 2003 were based on the understanding that the relationship project group would devise three initiatives to be implemented in MRR 2. This represented a significant change in the relationship. Previously, Kitron had complained about the unilateral way initiatives had been devised, which had constrained them from economising on their resources in an optimal way.

Kitron²⁹ interpreted KDC's willingness to try a new approach as a significant change and an important development in the relationship. They considered it to represent a change in business atmosphere and a manifestation of their mutual orientation to pursue joint efforts. The relationship project group would now benefit from ideas and competence from 'both sides of the table'. According to Kitron this meant that the new initiatives represented what both parties believed to be optimal from a relationship perspective. The original problem areas identified earlier in the partnership was now delimited into specific initiatives, which were defined and described in detail within these meetings.

Figure 5.5 – Transforming the focus areas into specific initiatives

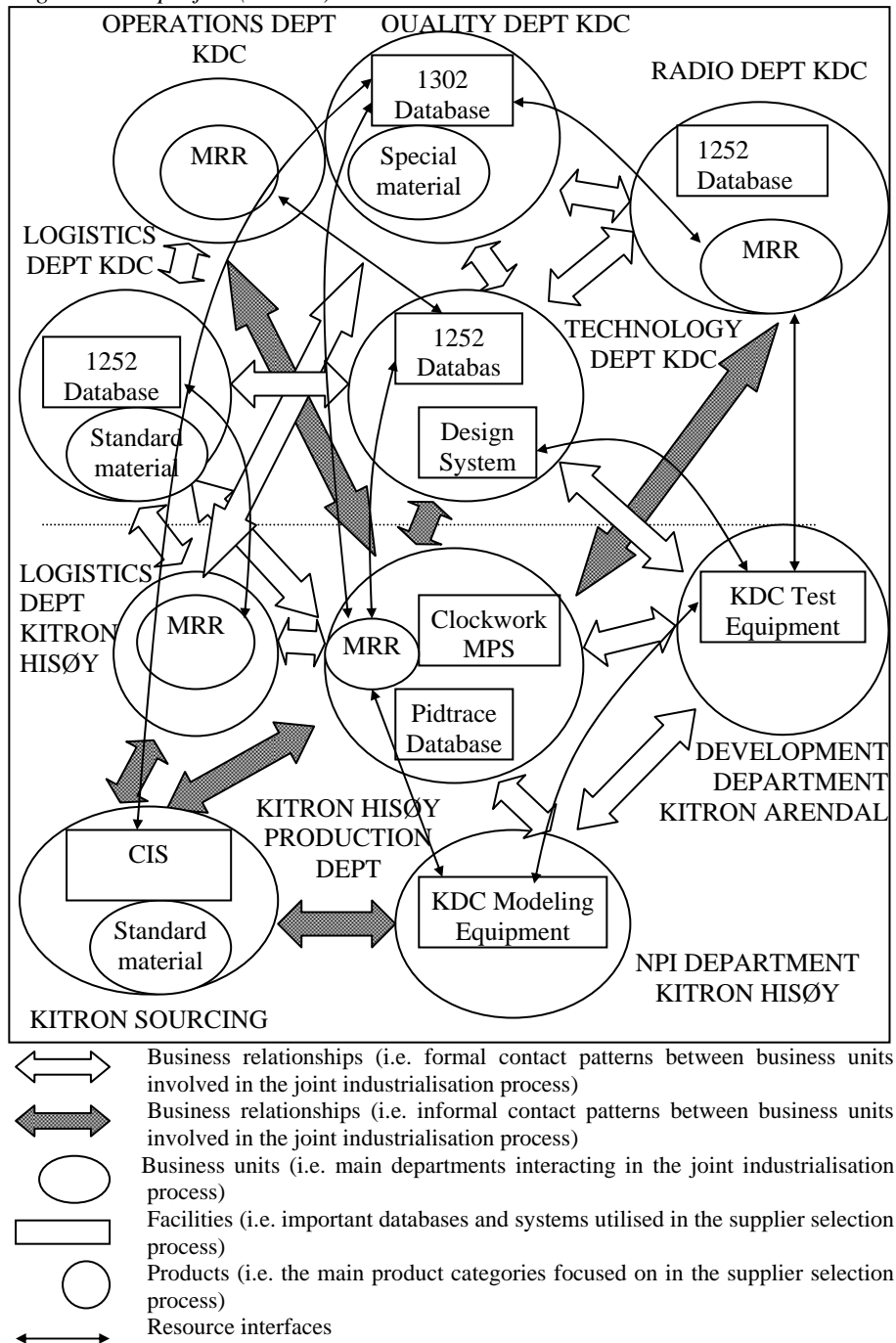


²⁹ Key Account Manager at Kitron Hisøy (Appendix 3/Interview no. 14/07.05.04)

SINGLE POINT OF CONTACT PROCEDURE

The first key initiative was a single point of contact procedure. Here the idea behind the initiative was to create new project management principles to steer the communication flows between the different departments and business functions involved in the industrialisation process. The original MRR project had suffered from multiple and complex formal and informal contact patterns within the focal relationship. This had hindered the project managers from economising on resources in accordance with their plans. As a result of this, the MRR project suffered considerable delays and high costs (see Figure 5.6). The relationship project group therefore agreed that new communication procedures were needed to provide clarity through new guidelines for communication management. The belief was that this would offer the different actors involved at the different industrialisation stages a common and stable frame of reference to base actions and interactions upon.

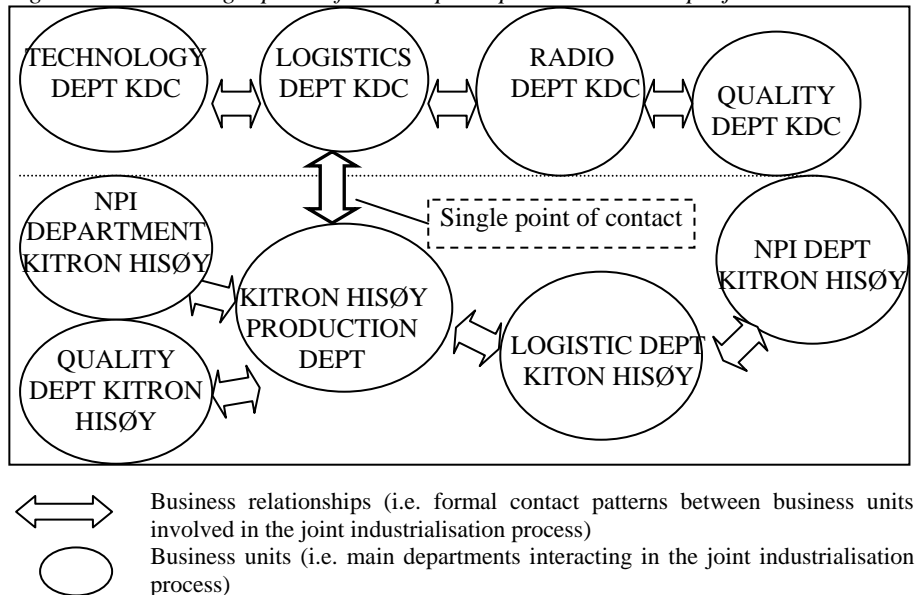
Figure 5.6 – Illustrating the contact patterns during the production phase in the original MRR-project (MRR-1)



The single-point-of-contact principle built on the idea that each department and business function involved in the MRR 2 project would have one main contact person to report to and inform in a routine manner (see Figure 5.7). This planned and restricted information sharing was believed to contribute to a more transparent and co-ordinated decision making process within the relationship. The parties also hoped that these individuals could use this insight to collectively structure and distribute relevant information about the status and progress of the industrialisation process back to the project participants.

The principle described in a formal manner to whom each actor was supposed to report and how the different actors were to gather, store and distribute specific types of information. Monitoring this form of interaction was believed to contribute to the control of how the organisational resources were economised on in the relationship. Furthermore, there were to be two main single points of contact in the relationship. These were Kitron's production department and KDC's logistics department. These departments functioned as project-leaders within their organisations and had a one-to-one interface with the other. In addition to co-ordinating efforts within and between the focal firms, the departments would also be responsible for informing the counterpart about individual concerns, decisions and developments within each firm.

Figure 5.7 – The single point of contact principle in the MRR 2 project



(Note: this procedure primarily led to a change in the way the organisational resources were to interact (i.e. the technical resources are not relevant to Figure 5.7))

QUALITATIVE IMPROVEMENT METHODOLOGY

The second key initiative was a quality improvement methodology. The two production teams from Kitron which were involved in the original MRR project used significantly different quality improvement procedures. The one used by the production team at Kitron Kongsberg had been developed together with specific individuals from KDC's technology and radio departments with great success. The relationship project group now wanted to copy and implement the same procedures in the MRR 2 project at Kitron Hisøy³⁰.

This particular methodology was developed and used in close co-operation between a quality manager from Kitron Kongsberg and a component engineer and quality supervisor from KDC. The feedback the parties³¹ received from other firms participating in the MRR project was that the methodology contributed to a more open and co-operative atmosphere between the suppliers and the focal firms. This was because quality deviations were detected in the production process. The relationship project also stated that having a common framework for problem solving could have substantial positive effects on the purchasing costs, as the supplier became less compelled to increase prices as an insurance against potential future liabilities.

LTB PROCEDURE

The third key initiative was a procedure for controlling and reducing LTB situations. LTB occurs when the focal firms are notified by their suppliers that the availability of specific components is low. This causes prices to rise and/or leads to longer delivery times than usual. The MRR 2 project had undergone several MLU (midlife upgrade) programmes in order to replace obsolete and/or costly components. However, because the radio was built on components that were designed in between 1990 and 1994 and the fact that the parties planned to produce MRR 2 between 2004 and 2013, the focal firms were expecting frequent LTB situations in the years to come.

The relationship project group wanted to introduce new guidelines that would ensure focus on reducing the LTB-situations in MRR 2. The idea was that the purchasers and logisticians at Kitron would control all the supplier contracts related to MRR and be solely responsible for handling the LTB-

³⁰ See Appendix 4/Section 1.1 for the quality improvement procedures.

³¹ This was stated in a relationship project meeting held in December (Appendix 3/Business meeting – passive role no.7/10.12.03)

situations. They wanted to utilise their control system called 'Clockwork' to achieve this. However, because several supplier contracts were controlled by the logisticians at KDC, it required them to share information and be informed about the developments in supply-related conditions. Furthermore, as several components had to be replaced, the focal firms agreed to pursue collective countermeasures, such as purchasing large volumes components for storage as a way to adapt to lower availability. This too demanded that Kitron interacted closely with the logisticians and designers at KDC in order to include them in decisions that involved 'significant' alterations in the products design specifications³².

5.2.5 Evaluating the results of the MRR 2 project (*Phase four: August 2004*)

The MRR 2 project reached the volume production stage in December 2003. The three key initiatives were then implemented between December 2003 and July 2004. The relationship project group did not have any formal meetings within this period. The two project leaders from the focal firms were collectively responsible for the way the initiatives were implemented in MRR 2³³. It was their job to make sure that relevant experience data was gathered and communicated to the relationship project group afterwards.

The focal relationship would during this period undergo several changes that would impact the MRR 2 project and the three initiatives. The most decisive change was related to Kitron Kongsberg being shutdown in January 2004. Kitron's top management had offered 30% of the employees at Kitron Kongsberg new jobs at Kitron Hisøy. However, only half of them would agree to move to Hisøy. This impacted the MRR 2 project in that the project leaders suddenly experienced that they lacked several critical personnel with experience from the original MRR-project. The MRR 2 project had to borrow personnel from other projects at Kitron Hisøy in order to maintain a stable activity level. The relationship project met in August 2004 to evaluate how the MRR 2 project had been managed with a particular focus on the way the three initiatives had been implemented.

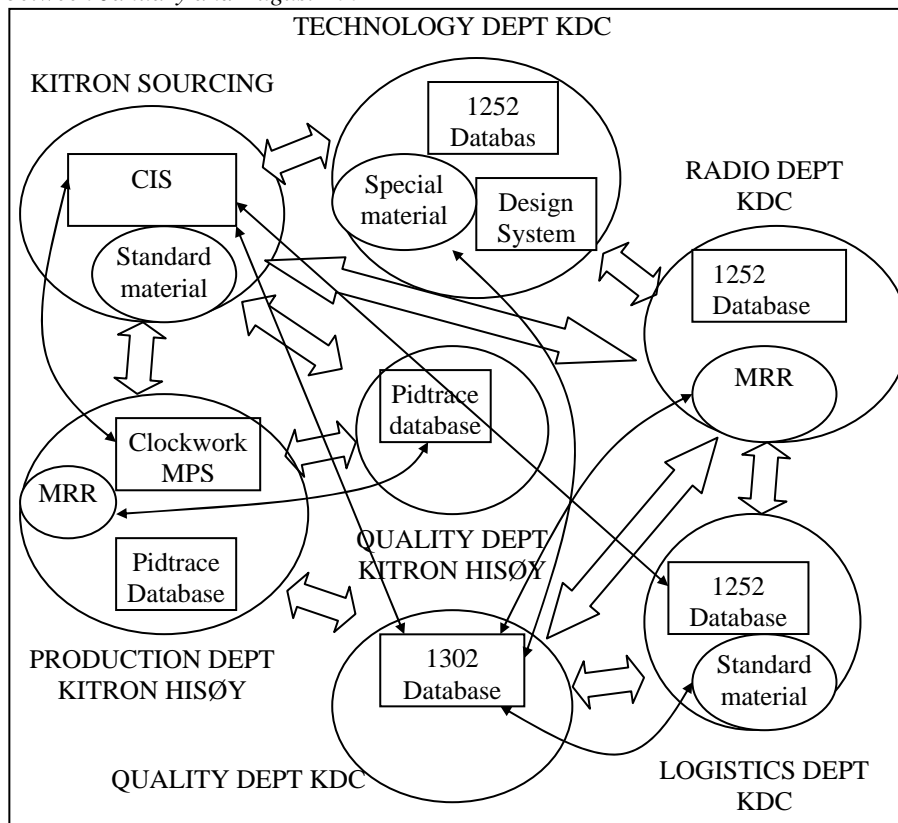
Figure 5.8 illustrates the main resources that were available to the focal firms during this period and how these were organised in the MRR 2 project. As the Figure illustrates, the focal firms experienced several changes in the type

³² Kitron had to make sure that 'new' components were approved and documented in the 1252 and 1302 databases.

³³ See Figure 5.7 and the text under Section 5.2.3 for more details about the role of the project leaders.

of resources that were available to the MRR 2 project compared to the resources that were central to the formation of the three key initiatives. The two most decisive changes were the fact that Kitron had transformed their central sourcing department into an independent firm called Kitron Sourcing AS and that KDC had outsourced their component sourcing to Kitron Sourcing. These changes and others would impact the focal firms' ability to organise and implement resources in accordance with their three key initiatives planned for the MRR 2 project.

Figure 5.8 – The main resources available to the focal firms and the MRR 2 project between January and August 2004



- ↔ Business relationships (i.e. formal contact patterns between business units involved in the joint industrialisation process)
- Business units (i.e. main departments interacting in the joint industrialisation process)
- ▭ Facilities (i.e. important databases and systems utilised in the supplier selection process)
- Products (i.e. the main product categories focused on in the supplier selection process)
- Resource interfaces

The relationship project group evaluated the implementation of a single point-of-contact principle first. The feedback the group received from the project leaders was that it had been hard to implement the principle in accordance with the original project plan. This was due to significant changes in the firms' resource basis. The relationship project concluded that they had failed to include Kitron Sourcing and the 'new' technology department within KDC in their original plans for the MRR 2 project even though the relationship project group was fully informed and highly familiar with the nature of these restructuring programmes.

This meant that the firms had created procedures for the single-point-of-contact principle that did not fit with the way resources ultimately would end up being organised within the relationship in 2004. Kitron Sourcing would have a one-to-one interface with persons from KDC's radio and technology departments (see Figure 5.8). Kitron Sourcing would also have an important role in relation to the logisticians and purchasers at Kitron Hisøy's production department. They would provide the latter with specialist competence needed to select cheaper components connected to specific MLU programmes. The parties had not discussed and decided upon how Kitron Sourcing's services were to be utilised or how the other departments involved in the MRR 2 project were to interact with them. This resulted in frequent informal contact patterns between the firms. The consequences were that the single point-of-contact principle was not executed as planned. It also meant that Kitron Sourcing would perform a range of services that were not included in the MRR 2 contract and that the firm was not remunerated for.

The second initiative concerned the quality problem solving methodology. The parties concluded that they had not managed to copy and transfer this procedure from Kitron Kongsberg to Kitron Hisøy. The feedback the relationship project group received from the project leaders centred on two main factors constraining the implementation. First, they pointed to the fact that the main individuals who had developed and used the methodology in the original MRR project no longer were employed in the focal firms. Their absence had made it difficult for the quality supervisor at Kitron Hisøy's quality department to grasp what the critical success criteria were. Overall, the quality supervisor found it difficult to communicate to the others how the new procedure differed from the old one³⁴.

The second factor that the relationship project discussed in August 2004 was related to the fact that Kitron Kongsberg and Kitron Hisøy used different databases in relation to quality control. The Kitron Group had decided not to

³⁴ Production personnel at Kitron Hisøy (Appendix 3/Interview no. 61/02.01.04)

transfer the Sofie database from Kitron Kongsberg to Kitron Hisøy. The basic argument was that Hisøy already had a database called Pidtrace that served the same purpose and had what they called “all the necessary features”. The feedback the relationship project received from the quality manager at Hisøy was that it was difficult to use Pidtrace as depicted in the written quality improvement procedures.

The relationship project was, however, satisfied with the way in which the third key initiative had been implemented in the MRR 2 project. This initiative aimed at reducing the number of LTB-situations. The recent restructuring programmes resulted in Kitron’s CIS database replacing the 1252 database as the main component database in the relationship. While the focal firms earlier had struggled to find a way to integrate these two databases, the new distribution of responsibilities involving Kitron Sourcing made it possible for the firms to simplify communication and decision making relative to LTB situations. The parties also experienced that information sharing was improved as the CIS database made the information sharing within the relationship more transparent. The users of the Pidtrace and Clockwork databases were more involved in monitoring and controlling LTB situations.

The relationship project concluded in August 2004 that the results of the implementation of the three initiatives was that more radical changes were needed in the way the actors managed and structured the industrialisation process. For the relationship project group, this meant ‘throwing away the old project plans’, and developing a new project plan that was based on the type and amount of resources that currently were available and that would be developed in the future.

5.3 Relationship Episode Three

5.3.1 Background

The third critical event occurred in the autumn of 2004. The relationship project group managed to convince KDC’s top management to include Kitron as an equal partner in a product development project called Stella 2. The idea was that the focal firms would have shared responsibility for design and sourcing decisions. The firms wanted radical changes and KDC were prepared to give Kitron what they now considered to be a real opportunity to demonstrate their design and sourcing abilities. The parties also hoped that organising and exploiting Kitron’s design and sourcing resources early in the

industrialisation process could reveal the potential benefits to be gained from closer interaction between the two firms.

The relationship project group believed that including Kitron from the beginning could provide the firms with valuable insight into the factors that supported collaborative efforts. The firms therefore hoped that the Stella 2 project could offer insight regarding what the appropriate interaction and co-operation should in order to improve project management and reduce overall costs. There was a willingness to 'test out' several of the ideas that had been discussed within the relationship project group over the years. The firms maintained their focus on reducing purchasing, logistics and production costs when the product reached the production phase.

5.3.2 Discussing and reviewing the results of the partnership (*Phase one: October 2004*)

The relationship project group had two meetings in October 2004 in order to review experiences from the way joint industrialisation projects had been managed in the past two years. Their primary concern was to evaluate to what extent the firms had managed to achieve the overall objective of the partnership (i.e. to confront the accepted ways of operating within their business relationship). The dialogues in October were organised in order to provide the focal firms with a summary as to what had been achieved so far. Moreover, there was a need to develop a collective understanding of what would be focused on in the future.

The relationship project group reviewed the first and second year of the partnership separately. In doing so, they did not divide between managerial and operational issues. It was acknowledged that the individual firms had gone through significant changes with regard to ownership of resources and in the ways resources were organised in-house, without this leading to radical changes in the way resources were organised in their joint industrialisation processes. The many restructuring programmes had, however, led to some changes with regard to how the firms' valued specific resources that were controlled in-house.

The firms shared the understanding that the first year of the relationship project had given them insight into the type of abilities and resources each had access to³⁵. The bankruptcy of Metallic dominated much of the discussions. The relationship project group was particularly satisfied with

³⁵ This was discussed in a relationship project group meeting held in October 2004 (Appendix 3/Business meeting (passive role) no. 7/15.10.04 and no.8/25.10.07)

the fact that they had managed to create new and open communication channels with other members of the focal organisations. This had made the information and communication flows much more systematic and coordinated both in-house and across firm boundaries. Furthermore, top management had been given an arena in which strategic objectives and firm-specific concerns could be shared and discussed from a relationship perspective.

In their reflections on the second year of the partnership, the parties focused on how they had interacted in relation to the MRR 2 project. There was particular emphasis on their experiences with the different key initiatives implemented in that project. The relationship project group believed that it needed to be more 'hands-on' or actively participate in the implementation process. In this way, they could open up for the possibility to make modifications in plans when unforeseen developments occurred³⁶. The second year of the partnership had also shown how open bilateral dialogues with top managements was 'the only' way to avoid top managements undertaking radical changes, which had significant effects on the resources the relationship project group were trying to re-organise.

The focal firms also reflected on the more general developments and trends within the industry. The relationship project group noted that their counterparts were frequently forming alliances and partnerships in an attempts to win large-scale development projects formed around a low-cost industrialisation process. The focal firms had also registered how customers were demanding reduced prices for their products and services. By studying the external and internal conditions simultaneously, the firms were able to conclude that any attempt to establish a project plan that allowed them to economise on 'all' the resources that were available to them in-house would most likely fail. The relationship project group therefore concluded that they had to address questions, such as what type of resources each firm needed to control in-house and 'what industrialisation stages and responsibilities that had to be handled within the focal relationship' when trying to come up with a new project plan for the focal relationship.

The October 2004 dialogues resulted in a renewed interest and a mutual determination to radically change the way the industrialisation process was organised between the firms. The relationship project group felt the pressure to demonstrate significant results in the short-run in order to satisfy the expectations of shareholders and top management. The group agreed that the timing was 'perfect' for Kitron to demonstrate its design and sourcing

³⁶ This was discussed in a relationship project group meeting held in October 2004 (Appendix 3/Business meeting (passive role) no. 7/15.10.04 and no.8/25.10.07)

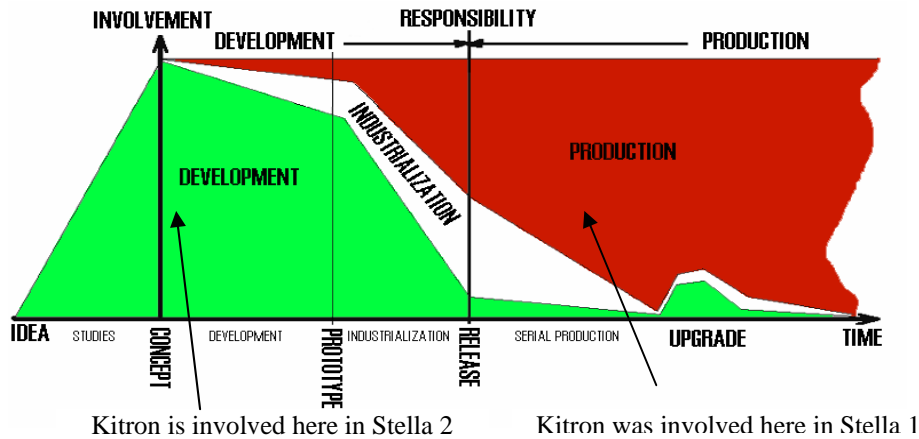
abilities, and to give them a real opportunity to demonstrate how their involvement in these types of decisions could contribute to reduced industrialisation costs³⁷. The relationship project then decided to use the Stella 2 project as a pilot project to test out these radical changes.

The relationship project meetings in October also resulted in the collective decision to invest in management resources. The group felt the partnership arrangement needed to invest in persons that had the mandate and responsibility to supervise, control and implement radical changes in the Stella 2 project. The group also felt that getting financially committed to the partnership was the only way the top management would make Stella 2 a priority. The parties then put together a control group consisting of specific persons holding important positions in the MRR and Stella projects. The relationship project group also made sure that two members of the group were members of the newly formed control group. This was because these persons had access to experience data gained from the first two years of the relationship project. The decision to invest in a control group meant that these persons were taken away from their daily responsibilities. The idea was that the control group would replace the relationship project, and serve as the new arena whereby partnership matters were to be discussed.

The development phase in Stella 2 began in January 2005. The phase was estimated to last 12 months. The project represented a minor redesign of the original Stella transmitter that was developed between 2000 and 2003, which had now reached the volume production stage. A redesign meant upgrading the transmitter's capabilities and reducing material costs. Kitron had been included the original Stella project for the first six months of 2002. At that time, they built and tested prototypes together with KDC. In the Stella 2 project, however, the plan was to include Kitron at the concept stage, and from then in the industrialisation stages (see Figure 5.9).

³⁷ This was concluded in a relationship project group meeting held in October 2004 (Appendix 3/Business meeting (passive role) no.8/25.10.07)

Figure 5.9 – The interaction between the focal firms throughout the life span of products such as Stella 1 and 2



5.3.3 Collectively confronting the organisation of the industrialisation process (*Phase two: November 2004*)

The control group met in November 2004 to discuss how Kitron could be included in the development phase. The group agreed that the Stella 2 project was an appropriate product for Kitron to be involved in. They considered it a major advantage that Kitron had participated in the prototype building and testing in the original Stella project (or Stella 1). The control group had both a managerial and operational role. The operational role in particular meant that they would influence the project plans and distribution of responsibilities within Stella 2. The fact that the control group interacted with both top management and the operational level was also considered to be beneficial for the operational level of the Stella 2 project.

The focal firms made cost reductions their number one priority. This was believed to be the only way to react to threats from competitors. Key customers were suggesting that they were contemplating replacing Stella with a cheaper product, and that high price was a major disadvantage. The previous relationship project group representative from the Kongsberg Group stated that the Kongsberg Group's top management had held meetings whereby they discussed how the corporation could re-organise the purchasing function across its three divisions as a way to reduce purchasing costs. Two main decision options were being considered; to outsource the purchasing function to a third party, and to centralise the purchasing function. The Kongsberg Group member also explained that they hoped the experiences could provide them with insights to help them reach a conclusion.

The control group spent the first few weeks in November 2004 discussing the industry conditions and how these elements affected their joint industrialisation process. The group paid particular attention to reflecting on how important actors in the industry were positioning themselves, how market conditions were changing, and what the financial and technological conditions were.

The control group then went on to collect the internal resource analysis both firms had conducted in the first year of the relationship project. These were then connected to the Stella 1 project. Kitron assembled a team of experts from Kitron Hisøy, Kitron Sourcing and Kitron Development Arendal that all had participated in Stella 1. Kitron wanted to ensure that they received the appropriate payment for the responsibilities they handled in the Stella 2 project.

The representatives from Kitron place great emphasis on the industrialisation stages they believed had the greatest impact on the total production costs when Stella 2 reached the volume production stage. The control group then studied the distinctive features related to the Stella 1 project, such as the number of customer-specific components, LTB-situations, cost structures and the nature of the supplier base. The group concluded that the way Stella 1 had been organised had led to considerable delays during the development phase. These dialogues resulted in the decision to develop a new division of responsibilities for Stella 2. The control group acknowledged that many of the problems the firms experienced in Stella 1 were related to the way KDC's top management prioritised Stella in-house. For example, top management would often prioritise projects owned by their customers in situations where there was a lack of resources. This meant that Stella 1 was put on hold as resources dedicated to the project were pooled out to other projects to ensure that these projects met their deadlines.

The November meetings resulted in two important outcomes. First, the control group managed to develop a new business contract for the Stella 2 project. This supported increased involvement from Kitron during the development phase. The new business contract was somewhat open-ended and implicit in the sense that the control group wanted the project to reveal what the right amount of resources to be utilised from each business unit was as the project progressed. The control group planned to gather and store information regarding the total amount of time and resources spent at each industrialisation stage by departments. The final payment for Kitron's contributions would therefore to a large extent be determined after the period of twelve months.

The second outcome was were new ideas on how to organise and link the various development stages, departments and business functions involved in the Stella 2 project. The discussions leading to the new project plan revealed how the two firms approached these issues differently. For example, KDC wanted Kitron to have the total production responsibility throughout the entire industrialisation process, not only when the product reached the production phase. As soon as the term “total production responsibility” came up in these meetings, the parties began discussing what this meant. The firms quickly realised that while the term had been frequently used between them in numerous projects, the parties lacked a common understanding of what it meant in ‘every day life’. This resulted in efforts to redefine various terms specified in the business contract.

5.3.4 Developing objectives and key initiatives for the Stella 2 project *(Phase three: December 2004)*

The control group continued their discussions into December 2004. They described how and when each firm would be involved in the industrialisation process. These dialogues resulted in the agreement to design a new ‘master project plan’. The plan would build on new objectives and goals, a new division of responsibilities for the entire industrialisation process, and a new information and reporting principle describing the formal contact patterns at the different industrialisation stages.

The firms had learned from the MRR 2 project how having vague and unclear objectives made it difficult to pinpoint how new plans differed from old ones. It also made it difficult for the relationship project and the MRR 2 project leaders to monitor and measure how various changes had impacted the project. The control group had received direct orders from top management that their efforts had to be monitored in such a way that it was possible to detect the factors that had worked well. The control group also agreed that they would come together after the design and development phase in Stella 2 project had been complete to evaluate whether and how they had achieved their objectives. The control group would register experience data along the way so that it would be easier to transfer the Stella ‘master plan’ to other projects.

The outcomes of the November meetings were direct negotiations in December concerning how to distribute responsibilities in Stella 2. The control group kept these negotiations within the group, but relied on the experience and insight of the two previous relationship project group members. The parties wanted to radically change the way industrialisation stages were linked and responsibilities distributed. The parties used the

original Stella project plans as a basis for their dialogues where the fourteen industrialisation stages were redefined and responsibilities redistributed (see Figure 4.3 and Tables 4.2 and 4.3 for information on the original Stella project plan).

Table 5.2 – The new distribution of responsibilities applied in the Stella 2 project

		<i>Pre-analysis</i>	<i>Design</i>	<i>Volume Production</i>	<i>After sales maintenance</i>
KITRON					
Kitron Sourcing	Now	S (2)	S (3, 4)	S (9)	S (13, 14)
	Before				
Kitron Development Arendal	Now		S (3, 4, 5)	S (10, 11)	
	Before			S (10, 11)	
Kitron Hisøy	Now		S (5)	S (9, 11, 12)	S (13, 14)
	Before			S (11)	
KDC					
Radio department	Now	S (1, 2)	S (3, 4, 5, 6, 7, 8)		
	Before				
Technology department	Now		S (8)		
	Before	S (1, 2)	S (3, 4, 5, 6, 7, 8)		
Logistics department	Now	S (2)		S (11, 12)	
	Before			S (11, 12)	S (13, 14)
Operations department	Now				
	Before			S (11)	S (13, 14)

(Note: see Tables 4.2 and 4.3; S (1, 2, etc.) refers to the industrialisation stages)

The focal firms also wanted to implement a new project management principle. The control group concluded that the informal communication that hindered projects such as MRR had also to some extent had a negative impact on the Stella 1 project. The group therefore examined the outcomes of the single point-of-contact principle implemented in MRR 2, in order to identify some of the factors that had hindered the principle from being successfully implemented. The control group still believed in the principle, but made one significant modification. They decided to hire a new project leader from outside that would represent both firms in the project and where each firm would paid 50 % of his/her salary. This person would be responsible for pooling the right resources from the firms to the project, and in this way replaced the old set-up where each firm had one project leader in the project.

5.3.5 Evaluating the results of the development phase of the Stella 2 project (*Phase four: February 2006*)

The development phase in the Stella 2 project began in January 2005 and was completed in February 2006, two months behind schedule. The control group met regularly during these fourteen months to monitor and evaluate progress, whereas as the original relationship project group was still dissolved. The control group had close dialogues with the Stella 2 project leader regarding the current challenges and problems. The project leader relied on the control group's experience and advice as to how certain issues had to be prioritised. The operation role of the control group meant that they sometimes would be directly involved in the project. This was in terms of coaching the various departments and business functions as to how specific responsibilities and conditions in the business contract had to be interpreted.

The end of the Stella 2 project in February 2006 was marked with a meeting among the specific persons from the original relationship project group and the control group. The group met to discuss the results, and evaluated whether and how their objectives had been met. The group discussed these outcomes in relation to the seven objectives formulated for Stella 2. The parties concluded that they had obtained five out of the initial seven objectives. These were reduced material costs, reduced the number of tests, utilised experience data, improved quality control, implemented the single-point-of-contact principle and reduced informal communication within the project respectively (see Table 5.3). However, the parties had not managed to design new test equipment for Stella and they had not managed to reduce the time-to-market (two months delayed).

In terms of material costs, these had been reduced because the firms had managed to design alternative components that were 30-40% cheaper than those used in Stella 1 without altering the functionality in any major way. The firms had achieved the second objective in that the number of tests necessary had been reduced from eighteen to twelve in Stella 2 compared to Stella 1. The new project leader had concluded that they could maintain the same high quality level in the project without fewer tests. The firms also merged two tests into one as both performed almost the same function³⁸. Kitron Development Arendal was responsible for the design of the test and worked closely with the designers at KDC's radio department in this process.

Table 5.3 – The outcomes of the Stella 2 project

³⁸ Head of the Logistics department at KDC (Appendix 3/Interview no. 49/04.05.06)

<i>No</i>	<i>Objective</i>	<i>Results</i>
1	<i>Reduce material purchasing costs</i>	The firms had designed in alternative components that reduced the material costs by 25-30%.
2	<i>Reduce number of tests</i>	The number of tests was reduced from 18 to 12 compared to Stella 1.
3	<i>Design a new test equipment</i>	The firm had not designed new test equipment for the final testing, but instead used the one from Stella 1.
4	<i>Use experience and marginal data</i>	The parties had used the Pidtrace database to ensure that “bad” components were not designed in.
5	<i>Improve quality control</i>	The firms established procedures for exchanging quality-specific information between the radio department and the production department at Hisøy.
6	<i>Reduce time to market</i>	The firms wanted to conduct the redesign within 12 months, but ended up using 14 months which still was considered satisfactory.
7	<i>Reduce informal communication</i>	The parties felt that the informal contact was reduced as the parties now had to channel their formal communication through the new project leader.
8	<i>Implement a single point-of-contact principle</i>	The single point-of-contact principle had been implemented, and was considered a success.

The achievement of the third objective was related to the firms’ ability to use experience data produced at the factory-level during the production process of Stella 1. The use of experience data had been a major issue in previous projects, and the new project leader placed great emphasis on using this type of information when performing the redesigns. This meant that the NPI department at Kitron Hisøy and KDC’s Radio and Technology departments would interact closely and utilise information stored in the Pidtrace database.

The control group also managed to achieve the fourth objective. This was to implement a modified quality improvement procedure that was previously tested out in MRR 2. KDC’s radio department and Kitron Hisøy’s production department exchanged component and supplier performance information. This was used by the designers in the redesign to make the product more production-friendly. The new project leader functioned as an important mediator and connector between these two departments and ensured that solutions that were discussed and tested out during the prototype building.

The firms were also satisfied with the way the fifth objective had been approached. The feedback the project leader had received from central individuals involved in Stella 2 led her to conclude that the informal contact

patterns had been reduced. The parties pointed to a tighter control and monitoring of the type of responsibilities executed at the different industrialisation stages. They also put special emphasis on communication and explaining the ideas behind the single point-of-contact principle to the project members in a systematic fashion. The new project leader was also satisfied with the way the rest of the team members had committed to the principle. She could also rely on documented information illustrating how much time each department had spent on the different stages.

The Stella 2 project had not resulted in the design of new test equipment that the parties had hoped would merge four different tests into one. This objective had been important to the control group as KDC's top management believed the firm needed to reduce and replace several customised tests with those better suited to assess standardised modules and components. The project leader decided, however, after further investigations into the nature of Stella, that the development of such a test would have to wait because the costs outweighed the potential benefits of replacing the once already in place.

The focal firms did not achieve the seventh objective. This was because the parties had failed to keep the redesign operations within the twelve months as originally planned. However, despite the two month delays, top management viewed the project as a success and acknowledged that the twelve months deadline probably had been an ambitious one. The parties therefore concluded that delays were to be expected as both the new project leader and the project members had to learn new routines and adapt to new ways of interacting within the focal dyad. More importantly, the delays had not affected the planned schedule of shipments to customers.

The firms also registered that the way they had interacted within the Stella 2 project had impacted other relationships and projects connected to the firms. The control group was informed that top management had received several complaints from other project leaders that their products were not given the right focus and attention. The consequence was that important resources were pooled away from their projects to maintain the progress and meet the needs of Stella 2. This led the parties to conclude that there was a lack of specific types of resources that were needed at particular industrialisation stages. This made it difficult for the firms to maintain the same activity level at the same industrialisation stage in multiple projects simultaneously.

The firms only briefly discussed how they were to invest in resources in the future to deal with these constraints. They also contemplated whether specific services within the industrialisation stages were to be offered to a limited number of customers and products, thereby adapting the total activity

level to the total amount of resources available to the firms. The control group further discussed whether third party providers could be included in the industrialisation process. The discussions surrounding these unanswered questions did not lead to any real decisions at the February meeting.

5.4 Conclusion

After the meeting in February 2006, the relationship project was dissolved. The fundamental conditions that it was founded on had changed significantly in the three and half years since it was initiated. The partnership was dissolved gradually without a formal closure for several reasons. First, the Kitron Group appointed a new CEO in 2004. He restructured the firm's resources dramatically, by altering much of the resource foundation on which the project plan in Stella 2 was based. Secondly, the two individuals from the focal firms who initiated the relationship project moved to another company. These two persons had been the administrators of the relationship project and core members of the partnership. Thirdly, the control group reported directly to the relationship project group. Now that there were no more meetings, much of the experiences registered and stored by the control group were now embedded in persons located at different places in the organisations. There were no attempts to systematically reuse what had been done in Stella 2 within other projects.

The partnership arrangement had resulted in many positive outcomes over the forty one months that it lasted. The firms had managed to develop formal mechanisms that were deliberately set up to govern multi-level bilateral communications within the relationship. Their communications had been both operational and strategic. The sharing of individual had made their individual decision making more aligned with what the parties were trying to achieve within the partnership. The commitment and focus on information sharing, discussing concerns, and confronting perceptions on a routine basis made it possible for the firms to adapt to unforeseen changes.

The success of the Stella 2 project could be seen as the outcome of all the interaction and co-operation that had occurred in the relationship. The formal mechanisms that were created within Stella 2 represented a systematic way for the firms to gather, store, distribute and use important relationship-specific information and knowledge. The real success of the Stella 2 project arguably was the way the focal firms managed to radically changed the way they interacted before, during and after the project was completed. The focus on getting important decision-makers involved in discussions not directly confined to their responsibilities made it possible for the firms to align decision making in a way that supported both their individual and collective concerns. The partnership arrangement in this way marked a significant change from the unilateral way the firms acted in the past.

Chapter Six

Case Study Analysis

6.0 Introduction

In this chapter I shall use the analytical dimensions presented in the literature review (Chapter Two, Section 2.4). With the focal dyadic business relationship serving as the unit of analysis, the three main analytical dimensions focused on are acting, interacting and outcomes. Building on the empirical material in Chapters Four and Five, this chapter attempts to analyse the development of the focal dyad and the partnership between the focal firms using the same chronological structure used to case the case study. The three main relationship episodes presented in chapter Five will also be split into individual sub-cases in the analysis. Here the distinctive phases used to structure each relationship episode will be applied to provide the analysis of each episode necessary internal structure. These relationship episodes will at the same time be viewed as part of one single case marked with seven distinctive inter-related relationship periods (see Table 6.1). In doing so, we acknowledge how the developments in one period connect to the developments in another, and thus shape the analytical reflections and outputs that are possible to draw when analysing the individual relationship episodes.

Table 6.1 – Analysis the interaction within the focal dyad chronologically

Case Study	Periods	Main issues focused on in the interaction
<i>Relationship Episode One</i>	Period One (Oct – Dec 02)	Dealing with the Metallic-bankruptcy
	Period Two (Jan – Mar 03)	Developing a new concept for supplier selection within the focal dyad
	Period Three (Apr – May 03)	Reacting to sudden changes in the firms' access to sourcing resources
<i>Relationship Episode Two</i>	Period Four (Jun – Oct 03)	Dealing with the end of the MRR contract and aligning individual problem solving
	Period Five (Nov 03 – Aug 04)	A close interaction process resulting in a collective decision to implement concrete initiatives in the MRR 2 project
<i>Relationship Episode Three</i>	Period Six (Sep 04 – Feb 06)	Collective decision making resulting in Kitron becoming an equal partner in the design and development project called Stella 2. This section also includes some final comments on the outcomes of the period six

The thesis proposed two main research questions at the outset of the research study (see Chapter One, Section 1.4.3) that will help frame the analysis of each specific relationship episode. These questions were; how do firms involved in dyadic business relationships deal with the tensions that arise when trying to determine what actions to undertake individually and collectively?, and how do firms' strategic actions support and/or constrain the way they economise on resources within a business relationship? These questions will be used to compare and put emphasis on specific issues revealed in the case. We now turn to the analysis of the three relationship episodes.

6.1 Relationship Episode One

6.1.1 Dimension One – Acting

The focal firms acted individually on two main occasions during 'Relationship Episode One', that is, once during phase two (i.e. October 2002) and once during phase five (i.e. May 2003). The first individual acting relates to the way the focal firms behaved when the Metallic-bankruptcy arose in phase two. As the case study describes, there were no formal contact and co-operation between the focal firms within the frame of the relationship project arrangement immediately after the Metallic bankruptcy was known (i.e. phase two). This critical event put the parties in a situation where a new customer-specific supplier had to be selected in order for the MRR project to maintain its progress. However, the parties failed to initiate a collective search and supplier selection process despite having proclaimed to want to do so in earlier dialogues and discussions prior to the situation (i.e. phase one). It is possible to argue that both focal firms acted individually in phase two and their collective reflections and dialogues in phase three (i.e. December 2002), that focused on why the parties had behaved the way they did revealed some of the factors that had led to their individual behaviour. It is possible to argue that Kitron behaved individually during phase two as they chose to not react to the situation and instead let their counterpart handle the situation individually. KDC on the other hand chose to deal with the situation by not inviting Kitron to the supplier selection process and instead rely on in-house resources to solve the matter. One way to interpret their behaviour in phase two is to view their individual actions as an expression of how each firm believed they could 'best' organise and economise on resources available to them at that particular point in time (i.e. resource image layer). The fact that Kitron decided to not react to the Metallic-situation could be interpreted as them viewing the 'costs' from organising resources available to them (i.e. their unique collection of

resources) in new ways to exceed the possible 'gains' thus, the best solution for them was to maintain the existing organisation of resources related to the supplier selection process. Put in other terms, Kitron viewed the existing distribution of responsibilities as better than the alternative which was to get involved in the supplier selection process. A similar reasoning could be applied to explain why KDC decided not to invite Kitron to participate in the supplier selection. This decision could be interpreted as them considering the existing division of responsibilities manifested in the relationship to be built on the 'right mix of resources' needed to select a new supplier, and that these resources were to be found in-house. Put differently, they too believed that the existing division of responsibilities was the optimal solution. In other words, the focal firms acted individually and reached the 'same' conclusion in their assessments of whether to maintain the existing division of responsibilities (i.e. existing organisation of resources), or whether to change it. In line with research question two, the firms' behaviour during phase two illustrates how heterogeneity in resource image layer can constrain firms from economising on resources in manners that are in line with the parties' original desires and goals. The firms' inability to discuss, or lack of insight into their heterogeneous views on how to make prudent use of resources in line with their individual and collective needs, arguably constrained them from changing the existing division of responsibilities between them.

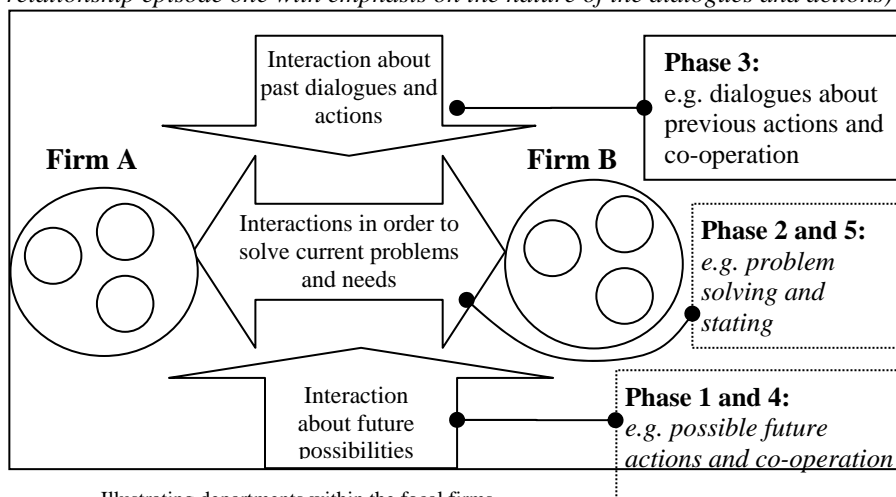
The second individual acting that occurred during 'Relationship Episode One' relates to the sudden restructuring programme that arose in phase five (i.e. April 2003). The situation arose when KDC's top management decided to outsource several technical and sourcing-related resources without the relationship project group being informed. This decision meant that the relationship project had spent substantial time and resources during phase four (i.e. January-March 2003) trying to devise a new division of responsibilities for the supplier selection process on a resource basis that top management was contemplating changing. The situation that arose could arguably be the result of two actors within the focal dyad (i.e. KDC's top management and the relationship project group) operating with significantly different resource image layers. In line with research question one, the heterogeneity in views at different levels of the focal dyad manifested on significantly different ideas and views on how to best economise on resources available to the firms, was caused by the heterogeneity in the concerns and needs that were prioritised by the individual actors. The parties' failure to align the official ideas and views on the types of concerns and needs that would form the basis for actions at different levels of the dyad, in addition to lack of communication as to how each actor planned to make prudent use of resources, was the main source of the problems that arose. The way the relationship project group reacted to the situation that arose in phase five demonstrated the group's ability to collectively react to

problems that threatened what the parties were trying to achieve within the partnership. In line with research question one, the relationship project group dealt with the tension that arose from the individual decision-making within the dyad by initiating and facilitating direct communications between the two firms' top management. Their efforts when the situation arose made it possible for top management to discuss, influence and negotiate a new sourcing solution that formed the basis for continuous co-operation and adaptation in the way the two firms did joint industrialisation projects.

6.1.2 Dimension Two – Interacting

The interaction within the focal dyad between October 2002 and May 2003 can in line with Table 6.1 be split into three main periods. Each period offers some interesting interpretations and analysis in line with research questions one and two, which implies that this section will address both the interaction and resource economising dimensions within these periods. Furthermore, Figure 6.1 illustrates the specific types of interactions that describe what was focused on in the dialogues and actions at a given point in time (i.e. in each relationship phase). In phase three the interactions centred on how the parties had acted and interacted in the past, that is, during phases one and two. In phases two and five the firms focused on solving specific current problems and/or engaging in dialogues to formulate individual and collective problem statements. Phases one and four represented collective attempts to define future decision options and goals, while at the same time identifying future possibilities that would form the basis for their current actions and interactions.

Figure 6.1 – The interaction process (specific types of interaction during relationship episode one with emphasis on the nature of the dialogues and actions)



* Modified from Jahre et al., 2006 (p.209)

PERIOD ONE

The decision to create a relationship project group in phase one could be interpreted as an attempt to introduce a new business unit that represented the business relationship and that would serve as a connector unit that gradually broke down the invisible intra-firm communication barriers that the firms had suffered from. However, it was not until after the relationship project group had experienced these co-ordination problems themselves in relation to the Metallic-situation that they were able to really sort out the relevant factors were that constraining them from economising on resources in new, more efficient manners. The heterogeneous perceptions and understandings as to who has the 'right or best resources', what responsibilities each firm should have in the relationship and what fundamental economic logics, objectives and goals the partnership would prioritise, gradually emerged as fundamental concerns that needed to be dealt with when the group got together in phase three (i.e. December). Experiencing the co-ordination problems first hand in relation to the Metallic-bankruptcy and then discussing the matter collectively within the frame of relationship project meetings in phase three, gave the group a common arena and a fresh example to engage in collective reflections as to what caused the problems.

A way to interpret the parties' failure to come together in phase two to select a new mechanical supplier could be found in the way the different departments and business functions within KDC were connected to the focal connector unit. For example, the fact that the radio department was not informed about the progress of the relationship project could mean two things. First, it could be interpreted as a communication malfunction between the logistics manager (i.e. B*1) part of the relationship project group and the logistics manager (i.e. B*2) a part of the decision group, who were both located within KDC's logistics department. One explanation could then be that B*1 had failed to inform B*2 about the progress and outcome of the partnership. It could also mean that the logistics department as a whole lacked a unified formal picture with regard to what they were trying to achieve with the counterpart. Arguably, if this was not the case one would expect B*2 to inform the radio department about the developments in the partnership and presumably also try to influence the decision group to 'look into' the discussions and reflections made in the partnership up till this point.

In line with research question one, the interaction during period one was constrained from being carried out as originally intended due to the communication malfunction between the decision group and the relationship project group. The case illustrates the tension that this caused for the parties' abilities to communicate and co-operate when experiencing collective

problems. The interaction during phase three offered an opportunity for the parties to learn how the different departments and business functions (individuals) within the focal firms had to relate to the connector unit, and rely on their managerial abilities to co-ordinate the efforts within the relationship.

ECONOMISING ON RESOURCES

The dialogues and co-operation during phase three brought conflicting perceptions and views to the surface. It revealed that the focal firms had quite different understandings regarding the nature of certain resource properties, and how combining these in new ways could bring added value to the relationship. The relationship project group were systematic during phase three in their attempt to gather, store and distribute information on common and conflicting views obtained through the relationship project meetings. It was this co-ordinated interaction that finally led the group to decide collectively to spend more time on clarifying how each firm viewed their resource accessibility, and the value and image layer connected to certain resource-properties.

In line with research question one, the collective reflections in phase three illustrate how the parties tried to deal with the tension that arose from unilateral decision making. These dialogues revealed that while the firms on one hand had reached a similar conclusion in phase 2 to maintain the 'old' division of responsibilities, the parties had quite differing motives and argumentation for behaving the way they did. This aspect would be discussed in terms of how the focal firms perceived the importance and value to be gained from economising on existing and/or new combinations of resources available within the relationship. As explained in the case study, Kitron argued post-Metallic that the current financial contracts within the relationship did not support an increased involvement in the supplier selection process. Despite having invested substantial time and resources during phase one trying to develop a common image layer within the relationship that illustrated how their resources could be utilised in the focal dyad to improve the sourcing function, Kitron ended up acting individually on a different image layer than the one they had communicated to the counterpart only a few months earlier. Their behaviour during phase two showed that Kitron had not reflected on how they planned to organise and economise on resources to support their individual and collective needs when interacting with the counterpart during phase one. In the collective reflections during phase three, Kitron acknowledged that they lacked dedicated managerial resources that had the ability and mandate to pool and organise 'relevant' sourcing resources to the sourcing functions confined to the relationship. One would expect that this acknowledgement would have

led to a decision to introduce such a resource internally or in the relationship post-Metallic, but Kitron remained 'passive' in the sense that they left it up to the relationship project group to come up with a new division of responsibilities that would solve their co-ordination problems.

PERIOD TWO

The interaction during period one resulted in the collective decision to engage in concrete dialogues regarding how to organise the supplier selection process in the future. A common determinant that would form the basis for the interaction during phase four (i.e. between January and March 2003) was a mutual understanding that collective reflections, confrontations, analysis and discussions would form the basis for a new division of responsibilities. The relationship project would throughout these months play a crucial managerial role giving the dialogues drive and direction. Their focus was on discussing fundamental questions such as what resources to organise and what the motives were for organising them in a certain way in a new supplier selection process.

The relationship project group's decision to invite individuals outside the original group in what has been termed 'the extended relationship project' represented an important change in the relationship. This decision could be seen as a reaction to the feedback the group got in phase three, when they had failed to inform the rest of the focal organisations about the partnership arrangement and its developments. These individuals could now help 'spread the word' to others and in so doing make the partnership a phenomenon that the rest of the organisation could be committed to and feel a part of. It also provided several departments and individuals internally with an opportunity to meet outside their regular forums to discuss issues of cross-functional nature. It is fair to argue that it was these inter-firm dialogues that in many ways broke down the intra-firm invisible walls that had constrained the relationship from achieving its objectives during phase one.

The decision to invite individuals that were not formal members of the original group also showed that the group valued the insight, knowledge and views held by different actors holding important positions in the industrialisation process. The extended group would contribute to a richer information basis built on insight into economic logics and perceptions regarding how functionally organised sourcing-resources could be economised on to support the total needs of their joint industrialisation projects. Their emphasis on how different actors viewed the pros and cons from organising and economising on resources in specific ways forced the individual actor to confront their often functionally oriented views regarding economic logics. It could therefore be seen as the parties' first real collective

attempt in the partnership to discuss how different economic logics could support the processional inter-firm needs of the industrialisation process.

The relationship project served an important co-ordinating role during period two. The group were systematic and conscious about their decision to distinguish between individual intra-firm meetings and inter-firm meetings formed as relationship project meetings. The individual intra-firm meetings forced actors within each firm to talk amongst themselves to come up with 'formal' image layer that represented what the individual firm wanted the partnership arrangement to base their interactions on. These meetings forced each firm to reflect on the current and future concerns that were important to them, in addition to forcing them to prioritise economic logics to be emphasised in the decision-making. The relationship project would then serve an important role as a 'confronter' that would challenge each firm's basic assumptions and perceptions that formed the basis for their ideas on the best way to organise and economise on resources in the supplier selection process.

In line with research question one, one could argue that the interaction during phase four illustrates how the relationship project demonstrated an ability to translate heterogeneous ideas and views on the right division of responsibilities into collective ones. The relationship project group demonstrated an ability to organise a mixture of intra- and inter-firm meetings that positioned the group as a business unit, capable of bridging the gap between departments and individuals that traditionally did not interact directly in the relationship. The group got insight into a wide range of operational and strategic concerns that occupied middle management on both sides of the dyad, while at the same time taking the role as a negotiator pushing for the creation of collective concerns to be focused on in the partnership. The output of these dialogues was the creation of new resource pictures that gradually would replace old obsolete pictures that were institutionalised in the relationship, and other heterogeneous memories that for different reasons had constrained the parties from seeing situations in a new light. For example, the decision group had argued in phase three that they believed Kitron lacked the abilities to select customer-specific suppliers. They pointed to two individuals within the Kitron organisation that used to possess such abilities, but who no longer were employed. They also pointed to Kitron's failure to want to participate in similar selection processes five years ago. Furthermore, the relationship project's ability to transform individual concerns into collective ones and the ability to develop detailed resource pictures, marked a major breakthrough in the partnership arrangement. The pictures in themselves could be seen as an important outcome of the interaction. These pictures contained more details and in-depth illustrations compared to the PowerPoint illustrations the parties were

used to (see phase one). The pictures described the type of resources each firm had access to, how these were suggested organised, and the potential pros and cons from exploiting these in the relationship.

ECONOMISING ON RESOURCES

The dialogues and discussions within the ‘extended relationship project’ in phase four led to the creation of four main resource image layers, each representing an alternative way the supplier selection process could be set up in the relationship. These alternatives formed the resource basis in which the parties collectively would decide upon how future supplier selection would become a collective arrangement in their joint projects. It is possible to argue that the four alternatives centred on two fundamental understandings of how their sourcing-related resources could be organised and economised on. All four alternatives discussed in phase four characterized Kitron’s sourcing department as the best suited for evaluating the mercantile conditions. However, the ones coming up with the alternatives highlighted different aspects when describing the potential services to be rendered from using Kitron’s sourcing department. Kitron’s quality (i.e. alternative one) and sourcing departments (i.e. alternative two) emphasised the sourcing department’s experience, competence in mercantile negotiations with suppliers, routines and systems for analysing component life cycles, and monitoring supplier performance. KDC’s radio (i.e. alternative three) and technology (i.e. alternative four) departments, on the other hand, emphasised the need to include production-related implications in their own internal decision-making taking place at the design stages in order for them to be more oriented towards impact on total costs. These perceptions could be characterized as the parties attempting to define distinctive economic logics on which to centre their interactions.

In line with research question two, the case study here illustrates how two departments located within different firms could have the same views regarding whether to change or preserve a responsibility (i.e. who is best suited to evaluate the technical capabilities). Here Kitron’s quality department was in agreement with KDC’s radio and technology departments in that there was little to be gained from changing the existing division of responsibilities. This understanding was not shared by Kitron’s sourcing department, who suggested that Kitron’s development departments located at Billingstad and in Oslo possessed the necessary technical competence and experience to improve the way technical evaluations were performed within specific component technologies such as PCBs. Kitron’s sourcing department ability to name specific individuals within these development firms (Oslo and Billingstad) could be interpreted as them being closer to Kitron’s development functions compared to Kitron Hisøy’s quality

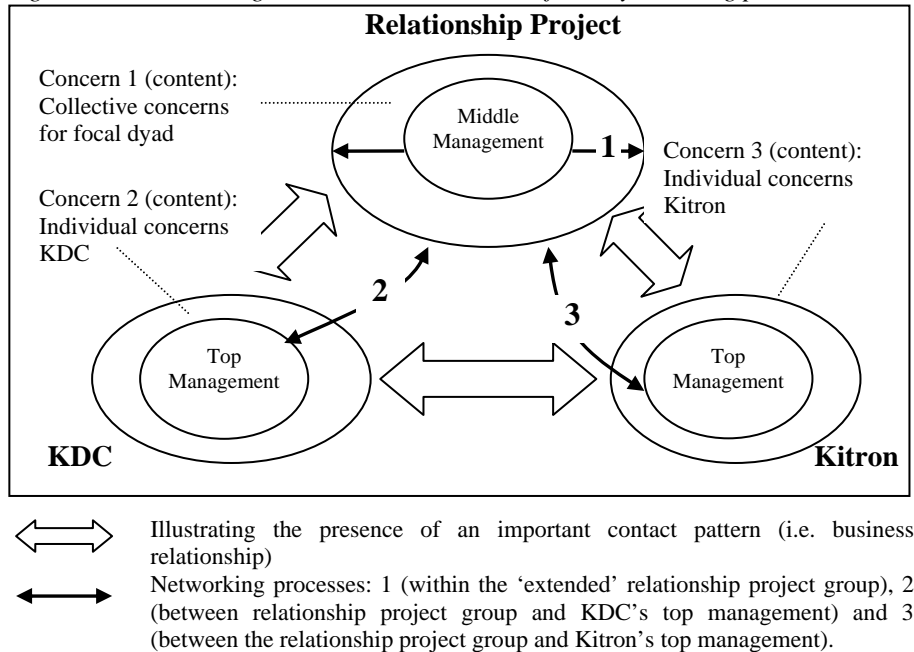
department located in the production facilities. Kitron Hisøy's quality department would in turn demonstrate their in-depth insight of the production process, and the possible ways information stored within Kitron's production department could improve the ways the quality conditions were evaluated in supplier selection. The outcome of this 'resource discussion' was the agreement to focus on alternative three for future supplier selection. This shows how developing common image layers within a relationship requires dealing with the heterogeneity in image layers internally.

PERIOD THREE

KDC's top management performed a major restructuring programme in phase five (i.e. April) that came as a total surprise to the relationship project group. This showed how the relationship project lacked appropriate bilateral communication channels between them and top management. In this particular case this communication malfunction resided in the interface between KDC's top management and KDC's radio department. While the relationship project had been aware of the need to inform top management about the progress within the partnership, top management had failed to inform them about their 'strategic discussions' and future plans. This unilateral communication resulted in the relationship project developing new plans concerning how to interact and economise on resources on a resource basis top management were contemplating changing. In other words, the relationship project had been created with the objective to come up with a new plan on how to organise resources more efficiently, in relation to the counterpart without having a stable reference point with regard to what resources to include in the decision-basis.

The relationship project assumed an important 'networking role' in the period after the news of the restructuring programme was known in phase five. This networking role could be split into three characteristic interaction processes as illustrated in figure 6.2. The first process relates to the way the relationship project group got their members to reflect on the possible impact the recent changes could have on the ongoing partnership arrangement in general, and the sourcing function within the focal dyad in particular. The networking within the group made it possible for them to develop common image layer that reflected the problems that were to be prioritised in the current interactions. It arguably gave the group a chance to re-state and validate the concerns they had focused on up till this point and a chance to re-direct their future efforts (i.e. see figure 6.2 – concern 1). In other words, developing internal consistency within served as the basis for their collective efforts to influence top management to pursue favourable actions viewed from the relationship angle.

Figure 6.2 – Illustrating the interaction within the focal dyad during period three



The latter two networking processes concern the interaction between the relationship project group and the firms' top management. The middle managers in the relationship project gathered, stored and distributed relevant information to the firms' top management in an attempt to influence them both to pursue actions that supported what the group was trying to achieve in the partnership. Arguably the relationship project group assumed an important co-ordinating function in two networking processes that could be said to occur simultaneously. The second networking concerns the interaction between KDC's top management and the relationship project group, where the latter organised meetings between the two groups in an attempt to understand the concerns and motives behind their outsourcing plans. In doing so the relationship project group gained insight into the concerns that were important to top management and which had to be dealt with. It could be argued that the relationship project learned how top management viewed the reality of the situation differently from them (see figure 6.2 – concern 2). The relationship project also got insight into the non-negotiable decision-criteria that KDC's top management put forward when selecting a new sourcing partner.

The third networking process concerns the interaction between the relationship project group and Kitron's top management, where the relationship project group explained how Kitron's candidature to become the new sourcing partner in relation to KDC was dependent on them making

specific changing in the way they organised their sourcing resources in-house (Figure 6.2 – concern 3). The relationship project group became responsible for the communications and negotiations between the firms’ top management. Their involvement resulted in top management making individual decisions that were in line with the collective concerns identified within the relationship project group. The individual decision making that top management performed supported the relationship objectives and goals on which the partnership formed on. The networking during phase five is in total a manifestation to the impact networking could have on firms’ ability to solve heterogeneous problems.

ECONOMISING ON RESOURCES

KDC’s decision to enforce a restructuring programme could be interpreted as the relationship project and top management making decisions on significantly different image layers, and presumably also different understandings regarding what the important concerns were to the firms. While inter-firm bilateral dialogues within the relationship project during ‘period two’ had led to formal and common image layers being created within the relationship project group, the unexpected episode in period three revealed how the relationship still suffered from conflicting perceptions and views between the middle management responsible for the day to day interactions with counterparts and top management. The relationship project group therefore ended up organising and “designing-in” resources that no longer would be available to the firms in-house. It became an example of the focal firms’ inability to align heterogeneous image layers internally. It is possible to claim that KDC’s top management based their decision on a resource basis that was different from the one the relationship project operated with.

In relation to research question two, the case illustrates how there may be several explanations as to why KDC’s top management decided to enforce such a restructuring programme. One interpretation could be that top management wanted to re-position the firm in relation to *multiple* counterparts directly and indirectly connected to their industrialisation projects. Their focus on cost reductions and change in customers’ buying behaviour forced them to redefine their business model, which ultimately was manifested on a relationship portfolio where the individual relationship was characterized with a unique division of responsibilities between them and their counterparts. The restructuring programme could therefore be seen as the firm re-positioning themselves in the industry through redefining the division of responsibilities in relation to multiple counterparts. Their business model was also dependent on scale and scope economies across multiple industrialisation projects. Top management’s decision to outsource

specific technical and sourcing resources could therefore be interpreted as an attempt to reduce scope of design functions performed internally, and instead rely on their counterparts to achieve a better scale economy within these functions that they were able to achieve themselves.

6.1.3 Dimension Three – Outcomes

A fair assumption would be that the insight top management got from the dialogues with the relationship project group added new information and insight influencing their strategic thinking. The connections to this arrangement were among several factors influencing top management in both firms to enforce individual actions during phase five that supported the original ideas of the partnership arrangement in general, and the supplier selection process developed in phase four in particular. This resulted in Kitron's decision to transform their central sourcing department into an independent firm called Kitron Sourcing, which in turn became a decisive factor convincing KDC to choose the Kitron Group as their new sourcing partner. The case study does not offer detailed information regarding the nature of the communications between the focal firms' top management between October 2002 and May 2003. It is, however, possible to argue that top management's individual decisions were connected, and could be seen as the outcome of the multi-levelled networking process the relationship project group initiated and co-ordinated. This networking process gave top management insight into the operational concerns confined to the relationship project group, and the more strategic concerns of the counterpart's top management. The way the relationship project gathered, stored, distributed and actively developed common pictures regarding the common and differing concerns occupying the different decision-makers marked a significant change in the relationship. The networking process that the relationship project initiated and the communications they co-ordinated made it possible for the focal firms' top management to broaden their individual decision making basis.

An important outcome of the interactions between October 2002 and May 2003 was that the parties used what was learned in one period to shape their deliberate and structured interactions in subsequent periods. This makes it possible to describe the outcomes of the interactions in period three as the results of a continuous learning process. Throughout the entire period, the interacting parties were systematic in the way they used the insight gained into the factors that supported and constrained their decision making to make necessary adjustments in their communications. The bilateral informing and communication was constrained by several communication barriers, which here refers to factors that hindered the relationship project group from organising and economising on resources in what they perceived to be

optimal. The parties learned about the communication malfunction that resides within the focal dyad and how it related to communications within departments, between departments, between departments and top management, and between the relationship project and other actors within the mother-organisations. The parties got insight into two types of intra-firm communication problems. The first one was revealed in period one and concerned the communication malfunction between departments directly involved in the industrialisation process. The second one was revealed in period three, and showed that there was a communication malfunction between middle management directly involved in the partnership dialogues and the firms' top management. An important outcome of the interaction during these months could therefore be said to be, that the firms learned more about the communication channels that had to be in place in order for them to be able to perform decisions that led to an organisation of resources that supported the relationship objectives manifested in the partnership.

Another important outcome was that the focal firms learned how conflicting concerns and views could hinder them from organising resources in ways that supported the economic logics confined to the industrialisation process/relationship. The relationship project group learned how conflicting views and concerns constrained their inability to establish an internal consensus regarding what responsibilities the individual firm wanted to assume in the relationship. However, the case also showed how conflicting views can function as a catalyst in dialogues where the parties are trying to establish a common understanding amongst multiple actors with heterogeneous concerns, and that do not interact directly on a day-to-day basis in the relationship. It is important to note that the relationship project dialogues in phase four also showed how different actors within the two focal firms could have similar views on the value of specific resource properties, and how these could be economised on in the relationship. The ability to combine both similar and different concerns and views in the bilateral dialogues could therefore be said to an important outcome from these interactions.

6.2 Relationship Episode Two

6.2.1 Dimension One – Acting

The period referred to as ‘Relationship Episode Two’ marks itself as a period where the focal firms would act collectively on two main occasions within the frame of the partnership arrangement. These collective actions would in turn highly influence the individual actions each firm would enforce outside the relationship project group. It is fair to say that the close dialogues emphasising problem-solving and stating within the frame of the relationship project would highly influence the firms’ individual and collective behaviour during these months, and it would impact on the nature of their business relationship in many ways. The first collective acting relates to the way the relationship project group reacted to the MRR 2 situation that arose in autumn 2003 in what here has been termed period four. This situation arose as the original MRR contract was reaching its end and the firms were faced with considerably reduced revenues. This contract had been the single most important product to each firm for many years and ‘losing’ it meant that each firm had to re-evaluate how they organised their industrialisation process in the future in order to cut costs.

The situation became even more dramatic for Kitron when they were informed that they more than likely were not going to get the next MRR contract related to a newer version of the radio called MRR 2. This news triggered intense collective efforts by the relationship project group to communicate and co-operate directly with the firms’ top management in phase two (September and October 2003) in order to try and pinpoint the distinctive nature of their concerns, whether and how the firms’ individual concerns were related, and also how the different decision-alternatives could impact on what the parties were trying to achieve within the partnership. The way the focal firms interacted during period four would ultimately influence and convince the firms’ top management to include the concerns of the counterpart in their individual decision-making.

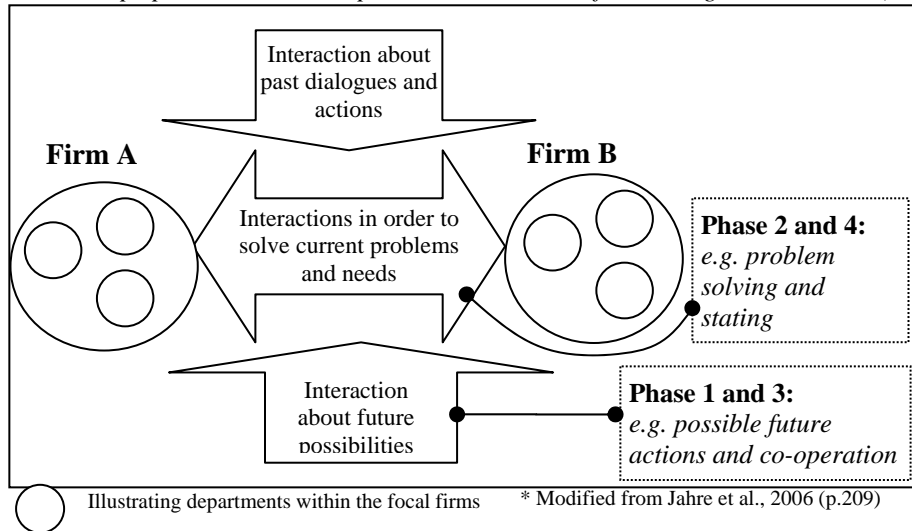
The second collective acting relates to period five (i.e. November 2003 and August 2004). The relationship project group had managed to convince KDC to let Kitron demonstrate its abilities to reduce costs and improve overall project management in the MRR 2 project. The relationship project came together in phase three (i.e. November and December 2003) to collectively come up with a new concept for the production phase in that project. The firms’ top management had distributed this responsibility to the relationship project group who now would operate as one entity as opposed to giving it to Kitron individually. The bilateral inter-firm dialogues within phase three

resulted in the collective decision within the relationship project group to apply three concrete initiatives to be implemented in the MRR 2. The interaction during this period would very much determine future co-operation and decision making within the frame of the partnership.

6.2.2 Dimension Two – Interacting

The interaction within the focal dyad between June 2003 and August 2004 contained much more intense and frequent dialogues between the focal firms than had been the case up till this point (see Table 6.1 and Figure 6.3). The relationship project group were systematic in their efforts to include other individuals from the organisations in the inter-firm dialogues. The nature of the dialogues during these months could be said to switch back and forth between focusing on the problems and focus areas already identified in October 2002 (i.e. expectations about future interactions) and ‘new’ concerns emerging as a result of more or less unexpected episodes in the relationship (i.e. current challenges in need of prioritised efforts in the current interactions). The interactions in phases one and four built on the original concerns identified earlier in the partnership, which meant that the focus was on developing new understandings regarding how to interact within the dyad in relation to future industrialisation projects. The interactions in phases two and four centred on concerns that had not been included in the original partnership plans. The relationship project group demonstrated its acting abilities as well as its ability to co-ordinate and facilitate the firms’ individual acting in such a way that decisions were based on a broader, much more relationship-oriented information basis. The group assumed a networking role that made it possible to include the concerns of the counterpart when performing individual decisions not directly connected to the partnership. The interaction in these two phases could also be said to focus on solving urgent problems and challenging situations in the short run.

Figure 6.3 – The interaction process (specific types of interaction during relationship episode two with emphasis on the nature of the dialogues and actions)



PERIOD FOUR

The focal firms had several meetings in the months prior to the MRR 2 situation in what here has been called phase one (i.e. between June and August 2003). In these dialogues the parties shared ‘strategic’ information regarding different concerns that occupied each firm’s top management including how they were considering positioning (i.e. acting) themselves in the future. These reflections were somewhat speculative in the sense that the relationship project group would address these issues without getting confirmation from their top management that this was their formal standing. Still, sharing ‘strategic’ information and individual concerns during this period meant that the relationship project group had begun thinking about different scenarios as to how each firm might position itself in order to meet its current and future challenges connected to the MRR contract. This also meant that the group had begun thinking about the alignment of top managements’ (i.e. individual concerns) and the relationship project group’s (i.e. collective concerns) long before the MRR 2 situation arose in phase two (i.e. September 2003). Their collective planning, reflections of how the different actors would want to act and their different decision-options made these interactions proactive and deliberate. Their interaction during these months could be characterized as the relationship project group trying to develop formal problem statements describing top managements’ concerns and views about the current and future developments. It could also be

viewed as an attempt to predict future reactions to what the group perceived to be the important challenges facing the firms.

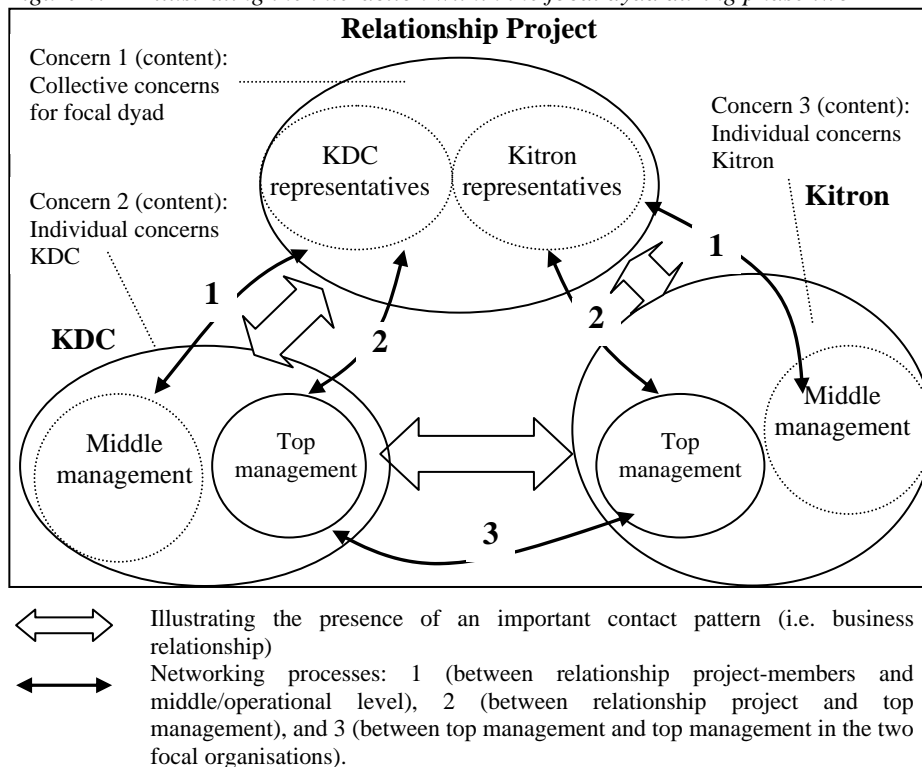
The members of the relationship project group were willing to share important, 'strategic' information that traditionally had been kept in-house. The fact that the parties were willing to do so in a proactive manner distinguished these dialogues from those previously held within the partnership arrangement. However, their decision to want to do so could be seen as connected to the parties' experiences from previous interaction episodes within the relationship where they had shared this type of information and insight, when trying to react collectively to situations not foreseen by the relationship project group. Their experiences from the unilateral decision-making when the Metallic-situation arose (October 2002), their collective reflections when developing a new supplier selection process (between January and March 2003) and their collective reactions to the unforeseen changes following from the structuring programme (May 2003), could all be considered important happenings shaping their current interaction. A fair assumption would then be that these previous episodes led to a mutual understanding that sharing information and engaging in collective reflections could contribute to making the parties more proactive and also improve their decision-making from a relationship perspective.

The consensus within the group to want to share strategic considerations also showed that the relationship project group operated as one business unit, and that the group wanted their collective actions to be based on common ideas and understandings of the reality facing the focal relationship. Their behaviour could in other words be interpreted as the firms wanting a broader relational information-basis to influence the type of individual and collective strategic actions the parties considered. It could also be seen as the relationship project 'finally' shared a mutual belief that decisions made in-house on a firm-specific information-basis (i.e. concerns) could constrain their ability to organise and economise on resources in the relationship/industrialisation process in an 'optimal manner'.

The interaction processes that the relationship project group initiated after the news about the MRR 2 contract was known in phase two, showed that the group was increasingly operating as a business unit with acting abilities. The group had a united front towards the rest of the focal organisations and they shared a common goal to solve the current challenges facing the firms. Their behaviour during these months could easily be described as a co-ordinated multi-levelled networking process as illustrated in Figure 6.4. It is possible to identify three individual, yet overlapping, networking processes manifested on distinctive bilateral communications (i.e. collective discussions, confrontations, reflections and negotiations) initiated and co-

ordinated by the relationship project group. Each process involved the interaction between a unique set of individuals from the focal organisations. What made these interactions different from those previously held within the partnership, was that the relationship project group organised individual meetings with only individuals from one focal firm presented in addition to the traditional group meetings where all the members participated (see Figure 6.4). In line with research question one, the networking initiated and managed through the relationship project group during these months is an example of how the parties dealt with the tensions that arose from individual and collective decision making.

Figure 6.4 – Illustrating the interaction within the focal dyad during phase two



The networking process termed number one refers to the interaction between the relationship project group and individuals holding middle management positions within the focal organisations. This process was initiated shortly after the news about the MRR contract was known. The networking was characterized with being centred on the short term ‘operational’ concerns related to the MRR 2 contract. The way the relationship project set the agenda in these dialogues and drew up boundaries that described what concern-properties (i.e. financial, technical, social, practical, etc.) to focus

on, makes it valid to characterise the direction of these communications as a down-top-down process. This mobilised the operational and management personnel with detailed insight into the nature of the industrialisation process and the possible decision options and solutions to their problems.

The networking process here termed number two concerns interactions between the relationship project and top management. This networking was formed on the basis that the relationship project representatives from each firm would engage in direct communication with their own top management in order to explain the formal views of the relationship project group, and to acquire insight into their strategic thinking and concerns. The way the relationship project group networked had three interesting characteristics. First, the representatives got the opportunity to present their own interpretations of what they perceived to be the important concerns facing the individual firm, what decision options had been discussed within the group, and possible solutions to their perceived predicaments. Top management on the other hand got a chance to share their views on the same matters by giving confirmation or rejecting the views put forward by the relationship project group. A fair assumption is, then, that these collective confrontations made it possible for the relationship project representatives to redefine the collective concerns on which the partnership arrangement was manifested on.

Secondly, the way the relationship project assumed a role as information processors and distributors, made it possible for top management to use this information and insight to include operational and relational concerns confined to the industrialisation process that traditionally were not included in the decision basis. It surely gave them a chance to reflect on and include the concerns of the counterpart in their own decision-making. It is therefore fair to argue that the networking contributed to a broader decision basis for top management.

Thirdly, the relationship project group put in place communication channels between the firms' top management that traditionally did not interact on matters such as these. Top management got an opportunity to share their views on operational matters, and in this way made it possible for them to decompose their own strategic considerations into concrete guidelines as to how the relationship project and other individuals holding middle management positions could act to support the firm's overall business strategy.

The networking process termed number three refers to the direct and indirect dialogues between the two firms' top management. The relationship project group assumed a mediating function where they would facilitate dialogues

and negotiations between the two firms' top management, where each party got a chance to influence the other through proposing various decision options, and their views on resources and benefits to be rendered from each alternative solution. KDC's top management would for instance try to influence the counterpart to choose a production-solution they believed would support their production needs in the future. They also put forward specific demands that they wanted the counterpart to comply with. One could say that it was this mediation that ultimately made it possible for Kitron's top management to focus their own internal dialogues and considerations on how an important customer believed their future needs best could be met. An important outcome of this networking process was that Kitron's top management decided to initiate similar dialogues with other important customers. The fact that top management in both focal firms were willing to put themselves in a situation where they allowed the counterpart to share their views on matters that traditionally had been handled in-house, marked an important change in the focal relationship. It could be interpreted as top management 'finally' realising that their ability to position themselves differently in the industry was dependent on their efforts to align product-development and production processes within these types of relationships. It also showed how mediation through networking was an important tool to ensure such alignment.

ECONOMISING ON RESOURCES

The firms' behaviour during period four offers interesting insights in relation to research question two. The extensive multi-levelled interaction taking place within the focal dyad during period four made it possible for the relationship project group to mobilise and utilise the extensive competence, knowledge and creativity that existed with individuals holding operational, middle and top management positions in the mother organisations. It could be argued that it was the networking within the relationship that activated these organisational resources (i.e. human resources), and that it was the relationship project group's ability to organise communications that was the decisive factor triggering this activation. While the networking had several similarities to the way the parties behaved between January and March 2003 when the relationship project developed a new concept for supplier selection, it could be argued that their ability to reproduce their networking behaviour and learn from their previous interaction that made this resource activation possible. This time around the networking could be said to be much more structured and co-ordinated than in the past, but this is not to say that the group knew in advance what outcomes would be rendered from the organisation of these resources.

An important event during phase three was that KDC informed Kitron that they were seriously considering giving the MRR 2 contract to a low-cost subcontractor in Eastern Europe. Their argument for doing so was that these other subcontractors could help them meet their repurchasing obligations as well as offer significantly lower production costs. This feedback showed that the relationship project group in phase one had interacted within the group on significantly different assumptions and understandings regarding what was the best way to organise and economise on resources available to the firms. It is possible to argue that the relationship project group and Kitron had failed to convince their counterpart how investing in extensive resources in the MRR-technology/relationship could lead to concrete cost advantages compared to other producers as well as other potential benefits to be rendered from choosing them over ‘traditional low cost producers’.

It is possible to argue that losing the MRR 2 contract viewed in isolation would not have dramatic consequences on the Kitron Group revenue-wise. Viewed from a broader ‘strategic’ perspective, however, it could be seen as an important signal and indication that Kitron were losing their attractiveness in the relationship despite having a partnership arrangement in place. As the partnership arrangement was deliberately set up to try and develop relational solutions that integrated the two organisations’ resources more systematic and efficiently together, losing the MRR 2 project could be interpreted as a contradictory action towards the original ideas and views that the focal firms were working towards becoming a ‘preferred strategic partner’ to each other. In this way, losing the contract threatened the very basis for the partnership. For Kitron it could mean that the relationship was heading in a direction that could hinder them from achieving central objectives manifested in their business model, such as the ability to reuse resources from one product/project to another and to be able to achieve scale economies in production through high volumes within the same product-technology. Such a standing makes it valid to question whether the original ideas of the partnership were still intact and that the actors now operated with alternative views³⁹.

PERIOD FIVE

The relationship project group came together in phase three (i.e. November-December 2003) determined to ensure collectively that Kitron got a real opportunity to demonstrate its ability to devise a new concept for the production phase in MRR 2. This marked an important change in a relationship where it was KDC who traditionally formulated these types of concepts. The way the relationship project group collectively reacted to this

³⁹ The case study does not offer information to validate or reject this view.

'decentralisation of power' showed that the group now considered the concept developments a collective challenge and responsibility confined to their joint industrialisation process, and not something either of them should do in isolation. Their behaviour could be interpreted as the relationship project group believing that collective efforts were needed to avoid unilateral decision-making. Their decision to come up with new initiatives for the production phase in MRR 2 meant that the parties could continue focusing their interactions on those common needs and limitations identified in the partnership. The interaction during phase three resulted in three initiatives to be implemented in the MRR 2 project between December 2003 and July 2004. The relationship project came together in phase four (i.e. August 2004) to collectively evaluate the results of these initiatives. The initiators built on distinctive ways to arrange organisational and technical resources connected to important production-related processes. Their decision to collectively assess the outcomes of these resource organisations showed that the parties valued common reflections and conclusions so as to determine the outcomes that were rendered from these 'new' resource combinations.

ECONOMISING ON RESOURCES

The three key initiatives implemented in the MRR 2 project are in relation to research question two a manifestation of how the focal firms, through collective actions, attempt to make prudent use of resources available to them. These initiatives could be viewed as distinctive interaction programmes deliberately set up to activate specific resource properties connected to the industrialisation process. The first one, called the single-point-of-contact principle, could be characterized as a formalised interaction programme that had the objective to 'disrupt and redefine old social bonds' that were institutionalised in the relationship, and that were believed to have hindered the parties from organising and economising on resources in efficient manners in the past. The principle focused on the formal contact patterns between departments responsible for organising specific subsets of resources mobilised at different stages in the industrialisation process. Introducing this principle in the relationship marked a significant change, as the parties traditionally had downplayed the importance such formal procedures could have on their ability to be flexible enough to adapt to unforeseen problems that may arise in the industrialisation process. The parties had traditionally viewed their informal contact patterns as a 'necessary evil' needed to ensure an appropriate resource-sharing and co-operation between departments and business functions exploring innovative and practical solutions to problems experienced in the distinctive industrialisation process. Furthermore, the principle could also be seen as the parties' first real attempt to try to depict in a formal way, how the different actors were to interact in order to be able to activate and economise on

resources depicted in the project plans. In other words, this principle aimed at formulating explicit rules of conduct regarding how different actors needed to interact in order to support the common economic logics already identified in partnership.

The second initiative was called the quality improvement method. At first glance this procedure could seem minor from a production point of view, where it is possible to question whether other procedures could have been deemed more relevant if the parties wanted to radically reduce the production costs. However, implementing this procedure could be seen as an indication that the focal firms were seriously also looking into the impact interaction, not necessarily directly related to the production process, could have on the production costs. Their decision to implement this particular procedure and not other procedures could be seen in relation to previous decisions within the relationship project. The parties had spent substantial time since its beginning reflecting on how currently resource-properties controlled within their different business units (i.e. on firm and a department level) were organised and economised on in the production phase. Their decision to implement the quality improvement procedure showed that the parties also valued the important role formal interaction programme with suppliers could have on their ability to align the product-development and production programmes confined to their project plan.

The third initiative termed a LTB-methodology came after similar reflections and investigations as described above. This particular procedure could be viewed as an attempt to implement formal interaction principles centring on how the parties could deal with the time challenges confined to their sourcing processes. The LTB-situations arose due to poor information-gathering, storing and distribution with particular challenges being related to how the parties are informed too late when the availability in specific-components is reduced considerably. This in turn impacts on the access and cost of material to the production process. It could therefore be argued that the procedure describes how the parties can gather, store and distribute information in a more proactive fashion, while at the same time offering guidelines as to how the actors are to interact to be able to economise on these 'informational resources'. The principle could in addition be seen as an attempt to solve information-sharing challenges through a formal interaction programme in a situation where appropriate technical systems are lacking in order to distribute this type of information in a systematic way.

6.2.3 Dimension Three – Outcomes

The relationship project group met in August 2004 to conduct collective assessments of the way the three initiatives had been implemented in the MRR 2 project. An important outcome of the interaction in relation to the MRR 2 project was that the parties learned how important the distinctive interaction programmes were when activating and rendering the outcomes they longed for. Despite having experienced difficulties in implementing the three key initiatives in accordance with the original plans, one could argue that the focal firms learned how actor level behaviour had to be aligned with plans on how to organise and economise on resources available within the relationship.

The feedback the relationship project got from the MRR 2 project-leaders in August 2004 led them to conclude that their inability to include important resource-properties in the decision-basis, and unforeseen changes in their collection of resources, constrained the parties from implementing the initiatives in their original form. To illustrate this, the second initiative could be highlighted. The outcome of key initiative two is also a great example of how what might seem as a minor change in the firms' access to resources (i.e. resource collection), can have significant effects on firms' abilities to copy and organise specific subsets of resources. The same goes for two resources that may 'look the same'. The focal firms wanted to render the same type of 'satisfactory' outcomes that they had produced in the past but failed to see how these 'unique' outcomes were a result of the distinctive interaction programme involving specific individuals and the social bonds between them. These interactions came to activate the distinctive resource-properties the parties had identified and wanted to economise. This came to show how top management and the relationship project had failed to capture the heterogeneous features that resided in these unique subsets of resource constellations. Still, it is equally fair to say that it was difficult for the parties to know in advance what made the quality procedure function well at Kitron Kongsberg, and the unique resources features that these procedures were manifested on.

The focal firms' inability to implement the initiatives in their original form could also be said to be related to the way standardisation is perceived within the focal dyad, and whether it is possible to standardise and copy processes where the same resource properties are designed and combined in uniquely different resource constellations (i.e. business processes). The results of these initiatives raise several interesting questions such as 'what processes can be standardised' (i.e. what resource combinations can be copied) and 'what the appropriate level of standardisation is in these types of processes'. These questions were not answered during the August dialogues but would

become subject to collective confronting and negotiations in later meetings within the partnership. The failure to implement the new quality improvement procedure in initiative two, for example, could therefore be seen as the outcome of contradictory views and hesitation to ‘put down in writing’ how procedures and resource combinations that had rendered desirable outcomes in the past could be copied and organised in other parts of the relationship.

6.3 Relationship Episode Three

6.3.1 Dimension One – Acting

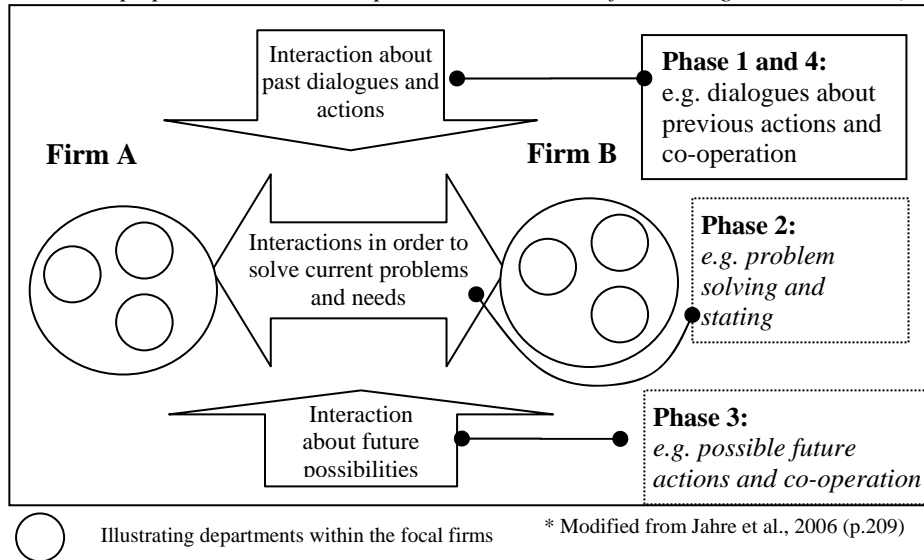
The focal firms acted collectively on numerous occasions during ‘Relationship Episode Three’. These efforts were triggered by the collective decision in phase one (i.e. October 2004) to radically change the division of responsibilities within the relationship, and to use the Stella 2 project as a pilot case to demonstrate the positive outcomes these changes could render. Arguably, the firms’ experiences from the two years since the partnership was established, now convinced the parties that Kitron needed a real opportunity to demonstrate its ability to radically improve the production function and reduce costs if they were given the chance to influence the design decisions believed to have most impact on the production function. In order to ensure this, the firms chose to invest in common managerial resources in the Stella 2 project that were put in place to monitor and control that the Stella 2 project was radically changed in line with their wishes. This decision formed the basis for other purposeful efforts within the relationship in the months that followed, and close co-operation, frequent dialogues, and collective decision making quickly became the norm within the relationship.

The parties demonstrated throughout ‘Relationship Episode Three’ that the firms’ ability to *interact* strategically in relation to and within the Stella 2 project demanded that their actions were co-ordinated and monitored collectively within the frame of the relationship. These interactions were formed on collective efforts to develop and manage a common image layer illustrating how resources were to be organised, and the potential outcomes to be rendered from specific resource combinations. This image layer in turn formed the basis for the division of responsibilities that the parties ended up implementing in the relationship. Furthermore, their common concerns and their ability to translate these into ideas and plans so as to interact to deal with these concerns should be seen as the outcomes of the parties’ previous efforts. The relationship episode as a whole, reveals some interesting insights into the factors that support and/or constrain firms from interacting in ways that support what the parties perceive to be a satisfactory use of resources within the relationship.

6.3.2 Dimension Two – Interacting

The interaction within the focal dyad between October 2004 and February 2006 can be split into two main periods characterized with four distinctive phases (see Table 6.1 and Figure 6.5). Phases one and four were manifested on bilateral dialogues about the past episodes and developments occurring within and outside the focal dyad. In phase one the parties reviewed the previous dialogues and actions within the relationship project up till this point. In phase four the parties evaluated the outcomes of the Stella 2 project and the actions and dialogues on which this project was formed on. The insight from phase one, plus the immediate and prioritised concerns emphasised in the current dialogues, formed the basis for the parties' individual and collective decision-making in phase two. Their collective discussions and reflections within the relationship in phase two meant reviewing the current industry conditions, trends and other conditions facing the firms. In phase three, the focal firms then discussed the possible future developments in an attempt to include expected future problems and needs in the problem statements defined in phase two. The process in which the focal firms interacted in relation to Stella 2 could very much be described as a circular one, where the group began the dialogues by focusing on previous developments (i.e. actions and outcomes) (i.e. phase), current problem-solving and statements deemed relevant in phase two, reflections and discussions about possible future problems and needs and how to relate to these, then implementation of the Stella 2 project before collectively assessing whether and how they had managed to achieve the objectives and goals formulated for that particular project.

Figure 6.5 – The interaction process (specific types of interaction during relationship episode three with emphasis on the nature of the dialogues and actions)



PERIOD SIX

The interaction during phase one (October 2004) built on a collective interest to review and summarise what the parties had achieved and learned in the two years since the partnership had been established. These dialogues showed how the relationship project gradually, throughout the years, had acquired a position within each firm as a quasi-organisation with influencing, negotiating, informing and decision-making abilities. The fact that the group had made conscious efforts to gather, store and distribute important relationship-specific information along the way meant that much of the perceived progress and ‘positive’ outcomes of the arrangement not only resided within this one group of individuals, but with the numerous individuals who had been included in the dialogues and co-operation along the way. Their decision to review the past could therefore be viewed as an attempt to ‘gather’ what these individuals collectively had learned and developed.

There are several ways to interpret the motives that formed the focal firms’ mutual interest to collectively review the past. First, it could be acknowledged as the parties wanting to avoid misunderstandings and suboptimal decision-making due to unclear communications and heterogeneous perceptions that they had experienced on other occasions within the partnership. Secondly, it could be interpreted as the relationship group wanting consensus within the group regarding what was learned, and

how to use this insight to form the basis for their collective dialogues and co-operation. Thirdly, it could be seen as an indication that the group was focused on identifying the factors that had supported their partnership objectives, and that reflecting on these collectively was deemed an appropriate way to ensure that they focused their efforts on the 'successful initiatives' in order to 'reproduce' certain outcomes in the future .

The way these meetings were organised could be characterized as a planned and structured learning process. The relationship project group decided up front that these dialogues would form the basis for the way future meetings and efforts within the partnership were to be set up. The parties defined early in the process what they wanted these meetings to produce and how the outcomes were to be used. This marked an important change in the partnership. It is possible to interpret their approach as the group wanting to create a common understanding of the 'history' before discussing the future. The way the parties focused on their individual subjective understandings regarding critical episodes experienced in the partnership not only contributed to the group as a whole becoming more conscious about what they had achieved, it also gave each individual a chance to defend and confront individual truths and heterogeneous memories thereby potentially avoiding a major problem area that had constrained their collective decision making and co-operation in the past. Their approach followed in the tradition of their post-Metallic interactions, but was slightly different this time around in that the parties decided upfront that what was learned would form the basis for bringing new ideas to the table on how to interact in the future.

In phase two (i.e. November 2004) the relationship project group made a radical decision that would significantly alter the way the interaction within the partnership would be organised in the future. The relationship project group decided to invest in a control group that would replace them and become responsible for the official dialogues and decisions within the partnership. They put together a group of individuals who held important managerial positions in projects such as MRR and Stella, but who at the same time possessed technical insight and competence related to central industrialisation functions. These individuals were now given the mandate to radically change the way the industrialisation process was organised, but the group would interact and base decisions on the original goals of the partnership. The relationship project group made a conscious choice to include two of their members in the control group. This decision probably contributed to the rapid progress and the planned manner in which the group went about the task of developing a new concept for the industrialisation process.

The way the control group interacted in phase two had several important characteristics. First, the control group wanted to confront both the set of activities performed in the industrialisation process, and the division of responsibilities at the same time. This made it possible for them to reflect on how resources available to the firms could be organised and economised on at the specific industrialisation stages the firms individually or collectively were involved in. Their focus on interaction between departments as a way to plan and control project governance could be seen as an attempt to activate organisational and technical resources through departmental interaction programmes. Furthermore, as each industrialisation stage was studied in detail individually and in combination the group got a chance to reflect and decide upon how specific industrialisation stages (i.e. activities) and business processes (i.e. chain of activities) would be defined and organised in the future. Having the original Stella project as a point of departure for their collective confronting gave the parties a stable reference point providing them with a chance to pinpoint whether specific stages had to be outsourced to others, or performed in-house. It also enabled them to identify and discuss what the relevant individual and common economic logics were to the firms.

Secondly, the control group made a choice to reflect on and discuss individual views regarding the current and expected future industry conditions, and reflect on how these impacted on the nature of their relationship. Both elements became the basis for their attempts to (re)define what the relevant economic logics were in the individual firm. These economic logics were devised through a process where both internal and external conditions were considered. Furthermore, the ability to share and confront individual understandings and views in turn formed the basis for their reflections on what the common economic logics to be prioritised in the relationship would be. Their orientation towards understanding how important individuals not directly involved in the day-to-day interactions of the partnership viewed the same matters, showed that the group had learned from previous interactions within the partnership. It could be interpreted as the control group believing that they needed to align individual concerns in the relationship in order to ensure that different actors behaved in a way that supported the common economic logics.

ECONOMISING ON RESOURCES

The interaction within the focal relationship in period six represented a major breakthrough in the way the parties approached economising on resources within the relationship. The parties had previously primarily focused on how to organise resources differently without confronting the way the chain of activities was performed, or the way the actors were to

interact 'on a daily basis' in order to use resources as depicted in their plans. The interaction during period six resulted in new ideas on how actors, activities and resources were to be organised differently in the relationships and in projects such as the Stella 2 project. Still, this three-folded orientation centred on the overall objective; to organise and economise on resources in a more 'optimal' manner.

The resource discussions in phase one provided the parties with the opportunity to collectively assess whether and how the resource basis had changed in nature over the recent years. At the same time it gave them a chance to reflect on their achievements from their deliberate and planned individual and collective actions. In other words, the bilateral dialogues contributed to a common picture being created regarding the status quo. The relationship project meetings in particular became a way for the parties to collectively reflect and agree on whether and how specific factors and conditions had changed, and how these impacted on the type of resources available to the firms. It gave them a chance to restate the objectives of the partnership in order to ensure that these were still valid, and to be certain that the focal firms were on the same page. Furthermore, the parties focused on the changes that had been made with regard to investments in new resources and their collective initiatives performed within the partnership, all of which potentially changed their resource basis. A fair assumption is that these reflections gave the parties a chance to update their perceptions and common objectives regarding what the important concerns were, and the appropriate ways resources would have to be organised to support their current and future needs.

The focal firms' ability to create common resource pictures within the relationship can be identified as a central factor contributing to their collective decisions in phases two and three. Their orientation towards the important episodes experienced in the partnership enabled the parties to delimit the type of resource properties and combinations that were focused on in the discussions. The relationship project group's ability to focus on specific subsets of resources when engaging in a collective learning process, contributed to focused dialogues and reflections regarding the type of outcomes specific resource combinations could render. These outcomes became an important component when the parties identified and described the nature of specific economic logics to be prioritised in the relationship. It is therefore fair to say that reviewing old resource combination, and the outcomes these rendered, provided the parties with insight into the nature of specific subsets of resources, new ideas on how resources could be combined in the future and concrete initiatives on how to activate the different resource types in relation to the industrialisation process.

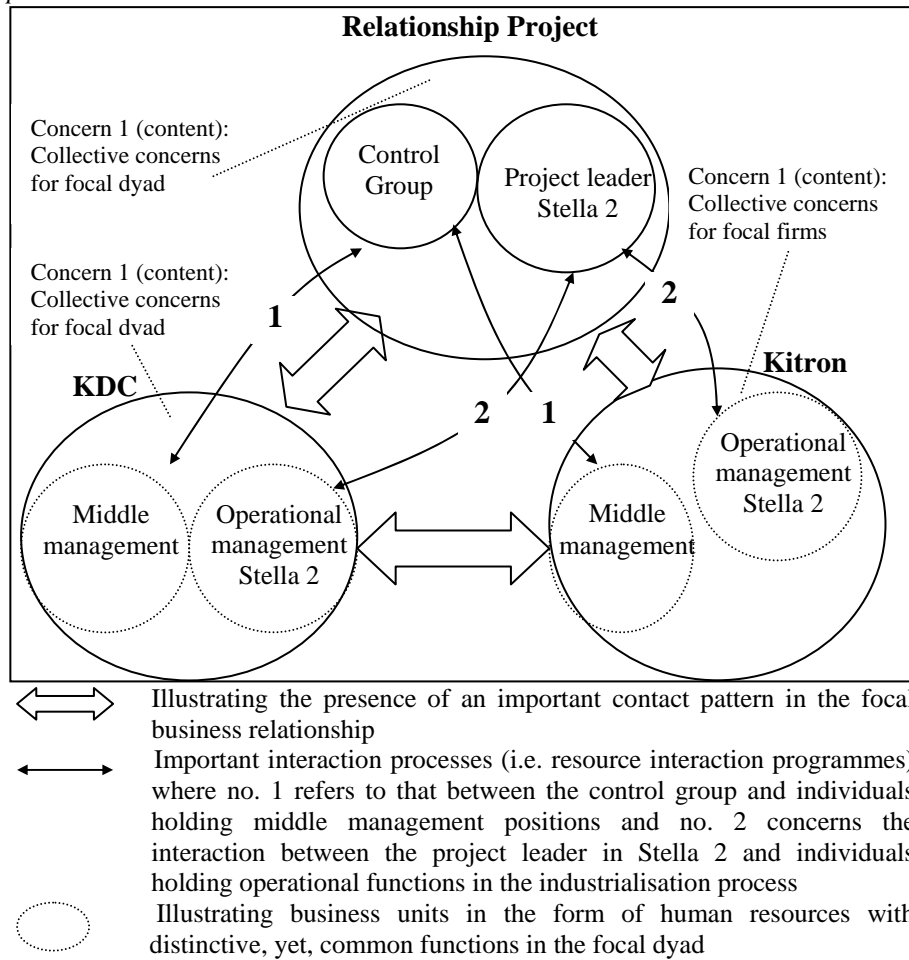
The focal firms and the relationship project group introduced two important organisational resources that would impact on the way resources would be activated in the relationship; the control group and a new project leader in the Stella 2 project. These resources could be characterized as business units confined to the partnership arrangement and the focal relationship, and were deliberately set up to control and connect the way other organisational resources were adapted within the Stella 2 project. The control group and the new project leader represented organisational resources in the form of business units with the ability, mandate and responsibility to ensure that other organisational and technical resources were economised on in accordance with the new project plan and division of responsibilities. Introducing these resources could therefore be seen as a deliberate attempt to put in place governance mechanisms in the form of organisational resources with the acting and activation abilities, and that would co-ordinate the resource interaction within the focal dyad.

The control group made two important decisions that would contribute to a common resource picture being created within the focal relationship. The first decision refers to the way they decided to study the original Stella 1 project in detail and use it as the basis for their discussions of how to organise the Stella 2 project. The old industrialisation process became subject to collective confronting. The fact that the industrialisation stages were discussed individually, and as a chain of activities, also meant that the issues such as economic logics to be prioritised and the division of responsibilities within the relationship could be connected to stable, well known reference points. The control group ended up focusing on how the responsibility for these stages was distributed among the firms and departments involved in the industrialisation process.

This could be interpreted as an important reason why the new project plans for the Stella 2 project focused on the adaptation of organisational resources, and not so much on how technical resources were to be organised and used in the process. The parties had previously experienced how important appropriate communicational channels between firms and departments were to their ability to enforce individual and collective decisions that support the common objectives defined for the focal relationship. Their decision to introduce a new communication and information channel in the Stella 2 project in the form of a single-point-of-contact principle could be interpreted as an attempt to co-ordinate resource activation confined to different industrialisation stages. This initiative could be seen as an interaction programme aiming at coordinating the decision making and planning across industrialisation stages, but should not be seen as a programme depicting in a detailed way how each firm and department had to interact on a daily basis relative to their operational industrialisation responsibilities.

Their decision to invest in a control group could be seen as an attempt to introduce a business unit working in the borderline between the relationship project group responsible for the strategic thinking, and the project leader responsible for the operational tasks confined to the industrialisation process. The control group and project leader were positioned closer to the operational core of the relationship, where the control group would interact closely with individuals holding middle management positions (i.e. on a departmental level), whereas the project leader was responsible for the day-to-day operations and management of the operational personnel directly involved in the industrialisation process. The firms' decision to invest in such resources could be interpreted as the relationship project group now acknowledging that it was not enough for them to make plans and evaluate the end results afterwards if the parties wanted radical changes to be long-lasting and effective. It is therefore possible to argue that the focal firms' approach to strategising changed into one where the parties now saw the need to impose managerial resources capable of making necessary modifications in plans as concerns, conditions and new information received and experienced. Their decision to not define in detail the amount of resources to be economised on in the Stella 2 project plan beforehand supports the notions that the parties assumed an adaptive and explorative approach to strategising where the organisation of resources would be determined as the project progressed over time. This too represented a new attitude to basic project governance in the relationship.

Figure 6.6 – Illustrating the resource interaction within the focal dyad during period one



The control group and the Stella 2 project leader would manage the formal interaction confined to the focal relationship and the Stella 2 project. One could argue that they each were governing two distinctive interaction processes as depicted in Figure 6.5. The way these two business units governed the communicational channels with their counterparts could be said to follow in the tradition of the relationship project. The two business units assumed an important role as resource activators and would rely heavily on a series of mechanisms deliberately set up to govern the interaction between especially the organisational resources. The control group that was responsible for the interaction with middle management, could be said to take part in discussions related to solving questions such as who should do what, when and how in the relationship. They measured the

firms' use of resources in the Stella 2 project with the intention to use this insight to determine afterwards how resources had been economised on in the relationship.

The Stella 2 project leader also relied on specific resource activation mechanisms that could be said to centre on executing an interaction programme that aligned the different departments and individuals participating in the operational responsibilities of the project. The way these mechanisms were defined by the control group before the industrialisation process was begun makes it possible to call them planned and deliberate. The first one refers to the new project structure manifested on a new Master Project Plan. The need to have such a plan in place, could be interpreted as an indication that the focal firms had learned from their past efforts where other actors had failed to see how the new ideas on how to organise the industrialisation process differed from the old ones. Their attempts to put the new ideas in explicit formulations could then be seen as a reaction to these past problems. The second mechanism concerns the single point of contact principle. A minor adjustment was made to the principle that was tested out in the MRR 2 project, but this time around the co-ordination between the focal firms was altered through having one main project leader responsible for the inter-firm alignment. The third activation mechanism then refers to the specific objectives formulated for the project. In addition to serving an important function as a tool needed to map and later evaluate the results of the firms' efforts, they also could be seen as guiding stars put in place to guide and help the Stella 2 participants to see the type of behaviour that needed to be prioritised in order to support the common overall goals of the project.

6.3.3 Dimension Three – Outcomes

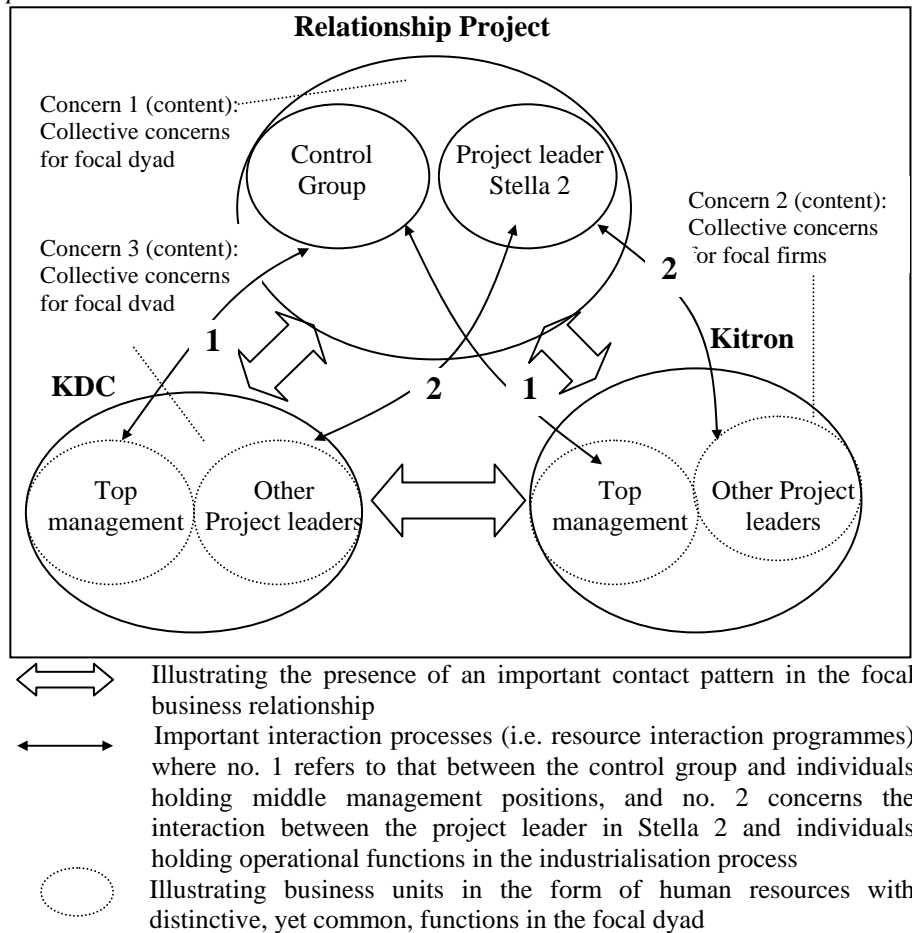
The outcomes of the economising efforts performed within the focal relationship during the period here termed 'Relationship Episode Three' can be split into two equally important parts; economising within the Stella 2 project and economising outside the Stella 2 project but within the focal dyad. The first part relates to the firms' deliberate actions and interactions in relation to the Stella 2 project, and the resources and benefits rendered in that project. As the case study reveals, the focal firms managed to achieve most of the objectives and goals defined for the Stella 2 project and the parties concluded that the project had been a major success. The parties had managed to develop formal resource activation mechanisms and common ideas on how to adapt organisational resources, and how to govern interaction between the different actors ultimately improving the manner in which resources were economised on within the focal relationship. The

success of the Stella 2 project demonstrated that the parties had managed to achieve the operational cost objectives that they long had hoped for and that were defined at the outset of the partnership.

The collective evaluations of the Stella 2 project after the design and development period was completed also revealed how the economising within Stella 2 had constrained the firms' economising on resources in other projects. One explanation to this problem could be found in the way resources were defined, resource combinations analysed and the Stella 2 project plan set up. The control group had relied heavily on detailed resource identifications and analysis that centred on the collective needs of the focal relationship without spending time on mapping similar needs in other projects. It is possible to argue that the relationship project's main focus had been to ensure an alignment of individual concerns in relation to the Stella 2 project without being occupied with alignment across other projects connected to the firms⁴⁰. This could mean that the resources available to the firms were valued and their importance defined on a narrow concern basis where only the concerns of the focal dyad with respect to Stella 2 were considered and prioritised. Thus, the Stella 2 project was built on specific issues that did not include considerations of the effects this project and related decisions could have on actors not directly involved in the ongoing partnership. In other words, the parties had a dyadic perspective on achieving the 'optimal' combination of resources within the organisations, and in doing so lacked a more holistic approach in both the resource identifications and analysis as well as when developing the new project plans.

⁴⁰ See Figure 6.5 where it is illustrated how the firms had defined and later would interact on the same concern basis.

Figure 6.7 – Illustrating the resource interaction within the focal dyad during period one



One way to interpret the ‘negative’ impact the Stella 2 project had on other projects within the focal organisations relates to the idea that the different projects had each their own distinctive concerns requiring a certain level of adaptation in resources in-house in order to succeed (see Figure 6.6). One could argue that the focal firms lacked an organisational governance mechanism affiliating inter-project interaction and co-operation and a business unit internally that aligned individual concerns across business units. While it has been noted that the focal firms in the past had experienced that projects such as the Stella 1 project and the MRR 1 project had suffered extensive costs and delays due to top management prioritising other projects internally, this time around the same problems arose for other parties involved in the relationship. In retrospect, one could suggest that the parties should have engaged in internal discussions within each firm prior to the

Stella 2 project to ensure that multiple internal project plans were aligned from a resource organisation and economising perspective. The insight the firms obtained from the Stella 2 project was valuable in terms of reveal the complexity the parties had to deal with when organising resources across projects. The way the parties interact strategically in relation to the Stella 2 project, where modifications in planes and decision-making was the outcome of close dialogues and negotiations, could now be transferred onto other projects and relationships. The challenge, however, remained how to include multiple relationships and internal actors involved in different projects in the discussions to find the most optimal way to organise and economise on resources.

The sudden end to the partnership arrangement and the relationship project in its original form in 2006 makes it possible to question whether the parties really achieved one of the original overall objectives, which was to develop a new way to do industrialisation projects within projects overall. Developing a Master Plan and experiences on how to economise on resources in an optimal way was from the beginning stated to be an important goal. An interesting question that arose is whether and how the parties were able to reuse what had been learned in future projects now that the central planners and actors within the partnership had left the focal organisations and therefore no longer met in this formal forum. The relationship project representatives were the central actors within the relationship, and one could argue that probably the single most important outcome of the arrangement was that these individuals were able to create a way for the focal firms to interact strategically with a counterpart. This marked a major change in the way the parties approach inter-firm strategising. The question that is left unanswered is whether the strategising approach that the parties had learned over the years the partnership lasted still resided with the remaining individuals presented in the firms, or if losing the central actors changed its nature in major ways constraining them from reproducing the interaction in the future.

7.0 Introduction

This chapter discusses some of the important implications of the thesis. It was noted in Chapter Three Methodology that the way the empirical material is structured or 'cased' will highly influence what is seen in the case, and subsequently also influence the type of analytical outputs that are gained. Pedersen (1996, p. 199) argues that the frame of reference whether it be empirical, theoretical or analytical-driven will often make it meaningless to propose conclusions where the basic understanding is that these conclusions are a consequence of the way the questions are raised, rather than the actual nature of the questions themselves. With this in mind I will attempt to discuss possible theoretical and managerial implications of the study. The analytical framework presented in Chapter Two will not only provide the frame in which these implications will be discussed, it also highly influences and steers the type of implications that it is possible to draw (Ibid., p. 199). Pedersen (1996) therefore suggests that one discuss the implications rather than the conclusions as a way to avoid this problem.

It was argued in the introduction to this thesis that the overall objective with the study was to contribute to the Relationship Strategy perspective within the INA. This objective was articulated as an attempt to say something meaningful about what constitutes strategy/strategic action/strategising within the INA paradigm. The term 'interacting strategically' was introduced as an umbrella term where strategy is viewed as an interactive and dynamic process that goes on between firms within the frame of business relationships. It was also assumed that each relationship is characterized by having its own distinctive strategic content. The implications that are drawn from the case study analysis build on the idea that strategy as content and process are inter-twined elements that are difficult to separate, and that one therefore needs to discuss these two dimensions of strategy in a circular and inter-twined manner. The outcome of strategy is then viewed as the changes that occur in the business relationship between firms. Here a basic understanding is that outcomes are subjective to interpretation and are a result of how the interacting parties view the effects the firms' strategic behaviour has on the connections between them. We will now present and discuss the theoretical and managerial implications of the study in Sections 7.1 and 7.2 respectively.

7.1 Theoretical implications

The case study analysis reveals two important implications in relation to the main research questions and issues proposed at the outset of this thesis. The first implication termed 'purposeful networking' refers to the manner in which the focal firms throughout the entire case study used multi-levelled and multi-faceted interactions (i.e. dialogues, discussions, negotiations, influencing, etc.) deliberately to solve both their individual and collective problems, and meet certain needs. The case study findings reveal how the relationship project group used networking systematically as a way to develop common image layers depicting how the parties collectively believed they needed to interact to support common goals, and to affiliate inter-firm organisation of resources that contributed to certain economising outcomes that were in line with their individual and collective needs. The second implication has been called 'purposeful interaction programmes' and refers to the focal firms' deliberate attempts in relationship episode two and three to put in place interaction procedures supported by specific resource activation mechanisms that had the objective to guide the parties' interactions in ways believed to activate and thus also produce certain economising outcomes.

The two implications have in common that they shed light on the process where firms deal with the tension that can arise when trying to decide what actions to do individually and collectively, while trying to co-operate and interact strategically within a business relationship. They also address some of the underlying factors that support and/or constrain firms from enforcing strategic actions that support an improved economising on resources within their business relationship. In line with the INA it was argued at the outset of this study that there is a natural connection between the way actors interact within a business relationship and their ability to economise on resources in that same relationship (Gadde et al., 2003; Ford et al., 2003). The term economising on resources was then defined as actors' deliberate attempts to make prudent use of specific resources available to them, and where a common understanding in the INA is the idea that passive and fragmented resources become activated through the interaction that takes place on the actor level of business relationships (Jahre et al., 2006; Håkansson and Waluszewski, 2002). The two implications identified in this study address this connection, and giving them special attention is believed to offer some interesting theoretical contributions to the Relationship Strategy Approach within the INA.

7.1.1 Purposeful networking

The first implication is termed ‘purposeful networking’. The term networking is used in the INA literature about all the social interaction processes firms are involved in (Ford et al., 2003). The case study analysis identifies how the firms’ networking builds on multi-faceted and multi-levelled communication processes within and between the firms that form the basis for their co-operation, negotiations, influencing, information-sharing, decision-making, etc. The term purposeful networking then refers to the manner in which the focal firms initiate and try to manage networking processes that are deliberately set up to solve specific problems, and manage heterogeneous needs identified in the business relationship. The case study analysis reveals how specific groups of actors became responsible for managing specific purposeful networking processes. These actors were bound through a common interest and commitment to solving their individual and collective problems through close and co-managed dialogues. It was their approach to problem-solving, interaction and co-operation that gave these individuals a common purpose rather than the actual commonalities in problems and needs focused on in the interaction between the different actors.

The term ‘networking’ is used in the INA as an umbrella term referring to interaction between actors that are bound through formal and informal communications and where the networking is problem driven (Ibid.). The networking actors are constrained by their limitations in knowledge and insight into the views, understandings and concerns of others (Snehota, 1990). The case study analysis supports the idea that networking within and between organisations can be multi-faceted and multi-levelled and fragmented with overlapping subprocesses amongst those involved (see also Håkansson and Sharma, 1996). The case study analysis demonstrates how the relationship project group, control group and Stella 2 project leader acquired a position in the business relationship as managers responsible for the purposeful networking initiated within the frame of the partnership arrangement. These managers co-operated with and interacted with each other and with the rest of the focal organisations in ways that makes it possible to refer to them as ‘networking ambassadors’ (i.e. the networking initiated and managed by actors who shared a common purpose), who represented the relationship when interacting with the mother organisations.

These groups were, in line with the original ideas behind the partnership, given the mandate and responsibility to confront and change the way the firms did industrialisation projects together (see Chapter Four). This basically meant that their co-managed networking was formed on the overall objective to support communication and decision-making within the firms in

ways that made the functional oriented firms more process and relationship oriented. Their ability to initiate and manage communications with numerous individuals and departments at different levels of the organisations, led to the creation of new communication channels (i.e. contact pattern) that would bound the multiple actors together. These communication channels provided different decision-makers with important information and insight. It became the arena where heterogeneous views and understandings could be communicated, interpreted and confronted. The case study illustrates how the firms systematically tried to manage heterogeneous information and knowledge in ways that co-ordinates and integrates multiple efforts performed within the broader business relationship. The networking ambassadors used the information and knowledge that was gathered, stored, structured and distributed in the networking process to influence other decision-makers, and to manage and align individual and collective decision making in ways that they believed would support the achievement of specific relationship objectives and goals.

The case study demonstrates how the networking ambassadors would spend substantial amounts of time trying to manage heterogeneous views and understandings through the networking process. The INA literature introduces the term network pictures as an umbrella term describing the subjective mental representations (Henneberg et al., 2003). Furthermore, Ford et al. (2003) treat network picture and networking as highly intertwined topics that are difficult to discuss and treat as detached entities when trying to understand strategy. The case study analysis reveals how the focal firms treated the purposeful networking as a strategic arena where commonalities and differences in network pictures were dealt with. The information and knowledge acquired through the networking process, and the insight the parties got into the heterogeneous views and understandings within the firms, formed the basis for the networking ambassadors' attempts to define and frame specific network pictures used to express meaning.

The case study analysis provides numerous examples on how the management of heterogeneous network pictures formed the basis for their purposeful attempts to influence, negotiate, learn, co-operate, decide, etc. Sometimes these communications were initiated with the objective to solve specific problems the groups had defined at the outset of the dialogues (i.e. defined partnership objectives and goals), whereas in other cases the groups responded to problems and needs identified through the interactions with others. These communications provided the various decision-makers within the focal dyad with access to heterogeneous network pictures regarding tactical and strategic concerns, problems, needs, etc., which contributed to a much broader and more heterogeneous decision basis. It also led to the creation of new collective ideas, where the actors through interaction and co-

operation could propose, confront and select ideas to be considered in the problem solving. This was for instance the case in relationship episode two when the purposeful networking performed by the networking ambassadors resulted in three key initiatives to be tested out in the MRR 2 project.

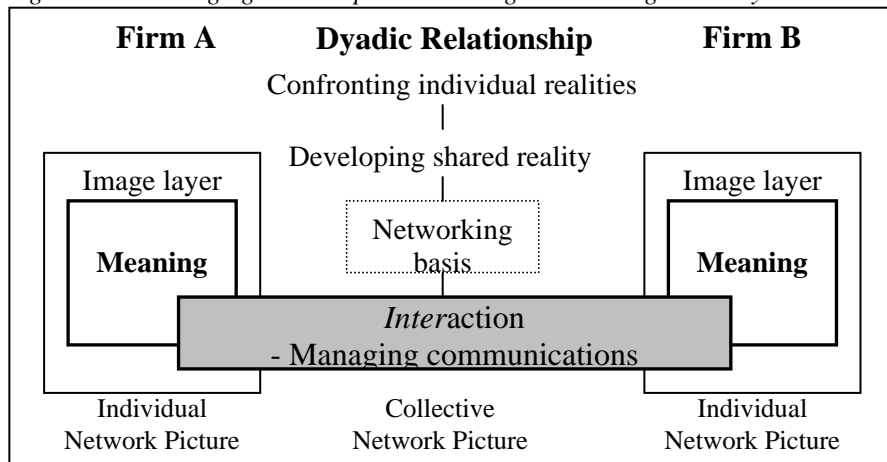
The case study findings support the idea that strategising requires that actors balance the interplay between purposeful networking and managing network picture as an inter-related part of the everyday interactions within and between firms. The case study findings also reveal some of the challenging aspects related to how firms manage heterogeneity in the image layer that exists within the business relationship, and which forms the basis for individual and collective decision-making and interaction. The way the network picture and image layer is dealt with through the networking process gives the focal business relationship a distinctive strategic content at a given point in time, but this content is also subject to change as firms learn and develop new meaning over time. The way heterogeneous network pictures and image layers were managed through the social interaction within the relationship, has been identified as the decisive factor influencing their ability to direct strategic actions at the focal dyad and/or their ability to interact strategically with the counterpart. The study therefore supports the idea that the interplay between purposeful networking and managing network picture is what ultimately sets the strategic direction for firms involved in business relationships, and also shapes the nature of the strategic interactions the parties end up performing.

7.1.1.1 Strategic direction within dyads

A common understanding within the INA literature is the idea that the way actors define and manage their subjective mental representations is of importance to their strategising (Holmen and Pedersen, 2003; Henneberg et al., 2004, p. 408). The network pictures and image layer concepts represent both a conscious and unconscious mental picture with a distinctive content, which is then a result of the actor's total information, knowledge and insight at a given point in time (i.e. what the actor 'knows') (see Håkansson and Waluszewski, 2002; Shehota, 1990). The nature of these network pictures and image layers is therefore something that constitutes the firms' networking base (Ford et al., 2003). In line with the idea that these perceptions form the basis for their individual and collective actions, then firms are challenged with having to manage heterogeneity in network views and understandings when interacting within the relationship (see Figure 7.1). The case study shows how the network ambassadors systematically tried to manage in relation to limitations and opportunities identified in the

relationship, through purposeful attempts to manage the parties' individual realities and develop consensus concerning collective realities.

Figure 7.1 – Managing network pictures through networking within dyads



* The term image layer is in Figure 7.2 embedded in the network picture concept.

The properties that constitute network picture (i.e. content) and image layer could arguably be said to represent the way actors create meaning and thus also how they make sense of the direction (i.e. objectives, goals, focus areas, problems, challenges, limitations, opportunities, etc.) they want the organisation or relationship to develop. This direction is made up of the type of problems identified and prioritised in the current problem solving and the actors' assessments of what needs to be done today in order to achieve certain favourable outcomes or positions in the future (Henders, 1992; Johanson and Mattsson, 1988, 1992). The management of individual and collective image layers within dyads demand that firms pay attention to heterogeneity in both the properties of resources, and the type of resources rendered after enforcing specific strategic actions altering the resource ties between firms. These elements would imply that the term strategic direction viewed within the frame of dyadic business relationships is manifested on the way heterogeneous network pictures and image layers are managed within the interaction process. The case study findings support this understanding of the term strategic direction, where the interactive and dynamic nature of a relationship implies that firms will act and interact at each point in time in ways it believes will give certain desirable outcomes in the future.

A common understanding within the INA is the idea that collective meaning is often needed in order to support interaction and joint efforts within business relationships (Mouzas, 2001; Ford et al., 2003; Henneberg et al.,

2004, p. 411). The case study demonstrates how powerful collective meaning could be for firms' ability to act and interact consistently within a relationship. The case study findings illustrate how the networking ambassadors used collective meaning as a tool to perform collective actions, and to influence other decision-makers within the focal organisations to pursue actions and interactions believed to support common objectives and goals deemed relevant for the focal relationship. The case study also shows how managing and developing collective meaning is important when trying to deal with the limitations and opportunities that reside with heterogeneity in network pictures. The networking ambassadors had, right from the beginning, a deep commitment to want to understand the behavioural patterns within the relationships (i.e. why the parties acted and interacted the way they did). They quickly assumed a position in the firms as managers of heterogeneous meaning and their purposeful acts allowed them to align heterogeneous realities identified in the relationship into collective realities. If interaction is considered the central co-ordination mechanism with the INA literature and co-operation the norm, then case study demonstrates how collective meaning is critical in order to affiliate co-ordination and co-operation (see Gadde et al., 2003). It is also an important strategic basis for firms trying to direct and re-direct actions over time in ways believed to develop the organisation or relationship in a desired strategic direction. The case study demonstrates how the collective meaning amongst the networking ambassadors formed the basis for several purposeful acts performed within the relationship, that contribute to an improved economising on resources in their joint industrialisation projects.

The case study findings reveal how the networking ambassadors enforced five purposeful acts that were initiated and executed within the frame of their purposeful networking. These acts concerned the way they chose to manage heterogeneous network pictures in general, and meaning in particular, as the basis for their interactions and co-ordination efforts. The case study also shows how this networking can have important effects on firms' ability to align and adapt heterogeneous network pictures, prioritise problems, needs, objectives and goals in the short and long term, assess what the relevant current network picture properties are (i.e. decide what pictures are old (and obsolete) and new features to be focused on), and ultimately assess and determine what actions to do individually and collectively in order for their individual and collective problems to be dealt with.

The first purposeful act has to do with the firms' deliberate attempts to define network pictures and meaning illustrating their formal individual and collective views and understandings at a specific point in time. These efforts also included initiatives to define what others were trying to say (e.g. their strategic concerns, problems, needs, etc.), and then communicate and

distribute their interpretations to other actors involved in the relationship. The parties achieved this by using the networking process as the arena where heterogeneous definitions could be questioned and verified. It provided a basis for clarifications and negotiations as to what the relevant network picture properties would be. It also contributed to a common language (i.e. a way to formulate and communicate network picture properties and meaning) being created within the relationship concerning the strategic direction, and actions performed and desired outcomes pursued in the strategy process. The case study shows how this act provided numerous individuals involved in the relationship with a common ground to base their actions and interactions on, without necessarily needing collective pictures or consensus regarding meaning to achieve co-ordination. It contributed to reduced uncertainty regarding the purpose of the co-operation and partnership, which for instance was exemplified in the case study in the firms' post-Metallic interactions, where the parties experienced first hand how different objectives and goals focused on at different levels of the dyad, constrained them from implementing changes in the relationship.

The second purposeful act concerns their decision to develop and maintain collective meaning within the focal dyad as the basis for collective actions. The partnership was formed on an agreement to co-operate on strategic issues. The formal nature of the partnership arrangement was, in addition to having the support of top management, built on a mutual orientation and commitment to engage in frequent bilateral dialogues within the relationship project group to create consensus regarding the meaning behind their individual and collective purposeful acts. The INA points out how network pictures have a unique content that can be defined and communicated in 'formal and explicit' manners both orally and in writing (i.e. how actors "say" they view the world and what actors "say" is important to them) (Henneberg et al., 2004). The case study shows how these dialogues replaced the need to have detailed written documents describing how the parties were to interact or how actions were to be performed. As the networking ambassadors got insight into new problems and needs through their interactions with the rest of the focal organisations, their assessment of meaning was constantly going through minor and major changes. The relationship project group demonstrated an ability to set the direction of the relationship and make necessary adjustments along the way.

They relied on the relationship project meetings as the facilitator that would support bilateral inter-firm dialogues. These meetings gave the parties a common arena where they collectively could determine when to keep certain original network picture properties focused on the partnership intact and when to define new ones when new situations and problems required this. The case study shows how the original ideas and objectives of the

partnership arrangement were constantly confronted and replaced with new ideas and objectives. Some of these objectives and ideas became gradually institutionalised in the relationship and functioned as guiding stars providing long-term direction for those involved in the interactions. Others went through minor and major adjustments at each point in time.

The third purposeful act has to do with the firms' ability to define pictures of the status quo (i.e. how they viewed the current situation, problem, needs, etc.), which basically refers to those factors that constitute the firms' strategic reality. The case study findings provide several examples as to how the internal inconsistency regarding the status quo often led to inconsistent behaviour and individual actions within the focal dyad, constraining what the networking ambassadors were trying to achieve. However, the networking ambassadors managed to use the internal inconsistency to develop collective meaning regarding the status quo. They did this through regularly defining and updating a specific set of network picture properties that would function as formal and collective pictures within the relationship, and that would form the basis for actions and interactions of others directly or indirectly involved in the focal business relationship. The case study shows how the formal pictures within the partnership arrangement had to be redefined several times over time, which meant that the status quo was an evolutionary phenomenon. The collective meaning amongst the networking ambassadors allowed them to tackle deviations from the perceived status quo, and to consider necessary changes in the formal pictures when experiencing minor and major changes in the network conditions of the focal dyad. As a consequence of the evolving status quo, so too did the desired outcomes (i.e. objectives, goals, desired outcomes) have to be redefined (i.e. perceptions of the future desired position). The case study illustrates how different actors can have both differing pictures of the status quo, which also constrain them from viewing the achievement of outcomes in a unified way.

The fourth purposeful act concerns the networking ambassadors' decision to continuously confront individual and collective network pictures, as this allowed them to reassess their strategic reality when needed. The case study shows how the focal firms made several attempts in the pre-partnership dialogues to try to develop common views as to how they should co-operate and interact within the relationships. These dialogues were held on multiple levels of the relationship with little co-ordination amongst the different actors participating in the interactions. However, it was not until networking ambassadors collectively assessed the problems related to the unilateral way the Metallic-situation was handled, that they understood the underlying factors constraining co-ordination and co-operation. The parties made an important decision to use the relationship project meetings as the arena where they, collectively, would try to make sense of the factors that hindered

the desired changes from being implemented in the relationship. The networking ambassadors experienced how communication malfunctions internally and externally were the result of the heterogeneous understandings of the meaning behind the partnership. They also experienced how having a collective meaning between the networking ambassadors was not enough as each firm, department and business function often tended to deviate from expected plans and actions. This experience triggered the creation of new routines where the relationship project meetings became a common ground for problem assessments, and evaluation of possible solutions.

The ambassadors' ability to confront the individual realities led to deeper insight into the heterogeneous pictures that formed the basis for firms' past decisions and current decision options. The continuous confrontation formed a platform in which the parties collectively would determine whether specific network pictures had become obsolete given the current reality of the firms. The confrontation post-Metallic is an example of this where the parties experienced how some actors were constrained from viewing the current reality in the right light due to memories and experiences that clouded their judgement. The case also reveals how developing collective meaning through changing the perceptions of others is not a straightforward process, but a process that involves the parties convincing each other through demonstrating how certain elements should be changed. It was not until two years into the partnership when the firms co-operated in the Stella 2 project that the product developer was convinced that the subcontractor could assume new responsibilities in the industrialisation process. In many ways, the case study as a whole is in itself a manifestation of how difficult it is to maintain a collective meaning and purpose, and that re-addressing questions such as 'what can you do for me', 'how can you do this for me', and 'what is in it for me' is a never ending process (see Håkansson et al., 1976; Ford et al, 1986; Wilkinson and Young, 1994; Turnbull et al., 1996; Johansson and Mattsson, 1988, 1992).

The fifth purposeful act concerns the networking ambassadors' decision and ability to frame heterogeneous and evolving network pictures through setting boundaries, delimiting and prioritising specific network picture properties reflecting the relevant strategic reality in the current interaction. This framing meant deciding which historical, current and expected future episodes and network picture properties were to be included in the current network picture content. The case study demonstrates how the networking ambassadors systematically set out to draw boundaries to the network pictures that were communicated in the networking process. In line with the INA, some parts of actors' network pictures is a matter of choice and is dependent on how the actor chooses to view and tackle a situation at each point in time (Jahre et al., 2006). The need to delimit network pictures into

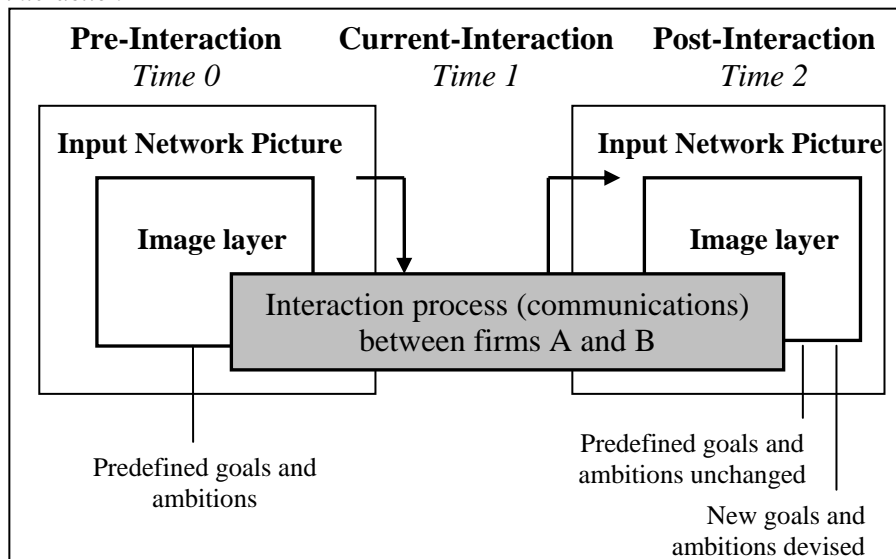
meaningful strategic realities is something authors such as Holmen and Pedersen (2003) recommend firms do. Their basic argument is that firms need to set boundaries to their networking pictures in order to focus on the most important counterparts and network conditions in the strategy process (Ibid.). The case study analysis shows how the focal firms in similar ways tried to set boundaries to the memories and experiences from past interactions and select a few properties to focus on in the current interaction. It also meant identifying potential futuristic developments formulated in the form of scenarios that the parties believed in, and thus were deemed relevant to the current decision-making. The way network pictures were framed could be viewed as a filtering process where substantial information and knowledge would be narrowed down into specific network picture properties to be prioritised both in the creation of meaning and problem-solving. In line with the idea that meaning is a matter of choice, then the case illustrates how the networking ambassadors used bilateral dialogues and co-managed networking processes as the arena where the framing and filtering gave the current interaction focus.

7.1.1.2 Strategic interaction within dyads

The somewhat unanswered questions in the INA literature relating to networking and strategy, is how firms deal with the interactive and adaptive nature of interaction processes (Håkansson and Sharma, 1996, p. 118). The way the time dimension is managed in particular seems somewhat ambiguous, especially when it comes to how firms are able to manage heterogeneous network pictures (i.e. subjective interpretations, views and understandings) that are continuously developing as a consequence of interaction. The open-ended nature of these network pictures then implies that firms may have certain input network pictures going into these interaction processes, and as their assessments of meaning and concerns are communicated and/or confronted, the parties' individual and collective network pictures may be subject to change. A common idea in the INA literature is that a change in network pictures should command a revision of the concerns that occupy firms (Snehota, 1990). Arguably, the same reasoning also applies to the discussion image layer, which implies that actors' ideas and understandings regarding the nature of resources and the outcomes that can be rendered from combining them in certain ways, is also subject to change as a consequence of the interaction process. Furthermore, the networking between firms can enable firms to revise their network pictures as new information and insight is obtained and/or as the firms learn new things (Ibid.).

The case provides examples on how the interaction between focal firms can lead to new information and knowledge being exchanged, which alters their network picture without this necessarily leading to changes in the way the firms choose to define individual and collective meaning (i.e. the same strategic concerns before and after the interaction process has occurred). The case also provides examples illustrating how interaction can lead to specific network picture properties being altered, which in turn may result in ‘new’ strategic concerns (i.e. objectives, goals, problems, challenges, etc.) being ‘produced’ (see Figure 7.2).

Figure 7.2 – Managing organic network pictures and image layer through interaction



* The term image layer is in Figure 7.2 embedded in the network picture concept.

The organic and dynamic nature of networking makes it valid to question how firms deal with organic network pictures and image layers. The case study demonstrates how the focal firms, through their networking ambassadors, tried to develop arenas (i.e. meetings) where bilateral communications were the norm, but where unilateral communications performed outside these meetings could be brought to the table and discussed, confronted, interpreted and translated into common assessments of meaning. Both the unilateral and bilateral communications are equally important when trying to characterise what constitutes the strategic direction of the focal relationship. However, the networking ambassadors' ability to set up and manage meetings where both the unilateral and bilateral communications were transformed into common meaning, not only reduced uncertainty regarding the meaning behind certain concepts, decisions, and episodes, it also enabled the firms to continuously re-check whether their

individual behaviour was consistent with their common objectives and goals. The case study demonstrates how commonalities in problems and strategic concerns are not essential in order for unilateral and bilateral communications to be managed, to support a common strategic direction. The essential aspect is whether heterogeneous problems can be interpreted and divided into individual and collective meaning depicting how each actor's strategic concerns can be aligned in ways that support different problem-solving processes occurring in the dyad simultaneously.

The purposeful networking that the networking ambassadors initiated and developed at different points in time in the partnership, gradually led to new communication channels being created within the dyad. These channels transcended the vast formal and informal contact patterns already in place. The new channel was manifested on the problem-solving processes that were co-ordinated through the networking ambassadors. These communications involved multiple actors within the focal dyad participating in the problem-solving and the strategic discussions at different points in time. The open-ended bilateral nature of these communications also meant that other actors than the networking ambassadors could throw in whatever problems and concerns that occupied them, but it was up to the networking ambassadors to try and co-ordinate the different subprocesses in ways that supported the strategic direction of the focal dyad. These communications developed into new contact patterns that gradually left a 'blueprint' in the organisations where those involved in the networking developed common views on the reality surrounding the partnership arrangement and focal dyad, and how they individually and collectively could support the partnership. Those involved in the process developed shared memories and experiences from the arrangement that connected them together. This blueprint could very much be viewed as the outcome of the purposeful networking or of a collective learning process. The ones participating in the networking got access to the strategic thoughts and concerns of others that traditionally were unavailable to them. This experience triggered further interaction and involvement as the parties got access to information and insight needed to solve their individual problems and needs. Having the continuously evolving contact pattern in place, framed by the partnership arrangement, undoubtedly made the individual actor and decision-maker more relationship oriented.

It was argued earlier in this chapter that firms try to act purposefully within a business relationship in line with the strategic direction set for that relationship. This strategic direction gives each relationship a distinctive strategic content that is the outcome of the purposeful acts and interactions pursued, and the way heterogeneous network pictures are transformed into shared strategic reality, collective meaning and strategic concerns prioritised in the relationship. In line with the INA literature, this strategic direction is

subject to change as firms experience changing network conditions (Canning and Brennan, 2004) and experience and learn new things (Snehota, 1990). As the network picture develops, as a consequence of the interaction, so too are managers expected to reconsider the strategic options pursued in the relationship (Håkansson and Sharma, 1996). The case study findings demonstrate how the firms' ability to reassess and redirect their joint strategic direction was a function of the way they were able to use the open-ended nature of their purposeful networking to confront and develop new shared reality, new collective meaning and redefined strategic concerns. Their ability to do so was something that ultimately would determine how they were able to manage 'adaptive response' to changing network conditions (i.e. changing internal and external business conditions).

The term adaptive response is here used to describe the way the focal firms tried to redirect the strategic direction of the relationship when experiencing new problems and strategic issues from their interactions with others, forcing them to prioritise problems and issues differently in the current purposeful communications and decision-making. This is in line with the INA that advocates that one understands the strategy process to be a process where strategic options are derived through interaction processes as interactive choices, and that these "options are tried out and interpreted rather than conceived a priori" (Håkansson and Snehota, 2000, p. 45). The way the focal firms interacted strategically through the networking ambassadors is an example of how firms, through close communications and collective problem solving could prioritise relevant strategic concerns differently in a specific point in time. This meant that they dealt with predefined goals and ambitions that were outdated or no longer considered important enough to be prioritised in the current interactions. The purposeful networking that the focal firms initiated illustrates how the firms tried to manage interactive choices and predefined decision options through consciously using what is learned and what is known in the pre-interactions to solve the current problems occupying others. The case shows how that which the firms thought was possible or important coming into the current interaction, and thus also the relevant decision options, changed as a consequence of what was learned from the interaction. The case study offers several examples that reveal how the networking ambassadors made deliberate attempts to redefine their strategic direction, in order to adapt to other important problems and processes outside the boundaries of their purposeful networking.

The case study reveals how the network ambassadors tried to steer the direction of the strategic actions and interactions within the relationship through purposeful attempts to influence how decisions were made within the focal dyad. The case study analysis illustrates how the networking ambassadors tried to influence each other and other decision-makers within

their organisations to pursue decisions they believed would support the generic economic logics and common objectives defined for the business relationship. This influencing was formed on the current problems prioritised in the interaction at a given point in time, and the influencing the firms ended up pursuing should be viewed as the outcome of purposeful attempts to find out what is possible and desirable given the nature of the situation at each point in time (see Håkansson and Sharma, 1996). Their influencing follows in the INA tradition where influencing is perceived as a strategic act that can enable firms to change their relationship connections through proposing dominating network picture (i.e. network theories) (Johanson and Mattsson, 1988, 1992). The case study demonstrates how the networking ambassadors used the new contact patterns deliberately to influence other decision-makers within the dyad.

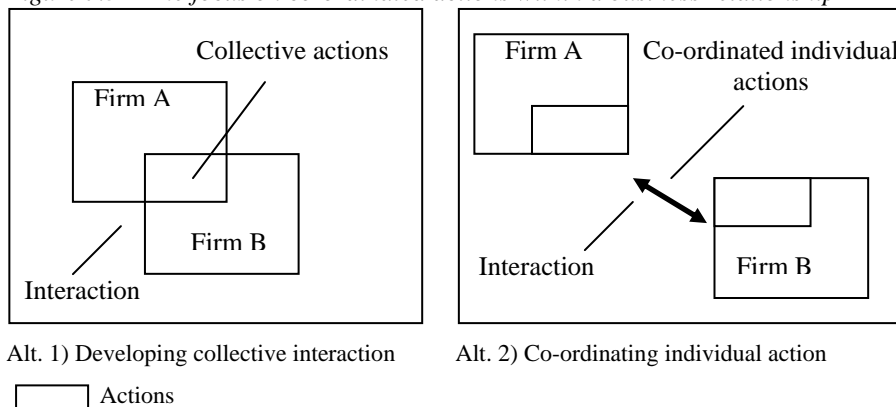
The case study shows how the influencing occurred in a number of different ways. The influencing the networking ambassadors performed collectively towards the firms' top management in order to persuade them to consider alternative decision options, was demonstrated in relationship episode one where the influencing resulted in Kitron being chosen as the new sourcing partner to KDC. It was also the case when the parties managed to convince KDC to choose Kitron as their main subcontractor in the MRR 2 project. These examples show how the networking ambassadors relied on both planned and organic influencing performed interactively as part of the overall networking taking place within the relationship. Sometimes the influencing was a result of well-planned influencing tactics where the parties would prepare various arguments and tactics before interacting (see Håkansson et al., 1976), whereas at other times the influencing was more reactive and a response to arguments (i.e. problems, demands, etc.) and decision options proposed in current interaction at a specific point in time (Ford et al., 2003).

The case study shows how the management of adaptive response and purposeful influencing became important and powerful managerial tools that formed the basis for the firms' ability to pursue strategic actions believed to deal with the limitations and opportunities of the focal dyad. The case study analysis reveals how the focal firms managed to achieve co-ordinated actions in two ways. First, the parties achieved co-ordination through communicating, convincing and negotiating various decision options, which ultimately led to individual network pictures being transformed into collective ones. This common ground was built on common objectives, goals, problems, needs, etc. identified in the interactions, where the outcome could be some sort of consensus regarding the actions the firms had to perform individually and collectively in order to support their common objectives and goals (see Figure 7.3 – alternative 1). The case study reveals

how it was essential to the firms that they were able to co-ordinate fragmented influencing processes in order for them to align individual decision-making within the dyad.

Secondly, the case shows how the focal firms managed to achieve co-ordinated actions without direct communications and interactions between the decision makers. The networking ambassadors played an important co-ordinating role through the purposeful influencing they performed in relation to the other decision makers within the organisations. Their communications with these other actors build on conscious attempts to share information and insight into the problems, needs, perceived decision options, objectives, etc. of various actors. The case study analysis reveals how these communications broaden the decision basis for the individual actor, in that multiple concerns and views were included in the analysis and reflections. This resulted in co-ordinated individual decision-making through direct negotiations that the networking ambassadors set up, and indirectly through the insight they got into the decision options of others (see Figure 7.3 – alternative 2).

Figure 7.3 – The focus on co-ordinated actions within a business relationship



The case study results demonstrate how the firms' ability to pursue strategic action and to manage strategic direction and interaction was dependent on the way strategic options and outcomes were managed in the purposeful networking. The first aspect concerns the management of real options or strategic options. The management of real option is in the INA literature often viewed as a critical element in the strategy process (Ford et al., 2003). Mouzas (2001) states that finding and doing what is possible is an essential element in strategising and that firms need to reflect on and consider "real options that best reflect the organisations' strengths and their capacities derived from network memberships" (p. 1). The case study demonstrates how the focal firms struggled to devise and manage real options that

supported the overall strategic direction of the focal relationship, due to the heterogeneous views that existed within the focal dyad as to what the 'best real options' were to the firm/relationship. This led to inconsistent and uncoordinated decision-making that constrained the focal dyad. The networking ambassadors approached this problem by engaging in purposeful networking with multiple actors on multiple levels of the relationship to discuss the best real options from different perspectives. This allowed actors holding different positions to reflect on what were the best real options while simultaneously considering possible limitations and opportunities. The firms' decision to introduce a control group could be interpreted as an attempt to put in place a managerial unit that was close enough to the operational business processes to identify real options for actors responsible for the execution of operational activities. The control group translated the strategic options devised on the top management level into operational business practice that operational employees could understand and implement. The success of the Stella 2 project demonstrates how the management of real options is something that should occur at multiple levels of the relationship in order for consistency in strategic direction within the dyad to be possible. The firms' ability to co-ordinate various assessments of real option made it possible for them to affiliate multi-levelled strategic interaction within the dyad.

The second aspect concerns the management of outcomes (i.e. network outcomes) (see also Ford et al., 2003). Håkansson and Sharma (1996) argue that adaptations are required in the way actors relate to the outcomes. This is the case for outcomes following on from their deliberate and conscious attempts to change certain relational connections. The authors' basic argument is that these adaptations have strategic importance if the changed elements impact what is focused on in the interaction process (Ibid.). The case study demonstrates how the networking between firms frequently builds on dialogues where the parties try to assess the effects of their actions and interactions on the focal business relationship. The networking ambassadors would make deliberate attempts to gather information on how different actors perceived the potential effects on the relationship from specific strategic actions, and then evaluate after the fact how the same actors perceived the outcomes. This was for instance the case in relation to the MRR 2 situation, when the relationship project group introduced three initiatives in the MRR 2 project with certain expectations and then evaluated the outcomes collectively in relationship project meetings. An essential factor that made it possible for them to assume such a role was the relationship project group's ability to gather and store information and experiences systematically, and then use this insight to judge various outcomes. The meetings prior to the Stella 2 project (i.e. relationship episode three) were for instance deliberately set up to review the past performance of

the partnership in the two years since it was established. Another example is their decision to have two members from the relationship project present in the control group, which showed how the parties wanted to reuse information, insight and experience from earlier actions and their effects when acting and evaluation of future performance.

The case study also demonstrates how challenging it can be to manage in relation to outcomes that are revealed at different points in time and which makes it difficult to pinpoint the factors causing the effects. Mouzas (2001) address the fact that it is problematic for firms to determine what actions to pursue today in order to achieve specific “unknown” outcomes in the future due to the lack of control in the conditions that these actions are based on. The author therefore suggests that organisations have a certain level of flexibility in their strategic approach, including their assessment of outcomes (Mouzas, 2001, p. 2). A problem area that the focal firms experienced with their multiple restructuring programmes for instance, in the years prior to the partnership arrangement, was that the many organisational changes had not led to the desired changes in the way resources were organised and economised on in the industrialisation process. A common understanding within the relationship project group was that the ‘perceived changes’ resided only in the minds of top management and not in the rest of the organisations. The relationship project based their view on the argument that the way industrialisation activities were carried out in the relationship remained more or less unchanged.

The relationship experienced other problems with evaluating the outcomes when enforcing three initiatives in the MRR 2 project before discovering that several of the resources that these initiatives were based on had been significantly altered (i.e. resources were outsourced or re-organised). This made it quite difficult for them to assess whether the initiatives had worked as planned, and it was equally difficult to identify those factors potentially supporting or constraining the implementation process. The decision to have the control group in place in the Stella 2 project could be interpreted as the networking ambassadors not being convinced that it was sufficient for them to make plans, implement and then evaluate the outcomes after the fact. The control group was there to consider real options along the way in the implementation, and make necessary adjustments when experiencing changing network conditions. The networking ambassadors also worked purposefully throughout the duration of the partnership to identify factors potentially affecting implementation of various initiatives. Their approach could be interpreted as acknowledging that the factors that constituting the best initiatives, plans or actions is dependent on what is known at a given point in time, and that the firms are dependent on using insight about outcomes actively and continuously in the current strategic interaction.

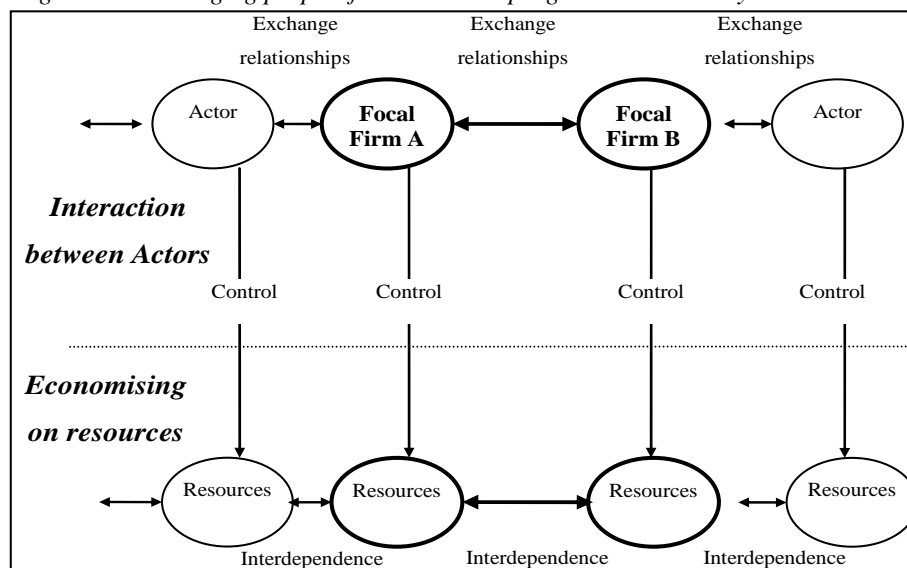
7.1.2 Purposeful interaction programmes

The second implication is termed ‘purposeful interaction programmes’. The term interaction programme is here used about specific guidelines, routines and principles depicting how different actors (i.e. firms, departments and individuals) directly and indirectly involved in the focal business relationship (i.e. industrialisation process), need to interact in order to support the prevailing strategic direction within the focal business relationship. The case study findings reveal how the focal firms implemented several purposeful interaction programmes in the Stella 2 project. These programmes were commonly somewhat open-ended and confined to specific types of interactions within the relationship. The programmes were introduced by the networking ambassadors (see Section 7.1.1) who devised explicit and formal interpretations and explanations as to how they believed actors holding different positions within the relationship needed to interact in order to support the focal firms’ strategising. They relied on both oral presentations and written documentation to explain to these actors how they needed to interact as part of their day-to-day operations, and the programmes represent deliberate attempts to activate and economise on specific subsets of resources prioritised in the focal business relationship.

The networking ambassadors introduced four interaction programmes that were directed and implemented at different levels of the dyad simultaneously in relation to the Stella 2 project. Their decision to do so could be interpreted as the parties emphasising the need to co-ordinate and manage purposeful interactions between the top, middle and operational levels of the dyad, in order for the different initiatives to have the desired effects on the way resources were economised on in the industrialisation process. The parties came up with these programmes after testing out similar initiatives in other projects such as MRR and MRR 2, but the ones introduced in the Stella 2 project were believed to be much more adapted to the overall strategic direction and objectives/goals set for the focal dyad. The interaction programmes centred on solving important problem areas identified in the relationship/partnership in the period prior to the Stella 2 project, where the overall objective always had been to improve the way on which resources were economised. In this way, these initiatives could be viewed as deliberately setting out to achieve specific economising effects from distinctive subsets of resources emphasised in the strategic direction of the firms. Arguably, these programmes became the first real attempt in the relationship to devise management principles that centred on how actor level interaction could affiliate an improved economising on resources opposed to previous restructuring programmes, where interaction on the actor level remained more or less unchanged despite the frequent changes in the way resources were organised.

The interaction programmes served an ‘adaptive function’ in the industrialisation process. The Interaction Approach in the INA stresses how firms can implement various adaptation mechanisms deliberately set up to affiliate the management of effective exchange between firms (Håkansson, 1982). Gadde et al. (2003) stress that achieving exchange effectiveness is what strategy is all about. The case study findings demonstrate how the focal firms relied on specific resource activation mechanisms to affiliate adaptation. Using theoretical terms from the INA means that these resource activation mechanisms were put in place to adapt the different actor levelled interaction confined to the purposeful interaction programmes, and affiliate interactions believed to improve the way specific subsets of resources were economised on in the relationship. These elements are illustrated in Figure 7.4 which is a model adapted from Johanson and Mattsson (1988). The case study findings, when it comes to the results of the Stella 2 project, indicate that the firms’ purposeful interaction programmes produced the desired outcomes for this one dyad in relation to the specific objectives and goals defined at the outset of the project. The findings also indicate that the failure to relate these programmes to other programmes confined to the firms (i.e. other industrialisation projects, other relationships and other counterparts) meant that the Stella 2 project produced other negative results elsewhere in the focal organisations. We will now discuss the nature of the purposeful interaction programmes and resource activation mechanisms introduced at the actor level, and the implications these had on the firms’ ability to economise on specific subsets of resources.

Figure 7.4 –Managing purposeful interaction programmes within dyads



(Adapted from Johanson and Mattsson, 1988, p. 185)

7.1.2.1 Actor interaction within dyadic business relationships

The INA literature stresses the idea that firms need to manage the social interaction between actors in order for them to be able to make prudent use of resources (i.e. economising on resources) within their control (i.e. a part of their resource collection) (Jahre et al., 2006). This implies that it is the nature of these social interactions that ultimately enables firms to activate and use resources that per nature are passive and fragmented entities (Ford et al., 1986; Ford et al., 2003; Håkansson and Snehota, 1989, 1995; Håkansson and Waluszewski, 2002). The first generation interaction model in INA describes the interaction between firms as a process that can be multi-faceted and multi-levelled in nature, and where firms rely on both organisational and technical adaptations in order to affiliate effective exchange of products and services between them (Håkansson, 1982; IMP, 1982). The adaptations are considered necessary for firms to handle the interdependencies that exist between firms in relation to the way resources are organised and economised on in joint business processes between them (Ford, 1980; Johanson and Mattsson, 1988; Håkansson and Johanson, 1993; Ford and Håkansson, 2006). They are also deemed critical in order for firms to effectively utilise their functional-oriented internal resources, as well as resources accessed through their relationships with others in the more process-oriented co-managed business exchange processes that constitute business exchange. It is the social interaction in the form of heterogeneous communications that ensures necessary control and predictability in the exchange process, and that enables firms to make prudent use of their resource collections across multiple exchange processes simultaneously.

The basis for the interaction programmes was the networking ambassadors' deliberate breakdown of the overall strategic direction of the focal dyad into meaningful ideas, views and interaction principles as to how the operational problems and needs of the focal dyad could be dealt with. The interaction programmes could then be viewed as an attempt to operationalise the higher level strategic directions and plans into concrete ideas as to how the middle and lower-levelled actors could support this direction. The parties achieved this by breaking down and translating the strategic direction into a more operational direction using terminologies that they believed could help guide those directly involved in the industrialisation process to pursue the 'right' actions and interactions. The open-ended nature of these programmes implies that what is right in a given situation is very much situation-specific and so the purpose behind the interaction programmes was to help the actors and decision-makers judge how best to support the firms' strategic direction. This implies that the programmes offer descriptive explanations that could steer and influence decision-makers to pursue individual and collective actions that supported the important economic logics identified in the

business relationship. The nature of these programmes also provided a basis for problem-solving, and discussing differences in opinions as to how to solve specific problems. Each interaction process was then selected based on how the parties believed their interaction could lead to the economising of specific subsets of resources, while dealing with the important limitations and opportunities identified in the relationship. The four interaction programmes identified in the case study could be called the control group, single-point-of-contact principle, quality improvement procedure and the LTB procedure.

The case shows how the limitation and handling problems experienced in the partnership arrangement became essential for the way the interaction programmes were selected and set up. The focal firms used their experiences from previous industrialisation projects to identify those factors that supported and/or constrained the economising on specific subsets of resources focused on in the strategising. This implies that specific relationship connections (i.e. actor bonds and resource ties) were identified and prioritised because they these were essential for capturing specific economic benefits (see for instance Ritter, 2000). The element of adaptation became essential to the management of these connections in the way the actor level and resource layers of the relationship were connected (see for instance Håkansson and Snehota, 1995). It was also important in terms of the way the actor level interaction was co-ordinated at different levels of the relationship structure (i.e. top, - middle, - and lower level management level). This was contrary to previous efforts in the partnership where the parties had failed to include multi-levelled interaction and actor/resource connections in the analysis and thus also in the initiatives implemented. In other words, the four interaction programmes commonly had been purposefully put in place to improve co-ordination and integration between different actors involved in the business relationship.

The first programme refers to the control group, which in itself represents an attempt to do something about the way the vertical adaptation within the focal business relationship was managed. The group was established in order to co-ordinate and improve top managements' ability to transform and translate strategic actions into interaction processes that had the desired effects on the way the operational process of the business relationship was carried out. They would work in the borderline between top management and the operational level, basically ensuring that the operational level had the necessary support and direction to execute plans and manage the Stella 2 project in ways which would render the outcomes defined at the outset of the project. The group would not replace the middle management in the relationship, but would enhance their abilities due to their affiliations with the relationship project group/partnership arrangement. This meant they

focused on specific communications within the firm, that is, those involving strategic issues and actions believed to impact on the performance of the Stella 2 project. Having this group in place also ensured that the Stella 2 project could utilise the vast experience and competence acquired in the partnership arrangement up till this point, as two members of the group previously were former members of the relationship project group. The firms shared a common belief that having these new contact patterns in place was necessary in order for the group to function as mediator and facilitator in the relationship enabling the operational level to tap into resources and abilities of the group, whereas top management received support to direct and redirect actions needed to support the Stella 2 project. In line with the INA that views adaptations as an investment process, the control group as an adaptation mechanism is in itself an investment (Håkansson, 1982; Johanson and Mattsson, 1985, 1988, 1992). It could also be seen as the outcome of an investment process in the way the firms' invested both time and resources when testing out earlier versions of the Stella-2 initiatives in the MRR and MRR 2 projects.

The second, third and fourth interaction programmes (i.e. single-point-of-contact principle, quality improvement procedure and the LTB procedure) were to be implemented at the operational level in line with the day-to-day business activities of the industrialisation process of Stella 2. Their operational focus came after experiencing that the strategic direction set on the top management level often lacked the necessary operational impact, which challenged the firms to reassess how strategic objectives, goals, needs, etc. could be translated into an operational business practice. These programmes had a strong focus on the operational connections between the firms (i.e. how the parties organised and economised on resources in their joint industrialisation process) and could be viewed as purposeful acts designed to change the way actors at the operational level carried out their responsibilities. The firms reviewed the way the chain of activities had been carried out between the firms in the past and used this insight as the basis for identifying specific operational connections. The principles and procedures they ended up implementing were then formed on a collective meaning and purpose concerning how actors needed to behave. This is in line with what Zerrillo and Raina (1996, p. 207) recommend firms do. This implies that the programmes could be termed a decision making process (Håkansson, 1982: Ford et al., 1986; Ford et al., 1996). These programmes could also have been called 'relating programme' as they were set up to steer social interaction and decision-making through influencing the relational atmosphere (i.e. the attitudes, views) deemed relevant to problem solving, communication and co-operation. These efforts meant that the firms could change institutionalised behaviour within the relationship that the parties no longer wanted to nurture. In line with Håkansson and Sharma (1996, p. 117) one

could argue that these initiatives contributed to giving the operational levels of the relationship a strategic content.

The interaction programmes were devised after the networking ambassadors had reflected on the operational needs, as well as the limitations and handling problems identified in the MRR and MRR 2 projects. Still, as the case study findings demonstrate, the outcome of the Stella 2 project revealed one main factor constraining the firms from efficiently using their resource collection from an aggregated firm/relationship level. The findings indicate that the focal firms could have benefited from having purposeful initiatives aimed at co-ordinating between the multiple interaction programmes taking place within the firms (i.e. across projects and relationships). Their ongoing strategising suffered from the fact that they lacked communication systems that improved the way resources were adapted across multiple projects simultaneously.

The case study findings also identify several factors that support the firms economising on resources within the dyad. The first factor concerns the firms' ability to devise plans on how to interact and economise on resources while focusing on specific facets of the business relationship. They managed to do this, while simultaneously maintaining an evolutionary approach to interaction and problem-solving in other areas of their business. The second factor concerns their decision not to define beforehand the amount of resources to be put into the different interaction programmes. In doing so, the parties could learn more about the unique qualities to be rendered from combining and using resources in specific ways. The third factor has to do with their decision to keep these interaction programmes open-ended and to utilise information and insight acquired organically to make necessary adjustments in their plans along the way. The fourth factor refers to their decision to recruit a project leader to the Stella 2 project from outside the focal organisations. This ensured that the one individual responsible for implementing the new changes was unbiased when it came to making decisions that could ensure that the functional-oriented firms prioritised the problems, decision options and processes believed to support the achievement of goals and objectives of the industrialisation process.

7.1.2.2 Economising on resources within dyadic business relationships

The INA literature on resources builds on the view that resources have interactive effects when combined with other resources (Håkansson and Waluszewski, 2002, p. 32). The general idea is that resources have hidden qualities and that these can be revealed, when combining resources in new ways, which subsequently enables firms to render new valuable resource

outcomes (Ibid.). The case study demonstrates how the focal firms had tested out different ways to organise resources through their many restructuring programmes with the objective to economise on resources more effectively. This involved efforts to copy specific subsets of resources (i.e. quality improvement procedure in the MRR 2 project) or trying out new combinations (i.e. the MRR-project). Prenkert and Hallèn (2006) point out that the importance and value of resources is dependent on firms' ability to meet certain expectations. Mittilä and Järvelin (2001) consider the management of expectations to be a critical factor in a firms' strategising process. In line with the original ideas of Penrose (1959), this would imply that the ability to render new services from new resource combinations is challenging when firms have different understandings of the value of single or combined resources, as well as different expectations of the potential outcomes from using them.

In theoretical INA terms, the case study illustrates how the focal firms struggled to render specific resource outcomes despite frequent attempts to organise resources in new ways. This showed how problematic it was for them to adapt the functional oriented resources to the process oriented business relationship. The case study reveals several factors causing these problems. First, the differences in resource meaning concerning the importance and value of specific resources for the firms individually and collectively, seemed to be a problem area. Secondly, the differences in resource terminologies impacted on the way resources were economised through inconsistent behaviour in the interaction between the firms. Thirdly, while the interaction within the focal dyad produced new knowledge and insight about the value of resources and their characteristics, the parties struggled to create common meaning about the value of resources. The focal firms seemed to struggle with the question of value for whom throughout the entire duration of the partnership.

The case study demonstrates how the focal firms responded to the problems by trying to translate their shared reality into a common resource reference basis (i.e. develop a unified view of what resources and services they wanted to render). This included efforts to prioritise short and long term resource objectives, goals and problems where focusing on common economic logics confined to the industrialisation process was believed to improve the control of the outcomes. Furthermore, the focal firms implemented several resource activation mechanisms purposefully put in place to trigger the economisation of specific subsets of resources identified in the business relationship. The term 'resource activation' mechanism refers to mechanisms used by actors in order to affiliate purposeful organisation and economising on resources. These mechanisms depicted to the interacting parties how each of them had to relate to the other in order to support specific economic logics identified

in the business relationship. These economic logics represent specific views and understandings as to the type of outcomes that could be rendered from organising and economising on resources in specific ways. Typically, these economic logics functioned as guiding stars that explained why actors needed to interact in a certain way, and the outcomes these interactions were meant to generate.

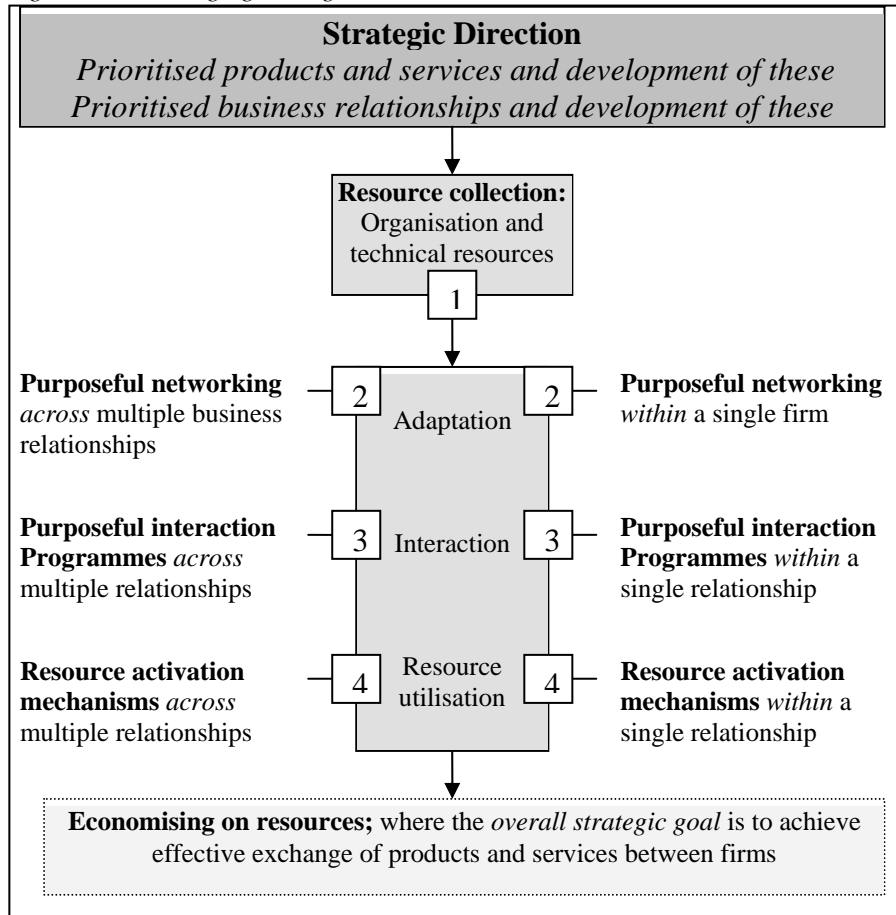
The case study findings identify three main resource activation mechanisms; a new master project plan, a plan illustrating the new division of responsibilities in Stella 2 and new plan describing the common objectives and goals to be applied in the Stella 2 project. All three mechanisms describe to the actors involved in the project how certain connections within the relationship were to be handled (see also Håkansson and Sharma, 1996, p. 117). Through these plans, the firms managed to communicate to those involved how each had to behave in order to prioritise those elements deemed important to the control group. The plans provided boundaries through defining a selected number of key network picture properties that each actor was expected to prioritise. The Stella 2 project then is an example of how formally planned strategies and plans can function well on a periodic basis (see Canning and Brennan, 2004).

The master project plan, the new division of responsibilities and the new collective objectives and goals defined for the Stella 2 project were all the outcome of the firms' efforts to develop collective meaning. Heterogeneous network pictures had previously led to co-ordination and integration problems as the focal firms often misunderstood each other when setting up business contracts, when co-operating in the industrialisation process and when trying to co-ordinate and integrate resources across firm boundaries. The case study shows how, for instance, the term 'total production responsibility' was a concept that was often used in the relationship, but where different actors had quite different understandings of what this 'really' meant. This was revealed in relationship episode three where the firms in their pre Stella 2 project dialogues experienced communication problems when devising a new division of responsibilities between them. This experience led to frequent dialogues to clarify its meaning and several institutionalised terminologies that were and outdated were discussed. As the mechanism provided the participants with direction and purpose, arguably, these mechanisms had positive effects on the problematic informal contact patterns that were institutionalised in the relationship and that previously had been identified as a major problem area. However, it is fair to say that it was the way the firms combined the actor-levelled interaction programs and resource activation mechanisms that led to the success in Stella 2.

7.2 Managerial implications

The managerial or practical implications it is possible to draw from the case study findings are many. Some implications are directly confined to the case study findings and are 'easily identifiable' in the analysis, whereas others come in the form of specific subjective opinions, reflections and interpretations related to the researcher's own learning process from the study. The managerial implications focused on in this section build on the idea that managing and developing strategic direction is critical to the way firms are able to economise on resources available to them effectively when carrying out the exchange of products and services vis-à-vis counterparts (see Figure 7.5). As the case study findings demonstrate, the focal firms were challenged with developing an aggregated/overall strategic direction for the individual firm that dealt with problems and needs confined to individual and multiple business relationships simultaneously. The basic argument proposed here is that the firms' ability to develop and manage strategic direction and achieve their desired economising outcomes, was very much connected to the way they prioritised and developed products, services and business relationships. This argument will be discussed in terms of the impact it has on the firms' ability to make prudent use of resources available to the firms. In line with Figure 7.5, four implications will now be discussed, each related to the following ideas: (1) the organisation of resources, (2) purposeful networking, (3) purposeful interaction programme and (4) resource activation mechanism.

Figure 7.5 – Managing strategic direction within networks



The case study findings demonstrate how both focal firms struggled for many years prior to the partnership arrangement with organising and economising on the vast amounts of resources available to them following their insourcing initiatives, acquisitions and mergers. The outcomes of the Stella 2 project also showed that while Stella 2 in isolation had been built on what the focal firms’ perceived to be an optimal organisation of resources, other projects and relationships connected to the firms were constrained from economising on resources in accordance with their plans. In this way, the case study shows how searching for an optimal way to organise and economise on resources is a challenging and continuous process. A basic argument proposed here is that the firms’ ability to organise and economise on resources was very much tied to the way they prioritised and developed products and services, and business relationships.

The first practical implication then refers to the problems of managing heterogeneity in products and services offered to customers. It is possible to argue that the focal firms' strategy (i.e. strategic direction) was manifested on a business model where the firms were to offer clients customised products and services and that the heterogeneity in technologies, competence, skills, components/material, logistics structure, etc. confined to the individual product, made it difficult to develop standardised solutions across projects and business relationships. Such standardisation has often been viewed as a prerequisite for achieving economies of scale, scope and integration. Their strategy to want to control and own a good proportion of the necessary resources in-house resulted in a heterogeneous collection of resources within and between firms. This made it difficult to obtain the benefits related to high volumes (components/material), using what is learned in one project in another, reusing technologies and modules developed across projects, repetitive activities and routines, etc. The uniqueness with each customised product meant that the firms also had to collaborate with multiple counterparts (i.e. suppliers, competitors, partners, etc.) in order to fulfil their 'total solution provider obligations', which also put the firms in a situation where they had to manage and solve multi-faceted problems with multiple counterparts. It is therefore possible to argue that the firms would have benefited from prioritising specific products, services and business relationships and becoming much more conscious about the resources they chose to invest in internally and with counterparts. The need to standardise the level of involvement (i.e. functions) the firms have across multiple relationships, is another way to achieve economies of scale and scope within specific functions and activities.

The case study findings reveal how the focal firms throughout the duration of the partnership arrangement developed a systematic way to network with each other, especially related to solving problems perceived to be important to their joint industrialisation projects. This networking was multi-levelled and multi-faceted, but primarily confined to individuals within the focal relationship. Although one would expect that the firms were also involved in other forms of social interaction processes with other counterparts, it is possible to argue that networking purposefully in similar ways with other actors could have made it possible for the firms to redefine their business model in ways that supported objectives such as economies of scale, scope and integration. The case study findings demonstrate how purposeful networking produces important insights that can help the firms select which products, services and relationships to prioritise and develop further.

The second implication then concerns how purposeful networking can provide the firms with important information and insight needed to develop real options along the way that adjust the firms' strategic direction when this

is required. In the networking processes the firms learn more about the problems and needs of the counterparts as well as how they fit with the focal firms' own problem-solving processes and needs. This insight could also help the firms to assess the nature of the resources of others and thus also help them decide what the appropriate level of involvement would be in each relationship. As achieving standardisation was a major problem for the focal firms, then looking into the commonalities across business relationships in both problems and needs could help the firms remove those relationships, products and services that do not support their strategic objectives. The basic argument is therefore that purposeful networking in relation to multiple counterparts needs to become co-ordinated in some dimensions internally in order to become an integrated part of the firms' strategising process.

The focal firms tested out several purposeful interaction programmes in the MRR 2 and the Stella 2 projects. The outcomes of the Stella 2 project revealed that the firms lacked co-ordination mechanisms that integrated various interaction programmes across projects and business relationships. The third practical implication then concerns the need to implement similar purposeful interaction programmes across projects/relationships, and to set up routines and procedures that co-ordinate programmes which could constrain projects from executing their individual plans. As an example, implementing purposeful interaction programmes such as the LTB procedure and the quality improvement procedure in all their joint projects would undoubtedly help the focal firms work more systematically towards suppliers.

The fourth practical implication refers to the resource activation mechanisms and their importance to the firms' ability to activate and use fragmented and passive resources available to them. As the case study demonstrates, the focal firms often relied on resource presentations and illustrations communicated orally or in writing when negotiating business contracts, dividing the work between them and developing project plans. The problems with these presentations were that they often lacked the necessary level of detail needed to understand and identify, for instance, where in the organisations individuals possessing certain abilities (i.e. competence, skills, knowledge, experience, know how, etc.) were located. The case study findings clearly demonstrate how the firms would have benefited from developing formal routines depicting how resource identification processes should be set up and communicated, and how to develop a new business practice describing the properties of distinctive resources. Now that the implications have been discussed, some final remarks will be provided as a conclusion to the study.

7.3 Final remarks

It was argued at the outset of this thesis that the researcher was interested in how firms involved in business relationships interact with each other in a strategic manner, while dealing with the limitations and opportunities that exist within industrial networks. The idea of strategy was perceived as a relationship activity opposed to an independent firm activity. This meant that strategy was studied as a two-sided process within the setting of a dyadic business relationship. After reviewing the idea of strategy within the INA literature, several ‘gaps’ were identified which motivated this researcher to investigate the underlying factors that support and constrain firms from developing coherent relationship strategies vis-à-vis others (i.e. strategies that improve the way resources are organised and economised on within business relationships). As firms are required to act purposefully and devise plans to get them from A to B, then studying strategy as an organic, interactive bilateral process between firms made sense. It provided an interesting starting point to examine how firms deal with the challenges of having to cope in a developing world where the actors are embedded into a business environment, and where multiple actors are trying to cope and act purposefully simultaneously. We will now offer some final remarks to the study.

7.3.1 What is the main finding of the thesis?

The case study findings describe the intricate process that constitutes strategising (i.e. strategic behaviour, strategic action and/or strategy process). In line with the basic arguments proposed at the outset of the study, firms’ strategising can be viewed as a process that takes place within business relationships. It is an interactive and dynamic process between counterparts, and firms’ ability to act deliberately in relation to each other very much depends on how they relate to individual actions performed within and outside the frame of individual interaction processes (i.e. actions performed by others). The study shows that firms’ ability to act purposefully is dependent on how they co-ordinate individual decision-making and pursue collective decision-making deemed relevant to solving their individual and collective problems and needs. The purposeful networking and purposeful interaction programmes that the focal firms put in place represent two strategic acts that contributed to an improved co-ordination within the business relationship, both in terms of the way actions were carried out and managed, and in the way the firms were able to organise and economise on resources. These two strategic acts are in themselves a manifestation of the firms’ attempts to interact strategically within a business relationship. It made it possible for the parties to develop and manage heterogeneity in

perceived real options, adapt to changes in the underlying network conditions, and manage heterogeneous and continuously evolving images of what would be the appropriate way to economise on resources. The interaction initiated and managed by the networking ambassadors became the arena where the parties collectively would try to deal with the tension that can arise when individual counterparts try to manage their enterprise purposefully in relation to multiple counterparts. The purposeful networking and interaction programmes then made it possible for the firms to be organic and dynamic in their strategic orientation. It also provided them with an arena to align ideas and initiatives as to how to better improve the management of their actor-level interaction in ways that activated specific subsets of resources prioritised in their strategic thinking.

7.3.2 What are the main theoretical contributions of the thesis?

The strategy process in the INA refers to strategic behaviour where the actors relate their original ideas, objectives and plans confined to single strategy processes to other strategy processes taking place within the broader frame of the mother organisation, single business relationship or multiple relationships connected to the firms. The nature of the single strategy process is such that the ones involved in the process are primarily concerned with solving the problems and meeting the needs they considered to be important to them (i.e. in line with their network context). The heterogeneity in network pictures or resource image layer then implies that the individual actor involved in strategy processes will be constrained by their position in the mother organisation, single business relationship or network. The outcome of the case study shows how the firms managed to achieve their agreed-upon objectives three years into the partnership, but the case also shows how other strategising processes performed outside the frame of this single strategising process had been constrained by this success. This implies that there is a need to co-ordinate multiple interactive strategising processes in order for firms to really be able to make prudent use of resources available in an 'optimal' and co-ordinated manner across multiple relationships.

The study shows how purposeful networking and interaction programmes initiated, developed and managed by networking ambassadors may enable firms to achieve alignment within a single strategising process, as well as between multiple strategising processes connected to firms. The purposeful networking that the networking ambassadors initiated provided multiple decision-makers within the mother organisation with valuable insight into the problems, real options and plans being devised and implemented throughout the organisation. The study demonstrates how the networking ambassadors in many ways can improve central management's ability to

develop coherent strategies internally and vis-a-vis others. The role of the networking ambassadors played offers some interesting insight into the process that can allow firms to develop or maintain their network position. The influencing, confronting, negotiating and decision-making that these actors initiated and managed ultimately made it possible for them to pursue acts that resulted in changes in the connections between firms. The case study illustrates how this is possible when both sides of the dyad individually and collectively are actively trying to support such changes. This insight contributes to the network position approach to strategy in the way change in roles occur through purposeful acts.

The role the networking ambassadors played also revealed some of the fundamental conditions that need to be in place for firms to really be able to develop effective exchange processes. In line with the relationship strategy approach, the effectiveness of exchange processes is then the result of how both sides perceive the outcomes rendered from certain resource combinations, and their collective efforts to support common objectives. The parties' ability to achieve internal effectiveness is then dependent on how the counterpart participates in efforts to support common adaptation objectives defined for the focal dyad and to support the counterpart in achieving their intra-firm adaptation objectives.

Furthermore, the networking ambassadors' ability to initiate and manage purposeful networking and interaction programmes provided the parties with a necessary link between managing networking pictures in strategy, and their ability to activate certain subsets of resources that could render desired economising outcomes. In line with the network picture approach to strategy, these strategic acts helped steer actor-level interaction within the business relationship through the way real options and interactive choices were devised and managed at each point in time. All in all the networking ambassadors as a connector unit and their strategic acts, adds to our understanding of how firms can deal with the problematic and challenging aspects of interacting strategically in relation to others.

7.3.3 Under what circumstances do the findings most apply?

The case study findings must be seen in light of the fundamental conditions of the partnership arrangement. The focal firms had continuously defined and modified the ideas describing the purpose of their arrangement and what the perceived changes required to change the way they did industrialisation projects together. The relationship project group (i.e. networking ambassadors), who were responsible for managing the partnership, made great efforts to develop internal consensus within the group. They were also

keen to share tactical and strategic information, knowledge and insight regarding their individual problems and needs as well as the perceived real options deemed relevant at each point in time. Furthermore, having the support of top management and having the mandate to test out new solutions in the relationship, also appear to be important conditions for the parties' collective efforts. Equally important was the fact that the firms had a shared understanding to confront both the original and new ideas continuously, and use what was learned in the interaction process to determine what the appropriate acts at a given point in time. All these aspects were important factors that help explain why and how the firms' interacted strategically in the way they did.

7.3.4 Under what circumstances could these findings not apply?

The findings would most likely not be equally applicable under other circumstances. For example, the findings would arguably not be applicable in situations where firms treat strategy as a plan characterized as a linear process where the perceived acts and outcomes are defined at the outset of the process without conscious reflections and considerations a long the way whether or not the plan is still valid. The plans and strategic thought process can not be treated as a strategic arrangement, but something that demands that the fundamental conditions these plans are built on are confronted and monitored on a regular basis. The study illustrates how the focal firms treated the strategy process as a dynamic and circular process, where both the original ideas of the strategy and the activities pursued along the way changed in nature when the parties experienced and learned new things. While the strategy process was characterized with certain pre planned activities that the firms would address and deal with a long the way, they would often redefine their original plans and the nature of their activities as a result of their continuous reflections and analysis of the fundamental conditions on which these plans are built on. In the same way, the findings are not applicable in situations where strategy is viewed as an independent firm activity opposed to a relationship activity. The findings show how the firms' ability to co-ordinate efforts and implement changes in the relationship was very much dependent on their ability to develop common ideas and views within the relationship, and translate and communicate these to other actors within the mother organisations. The open communication channels to multiple actors connected to the focal dyad, and emphasis on the acts of others, must be highlighted as important parameters contributing to their ability to achieve alignment within the dyad.

7.3.5 Suggestions for future research

It would be interesting for future research to investigate other forms of networking arrangements that firms use purposefully in strategising processes. It is also possible for future research projects to be set up in the form of a pilot project, where the researcher could study how connected organisations deliberately can put in place networking ambassadors to co-ordinate between multiple strategising processes occurring within and in connection to the firms. It is important to note that many organisations have specific business units responsible for the strategic planning and managing the implementation of such plans. The way networking ambassadors is defined in this thesis differs from such groups in that the networking ambassadors are individuals that come from multiple firms, departments and business functions who meet outside their regular day to day functions. A closer look at how such networking ambassadors use purposeful networking and interaction programmes deliberately to achieve some level of control and alignment in the strategy process, could undoubtedly enhance our understanding of how tactics such as influencing, negotiating, and decision-making lead to changes in the firms connections vis-à-vis others.

Appendix 1 – Various Interview Guides

The researcher relied on different interview schemes. These were adapted to the specific respondents' position in the focal dyad, and knowledge about the common and specific themes focused on at a given point in time. I will now offer two examples of interview guides used in the study.

Example One – Interview Guide from Relationship Episode One

COMMON THEMES

Respondents from both focal firms were asked the same questions in order to map similarities and differences in; perceptions of the nature of the Metallic-situation, how the parties dealt with the situation, and possible alternative ways to solve similar situations in the future, etc.

1. How did you/your department view the Metallic-situation?
2. How did you understand/view the problems and challenges that arose and the actions needed to be taken to solve the matters?
3. How did you and your department relate to these problems/challenges?
4. How did you act in relation to the situation?
5. How was the situation handled and how you were involved in the problem solving?
6. What would in your opinion be the best solution to the problems?
7. What resources do the focal firms have that could have been mobilised to solve the situation at hand?
8. Why did KDC handle the situation alone?
9. Why did not Kitron get involved in the supplier selection process?
10. If the focal firms were to select a new customer-specific supplier collectively in the future, what departments and individuals would have to be involved in the process?
11. How do you perceive the role of the relationship project group in matters such as these?
12. What are the pros and cons with the current supplier selection process in the focal dyad?
13. What are the pros and cons with changing the current supplier selection process?
14. What is needed to change the current supplier selection process concerning customer-specific suppliers?
15. How do you perceive Kitron's abilities to select a customer-specific supplier at the time when Fiast was chosen? *Note: Some of the responses the respondents gave to this question is summarised in Tables 1 and 2 on the next page.*

Table 1: *KDC's perceptions about Kitron's abilities to select a new sub-supplier at the time when Fiast was chosen*

	1. Prior to choosing Fiast individually	2. Post Fiast					
		Top manager Radio dept	Technician Technology dept	Quality manager Quality dept	Design engineer Radio dept	Purchaser Logistics dept	Logistics manager Logistics dept
Mercantile conditions	No	Yes	Yes	Yes	Yes	No	Yes
Technical capabilities	No	No	Yes	No	No	No	No
Quality conditions	No	No	Yes	No	No	No	No

Table 2: *Kitron's perceptions about their own abilities to select a new sub-supplier at the time when Fiast was chosen*

	1. Prior to choosing Fiast individually	2. Post Fiast					
		Top manager Kitron ASA	Sourcing manager Sourcing dept	Quality manager Kitron Arendal	Purchaser Kitron Kongsberg	Design engineer Kitron Development Billingstad	Production leader Kitron Kongsberg
Mercantile conditions	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Technical capabilities	Yes	No	Yes	Yes	No	Yes	No
Quality conditions	Yes	Yes	Yes	Yes	No	Yes	No

Example 2 – Interview Guide from Relationship Episode Two

COMMON THEMES

Respondents from both focal firms were asked the same questions in order to map similarities and differences in; perceptions of the nature of the MRR situation, how the parties suggested they deal with the situation, what they perceived the potential outcomes to be from the different decision options, etc.

1. How do you/your department characterise the challenges connected to the end of the MRR contract?
2. What implications do you think these challenges could have on each firm and the focal relationship?
3. What real options do consider to be the most relevant at this point and which actions do you consider to be the best for a) your firm and b) the focal relationship?
4. How do you think top management will act/react to the end of the MRR contract?
5. How do you think the relationship project group will react to the end of the MRR contract?
6. What do you consider the implications to be for the focal relationship and the ongoing partnership arrangement from the various decision options mentioned here?

SPECIFIC THEMES

The respondents were chosen based on their direct involvement in the MRR 1 and 2 projects

7. What is your role in the MRR project?
8. Are you directly or indirectly involved in the communications now taking place within the relationship project group?
9. How are you involved in the process of solving the MRR challenges?
10. What solutions can you think of that could solve the MRR-2 challenges?
11. What advantages and disadvantages are there for a) each firm and b) for the focal relationship from the different solutions?
12. What actions does each firm need to consider in order for the relationship project group to succeed with their objectives for the partnership?
13. What outcomes do expect could come from these actions for a) each firm and b) for the relationship?
14. How do you think the counterpart will respond to the actions each firm's top management could end up performing?

Example 3 – Interview Guide from Relationship Episode Three

COMMON THEMES

The respondents were chosen based on their involvement in the Stella 1 and 2 projects, and their knowledge about the challenges facing the joint industrialisation projects within the focal dyad.

1. What is the nature of the Stella 1 project?
2. How would you describe the way in which the Stella 1 project was set up and the project organised between phases 2 and 3?
3. What are the important interfaces in Stella 1 and how are these connected?
4. How did the firms manage adaptation within the Stella 1 project?
5. What are the most important success and problem areas in Stella 1?

SPECIFIC THEMES

The respondents were chosen based on their direct involvement in the Stella 1 and 2 projects

6. What are the changes made in Stella 2 compared to Stella 1?
7. What is the nature of your position and function in the Stella 1 and 2 projects?
8. What are your experiences within initiatives tried out in the MRR-1 and 2 projects and what initiatives do you suggest become implemented in Stella 2?
9. What are the important problems and challenges in Stella 2?
10. What should the overall objectives and goals be in the Stella 2 project?
11. How are these objectives and goals connected to the purpose of the partnership arrangement?
12. What are the important interfaces that need to be focused on in the Stella 2 project? (in phase 1, 2, 3, and 4)
13. How does the relationship project group, control group and Stella 2 project leader need to interact in order to support the objectives of the partnership arrangement and to meet the needs of the Stella 2 project?
14. How do the different actors need to communicate and co-operate in order to make the project management more transparent and timely?
15. How do you view the nature of the changes made in Stella 2 compared to Stella 1?
16. How do you view the potential benefits to be gained from changing the division of responsibilities in the focal dyad?

Appendix 2 – Overview of the primary and secondary data used

PRIMARY DATA

	Background to the case study	Relationship episode one	Relationship episode two	Relationship episode three
Interviews <i>Face-to-face</i>	13	20	17	13
Interviews <i>Telephone</i>	3	2	2	3
Business Meetings	-	3	2	1
Feedback Meetings	-	2	3	6

* Note: The common and specific themes focused on in the interviews have overlapping features which makes it difficult to place them into the categories above. The categorisation is therefore made based on the main focus of each interview in line with (a) background to the case study, (b) relationship episode one, (c) relationship episode two and (d) relationship episode three.

SECONDARY DATA

Annual reports: from 1995 – 2006 (both firms)

Project plans: industrialisation process charts and documentation, business contracts, documents describing the restructuring programmes (plans, change process, outcomes), board documents, business meetings documentation

Strategy plans: formal and official documents available to the public, formal but unofficial documents (work in progress, or unfinished templates), formal but disclosed information and documents only available to a few senior managers

Information from websites such as: www.kitron.com, www.kongsberg.com, www.isuppli.com and many others (www.futureelectronics.com, etc.)

Appendix 3 – List of interviews undertaken and meetings attended

FACE-TO-FACE INTERVIEWS

Number	Date	Firm	Department	Business Function	Chapter
1	050504	KDC	Logistics	Purchaser	CH5; (RE-2)
2	240504	KDC	Technology	Configuration Management	CH5; (RE-2)
3	030504	KDC	Operations	Project Manager (Stella 1)	CH5; (RE-2)
4	190504	KDC	Technology	Quality supervisor	CH5; (RE-2)
5	190504	KDC	Technology	Configuration Management	CH5; (RE-2)
6	040504	KDC	Radio	System design	CH4
7	240504	KDC	Radio	Senior leader and department chief transmission	CH5; (RE-2)
8	240504	KDC	Operations	Top Manager 1	CH 4
9	240504	KDC	Radio	Hardware designer	CH5; (RE-2)
10	050504	KDC	Radio	Software designer	CH5; (RE-2)
11	140504	KDC	Technology	Component sourcing	CH4;CH5; (RE-3)
12	070504	Kitron Hisøy	Production	Top Manager 1	CH4;CH5
13	060504	Kitron Hisøy	NPI	Project leader	CH5; (RE-1)
14	070504	Kitron Hisøy	Production	Key Account Manager	CH4;CH5 (RE-1) and (RE-2)
15	060504	Corporate	Central Sourcing/Kitron	Quotation Manager	CH4;CH5 (RE-3)

			Sourcing AS		
16	280504	Kitron Development Arenedal	Development	Test developer	CH4;CH5 (RE-2)
17	280504	Kitron Hisøy	NPI	Project leader	CH4; CH5 (RE-2)
18	110204	KDC	Radio	Senior leader and department chief of design & industrialisation	CH4; CH5 (RE-1)
19	300104	Kitron	Corporate	Senior manager defence segment	CH4; CH5 (RE-1)
20	200204	Kitron Hisøy	Quality	Quality supervisor	CH5; (RE-1)
21	190204	Kitron Hisøy	Logistics	Purchaser	CH4; CH5; (RE-1)
22	240204	Kitron Kongsberg	Logistics	Purchaser	CH5; (RE-1)
23	230204	Kitron Development Billingstad	Development	Designer	CH5; (RE-1)
24	290104	Kitron Hisøy	Logistics	Purchaser	CH5; (RE-1)
25	010304	KDC	Technology	Senior Quality Supervisor	CH5; (RE-1)
26	290104	Corporate	Central Sourcing/Kitron Sourcing AS	Quotation Manager	CH4;CH5 (RE-1)
27	290104	Kitron Hisøy	Production	Test engineer	CH4; CH5 (RE-1)

28	260204	KDC	Technology	Sourcing Engineer	CH5; (RE-1)
29	240204	Kitron Kongsberg	Production	Production leader	CH5; (RE-1)
30	130204	KDC	Technology	Component designer	CH5; (RE-1)
31	160104	Kitron Kongsberg	Production	Key Account Manager	CH4;
32	160104	Kitron Kongsberg	Production	Test engineer	CH4;
33	260204	Kitron Kongsberg	Production	Quality chief	CH5; (RE-1)
34	190204	Kitron Hisøy	Production	Production leader	CH4
35	290104	Kitron Hisøy	Production	Key Account Manager	CH5; (RE-1)
36	200204	Kitron Hisøy	Production	Test engineer	CH5; (RE-1)
37	281103	KDC	Logistics	Key Account Manager	CH4; CH5 (RE-1)
38	281103	KDC	Logistics	Head of the Logistics dept	CH4; CH5 (RE-1)
39	120204	KDC	Radio	Head of the Radio dept	CH4; CH5 (RE-1) and (RE-2)
40	230204	KDC	Logistics	Key Account Manager/purchasing	CH5; (RE-1)
41	240204	Kitron Kongsberg	Production	Test engineer	CH5; (RE-1)
42	190204	Kitron Kongsberg	Logistics	Purchaser	CH5; (RE-1) and (RE-2)
43	250204	KDC	Logistics	Head of the Logistics dept	CH5; (RE-1) and (RE-2)
44	090402	Kitron Oslo	Logistics	Head of the Logistics dept	CH4

45	101102	Future Electronics	Sales	Head of the Norwegian Office	CH4
46	240502	Kitron Oslo	Logistics	Head of the Logistics dept	CH4
47	230802	Corporate	Sourcing	Senior Sourcing Manager	CH4
48	281002	Corporate	Sourcing	Senior Sourcing Manager	CH4
49	220406	Kitron Development Billingstad	Developer	Senior Engineer	CH5; (RE-3)
50	130303	Corporate	Sourcing	Senior Sourcing Manager	CH5: (RE-1)
51	080603	Kitron Kongsberg	Administration	Customer Manager	CH: (RE-2)
52	150303	Corporate	Sourcing	Senior Sourcing Manager	CH5: (RE-1)
53	111003	Kitron Hisøy	Accounting	Financial officer	CH4;
54	060604	KDC	Accounting	Financial officer	CH4;
55	060604	KDC	Accounting	Financial officer	CH4; CH5; (RE-3)
56	050503	Corporate	Sourcing	Senior Sourcing Manager	CH5: (RE-1)
57	111003	Kitron Hisøy	Production	Project Manager	CH5: (RE-2)
58	111003	Kitron Hisøy	Production	Production Leader	CH5: (RE-2)
59	210503	Corporate	Sourcing	Senior Sourcing Manager	CH5: (RE-1)
60	111003	Kitron Hisøy	Production	Test engineer	CH5: (RE-2)
61	020104	Kitron Hisøy	Production	Production/mounting	CH5: (RE-2)
62	020104	Kitron Hisøy	Production	Customer Manager	CH5: (RE-2)
63	060904	Kitron Hisøy	Top Management	Senior Manager	CH5: (RE-2)

TELEPHONE INTERVIEWS

Number	Date	Firm	Department	Business Function	Chapter
1	100504	Kitron	NPI	Project leader	CH5; (RE-3)
2	081004	Kitron	Corporate	Logistics and Sourcing director	CH4; CH5 (RE-3)
3	100904	KDC	Logistics	Head of the Logistics dept	CH4;CH5; (RE-2)
4	241004	Kitron	Corporate	Quotation Manager	CH5; (RE-2)
5	280404	KDC	Logistics	Head of the Logistics dept	CH4;CH5; (RE-2)
6	100503	Kitron	Corporate	Logistics and Sourcing director	CH4
7	271102	Future Electronics	Sales	Head of the Sales department	CH4;
8	230103	Future Electronics	Sales	Head of the Sales department	CH4
9	220206	Kitron	Corporate	Logistics and Sourcing director	CH5; (RE-3)

BUSINESS MEETINGS (FEEDBACK MEETING/ACTIVE ROLE)

Number	Date	Firm	Department	Business Function	Chapter
1	130504	Relationship project-meeting (feedback)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>KDA</u> ; Finance <u>BI</u> ; Inst. Strategy and Logistics & Inst. Marketing	Director Sourcing Head of Logistics Financial Manager PhD student & professor	CH5; (RE-1),(Re-2) and (RE-3)
2	160604	Relationship project-meeting (feedback)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>KDA</u> ; Finance <u>BI</u> ; Inst. Strategy and Logistics & Inst. Marketing	Director Sourcing Head of Logistics Financial Manager PhD student & professor	CH5; (RE-2)
3	040204	Relationship project meeting (feedback)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>KDA</u> ; Finance <u>BI</u> ; Inst. Strategy and Logistics	Director Sourcing Head of Logistics Financial Manager PhD student &	CH 5; (RE-1) and (RE-2)
4	020304	Relationship project meeting (feedback)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>KDA</u> ; Finance <u>BI</u> ; Inst. Strategy and Logistics & Inst. Marketing	Director Sourcing Head of Logistics Financial Manager PhD student & professor	CH4;CH5 (RE-1)
5	131003	Relationship project meeting (active role)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>BI</u> ; Inst. Strategy and Logistics & Inst. Marketing	Director Sourcing Head of Logistics PhD student & professor	CH5; (RE-2)
6	151204	Relationship project meeting (active role)	<u>Kitron</u> ; Corporate <u>KDC</u> ; Logistics <u>BI</u> ; Inst. Strategy and Logistics	Director Sourcing Head of Logistics PhD student	CH5; (RE-3)

BUSINESS MEETINGS (PASSIVE ROLE)

Number	Date	Firm(s)	Department(s)	Chapter
1	020604	KDC & Kitron "Relationship project"	<u>Kitron</u> : NPI, Production, Development: <u>KDC</u> : Radio, Technology, Logistics & Operations	CH5; (RE-3)
2	061004	Kitron	<u>Kitron</u> : NPI, Production, Development, Sourcing	CH5; (RE-3)
3	081204	KDC & Kitron "Relationship project"	<u>Kitron</u> : Corporate, Production, Development <u>KDC</u> : Radio, Operations	CH5; (RE-3)
4	100504	Kitron	<u>Kitron</u> : Corporate, Sourcing, Head of Kitron Hisøy	CH5; (RE-3)
5	100504	KDC & Kitron "Relationship project"	<u>Kitron</u> : Corporate (3 persons), Head of Kitron Hisøy, Sourcing, Production <u>KDC</u> : Radio, Logistics, Operations	CH5; (RE-3)
6	280504	Kitron	<u>Kitron</u> : Corporate, Head of Kitron Hisøy, Sourcing (2 persons), Production	CH5; (RE-2)
7	101203	KDC & Kitron "Relationship project"	<u>Kitron</u> : Corporate (3 persons), Head of Kitron Hisøy, Sourcing, Production <u>KDC</u> : Radio, Logistics, Operations	CH5; (RE-2)
8	021103	KDC & Kitron "Relationship project"	<u>Kitron</u> : Corporate, Head of Kitron Hisøy, Sourcing, Production <u>KDC</u> : Logistics <u>KDA</u> : Finance	CH5; (RE-2)
9	050503	KDC & Kitron "Relationship project"	<u>Kitron</u> : Corporate, Head of Kitron Hisøy, Sourcing, Production <u>KDC</u> : Logistics <u>KDA</u> : Finance	CH5; (RE-1)
10	140104	KDC	<u>KDC</u> : Logistics, Operations, Radio	CH5; (RE-1) and (RE-2)
11	090205	KDC & Kitron "Relationship project"	<u>Kitron</u> : Development	CH5; (RE-3)

Appendix 4 – The decision making process

Illustration of the processes used when selecting customer-specific suppliers: This procedure was used by the decision group from KDC when they selected Fiast (their own description of the process they went through).

THE DECISION PROCESS – STEP BY STEP

- Define problem – and determine goals for the evaluation process
 - What challenges are we facing?
 - What progress-plan is desired and possible?
- Establish an Decision-Group
 - What competence and skills is needed in the group?
 - Where does this competence and skills exist?
 - What roles should the different group members have?
- Determine decision criteria
 - What do we want to achieve?
 - What is needed to achieve those goals and objectives?
 - What are the critical elements for the process, product and for the firm's economic setting?
- Determine cooperative and communicative channels and principles
 - Internal interfaces
 - External interfaces
 - Determine roles and define responsibilities between the different actors
- Decision
 - Who provides the proposition (or suggested decision)?
 - Whose opinion counts the most between the different group members?
 - Who makes the decision?
- Establish supplier contact and negotiate supplier contract
 - Determine the different parameters in the contract that are relevant for how the relationship is managed in different situations
 - Determine specific details in the supplier contract that are important to KDC and its other relationships (such as for Kitron ASA)
- Supplier supervision and relationship management
 - Who will be involved in this internally and externally?
 - How will the different actors be involved?
 - What motivations or arguments underline these choices?

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