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- a reflection of corporate strategy

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Managing Networks – a Reflection of Corporate Strategy

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Abstract:

Logically it seems that companies pursuing different business strategies would also manage their relationships with other firms accordingly. Nevertheless, due to the lack of research in the field of network strategies, this link still remains inadequately examined. Based on the well-known framework of organisational behaviour developed by Miles and Snow (1978), this paper argues that the patterns of network behaviour practiced by firms greatly depend on the business typology of the company. That is, a company's business typology will to a certain degree dictate the network identity of the company. In this paper evidence is provided, that the relation between a company's strategy, structure and processes in fact have a considerable influence on its pattern of network behaviour. Three case studies from the Danish biotech industry exemplify and illustrate how a company's strategy is directly correlated with how it manages its strategic network relations, which consequently affects its network identity (Eisenhardt 1999). It is argued in this paper that the level of relational embeddedness, incentives for establishing strategic relations and the relation between the number of non-redundant and redundant relations are the most dominant elements distinguishing the types of network behaviour in relation to the business typology. The paper thus strives to argue how different business typologies develop a network identity on the basis of their network behaviour. Due to the correlation between a company's strategy, structure and processes and its pattern of network behaviour, knowing how to manage this relation becomes essential, especially during the development of new strategies.

1.1 Introduction

Over the years, a considerable amount of resources have been spent on analysing company strategy making. Focus has been on analysing each single company in isolation in order to understand how it behaves and performs. Today, managers have realised that the foundation for staying competitive are focusing on globalisation and innovation. This increasingly puts pressure on engaging in strategic relations. Since the expected benefits, from engaging in a network of strategic relations are high, the concept of networks or networking has increasingly gained momentum. What follows from this is that

previous measurements for strategizing, i.e. focus on the correct positioning within an industry (Porter 1980) or analysing the internal resources and capabilities of a company (Wernerfelt 1984; Barney 1991), has become inadequate measures for predicting company strategy. As the relatively new phenomenon of networking seeks to explain how to manage networks of strategic relations, it still lacks insight when it comes to explaining relation to firms' strategies.

Logically, it seems that companies pursuing different business strategies would also manage their strategic relations with other actors accordingly. Research, does not enable us to neither verify nor disprove this assertion as the focus has been on the following: explaining the factors that have lead to this renewed focus on inter-firm cooperation (Gulati et al. 2000), determining what constitutes a network and how to maintain and/or develop a company's network relations (Holm et al. 1996; Håkansson and Johanson 1993; Miles and Snow 1992; Ritter 1999), and how to develop a network perspective (Gulati et al. 2000; Dyer and Singh 1998). Due to the lack of research in the field of network strategies, the link between company behaviour and how it manages its strategic relations and consequently network identity still remains inadequately examined. The purpose of this paper is thus to provide the well-known framework of organisational behaviour developed by Miles and Snow (1978) into the analysis of strategic network relations.

Three case studies from the Danish biotech industry will be drawn into the analysis to exemplify and illustrate how a company's strategy is directly correlated to how it manages its strategic network

identity. The following section will provide a theoretical overview which includes an introduction to Miles and Snow's (1978) framework as well a description of each case company. Furthermore, the methodology and a review of existing network literature will be presented. Section three will contain the analysis where theory will be linked to the empirical data from the empirical cases. Finally, due to the correlation between the business typology of a company, its pattern of network behaviour and subsequently network identity, the importance for company strategy is knowing how to manage this relation which will be presented in a general framework.

2.1 Theoretical overview

Strategic models such as Porter's (1980) three generic strategies and Ansoff's (1965) theory of strategic direction both provide useful tools for analysing company behaviour in relation to strategy. Miles and Snow's (1978) strategy-structure configuration (compared to the other two), is the additional advantage in that it incorporates the interrelationship between company strategy, structure and processes. This makes it a more illustrative framework when categorizing network strategies.

A focal premise of Miles and Snow's (1978) typology is patterns of competitive behaviour. Their framework provides four business typologies: Defenders, Prospectors, Analysers and Reactors. The business typology of a company is illustrated by the way the

company relates to the “adaptive cycle” which consists of three intricately interwoven problems that affect organisational behaviour: 1) the Entrepreneurial 2) the Engineering and 3) the Administrative (Miles and Snow 1978). It is often said that managers have to relate to a range of different problems; nevertheless, according to Miles and Snow, they can be categorised into three main problem areas (Torres and Murray 2002). The Entrepreneurial problem concerns the choice of product and market domain. A company has to decide whether to focus on a wide or narrow product/market domain. The second problem is related to the company’s use of technology i.e. processes that favour scales of economies or effectiveness and flexibility (Engineering problem). A correlation does exist between the choice of production process (as an enabler) and the company’s choice of product/market domain. Lastly, the Administrative problem deals with the organisational structure of the company (centralised versus decentralised). Inherently, a company has to deal with all three problems simultaneously but depending on the business typology of the company, the problems will be prioritised differently. A short introduction to the four business typologies as well as a description of the corresponding case company will be given below. It is however important to keep in mind that when using typologies, a variety of companies are dichotomised into narrow categories. Consequently, corresponding case companies were chosen to illustrate and exemplify the main characteristics of the typologies in this new field (Glaser and Strauss 1967; Eisenhardt 1999).

The cases were all identified within the Danish medical industry. By limiting the analysis to a particular country and industry, the paper tries to overcome some of the possible biases of identifying changes in network behaviour based on different industry contexts. The framework for network behaviour in this paper will not be country or industry specific.

The cases were identified (Yin 1984) based on the characteristics of business typologies developed by Miles and Snow (1978). Each case was selected on the basis of how well it exemplified the relation between the three different parameters of product/market domain, organisational structure and production processes. For this purpose, secondary data (primarily from the internet) was used to single out a number of qualified companies. The primary data was gathered through several rounds of semi-structured interviews with these companies. The first round of interviews was conducted to verify what typology the company belonged to. This was done by presenting a list of questions that reflected how the companies related to the three dimensions of the Adaptive Cycle. The next round of interviews was constructed so that insight was obtained as to how each case company relates to issues of networking. All interviews were tape-recorded and transcribed in order to assure a more accurate interpretation. Based on the information from the interviews, the data was analysed by linking the various answers with the parameters identified as important for network behaviour in the theoretical part of the paper. This provided a comprehensive

picture of patterns of network behaviour. By incorporating the data from the case studies, the individual typologies were linked to specific network behaviour; providing for the identification of each business typology's network identity. In the paper, the identity of each case company and the names of the respective interviewees will be kept anonymous. The company names will be replaced with synonyms, reflecting their identity.

2.1.1 Defender

Defenders often perceive their business environment to be fairly stable. Stability is achieved by reducing the organisation's vulnerability to changes in the environment as well as uncertainty through a series of decisions and actions. Stability and reduced uncertainty is crucial for the defenders entrepreneurial problem (Shortell and Zajac 1990). A defender's success depends on its ability to stay competitive within its chosen domain, which is defined by price and/or quality, i.e. relying on high efficiency. As a consequence, the engineering focus of a defender tends to be on efficient production process (Torres and Murray 2002; Shortell and Zajac 1990). However, to ensure the success of this operating process, a defender must maintain a high level of internal control through a highly centralised organisational structure (Tuominen 1997; Torres and Murray 2002). It can be argued that defenders tend to ignore developments outside its core market, consequently achieving growth through market penetration in its current domain

(Miles and Snow 1978). A defender strategy could thus be characterised as the stabliest of the business typologies.

2.1.1.1 Case 1: Respiratory A/S

Respiratory A/S provides a rich illustration and exemplification of a defender. The company is a leading pharmaceutical company in the field of allergy diagnosis and treatment. Respiratory A/S was founded in 1923 and has approximately 1000 employees. What characterizes this defender company, is its perusal in centralising its organisational structure with main focus on streamlining production processes and hereby obtains efficiency gains. Secondly, Respiratory A/S's core product portfolio is relatively focused around products to cure allergies from diagnosis to treatment. To support this strategy, their Director of Strategic Marketing & Sales explains, "Our aim is to have a limited number of product lines out of which two are focused on tablets and one on injections". Another clear example of the company's defender strategy is its focus on quality. As the Director of Strategic Marketing & Sales argues, "We seek to differentiate ourselves on quality – meaning that we aim at setting the standard within the industry". As can be seen, many of the central strategic issues for Respiratory A/S are all elements, which are of high priority for a company characterised as being a defender.

Respiratory's current external relationships centre around four big established companies. Each relationship has a specific objective but seen as a whole, all four serve to improve or maintain the company's leading position within the field of allergy diagnosis and treatment. The relationships are long-term and based on tight personal

relations. Respiratory A/S also governs a range of relationships of minor importance. These are based on weak connections. The Director of Strategic Sales & Marketing explains, “We do have some minor relations with smaller companies but they are not flashed as much as other more important strategic relations”.

2.1.2 Prospector

Contrary to the defender, a prospector enacts dynamically with its environment and is continuously on the search for new business opportunities (Miles and Snow 1978). A prospector’s solution to the entrepreneurial problem is focusing on a relatively wide product/market domain (Morgan et al. 2000). The strategy of a prospector is often associated with innovation and companies pursuing this strategy are often trying to enforce change (Miles and Snow 1984). The engineering problem has to be effectiveness. This allows for more flexible production process. Correspondingly, the solution to a prospector’s administrative problem is a decentralised organisational structure (Torres and Murray 2002). Compared to a defender, a prospector can thus be characterised as being very pro-active.

2.1.2.1 Case 2: Innovator a/s

The strategy of Innovator A/S unmistakably exemplifies the basic ideas of a prospector. Innovator A/S is a biotech-based company, which has become the world leader in enzymes including industrial. The company was recently spun off from another major

pharmaceutical company and has approximately 3700 employees. The first indication that reveals Innovator A/S as being a prospector is that the organisational structure: Senior Director of Innovator A/S explains, “There is a very short distance between top management and lower levels. Focus is on easy communication flow between all employees and levels”. Secondly the market as well as the product area is very broad as the company is represented within 120 countries and carries over 700 different products. Thirdly and very typical for a prospector, Innovator A/S is dedicated to a strategy of continued innovation of new products as well as development of new business areas. Senior Director of Innovator A/S explains the strategy, “At the outset, we were only into enzymes. But we have to continue developing new areas such as bio-polymers and bio-pharmaceuticals. It is our vision to keep building new areas”. These are not based on enzymes but they do provide synergy with the enzyme business. As is typical for the prospector, focus is thus not specifically on efficiency but instead effectiveness. Production plants can be used for various purposes and include new types of businesses. Innovator A/S has a different perspective on strategic relationships, which also serve many different functions. That is, many of Innovator A/S’s strategic relations are with the company’s biggest clients. Coupled with the long development process of new products in this industry, these strategic relationships are generally long-term and personal. The reason for this strategy, according to the Senior Director of the company, “You have to make it work on the personal level. Otherwise it cannot function on the commercial level”. If an opportunity arises or other changes make current relationships absolute, Innovator A/S

has no problem eliminating existing long-term relations. Senior Director of Innovator A/S explains the necessity of this in relation to its strategy: “When changing business focus we sometimes have to change our strategic partners”. Innovator A/S also has an array of informal relationships with smaller companies or organisations. These types of relations often serve the purpose of accessing information that currently lay outside Innovator A/S’s core business areas.

2.1.3 Analyser

Defenders and prospectors represent the two ends of a continuum i.e. the two extreme. The analyser typology can be found between the two (Miles and Snow 1978; Hougaard and Bjerre 2002). The analyser’s entrepreneurial focus aims at positioning itself within a stable as well as a changing domain. As a consequence, focus is both on innovation as well as maintaining its more traditional markets (Torres and Murray 2002). This duality is also reflected in its solution to its engineering problem. A balance is found between technological flexibility and stability (Touminen 1997). Correspondingly, an analyser has to accommodate its organisational structure to encompass both the stable and dynamic domains of its operations. A common example of this type of strategy is found in corporate venture companies (Burgelman 1983; Husted and Vintergaard 2004).

2.1.3.1 Case 3: Derma A/S

The case company illustrating the business typology of the analyser is the research and development based pharmaceutical company Derma A/S. Derma A/S was established in 1908 and employs roughly 3200 persons today. The company's area of expertise is in dermatology and critical care of humans. It is the vision of Derma A/S to become a global leader in the field of dermatology. The first indication of Derma A/S's analyser strategy is that Derma A/S is currently searching for a new area of expertise. Explaining this strategy, Executive Vice President of Marketing & Sale explains, "For our company it is very important with innovation. We are therefore looking for a third leg to stand on which does not have to be directly related to our existing business areas". The company's product domain is thus a blend of its core focus within dermatology and critical care and those derived from research in new areas of business –clearly a perfect example of an analyser strategy. Secondly, the company is committed to a decision making process that is quick and founded on sound principles. This is supported by an organisational structure, which is relatively flat. Explaining this structure, Executive Vice President of Marketing & Sales argues, "You have to keep the finger on the pulse in order to make some qualified decisions. It is therefore important to have a flat organisational structure". Due to Derma A/S's mixture of defender and prospector strategies (i.e. analyser) it is hard to pinpoint any specific characteristics of its production processes. The standpoint is however that efficient production is important.

At the time, being Derma A/S is having few strategic relations of higher importance. Each relation is to provide Derma A/S with access to resources necessary for the development of a specific product. Supporting this strategic move, Executive Vice President of Marketing & Sales explains, “It is important to have all the experts in-house. In that way we are able to explain to others what we want them to do for us. The final product is however always entirely developed inside the company”. Derma A/S’s network relations are in general long term and personal. The reasons for relationships being long term are that the R&D process in general is very time consuming. In addition to its more stable strategic relationships, Derma A/S is recognised as a venture capital investor in small companies and consequently has a several of more informal relationships with minor companies.

2.1.4 Reactor

Reactors can best be described as being stuck in the middle between the other typologies. Companies’ belonging to this typology fail to respond reliably to changes in the environment as no consistency exists between its choice of domain, organisational structure, and processes (Torres and Murray 2002). Reactors do perceive changes and opportunities in its external environment but due to lack of internal focus and co-ordination, it becomes impossible to respond successfully (Touminen 1997).

Touminen (1997) proposes that a reactor should not be seen as a unique typology but rather an illustration of defenders, prospectors and analysers that find themselves “stuck in the middle”. Supporting

this argument is the fact that other researchers have refrained from working with this business typology (Hambrick 1993; Touminen 1997). Furthermore, Miles and Snow’s study of the Electronics and Food Processing industries found that only 2 out of 27 companies analysed could be characterised as reactors (Miles and Snow 1978, p. 193). As a consequence, this paper will not include this business typology in the analyses and only three cases will be presented to exemplify the business typologies.

Based on the 3 dimensions of the Adaptive Cycle, the business typologies can each be fitted into the framework below hereby illustrating how each of them are situated compared the others.

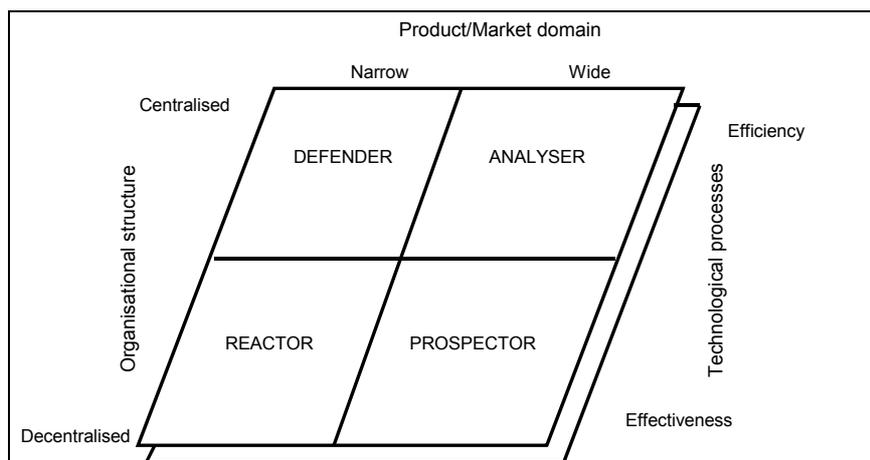


Fig. 2.1 Miles and Snow’s framework, Adapted from Touminen (1997)

2.2 A new strategic strand: networks

A central question in strategic research has been why companies behave and perform differently. Until recently, focus has been on company’s internal resources and capabilities (i.e. the resource

based view of the firm) (Wernerfelt 1984; Barney 1991; Hamel and Prahalad 1996) and how it positioned itself within a market i.e. the industry structure view (Porter 1980). What characterises both views is that they tend to see companies as single entities. A trend towards interfirm cooperation has become apparent (Gulati et al. 2000) whereas the company and its network become intertwined and cannot be separated.

2.3 Networks representing relations

No clear definition of strategic networks exists. However, the majority of research focuses on the kinds of relationships, which bind these structures together (Gulati et al. 2000). As defined by Anderson et al. (1994), a business network should be seen as sets of connected relationships where the focal company through its relation to its focal partners will be connected to third parties. Thus, the network does not consist exclusively of dyadic relations but relations established among various companies. Håkansson and Johanson (1993) and Håkansson and Snehota (1997 A and B) identify the companies within a network as actors and according to these researchers, what binds these actors together are the dependencies. Accordingly, actors are the various organisations or individuals represented within the network, whereas resources are the elements that are central for performing the activities, hereby forming activity chains and structures (Håkansson and Snehota 1997, A). What is interesting is that business relations, according to Blau (1968), in

many cases, can be compared to social. Hence business relations are relationally embedded.

Rowley et al. (2000) defines the level of relational embeddedness as being dependent on the use of either weak or strong ties. Strong ties facilitate the exchange of important information and tacit knowledge since strong ties are built on a high level of trust and insight (Granovetter 1992). This coincides with Blau's (1968) ideas. Companies bound together by strong ties therefore often become very dependent on each other as this often calls for a certain level of adaptation to the partners processes (Rowley et al. 2000). Nonetheless, it is important to emphasize that the adaptation process between the two actors can be related to various areas (Johanson and Mattsson 1994). How much the actors have to adapt to each other thus varies depending on the area of interest. Hence, little adaptation is needed if i.e. the objective is to access information onto third company types. High level of relational embeddedness i.e. the use of strong ties can exist while still having a low level of dependency. Weak ties, on the other hand, do not facilitate the same type of information exchange and for that reason do not involve the same degree of dependency. Their function is to provide novel information by functioning as "gatekeepers" to other companies (Granovetter 1973). Whether or not strong or weak ties enhance performance is contingent on the environment (Rowley et al. 2000). In settings with low uncertainty and high demand for exploitation of existing product/processes, strong ties are more efficient. Where uncertainty is high and exploration is crucial, relationships bound

together through weak ties is the best solution (Rowley et al. 2000). Nevertheless, Rowley et al. (2000) argue that a mix of the two types would be beneficial. This argument is supported by Burt (1992) who states that a company's possibilities within its strategic network are maximised by incorporating what he refers to as "structural holes". Non-redundant relations can therefore also be seen to providing a company with alternative options in case it finds it necessary to expand into new areas. In other words, by adding loosely coupled relations represented by weak tie binding mechanisms, a company can avoid getting stuck in an unwanted position (Ibarra 1992). This firstly becomes interesting to analyse how much the level of relational embeddedness influences a company's strategic relations. Secondly, the mixture of redundant and non-redundant relations also seems to play an important part in how a company chooses to design its strategic relations.

2.4 Network identity

What still seems to be an open-ended question in the discussion of strategic networks is the formation and development of relationships that constitutes the network structures (Ahuja 2000). One explanation is according to Ahuja (2000) that the linkage and formation behaviour is systematically related to inducement and opportunities. Supporting this argument is Dyer and Singh (1998) who states that a company's critical resources may span company boundaries. Opportunities on the other hand relate to a company's

prior patterns of relationships. According to Ahuja (1998) the position held in prior network structures influences a company's opportunity to form new relationships. Granovetter (1992) likewise emphasises that a company's history of relations and actions will play a part in shaping the present situation (Granovetter 1992; Mattson 1986). It follows that not only a company must be willing to establish relationships but also has to be an attractive partner (Ahuja 1998).

Anderson et al. (1994) also emphasises the importance of "opportunities". Each company has a certain network identity, which refers to how a company sees itself in a network, and how other actors within the business network perceive it. The opportunities open to the company as well as the inducements are thus often depended on the company's network identity. As argued by Ahuja (1998) as well as Granovetter (1992), it is not only the present but also the past that influences a company's network identity (Anderson et al.1994; Ford et al.1986). The network identity can thus have a considerable influence on a company's strategic options in the future making it of fundamental importance.

Now several specific elements can be identified to influence companies' strategic options when engaging in strategic relations. However, what seems to be the most important of all is the issue of network behaviour and hereby network identity. This is based on the fact that network identity is dependent on a company's relations with other actors and links to their activities as well as resources.

These are the elements that previously have been established as important to analyse in order to establish network behaviour. It thus becomes necessary to establish how the company relates to the elements found to have an influence on network behaviour. The level of relational embeddedness i.e. the development of weak/strong ties and level/area of adaptation as well as the issue of redundant/non-redundant relations has to be established. Furthermore, the importance of what incentives are driving the business typology to engage in strategic relations as well as its prior history of relations should not be overlooked as they often are mirrored by the company's network identity.

In trying to categorize network identity when related to business strategy, the above parameter in the following will be seen in relation to Miles and Snow's (1978) framework.

3.1 Analysis

In the following pages, each of the business typologies will be linked with the literature on networks and discussed separately.

3.2 Defender

3.2.1 Product/market domain

Respiratory A/S, is in the allergy and asthma industry, which constitutes a minor part of the bigger industry of respiratory diseases. According to the Director of Strategic Marketing & Business Planning, Respiratory A/S is in a market, which can be

characterised as fairly stable, allowing the company to focus on the exploitation side of business. According to the Director of Strategic Marketing & Business Planning, Respiratory A/S's business strategy is based on, "What we try to do with our research and development strategies is to bring new life to existing products" and "We are very focused on the respiratory area". When reviewing the network literature, a company following this type of business strategy is said to be relationally embedded strongly, thus making use of strong tie binding. In the case of Respiratory A/S, the Director of Strategic Marketing & Business Planning argues that personal relations become of crucial importance for the partnership to work, "We have established strong relations in particular with our partners Bayer and Maxygen. It is a question of setting up some personal relation". This is closely linked with the general nature of the company's relationships. These are sought on the basis of the future partner's core competencies that should complement those of Respiratory A/S. The company creates a strong chain of relations with its strategic partners. This is illustrated by the strategic relation established with Maxygen - a leading company in the field of gene manipulation. The background for the strategic relation is the co-development of a new gene manipulated allergy vaccine. The strategic relations established are often with organisations that complement Respiratory A/S in areas that lie outside its own focus. Interdependency arises, as Respiratory A/S relies on access to certain activities provided by its strategic relationship partners. Strong ties therefore have to be established to create the level of trust necessary to make the transfer of resources possible. When

analysing Respiratory A/S's choice of product/market domain from a network point of view, coalescent domains exist between its business strategy and its relationship to partners.

3.2.2 Production process

Companies such as Respiratory A/S, need to focus on efficiency. As pointed out by the company's Director of Strategic Marketing & Business Planning, "We would like to drive the development away from the use of a wide area of vaccines and instead develop a minor set of vaccines. That would give us some production gains for sure". Respiratory A/S needs to establish strategic relationships with organisations, which can somehow assure that the efficiency is maintained or improved within the company's existing product/market domain. Therefore, by having a targeted product portfolio that covers the domain, efficiency can be obtained in terms of economies of scale. Respiratory A/S has established strategic relationships with companies within each of the areas they cover i.e. diagnosing, prevention and treatment of allergies. Efficiency gains are obtained through its strategic relationships in that the quality of its products is ensured so as its sales volume.

3.2.3 Organisational structure

Respiratory A/S is currently striving to streamline its organisation. According to their Director of Strategic Marketing & Business Planning, "We are working on streamlining the organisation so that it becomes more centralised". This indicates that it will be difficult for a company like Respiratory A/S to maintain relations that are based on different

levels of relational embeddedness and types of ties. The reason for these types of relations is that defenders often are highly dependent on access to activities performed by its strategic relationship partners. As a consequence, a considerable amount of resources have to be spent on each relationship. Therefore, having a centralised organisational structure where decision-making is slow puts further strain on time and resources available for maintaining the company's strategic relationships. Relationships built on a high level of trust involves *mutuality*, which forces defenders, in most cases, to form strategic relationships with organisations with similar characteristics. Respiratory A/S does hold some relationships, which are based on weaker ties: the Director of Strategic Marketing and Business Planning states, "We do run some business relationships of minor character with small bio-tech companies. They are however only related to projects of little significance". These relationships may function as non-redundant relationships or as structural holes. This will provide Respiratory A/S access to information outside its established strategic network and a safety net in case of malfunction in the established strategic relationships. In sum, a general alignment exists between the organisational structure of a defender and the indications of network behaviour.

3.2.4 Network identity

As have been shown, Respiratory A/S depends on access to resources outside its internal boundaries. Strong incentives exist for it to establish business relationships with organisations possessing

the needed resources. However, the opportunities available to the company depend on its prior history of relationships as well as the present situation of the company (Ahuja 1998; Anderson et al. 1994). Due to Respiratory A/S's leading position within its field, we presume it have had a considerable level of success. Furthermore, the fact that the company paid attention to the issue of prior relationships, indicates that it is aware of the dangers of being negatively influenced by less successful relations. The Director of Strategic Marketing & Business Planning, Respiratory A/S argues, "You do take into account who the company has been working with before and the outcome of it". Consequently, Respiratory A/S benefits from a positive network identity. A defender furthermore has access to a considerable amount of resources and information through their business relationships as they have a high degree of relational embeddedness making them attractive as partners and thus enlarge its opportunity set. The main part of the business relations established by Respiratory A/S are based on strong ties, which exhaust considerable amount of resources. This can have a negative influence on its network identity and hereby limit its set of opportunities.

3.3 Prospector

3.3.1 Product/market domain

Innovator A/S is situate within one specific business environment. Senior director of Innovator A/S however states, "It is an industry that keeps on changing. New applications and opportunities are constantly arising and our

clients (are) constantly push for new products”. Innovator A/S has to continually introduce new innovative products and seek to develop new markets says the Senior Director of Innovator A/S, “This is our living (introducing new products). Within all areas - also totally new products”. To successfully follow its explorative strategy it is important for Innovator A/S to have the resources needed to follow up on new opportunities. Therefore, strategic relationships will in most cases be based on a relatively low degree of relational embeddedness and weak tie binding to avoid that resources get looked into. The Senior Director of the company refers to the strategic relationships established by Innovator A/S as strategic accounts more than relationship partners. Innovator A/S puts much effort into maintaining its clients and therefore seeks personal relations develop between the companies. As the clients in some cases also represent strategic relationships, these relations naturally become long term and based on personal understanding. Senior Director of Innovator A/S states, “You have to have a personal understanding to make things work. Building personal relations takes time” Nevertheless, personal relations are not only developed, as the strategic relationship partner is a client. Personal relations also serve the purpose of enhancing the success of the relationship itself.

Using the strategic relations established with Procter & Gamble (P&G) as an example, it becomes clear that Innovator A/S is searching for strategic relationship partners that provide access to knowledge about the future demands of the industry. Hence, as the area of interest for the strategic relationship is built on exchange of

information, the level of adaptation and hereby also interdependency in the relationship is limited. The Senior Director explains this by arguing, “Some of our customers (strategic relationship partners) will be the same but as we move away from the technical applications over to the medical devices and the pharmaceutical business, the customers (strategic relationship partners) will become new ones”. Hence, the level of relational embeddedness may be high if referring to the level of personal involvement. However, interdependencies in terms of production are not created as the main purpose of the strategic relations established is to access information. It is thus fair to argue that seen from a network point of view, alignment exists between Innovator A/S’s choice of product/market domain and strategic relationships established types.

3.3.2 Production process

For organisations dedicated to the exploration of production, it is of crucial importance to have a production system that allows for flexibility. For Innovator A/S this means that focus is on the ability to use the same facilities for various purposes e.g. enzymes and microorganisms can be grown in the same tanks etc. Hence, synergy exists between all of Innovator A/S businesses as stated by their Senior Director, “Synergies between new businesses and back to what we do today will always be present”. Innovator A/S has therefore established strategic relations with some of the biggest customers in the various markets. E.g. in the market for animal food, Innovator A/S has developed a strong strategic relationship with Roche, which is one of the most dominant producers. It is thus reasonable to argue that according to

indications from the network literature as well as empirical data, prospectors will mainly engage with organisations providing access to information on new developments both inside and outside its current business areas.

3.3.3 Organisational structure

Prospectors need an organisational structure that can help support the dynamic nature of its business. The organisational structure of Innovator A/S provides a good example. As stated by the Senior Director of Innovator A/S, “Even though it looks like our organisation is very hierarchical it is actually very flat. There is a very short distance to the top. You can discuss with all people and management as well”. The flexible structure of Innovator A/S should thus enable it to handle a number of different strategic relationships to access a wide area of information. Furthermore, Innovator A/S seeks to avoid tying up resources with a specific relationship. As stated by the Senior Director, “When we change business focus we have to change partners”. It is therefore unlikely that business relationships will be established with defenders as this typology often invests a considerable amount of resources in its relations. Nevertheless, even the most capable organisation has its limits in terms of resources available. Having non-redundant relationships is therefore wise as they demand less attention while at the same time provide access to unavailable information. Coupled with a decentralised organisational structure, the strain on resources diminishes, thus facilitating the handling of a larger number of strategic relationships.

3.3.4 Network identity

A company's network identity is a question of the incentives present and the opportunities available to it. In relation to its current situation, Innovator A/S benefits from being positively known as an leader within its field. Furthermore, the fact that Innovator A/S cooperates with some of the biggest companies within various industries adds positively to its network identity. Innovator A/S does nonetheless have to be careful not to overstretch its engagement in too many areas as it will drain on resources and hereby have a negative effect on its network identity. However, as Innovator A/S emphasises the existence of synergy between all areas of business as well as a satisfactory level of personal understanding and involvement (i.e. medium level of relational embeddedness) the danger of damaging its network identity is diminished.

3.4 Analyser

3.4.1 Product/Market domain

Currently Derma A/S is trying to explore new business areas but it has not yet decided which area to target. Derma A/S Executive Vice President of Marketing & Sales explains, "We are searching for a third leg to stand on. It's somewhat a matter of what falls into our hands". The company is thus following a dual strategy of exploitation and exploration. Within existing areas, the goal of Derma A/S is, according to Executive Vice President of Marketing & Sales, "To become the absolute leading company within dermatology. It demands new products but it does not necessarily mean that we have to be the biggest". Henceforth, the company is securing its

position within current markets primarily by introducing new products while still improving existing ones. As can be seen from the previous sections, strategic relationships established by companies following a strategy of exploitation often have a higher degree of relational embeddedness than the ones established by companies focused on exploration. As Derma A/S follows a dual strategy, it engages in strategic relations of different characteristics. The strategic relation with i.e. GlaxoSmithKlein (GSK) is long term and based on Derma A/S having access to GSK's databank of products of interest for dermatological research. The Executive Vice President of Marketing & Sales explains that strategic relationships often become long term solely due to the fact that the basis for these relationships, (R&D) is a time-consuming process. It therefore becomes important to establish personal relations and hereby develop a certain level of relational embeddedness. Still, Derma A/S makes sure that "a very specific definition of what the nature of the co-operation is so that we do not suddenly become locked in and cannot get out". It is important to notice that contrary to Respiratory A/S, Derma A/S does not engage in joint development of a specific product. As the example with GSK illustrates, Derma A/S does however establish strategic relations with the purpose of accessing resources that are vital for the further development of its own products. Interdependencies are thus created, as Derma A/S does not possess the competencies necessary for the development of these activities internally. The fact that Derma A/S also is functioning as a venture capital investor in minor companies illustrates the more explorative side of its dual

strategy. The level of relational embeddedness here is much lower as these relations often build on weak ties. These business relations are thus not established with the intent to access certain resources or activities. Derma A/S holds a range of informal contacts. Consistency exists between the product/market domain of Derma A/S and established strategic relationships.

3.4.2 Production processes

Companies focused on the exploitation as well as explorative side of business need to apply a production system that can follow up on this dual strategy. Derma A/S illustrates this point well as the strategic relationship with the company Halas Pharma is based purely on the development of new production methods. As mentioned by the Executive Vice President of Marketing & Sales: “we are aiming at being just as efficient as a generic producer. We are therefore constantly optimising on all fronts”. In addition, effectiveness is sought in the way that existing production facilities can be used for various purposes: “Our newest product will be produced on our two fabrics using existing production system”.

It is important to remember that an analyser has to strike a balance between exploitation and exploration and that the production system is merely a means to an end. The previous mentioned relation with Halas Pharma is however a direct example for improving efficiency. Overall Derma A/S does seem to establish strategic relations, which can enhance efficiency. However, as the company is searching for a

new area of business, the issue of effectiveness is likewise considered.

3.4.3 Organisational structure

The organisational structure of an analyser often becomes a centralised and decentralised structure. In the case of Derma A/S, the organisational structure is according to the Executive Vice President of Marketing & Sales: “a very flat organisational structure with little distance from the lower levels of the organisation to the top”. When following a dual strategy like Derma A/S’s, it is important that the organisation is capable of working with different types of organisations. Prospectors are organized to make quick decisions. If relationship partners are not organized accordingly, decision-making processes will become slow and problems may arise. On the other hand, defenders are characterised by slower processes and if working with a strategic partner who makes quick decisions, the defender might interpret the partner as superficial. Therefore, the organisational structure of an analyser is created to make room for working with both types. The Executive Vice President of Marketing & Sales explains: “It is a question of having some effective decision making processes and making sure that you have the time necessary to make qualified decision”. In order not to put the organisation under too heavy pressure from having to deal with different types of strategic relations it is of vital importance that the analyser has the correct mixture of redundant and non-redundant relations. Since Derma A/S engages in more stable relations while at

the same time function as a venture capital investor, it seems to illustrate this point well.

3.4.4 Network identity

The two major incentives driving Derma A/S to establish strategic relationships are: its need for complementary resources and access to information outside its more stable area of business. As analysers in general have a good reputation among defenders, prospectors as well as other analysers have unlimited opportunities available. Based on the age of Derma A/S and its current position, it can be argued that the company has had success with its prior relationships. Further supporting this is the fact that Derma A/S takes the question of network identity seriously. As commented by the Executive Vice President of Marketing & Sales: “What we are looking at is their (future partners) prior relationships, the size of the company, how flexible they are and if they seem to be on the same wave length as us”. In addition, the company’s ability to engage in different types of strategic relationships as well as its current position within its more stable area of business indicates that the company has a rather positive identity. It can however have negative influence that the analyser has to allocate its resources among strategic relationships requiring different levels of relational embeddedness. As the analyser uses its activities within the more stable environment to secure its activities within the less stable ones, it can be difficult for it to free up resources needed to “nurse” its strategic relationships within minor areas. Derma A/S does however cope well with this problem as non-redundant relations are used to

obtain information on new business opportunities, which require few resources. It hereby secures that the sufficient amount of resources available to handle the strategic relationships requires a higher level of relational embeddedness.

4.1 Framework and Discussion

The illustration below will highlight how different typologies are linked to the network dimensions.

Table 4.1. Findings linking business typologies with network behaviour

	Level of relational embeddedness		Incentives to establish strategic relations		No. of redundant relations	No. of non-redundant relations	Strategic relationship partners
	Weak ties	Strong ties	Complementary resources	Market information			
Defender	Few	Many	High	Low	Many	Few	Mostly defenders
Prospector	Many	Few	Low	High	Few	Many	Mostly analysers or prospectors
Analysers	Some	Some	High	High	Some	Some	Defenders, analysers and prospectors

As can be seen from the findings above, some main differences exist as to how each business typology relates to networking. This paper

has made the first attempt to link business typologies with network behaviour and identity. Evidence has been provided that a clear connection does in fact exist. It has been shown that defenders, prospectors and analysers each relate differently to the various elements defined as parameters of network behaviour. From the analysis, support has thus been provided to show that patterns of network relations can be established on the basis of the business typology of a company. The results of the analysis make it obvious that the relation between business typologies and network identity and behaviour is an important element, which cannot be overlooked when perusing company strategy.

Based on the present paper, insight has been gained as to how the relations between the business typology of a company and patterns of network behaviour can become of importance for a company's network relations. Hence a first attempt has been made in linking company's strategy, structure and processes with indicators of network behaviour. This has provided the field of strategy with a conceptualised understanding of how to manage networks and the network literature with a better understanding of who links with whom and why. A first attempt has been made to link the field of organisational behaviour to the literature on networks, and subsequently adding to the understanding of how different types of companies best make use of their network relations.

References

- Ahuja G (2000) The Duality of Collaboration. *Strategic Management Journal* 21: 317–343
- Anderson J.C, Håkansson H, Johanson J (1994) Dyadic Business Relationships within a Business Network Context. *Journal of Marketing* 58: 1-15
- Ansoff H (1965) *Corporate Strategy*. Penguin Books, London
- Barney J (1991) Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17: 1: 99–120
- Blau, P.M. (1968) The Hierarchy of Authority in Organizations. *American Journal of Sociology* 73: 453-67
- Burgelman R. A. (1983) A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly* 28: 223-244
- Burt R. S (1992) The Social Structure of Competition. In: Nohria N, Eccles G. E (eds) *Networks and Organisations: Structure, Form and Action*. Harvard Business School Press, Boston, pp 57-91
- Dyer J. H, Singh H (1998) The Relational View: Cooperative Strategy and Sources of Interorganisational Competitive Advantage. *The Academy of Management Review* 23: 660–679
- Eisenhardt K (1999) Building theories from case study research. *Academy of Management Review* 14: 532-550
- Ford D, Håkansson H, Johanson J (1986) How Do Companies Interact? In: Ford D (ed) *Understanding Business Markets*. The Dryden Press, pp 55–67
- Glasser B, Strauss (1967) *The discovery of grounded theory*. Strategies of qualitative research. London. Wiedenfeld and Nicholson.
- Granovetter M (1992) Problems of Explanation in Economic Sociology. In: Nohria N, Eccles G. E (eds) *Networks and Organisations: Structure, Form and Action*. Harvard Business School Press, Boston, pp 25-56
- Gulati R, Nohria N, Zaheer A (2000) Strategic Networks. *Strategic Management Journal* 21: 203–215
- Hambrick D.C (1993) Some Tests of the Effectiveness and Functional Attributes of Miles and Snow's Strategic Types. *The Academy of Management Journal* 26: 5–26
- Hamel G, Prahalad C. K (1996) The Core Competence of the Corporation. In: Goold M, Sommers K. L (eds) *Managing the Multibusiness Company – strategic issues for diversified groups*. Routledge, London, pp 218-239
- Holm D.B, Eriksson K, Johanson J (1996) Business Networks and Cooperation in International Business Relationships. *Journal of International Business Strategies* 27: 1033-1053
- Hougaard S, Bjerre M (2002) *Strategic Relationships Marketing*. Samfundslitteratur
- Husted K, Vintergaard C (2004) Stimulating innovation through corporate venture bases. Forthcoming in *Journal of World Business* - for publication in Vol. 39, Nr 3.
- Håkansson H, Johanson J (1993) The network as a Governance Structure: Interfirm Cooperation beyond Markets and Hierarchies. In: Grabher G (ed) *The embedded Firm*. Routledge, London, pp 35-51
- Håkansson H, Snehota I (1997A) No business is an Island: The Network Concept of Business Strategy. In: Ford D (ed) *Understanding Business Markets*. Thomson Learning, 2002, 3rd edn, pp 150-161

- Håkansson H, Snehota I (1997B) Analysing Business Relationships. In: Ford D (ed) Understanding Business Markets. The Dryden Press, 2 edn, pp 151-175
- Ibarra H (1992) Structural Alignments, Individual Strategies, and Managerial Action: Elements Toward a Network Theory of Getting Things Done. In: Nohria N, Eccles G. E (eds) Networks and Organisations: Structure, Form and Action. Harvard Business School Press, Boston, pp 165-188
- Johanson J, and Associates (1994) Internationalisation, Relationships and Networks. Uppsala University
- Johanson J, Mattsson L. G (1994) Interorganisational Relations in Industrial System. In: Johanson J, and Associates (eds) Internationalisation, Relationships and Networks. Uppsala University, pp 171-181
- Mattsson L.G (1986) A “Markets-as-Networks” Perspective. In: Pettegrew A (ed) The Management of Strategic Change. Basil Blackwell, Oxford, pp 234–256
- Miles R.E, Snow C.C (1978) Organizational strategy, structure and process. McGraw-Hill Book Company, New York
- Miles R.E, Snow C.C (1984) Fit, Failure and the Hall of Fame. California Management Review XXVI: 10–28
- Miles R. E, Snow C.C (1992) Causes of Failure in Network Organisations. California Management Review 34: 53-72
- Morgan R, Strong C and McGuinness T (2000) Prospector strategy & competitive attributes – a multiattribute analysis of strategy. Research Paper No. 01-12
- TYPES Porter M (1980) Competitive Advantage. The Free Press, NY
- Ritter T (1999) The Networking Company – Antecedents for Coping with Relationships and Networking Effectively. Industrial Marketing Management 28: 467-479
- Rowley T, Behrens D, Krackhardt D (2000) Redundant Governance Structures. Strategic Management Journal 21: 369–386
- Shortell S. M, Zajac E. J (1990) Perceptual and archival measures of Miles and Snow’s strategic types: a comprehensive assessment of reliability and validity. Academy of Management Journal 33: 817-832
- Torres A. M, Murray J. A (2002) Diversity, marketing practice and organisational evolution: Implications for the management of productive evolution. Journal of Change Management, London
- Touminen M (1997) Marketing Capability and Marketing Orientation in Strategy Interface. Helsinginkauppakorkeakoulum
- Wernerfelt B (1984) A Resource-based View of the Firm. Strategic Management Journal 5: 171– 80
- Yin R (1984) Case study research. Beverly Hills, CA Sage publication.