Sari Laari-Salmela

THE PROCESS OF STRATEGY FORMATION IN SOFTWARE BUSINESS: THREE CASES FROM KAINUU REGION, FINLAND
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Abstract

Literature on strategic management has largely concentrated on strategy formulation, or, the analysis of strategic content, whereas limited attention has been given to the implementation of strategy, or the analysis of the strategic process. This study represents process research and approaches strategy as practice.

The aim of this study is to increase both empirical and theoretical understanding of the nature of the processes or generative mechanisms through which the strategies are formed in small software companies – i.e., to open up the ‘black box’ of strategy formation.

The field of strategic management studies is mapped with the help of reviews and meta-theoretical analyses conducted by other researchers, shedding light on the content aspect of strategy. To understand the process and context of strategy, the network perspective and the research of change are reviewed. Based on the literature review and data analysis, an a priori model is developed.

The empirical research is based on the analysis of the development process of three entrepreneur-led software companies located in Kajaani, Finland, and the research is conducted as a process research using the method of a multiple case study.

Based on the data analysis and the a priori model, the generative mechanisms inside the process of strategy formation in the case companies are identified: situational and transformational mechanisms, formed by the interplay of Network Visioning and Organising, and action-formation mechanism, formed by the interplay of Strategising and Organising.

By opening up the ‘black box’ of strategy formation, this study increases the understanding of the reality of small software companies and the effect of the context of software business on the development of the companies. Recognising the different elements affecting strategy formation may help the companies to be aware of the mechanism affecting their development and to guide the development in the direction deemed appropriate.

Keywords: change, generative mechanism, network perspective, process research, small firms, software business, strategy formation
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1 Introduction

From Maine to California the capitalistic American democrat relishes that most American of sneers, that American Question: ‘If you’re so smart, why aren’t you rich?’

(McCloskey 1990, 111, quoted in Whittington 2001)

Our first intellectual obligation is to abandon the Myth of Stability that played so large a part in the Modern age: only thus can we heal the wounds inflicted on Reason by the seventeenth-century obsession with Rationality, and give back to Reasonableness the equal treatment of which it was for so long deprived [...] The ideals of practical thinkers are more realistic than the optimistic daydreams of simple-minded calculators, who ignore the complexities of real life, or the pessimistic nightmares of their critics, who find these complexities a source of despair.

(Stephen Toulmin, Return to Reason quoted in Tsoukas 2006).

Whittington (2001) chose to begin his textbook of strategy with the quotation above. He explains the use of the quotation such that theorists may not be smart enough to have produced an easy rule for riches, but what they can do is to point to dangers, reveal alternatives and test assumptions. My reason for choosing this quotation was slightly different.

My reason has to do with the personal values, motivation and objectives of smart entrepreneurs, and the contradiction different objectives and values, other than profit-maximising, face when trying to find common ground with the everyday life of a small entrepreneur-led software company in the rural areas on the border of Europe, and the (usually) American strategy literature.

During the years I’ve worked with different small companies in different fields and geographical areas in Finland, it seemed to me that this kind of gap actually exists. Due to this gap, it almost seems at first glance as if the companies – or the entrepreneurs – do not necessarily have clear strategies for the business. They do have a lot of ideas a part of which they are also putting into action, but it looks like they would not have any specific plan of how to develop their companies; that is, strategies in a traditional sense. When discussing with different people involved in the company operations, it has become clear to me that the picture is not that straightforward, that there are also other issues involved
in the business. According to the national entrepreneurial study conducted by Sampo Bank in Finland in 2007, the entrepreneurs living in Kainuu value their free time and family more than entrepreneurs in any other region. For some, the personal relationships with friends and colleagues, employees and familiar companies are the most important things in their life, and the main aim is, in a way, to “live a good life”. For some, the role of the firm is to earn the everyday bread for everyone involved, such as owners and employees, and therefore the way the business develops is often opportunistic and aimed at survival.

This is not to say that these companies would not be successful. Many companies have met their goals and satisfied the entrepreneurs with the results. The entrepreneurs do have goals for their action, but they are closely interconnected with the social network they are embedded in. In small companies like theirs, it is difficult to tell the difference between the goals of the companies and goals of the entrepreneurs. It may also be that since the goals are so intertwined with their personal lives (for example, self-fulfilment or to make enough money to live a comfortable life and give jobs to people), the goals are not expressed openly at the company-level but remain tacit. This may lead to decisions to avoid risk and growth, a behaviour which at first glance might be interpreted as a lack of strategy.

It also seemed clear that this might be one of the reasons why the small companies stay small (they actually choose to stay small), and why internationalisation is considered a non-relevant and distant thought. The seeming lack of strategy is actually the lack of a specific plan. It is not about money. It is not about being or not being smart. It is about entrepreneurs’ personal lives and goals and the network in which they are embedded. Therefore it became clear that for me, the most interesting thing affecting the companies’ development seems to be the process of how strategies come to exist: the process of strategy formation or the way strategies emerge and evolve over time; and the role of an individual entrepreneur in this process.

I also got the impression that the issue is twofold. On one hand, in small companies, a lot is dependent on the entrepreneur, who, like in the case companies, is the one that has established the firm and given life to it as an organisational entity. Much of the responsibility of the development of the company still lies on his shoulder alone even though several years would have passed since the establishment, and he is still seen as the captain of the ship who gives the directions. Therefore, the view he has on the operational environment,
the context, or the network(s) the company is embedded in greatly affects the strategic actions of the company.

As Poole states (2004, 17), “One approach focuses on the individuals who take control, create, and remake organisations. These ‘great individuals’ – executives, entrepreneurs, organisational statespersons, transformational leaders, strategic decision makers, planners, designers, change agents – represent a potent expression of the human will as maker of the organisation. Several theories and research traditions relating to organisational change embody this focus.”

On the other hand, no business is an island (Håkansson & Snehota 1989), and the network of relationships the company is embedded in is bound to have an effect on the company. Any single firm is dependent on its customers, suppliers, personnel, etc. This means that the firms cannot control their own activities or futures individually. The network positions and the roles of firms are dependent on the relationships they have with other firms. (Möller & Halinen 1999; Ford & McDowell 1999.)

The question of which has a greater impact on change (and the process of strategy formation), human agency or the so-called environment – that is, is it about change or changing? – is multifaceted. For one thing, external conditions limit the agent’s power and capacity to control events and manage organisational change. Environmental factors can be so powerful that even the best leader can make little difference. It is also often difficult to trace the impacts of actions, which make it difficult to ascertain the ultimate impact of a great individual. As Poole (2004) states, we tend to attribute results to human agency without asking whether other factors in the situation might have been more important.

1.1 Background of the researcher and personal motivation

My parents and relatives are entrepreneurs. I have taken part in organisational life from the age of 5, so I have gained some comprehension of what it is to run a small business in Finland for almost thirty years now.

I have a major in marketing and minors in management, accounting and business jurisdiction. Although I have moved more towards management and organisation studies during the past few years, my marketing background is still strong and visible: for example, in the way I tend to emphasise the customer end of the company processes and the embeddedness of a company in its network and the relationships it has with other organisations.
These areas of my background combined, I guess my interest towards small companies and understanding of their lives is understandable. I have also personally come to notice that most of the management literature deals with larger companies and has usually adopted “that American sneer” of the credo of profit-maximising. In other words, based on my experiences, there is clearly a gap between the normative strategy literature and the lives of small Finnish companies.

The context of software business started to interest me after coming to work for the Department of Information Processing Science in the Kajaani unit. In our research project CreaTol, I became acquainted with the small software companies in our region. I learned that their relationship with the traditional strategy literature is, if possible, even more multifaceted. The companies are more of a collection of jobs than businesses due to their business areas relating to subcontracting and project business. The often also have a third business area involved, namely their own product development and product business. And each of these business areas requires a different approach to management and strategy. That is why I thought it would be highly interesting to be able to see how, in fact, the strategies are formed in these companies.

Besides this research, I have been in contact with these companies in different ways due to my work at the university. Two of the companies have, for example, been involved in the courses I have held as a teacher as well as in other projects of our unit, so the information I have received from them covers more than just the interviews of which the data of this particular study consists. The entrepreneurs have been very kind and co-operative, and therefore it has been extremely easy to cooperate with them in the data collection.

But when it comes to my specific interest in small businesses, my experiences with them through my family and relatives, my background in marketing and the existing relationship with the informants of this study, I have tried to take these into consideration as a researcher and an interpreter, and now I have tried to make them visible for the reader as well.

1.2 Background and research gaps

Tsoukas (2006) in his book Complex Knowledge: Studies in Organizational Epistemology discusses the epistemology relating to the studies of complex social systems and states that complex social systems require complex forms of knowing; forms of understanding that are sensitive to context, time, change,
events, beliefs and desires, power, feedback loops, and circularity (ibid., 4). Complex understanding is grounded in an open-world (vs. closed-world) ontology, an enactivist (vs. representational) epistemology, and a poetic (vs. instrumental) praxeology.

Open-world ontology assumes that the world is always in a process of becoming, or turning into something different. Flow, flux and change are the fundamental processes of the world. An enactivist epistemology assumes that knowing is action. We bring the world forward by making distinctions and giving form to an unarticulated background of understanding. And poetic praxeology sees the practitioner as “an active being who, while inevitably shaped by the sociocultural practices in which (s)he is rooted, necessarily shapes them by undertaking action that is relatively opaque in its consequences and unclear in its motives and desires, unreflective and situated in its mode of operation, but inherently capable of self-observation and reflexivity, thus susceptible to chronic change” (Tsoukas 2006, 4–5).

These levels also represent the approaches on which this study is based. While basically being a study about strategy, in this thesis, I found it impossible to define where a ‘strategy’ begins or where it ends – or even how it is formed or does it even exist as anything but a continual flux of change and action. Instead, I wanted to take it as it is, as a process, more as movement towards a position rather than, for instance, as a collection of principles or decisions of action – that is, as a substance. Therefore, in this thesis, I talk rather about strategising than use the substance-related term ‘strategy’.

Mintzberg (1994, 321) discussed strategic planning and the difference between strategic planning and strategy formation. According to him, too much effort is put on trying to control the strategy formation even though managing the process is not about finding strategies, but recognising them after their emergence and intervening when necessary. In fact, Mintzberg claims that the strategy formation should be seen as a ‘black box’ (closed from planning and around which, not inside, the planning is made).

What this also means is that Mintzberg (1994) sees the creation (or formation) of strategies to take place somewhere else than inside the company, or inside the entrepreneur’s mind. Since they are not created internally, they cannot be controlled internally either. The ‘black box’ as such, however, is an interesting metaphor for a process. Using such a metaphor implies a strong substance-based approach: after all, it is all about giving a substance-related form to a process.
The interesting thing about this ‘black box’ is that it happens all the time, it is all around companies: everybody knows it exists and it has a name. Yet, nobody seems to know what is going on inside the box. Another thing relating to the mystery of the black box is that few managers are willing to admit that they, in fact, might not have a full control of their own companies. In fact, they would not actually have the control of the strategy formation and therefore would not be able to decide the fate of their companies by themselves. Instead, more often the strategy formation is being given a rational explanation; how the strategy is planned and executed inside the company. Yet, only when approaching the organisation (and strategy) from a process perspective, how complex a process this ‘black box’ is can be seen and on how many other processes it is dependent.

In short, this study is about the black box, but instead of dealing with substance-related terms and subjecting strategy under the artificially created forms, substances (like the black box), the purpose is to allow the object of this study to emerge as it is – as a process, and instead of finding rules or creating models to depict the process, the aim of this study is to gain a more profound understanding of the emergence of strategies in small software companies. Thus, adopting a process approach, the strategic action and strategy formation become the central focus of the study.

This black-box view of the firm relates to the covering-law model traditionally used in strategy studies (or Strategic Management studies) as the mode of explanation where a social phenomenon is studied from an ‘outcome’ rather than a ‘process’ perspective (Tsoukas & Knudsen 2006). The need for process research in strategy studies has been emphasised already by, e.g., Pettigrew (1988), who in his introduction to the book The Management of Strategic Change states that literature on strategic management has largely concentrated on strategy formulation, i.e., the analysis of strategic content, whereas limited attention has been given to the implementation of strategy, meaning the analysis of strategic process. There is also bias or existing literature on strategic management towards prescriptive writing in the field, and therefore limited attention has been given to description, analysis and understanding.

Since that time, the amount of process research has increased, and this study is also an attempt to shed some light on the strategy process in itself. The management of strategic change involves consideration of the content of a chosen strategy, of the analytical process which reveals various content alternatives, and also of the management of the process of change and the contexts (inner and outer) in which it occurs. According to Pettigrew (1988), theoretically sound and
practically useful research on strategic change should involve the continuous interplay among these areas.

1.3 Research questions and objectives of the study

Despite the huge amount of literature on strategic management and the amount of research conducted, still the most popular question presented ‘What is strategy’ has not been answered in a definite way, or as Markides (2000, vii; in Whittington 2001) admits, “We simply do not know what strategy is or how to develop a good one.” The need for increasing the process perspective on strategy has been highlighted during recent years, and this study among many others is about to address that perspective.

The aim of this study is to increase understanding of the process of strategy formation, and of the processes and mechanisms producing that process, in small software companies in Kainuu region. The main research question is:

How are strategies formed in small software companies?

To be able to answer this question, first, the answers for the other research questions are needed:

What kinds of processes are involved in the process of strategy formation?

To answer this question, the field of strategic management studies is mapped with the help of reviews and meta-theoretical analyses conducted by other researchers, shedding light on especially the content aspect of strategy. To understand also the process and contexts of strategy, the network perspective and the research of change are reviewed. The second sub-question relates to understanding the use of the knowledge acquired in the first phase of this study:

How are those processes interlinked and how do they form generative mechanisms in the process of strategy formation?

With the help of the a priori model developed, the answer is searched in the empirical part of this study by analysing the case of three small software companies in the Kainuu region.

By answering these research questions, this study aims to increase both empirical as well as theoretical understanding of the nature of the processes or generative mechanisms through which the the strategies are formed in small software companies – i.e., to open up the ‘black box’ of strategy formation.
1.4 Scope and limitations of the study

The focus of analysis in this study is the entrepreneurs’ views on their companies’ development and their own sense-making during that development process. The purpose is to see the way in which their sense-making has affected the company development and how they have been affected by others, and the processes relating to this have been identified based on their interviews.

The reader might wonder why a larger selection of informants was not made. For instance, the employees of the companies, customers and other partners in the network might have shed more light on what really happened, what led to the critical events. The point is that none of these viewpoints are relevant when trying to understand the behaviour of the decision-makers who have guided the company during all these years. The aim is not to find any “objective” view of the world, to establish what is “real” and what is not. The entrepreneurs have experienced the events in their own way, and that’s the only way that counts in this kind of study. Other people have certainly affected them, but that effect is also studied from the entrepreneurs’ point of view.

In those two companies where there was also another key person in addition to the entrepreneurs/managing director, I did also interview those key persons in order to increase the multivoicedness of this study: since they also take part in the actual decision-making, they could shed more light on the processes taking place inside the company relating to strategy formation. In the third company, all power and decision-making was centered on the entrepreneur, and there was no other person who could have been interviewed.

In sum, the viewpoint is strongly that of the leaders, and therefore it takes only the individual side of the process into consideration. Other studies have been conducted that have adopted a collective perspective, like Mantere (2003), who took the roles of the personnel in the strategy process into consideration. These views, individual and collective, are complementary to each other.

The study represents a descriptive approach to strategy formation: the aim is to understand the processes, not to give normative advice on the best possible way of designing and implementing strategies. Instead of seeing strategy as a normative concept for decision-makers to be used as a tool, strategy is seen more as a phenomenon to be found in organisational action.

As an opposite to the mainstream literature and research in strategic management, this study is about small firms and their strategy formation. The realities of the small software companies operating here in the rural areas of
Northern Europe may be significantly different from those presented in the cases analysing large multinational (American) companies, on which the normative advice on the best possible way of designing and implementing strategies is often based. Analysing a small company’s processes naturally simplifies the reality the larger companies with greater challenges of organising face, but on the other hand, this might also bring strategy issues closer to the everyday life of the small firms struggling for their existence.

In sum, strategy as an area of research has been so widely studied and there has been such a cumulative amount of literature that I can only scratch some of the most important issues related to the subject of this thesis. I know that as a Ph.D. candidate I should show my eruditeness in this area of research, and I hope that is what I have done, with the purpose of presenting the background and earlier research relevant to this particular study. I have read so much and asked so many questions that it would be impossible to present them all here. Thus, much has been taken in but so much more has been left out, like e.g. the viewpoint of learning or that of power, or the collective view on strategy. I recognise this and I would like to ask you as a reader to recognise that as well. This thesis is about strategy formation; it is about entrepreneurs and their cognitions and decision-making processes; their social networks; their organisations and organising; organisations’ development and change; and the business networks and relationships. There’s a lot said in that, but without these pieces of the puzzle I found it difficult to really understand the life and development of these small software companies here in the Kainuu region. We still cannot see the metaphorical elephant of strategic management described by Mintzberg et al. (1998), if we ever can, but I think some kind of contact has been made and an understanding of it developed, and I can say that it seems to represent a slightly different race than those ones living in more densely populated areas.

1.5 Significance of the study

The majority of the Finnish software companies and also companies in other fields are small. Different development organisations and consultancies are pondering the question of how to get the small companies to grow and to internationalise. Perhaps in order to be able to answer that question, first we should find out why the companies are small. Do we actually understand how they develop and how their strategies are formed? In other words, shouldn’t we
first find out the answers to ‘why’ and ‘how’, and only after that, the question of ‘what’, as in “What should/could we do about it?”, could be answered.

In addition to increasing the understanding of the life of small software companies, I would also like to see unprejudiced views to follow the understanding. People have different values, intentions and goals, and so do companies. The same normative advice cannot work in every context, especially if people do not even share the same objectives with the advisor. It would be absurd to claim that somebody knows best on behalf of all the entrepreneurs and company leaders in the world as to what they should be aiming to do. Instead, I think that the normative advice should come from inside the companies themselves.

So, the empirical understanding this study aims at increasing relates to the realities the small companies are facing, and the nature of the processes or generative mechanisms through which the strategies are formed in small software companies. The significance of this study in a theoretical sense relates to opening up the ‘black box’ of strategy formation.

1.6 Outline of the study

The structure of this study is presented in Figure 1. In Chapter 2, I aim to describe the broad field of strategy research and to position this study in it. The concept and content of strategy is discussed as well as its relationship with objectives, decision-making and organising. Chapter 2 concentrates on establishing the foundation for this study: what is strategy and strategising, and from which perspectives have they been studied.

Chapter 3 presents the context for strategy formation. Network perspective is presented as a way to see the outer context of the firm and the strategy formation process. Change processes at the company and network levels bring the inner and outer contexts of strategy formation closer together, and they are connected to the sense-making process of the individual change agent: the process of network visioning.

Based on the ‘what’, ‘why’ and ‘how’ questions of strategic change presented in the earlier chapters, Chapter 4 brings the issues together, founding the a priori model on the four desiderata of dynamic theory of strategy presented by Porter (1991). The a priori model is constructed of the generative mechanisms identified from the literature and also from the case data.
In Chapter 5, the empirical research design is presented, and the ontological, epistemological and methodological issues relating to process research are discussed. Finally, the research process is described.

Chapter 6 starts the description of the empirical research by introducing software business as the context for this study. After this, the descriptions of the case companies are presented, and their development processes are described with the help of the critical events identified from the data. Chapter 7 draws together the elements in the a priori model as well as the findings from the data, and discusses the analysis of the data and the identified generative mechanisms in the process of strategy formation.

Finally, the thesis concludes with Chapter 8, in which the conclusions of the study with reference to the research questions are presented. Finally, the overall contribution of this thesis and the suggestions for future research are discussed.
Fig. 1. Structure of the study.
2 Strategy and strategising

The concept of strategy is strongly intertwined with the field of research that is interested in it, namely strategic management (SM). Different schools in the field of strategic management handle the issues of strategising, organising, objectives and planning in different ways, and each of the schools have different perspectives on human behaviour and environment. Even the concept of strategy is different depending on the perspective the viewer holds. Like in many other fields of research, also inside the field of strategic management, there exists a strong mainstream, counterbalanced by those views that demand wider perspective and present new paradigms.

The discussion on the nature of strategy usually deals with the content of strategy; the question of the strategy process arises when questions related to strategy implementation are brought up. These two areas represent also different areas in the literature (Pettigrew 1992; Chakravarthy & Doz 1992). The process authors interest themselves in the whole process in which organisations formulate and implement strategies, and this is also the focus of this thesis.

According to Tsoukas (2006), the concept of strategy – in the way he sees it in this context, in what direction a firm should channel its activities – has been one of the two key questions proposed by mainstream management researchers. The other one concerns the organising of the firm.

He sees that there are some typical assumptions behind the two mentioned questions that the so-called mainstream especially takes for granted and therefore poses some limits to the understanding to be gained through research. The first assumption is that there is a quasi-optimum in (or at least, a good enough solution to) what a firm should pursue and how it should be organised, and the second assumption is that the quasi-optimum can be reached if all the necessary knowledge is possessed by the strategists, if a system of preferences is already established, and if the relationship between means and ends is known (Mintzberg 1990, 180–187; Mintzberg 1994, ch. 5). This study takes quite a different point of view, and in order to understand where it stands in the field of research conducted in strategic management (as well as in software business), a short review of strategy research is presented.

The purpose of this chapter is to discuss different schools of thought in strategic management and the assumptions behind the two key questions of strategising and organising mentioned above. A summation of the field and the approaches is presented in order to show how difficult it is to define the concept.
of strategy, how interdependent the definition of strategic management and the definition of strategy are, and how difficult it is to determine what kind of process actually produces strategy. The field of research in SM is wide and the amount of literature is vast. Therefore the perspective on the literature is limited by the context of this study: small, entrepreneur-led software companies in Kainuu region, Finland.

2.1 Approaches in strategy studies

Strategic management is an academic discipline of its own. Its literature is vast and, since 1980, has been growing at an astonishing rate (Mintzberg et al. 1998). The whole field of strategic management can be traced back to the 1962 book by the business historian, Alfred D. Chandler, entitled *Strategy and Structure: Chapters in the History of the Industrial Enterprise*, or earlier to William Newman’s book *Administrative Action: The Techniques of Organization and Management* of 1951. The writings of military strategy, however, go back much further. Sun Tzu wrote *The Art of War* around 400 B.C., and another famous military strategist Carl von Clausewitz wrote in the aftermath of the Napoleonic wars, his masterwork being *On War* (Clausewitz 1989). The influence of both can still be seen in the modern management literature, although this militant viewpoint is being represented mainly by one school of thought.

Not all of the vast amount of literature comes from the field of management: in addition to military strategy writings, all kinds of other fields also make important contributions to the understanding of the strategy process. In fact, as William Starbuck (1965, 468) put it, to discuss “all aspects of organization which are relevant to adaptation … means … that one could legitimately discuss everything that has been written about organizations”, which makes it difficult to present even a moderately decent literature review: e.g. biology, history, physics and anthropology all have valuable viewpoints to offer, and the subjects of interest of SM especially overlap with economics, sociology, marketing, finance and psychology (Furrer et al. 2008; Hambrick 2004).

Several studies of the structure and evolution of the SM field have been conducted (e.g., Furrer et al. 2008; Bowman et al. 2002; Herrmann 2005; Hoskisson et al. 1999; Phelan et al. 2002; Ramos-Rodriquez & Ruiz-Navarro 2004) as well as field reviews in the form of textbooks (e.g., Mintzberg et al. 1998; Whittington 2001). The newest study conducted by Furrer et al. (2008) rests on 26 years of strategic management research published in four top journals:
Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly and Strategic Management Journal, which have attained positions as the top strategic management journals as well as the top business journals (claim based on McMillan 1989, 1991; McMillan & Stern 1987; and the Social Science Citation Index SSCI).

Based on these studies and reviews as well as other research published in the mentioned academic journals, a summation of the field of SM is presented as the theoretical context for this study.

2.1.1 The structure and evolution of the strategic management field

Furrer et al. (2008) have divided the development of the SM field into three periods: (1) the precursors; (2) birth in the 1960s; and (3) transition towards a research orientation in the 1970s. The development of theory and research during these periods is described as ‘swings of a pendulum’ by Hoskisson et al. (1999) since it seems that the field of SM has come back to its roots with its newly aroused interest towards a resource-based view of the firm.

The ‘prehistory’ of SM as an academic field lies in studies of economic organisation and bureaucracy (Rumelt et al. 1994). The actual birth of the field can be traced back to the following three works: Alfred Chandler’s Strategy and Structure (1962), Igor Ansoff’s Corporate Strategy (1965), the Harvard textbook Business Policy: Text and Cases (Learned et al. 1965), the text of which is attributed to Kenneth Andrews and was later rewritten in a separate book The Concept of Corporate Strategy (1971). These books took on a contingency perspective (fit between strategy and structure) and a resource-based framework emphasising internal strengths and weaknesses. During this period, research shifted from a deterministic one-best-way approach to a more contingent perspective in which organisations need to adapt to their external environment.

During the 1970s a transition started towards a research orientation, and the development of a dichotomy between two sets of research based on very different ontological and epistemological perspectives can be identified: the process approach with descriptive studies on how strategies were formed and implemented, and the deductive and large-scale statistical research aimed at formulating hypotheses based on models abstracted from the structure-conduct-performance (S-C-P) paradigm dominant in the literature of industrial organisation (IO) economics. The primary focus of strategic management during this period was on the environment and its relationship with a firm.
From the 1980s onwards, strategy research started to change its direction once more as the studies switched their focus from industry structure as a unit of analysis to that of the firm’s internal structure, resources and capabilities. Two streams of research have been prevailing: transaction cost economics (Williamson 1975; 1985) and the resource-based theory of competitive advantage including resource-based view of the firm (Wernerfelt 1984), dynamic capabilities (Stuart & Podolny 1996; Teece et al. 1997) and a knowledge-based approach (Grant 1996; Powell & Dent-Micallef 1997; Spender 1996; Szulanski 1996). Further, the research agenda has moved towards two poles: corporate-level strategy and competitive strategies.

However, the question ‘What is strategic management?’ is more difficult to answer. Nag et al. (2007) considered this a result of the ambiguous and highly contestable identity of the field and the fact that the formally espoused, published definitions of the field are quite varied. They ended up with the following definition:

“The field of strategic management deals with (a) the major intended and emergent initiatives (b) taken by general managers on behalf of owners, (c) involving utilisation of resources (d) to enhance the performance (e) of firms (f) in their external environments” (Nag et al. 2007, 942).

According to Furrer et al. (2008), the main research topics represent six main issues: (1) strategy and its environment; (2) strategy process and top management; (3) corporate strategy and financial models; (4) growth and market entry; (5) industry and competition; and (6) the resource-based view of the firm.

2.1.2 Ten schools of thought in strategic management

Mintzberg et al. (1998) have presented a classification of strategic management literature according to which ten different schools of thought can be identified in the broad field of strategic management research and practice. The beginning of the classification had been the paper by Mintzberg (1990) called Strategy formation: Schools of thought, after which the ideas of the paper were elaborated in a textbook by Mintzberg, Ahlstrand and Lampel.

Mintzberg et al. (1998) describe the phenomenon of strategy formation as an elephant that blind men – researchers – are trying to figure out. “Since no one has had the vision to see the entire beast, everyone has grabbed hold of some part or other and ‘railed on in utter ignorance’ about the rest.” The ten schools of thought
describe ten parts of the strategy-formation beast, and each of them is listed below in table 1 with an adjective that best describes each one’s view of the strategy process. The idea of the groups, however, is not to place each individual researcher into a particular school as such, but instead to classify the writings of different researchers and practitioners through these different viewpoints on strategy formation.

**Table 1. Ten schools of thought in strategic management literature (Mintzberg et al. 1998).**

<table>
<thead>
<tr>
<th>Ten schools of thought</th>
<th>View of the strategy process</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) The Design School</td>
<td>strategy formation as a process of conception</td>
</tr>
<tr>
<td>(2) The Planning School</td>
<td>strategy formation as a formal process</td>
</tr>
<tr>
<td>(3) The Positioning School</td>
<td>strategy formation as an analytical process</td>
</tr>
<tr>
<td>(4) The Entrepreneurial School</td>
<td>strategy formation as a visionary process</td>
</tr>
<tr>
<td>(5) The Cognitive School</td>
<td>strategy formation as a mental process</td>
</tr>
<tr>
<td>(6) The Learning School</td>
<td>strategy formation as an emergent process</td>
</tr>
<tr>
<td>(7) The Power School</td>
<td>strategy formation as a process of negotiation</td>
</tr>
<tr>
<td>(8) The Cultural School</td>
<td>strategy formation as a collective process</td>
</tr>
<tr>
<td>(9) The Environmental School</td>
<td>strategy formation as a reactive process</td>
</tr>
<tr>
<td>(10) The Configuration School</td>
<td>strategy formation as a process of transformation</td>
</tr>
</tbody>
</table>

The first three schools are prescriptive in nature: more concerned with how strategies should be formulated than with how they actually do form.

The Design School presented in the 1960s the basic framework on which the Planning and the Positioning School is built, and it focuses on strategy formation as a process of informal design. Two influential books form the basis of this school. The other one is Philip Selznick’s *Leadership in Administration* of 1957, and the other one is Alfred Chandler’s *Strategy and Structure* of 1962. The basic design school model presents that the creation of strategy is influenced by both external appraisal with the perceived threats and opportunities in the environment, leading to identifying the key success factors, and internal appraisal with the perceived strengths and weaknesses of the organisation, leading to identifying the distinctive competences. The most interesting part of the model from the viewpoint of this research is that two factors are believed to be important in strategy making, although this school does not especially highlight them: **managerial values** and **social responsibility**. Managerial values refer to the beliefs and preferences of those who formally lead the organisation, and social responsibility for the ethics of the society in which the organisation functions, at
least as these are perceived by its managers. The weakness of this school is that it
denies certain important aspects of strategy formation, including incremental
development and emergent strategy, the influence of existing structure on strategy,
and the full participation of actors other than the chief executive. (Mintzberg et al.
1998.)

The Planning School developed in parallel with the Design School in the
1960s and was popular in publications and practice in the 1970s. This school
formalised the perspective of the Design School, seeing strategy-making as a
more detached and systematic process of formal planning. An important landmark
was the Corporate Strategy by H. Igor Ansoff in 1965.

The basic strategic planning model consists of five logical steps: the
objectives-setting stage, the external audit stage, the internal audit stage, the
strategy evaluation stage and the strategy operationalisation stage. Mintzberg
(1994) has criticised this particular school of thought especially, writing about the
“grand fallacy of strategic planning” and accusing this school of mixing strategic
planning and strategy-making: because analysis is not synthesis, strategic
planning has never been strategy-making. The other schools of thought have
shown that strategy-making is an immensely complex process involving the most
sophisticated, subtle, and at times subconscious human cognitive and social
processes. (Mintzberg et al. 1998.)

The Planning School was somewhat displaced in the 1980s by the Positioning
School, which was less concerned with the process of strategy formation than
with the actual content of strategies. Unlike the earlier schools, this one argued
that only a few key strategies – as positions in the economic marketplace – are
working in any given industry. There have been three different waves in the
Positioning School: first, the early military writings (Sun Tzu and von Clausewitz
mentioned earlier); second, the “consulting imperatives” of the 1970s; and third,
the recent work on empirical propositions, especially of the 1980s. The best-
known work is probably Michael Porter’s Competitive Strategy of 1980.

This school has developed a wide range of consulting tools and models.
There was Porter, taking the basic approach of the design school and applying it
to the external or industry environment, resulting in the competitive analysis and
the elements of industry structure, generic strategies and value chain; Boston
Consulting Group’s growth-share matrix and experience curve; and the founding
of PIMS (Profit Impact of Market Strategies) database by Sidney Schoeffler, first
for General Electric and later for sale.
Mintzberg et al. (1998) claim that developing strategy through analytical technique just does not work. They quote Hamel commenting in an article of *Fortune* magazine as applicable to positioning as to planning: “The dirty little secret of the strategy industry is that it doesn’t have any theory of strategy creation” (Hamel 1997, 80, emphasis added). In addition, the Positioning School has a bias towards traditional big business, where market power is the greatest, competition least effective, and the potential for political manipulation most pronounced.

Schools from four to nine consider specific aspects of the process of strategy formation, and have been concerned less with prescribing ideal strategic behaviour than with describing how strategies are made.

School number four, the Entrepreneurial School, has focused the strategy formation process exclusively on the single leader, not so much as a collective or cultural, but as a personal process. The school has stressed the innate mental states and processes: intuition, judgment, vision, experience and insight, the most central concept being vision, a mental representation of strategy, created or at least expressed in the head of the leader. The vision serves as both an inspiration and a sense of what needs to be done – a guiding idea.

The Entrepreneurial School grew out of economics, and the leading character was Joseph Schumpeter who brought the entrepreneur into prominence in economic thought. Depending on one’s point of view, an entrepreneur can be (a) the founder of the organisation, (b) the manager of a self-owned business, or (c) the innovative leader of an organisation owned by others.

If strategy can be a personalised vision, then strategy formation has to also be understood as the process of concept attainment in a person’s head. The Cognitive School seeks to use the messages of cognitive psychology to enter the strategist’s mind. This school might not be so much a tight school of thought as a loose collection of research, which seems, nonetheless, to be growing into such a school.

Two rather different branches can be identified inside this school: the more positivistic one treats the processing and structuring of knowledge as an effort to produce some kind of objective motion picture of the world; the other branch sees all of this as subjective for strategy is some kind of interpretation of the world. In other words, while the positivistic branch seeks to understand cognition as some kind of re-creation of the world, the subjective branch drops the prefix and instead believes that cognition creates the world.
The Cognitive School also forms a bridge between the more objective schools of design, planning, positioning and entrepreneurial, and the more subjective schools of learning, culture, power, environment and configuration.

The Learning School together with the three following schools has aimed to see the process of strategy formation beyond the individual, to see the other forces and other actors. According to the Learning School, the world is too complex to allow strategies to be developed all at once as clear plans or visions. Strategies emerge as people, sometimes acting individually but more often collectively, who come to learn about a situation as well as their organisation’s capability of dealing with it. Eventually, they converge on patterns of behaviour that work.

Mintzberg et al. (1998) mention Quinn’s logical incrementalism (Quinn 1980a), Nelson and Winter’s (1982) evolutionary theory and strategic venturing (Bower 1970; Burgelman 1988) in connection with this school’s thoughts of strategy formation, as well as dynamic capabilities, core competencies, strategic intent and stretch and leverage (Prahalad & Hamel 1990) and chaos theory with its suggestions for management (Lorenz 1972; Levy 1994).

Similar to this is the Power School, which treats strategy formation as a process of negotiation, whether by conflicting groups within an organisation or by organisations themselves as they confront their external environments. According to this school, strategies can and do emerge from political processes: sometimes a single decision arrived at politically can set a precedent and thereby establish a pattern. Stakeholder analysis (Freeman 1984), strategic maneuvering (the most effective way of controlling the power of external actors is to control the behaviour of those actors, e.g. Porter 1980; Henderson 1979), and cooperative strategy-making like networks, collective strategy, joint ventures, and other strategic alliances and strategic sourcing are the examples of the thoughts prevailing in this school.

In the Power School, strategy formation leaves the exclusive confines of the single organisation and becomes instead a joint process, to be developed with partners: the firm negotiates through a network of relationships to come up with a collective strategy, a term coined by Astley & Fombrun (1983). The network model, on the other hand, can be traced back to research at the Swedish University of Uppsala in mid-1970s (Håkansson & Snehota 1989). This school, especially with the view of networks, shows how the strategy-making process becomes rather complicated: the boundaries of the organisations are becoming increasingly blurred as networks replace rigid hierarchies on the inside and open markets on their outside.
The Cultural School contrasts, or in fact, mirrors, the view of the Power School and considers strategy formation to be rooted in the social force of culture of the organisation: the process is viewed as fundamentally collective and cooperative. Mintzberg et al. (1998) associate organisational culture with collective cognition. The culture becomes the “organisation’s mind”, the shared beliefs that are reflected in traditions and habits, as well as in more tangible manifestations – stories, symbols, and even buildings and products. Here, strategy formation is a process of social interaction, based on the beliefs and understandings shared by the members of an organisation.

With its focus on the sustenance and development of the internal capabilities of firms – the “inside-out” view in opposition to positioning and Porter’s previously popular “outside-in” view, resource-based theory (named by Birger Wernerfelt; also dynamic capabilities by Prahalad and Hamel, mentioned already earlier in the Learning School) is related to the cultural view on strategy formation. While resource-based theory emphasises the rooting of these capacities in the evolution of the organisation, the dynamic capabilities approach emphasises their development essentially through a process of strategic learning.

Organisation theorists who believe strategy formation to be a reactive process in which the initiative lies not inside the organisation, but with its external context, form the Environmental School. Their aim is to understand the pressures imposed on organisations, and hence, are positioning environment as one of the three central forces in the strategy-making process, alongside leadership and organisation. The population ecology view with its variation-selection-retention model (Hannan & Freeman 1977), punctuated equilibrium (Steven Jay Gould), and institutional theory (Max Weber and other organisational sociologists) all explain the context in which the organisation operates, defined as “the challenges and resources, economic as well as human, that surround an organization” (Miller et al. 1988: 545). According to Mintzberg et al. (1998), strategic management may be better served by a rich description of environmental types, which describe in detail what particular organisations experience at particular points in their histories.

The last group could be seen to combine all the other schools. People in the Configuration School seek possibilities for integration and cluster the various elements of strategy formation, namely the strategy-making process, the content of strategies, organisational structures and their contexts, into distinct stages or episodes, sometimes sequenced over time to describe the lifecycles of organisations. However, if organisations settle into stable states, then strategy-
making has to describe the leap from one state to another. In fact, there are two main sides in this school: one describes states of the organisation and its surrounding context as configurations, and the other describes the strategy-making process as transformation, which incorporates much of the huge prescriptive literature and practice on “strategic change” (e.g. Pettigrew 1988).

These two sides of the Configuration School represent two sides of the same coin: if an organisation adopts states of being, then strategy-making becomes a process of leaping from one state to another; transformation is an inevitable consequence of configuration. There is a time for coherence and a time for change.

The process research made in McGill University by professor Khandwalla is a good example of this school’s research. The approach was historical and designed to identify periods of stable strategy and of transformation: how do different strategies connect to each other, and what forces drive strategic change, when are strategies imposed deliberately, and when and how do they emerge?

Miller’s archetypes and the quantum view of change (Miller & Friesen 1980, 1982, also Miller & Friesen 1984), on the other hand, suggest how organisations resolve the opposing forces for change and continuity (for further discussion on radical and incremental change, please see chapter 3.4.2). Chandler’s (1962) research is another example of process research: he identified four chapters in the large American industrial enterprises’ history, representing stages in their lifecycles, and Pettigrew’s (1985, 1987) study about the change process at ICI from 1969 to 1986 identified periods of major change in organisations.

According to this integrative school of thought, the key to strategic management is to sustain stability or at least adaptable strategic change most of the time, but to periodically recognise the need for transformation and be able to manage that disruptive process without destroying the organisation. Accordingly, the process of strategy-making can be one of conceptual designing or formal planning, systematic analysing or leadership visioning, cooperative learning or competitive politicking, focusing on individual cognition, collective socialisation, or simple response to the forces of the environment, but each must be found in its own time and in its own context. In other words, the schools of thought on strategy formation themselves represent particular configurations.

### 2.1.3 Four perspectives on strategy

Another classification is made by Whittington (2001). In his book *What is Strategy – and does it matter?* he presents four different perspectives on strategy
– Classical, Evolutionary, Processual and Systemic. Each of the perspectives is based on different assumptions about the processes and outcomes of strategy. Strategy either produces profit-maximising outcomes or deviates to allow other possibilities to intrude. Different processes reflect to what extent strategies are the product of deliberate calculation or whether they emerge by accident, muddle or inertia. These two axes reflect different answers to two fundamental questions: *what is strategy for* (outcome), and *how is strategy done* (process).

The Classical view is the one that is dominant in the mainstream textbooks, and could be seen to have the same kind of thoughts as the Design School, the Planning School and the Positioning School in the classification presented by Mintzberg *et al.* (1998). The ideas of strategy formulation have roots in the economics of eighteenth-century Scotland, present in the writings of Adam Smith in *The Wealth of Nations*, and the assumptions about strategic implementation go back to the militaristic ideals of ancient Greece (e.g., Bracker 1980).

Like previously in this chapter presented, Whittington (2001) also states the beginning of an actual coherent discipline to have taken place in 1960s with the writings of business historian Alfred Chandler (1962), theorist Igor Ansoff (1965) and the businessman, former president of General Motors Alfred Sloan (1963). They established the key features of this approach including the attachment to rational analysis, the separation of conception from execution, and the commitment to profit maximization. Management consultant Peter Drucker wrote earlier about Sloan’s management styles in *The Concept of Corporation* (1946) and *Big Business* (1947). Also most of Porter’s writings, as mentioned earlier, represent this perspective.

Classic texts from Ansoff (1965) to Grant (1991a) concentrate on a technology of matrices, formulae and flowcharts, and their approach to strategy places great confidence in the readiness and capacity of managers to adopt profit-maximising strategies through rational long-term planning.

Rather than relying on managers, evolutionary perspective expects markets to secure profit maximisation. This view stresses competitive processes of natural selection, and therefore evolutionary theorists do not necessarily prescribe rational planning methods. Rather, they argue that whatever methods managers adopt, only the best performers will survive. So, they share the outcome of profit-maximising with the Classical view but the processes are more emergent.

Hannan and Freeman’s (1988) population ecology perspective and Williamson’s (1991) transaction cost economics are the key writings of this
perspective, and with these ideas, the perspective might have the most in common with the Environmental School described by Mintzberg et al. (1998).

The Processual perspective has its foundations in the American Carnegie School with Richard Cyert, James March and Herbert Simon, whose thoughts rejected the idea of a rational economic man on the one hand and the perfections of competitive markets on the other, leading them to take the internal complexity of organisations seriously. Two themes have now become the fundamentals of Processual thought: the cognitive limits on rational action, since extended by Henry Mintzberg (1987, 1994) in particular, and the micro-politics of organisations, developed by Andrew Pettigrew (1973, 1985).

The Processualists agree with the evolutionary theorists that long-range planning is largely futile, but they are less pessimistic about the fate of business that do not somehow optimise environmental fit. Strategy emerges more from a pragmatic process of bodging, learning and compromise than from a rational series of grand leaps forward (Mintzberg 1994).

The Systemic approach is much less pessimistic than Processualists with respect to people’s capacity to conceive and carry out rational plans of action, and much more optimistic than Evolutionists about their ability to define their strategies in defiance of market forces. Following Granovetter’s (1985) stress on the social ‘embeddedness’ of economic activity, the Systemic view proposes that the objectives and practices of strategy depend on the particular social system in which strategy-making takes place. The social background may give strategists other interests than profit, such as professional pride, managerial power or national patriotism. The pursuit of these different objectives, even at the cost of profit maximisation, is therefore perfectly “rational”, even if the rationale may often be disguised. Therefore, the objectives of strategy and the modes of strategy-making depend on the strategists’ social characteristics and the social context within which they operate.

These four perspectives on strategy are compared in table 2 below. From this table, the connections between Whittington’s (2001) perspectives and those of Mintzberg et al. (1998) can be identified. Basically these two reviews form a matrix which deals with the key elements of strategy formation: the objectives/outcomes, the content and the process.
Table 2. Whittington’s (2001) four perspectives on strategy.

<table>
<thead>
<tr>
<th></th>
<th>Classic</th>
<th>Processual</th>
<th>Evolutionary</th>
<th>Systemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>Formal</td>
<td>Crafted</td>
<td>Efficient</td>
<td>Embedded</td>
</tr>
<tr>
<td>Rationale</td>
<td>Profit maximization</td>
<td>Vague</td>
<td>Survival</td>
<td>Local</td>
</tr>
<tr>
<td>Focus</td>
<td>Internal (plans)</td>
<td>Internal</td>
<td>External (markets)</td>
<td>External (societies)</td>
</tr>
<tr>
<td>Processes</td>
<td>Analytical</td>
<td>Bargaining/learning</td>
<td>Darwinian</td>
<td>Social</td>
</tr>
<tr>
<td>Key influences</td>
<td>Economics/military</td>
<td>Psychology</td>
<td>Economics/biology</td>
<td>Sociology</td>
</tr>
<tr>
<td>Key authors</td>
<td>Chander;</td>
<td>Cyert &amp; March;</td>
<td>Hannan &amp; Freeman;</td>
<td>Granovetter;</td>
</tr>
<tr>
<td></td>
<td>Ansoff;</td>
<td>Mintzberg;</td>
<td>Williamson</td>
<td>Whitley</td>
</tr>
<tr>
<td></td>
<td>Porter</td>
<td>Pettigrew</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergence</td>
<td>1960s</td>
<td>1970s</td>
<td>1980s</td>
<td>1990s</td>
</tr>
</tbody>
</table>

2.1.4 Meta-theoretical framework of Strategic Management perspectives

What distinguishes strategic management from other fields in management is “its very focus on strategic choice” (Mintzberg 1998: 299). According to Tsoukas and Knudsen (2006), several strategic management scholars have been arguing for a better theoretical understanding of the change processes that are fundamentally transforming firms and industries in the contemporary global economy.

In their article, “The conduct of strategy research: Meta-theoretical issues”, Tsoukas and Knudsen (2006) aim to describe where different perspectives in SM stand with regard to two basic questions: “How is thinking related to action?” and “Who sets strategy?” Based on these classifications they present a metatheoretical framework for the analysis of the strategic management field.

SM has been dominated by one particular mode of explanation (the covering-law model) and one particular view of how thinking is related to action (representationalism). More recently, it has been argued that the focus should move towards a process-oriented and constructivist view. The early writings mentioned earlier in this chapter (Ansoff 1965; Chandler 1990; Learned et al. 1965) are especially good examples of the covering-law model of explanation that is, how a social phenomena is studied from an ‘outcome’ rather than a ‘process’ perspective: the so-called black-box view of the firm. The process approach, on the other hand, emphasises the historicity of the firm and the path-dependency of the decisions made. The process view is discussed more thoroughly in chapters 3.4.4 and 5.1.
The representationalist view implies that the mind represents the world ‘outside’ as well as depicts ends desired ‘within’ the individual. Action is followed by the rules dictated by such representations. In its strong version, which is the one most often found in SM, the representationalist approach consists, more precisely, of the following principles: a) the world has certain pre-given features; b) there is a cognitive system that represents those features; and c) the cognitive system acts on the basis of those representations. According to the enactive approach, on the other hand, “knowledge is the result of an ongoing interpretation that emerges from our capacities of understanding. These capacities are rooted in the structures of our biological embodiment but are lived and experienced within a domain of consensual action and cultural history. They enable us to make sense of our world.” (Varela et al. 1991: 149.) As Tsoukas and Knudsen (2006) put it, the single most important difference between representationalism and enactivism is that according to the latter, the social activity, rather than the cognitising subject, is the ultimate foundation of intelligibility (Heidegger 1962; Wittgenstein 1958).

Ontologically, it assumes that actors are beings-in-the-world, and thus, take social activity as the fundamental building block of the social world. Epistemologically, it highlights the personal-cum-constructed character of human knowledge. And praxeologically, it conceives action as experimentation, or, to put it differently, thinking and acting are seen as being perpetually engaged in a dialogue.

Different perspectives in SM have conceptualised organisational agency in three different ways. First, there are the strategist(s), who, typically, is the CEO or a few designated individuals in the organisation (individual responsibility). Second, there is the planning system, an administrative system of data collection and analysis (machine-like version of human cognition). And, according to the third view, strategy formation is a social process: it occurs in a social context in which there are relations of influence and power as well as social bonds among those involved. Strategy formation is no longer seen as an individual accomplishment but as a collective endeavour.

By using these two dimensions, a meta-theoretical framework is constructed. In table 3 below, Tsoukas and Knudsen (2006) have placed the schools presented by Mintzberg et al. (1998) in the framework, showing where they stand in relation to each other along the two dimensions.
According to Tsoukas and Knudsen (2006), the constructionist view (which Mintzberg et al. 1998 include in the Cognitive School) is possibly the best illustration of the enactivist approach. It is based on individualist assumptions, as it is the individualist strategist who interprets his/her environment and acts on the basis of those interpretations. As Smircich and Stubbart (1985: 726) put it, “The world is essentially an ambiguous field of experience. There are no threats or opportunities out there in the environment, just material and symbolic records of action. But a strategist – determined to find meaning – makes relationships by bringing connections and patterns to action.”

On the other hand, when it is the enacted, social process that defines strategy, the actors are not situated in a social vacuum but they are partaking in social activities connected to networks of influence and power, mobilising their political and cultural resources in order to get things done (Tsoukas & Knudsen 2006).

### 2.2 Concept of strategy

The premises for writing this chapter are not good. The question “What is strategy?” has been raised many times during the history and development of the SM field, but Markides (2000: vii) still admits that “We simply do not know what strategy is or how to develop a good one”. The definition of strategy in business context often remains implicit, open to intuitive interpretation (Håkansson & Snehota 1989). Also, Whittington’s (2001) textbook is named accordingly: *What is strategy – and does it matter?*
According to Pettigrew (1988), it does – at least in order to be able to define the research subject one is focusing on. As he states, there exists a vast amount of literature on strategic management, and due to the wide range of different approaches, it should be made clear what is meant by the term ‘strategy’. The term may refer to intended strategies, implicitly realised strategies, or strategies as a social construction or rationalisation to give meaning to prior activities. Furthermore, what is the nature of strategy: are business strategies to be understood as outcomes, processes or “derivates of peopleless market and economic structure”? (Pettigrew 1988: 3–4).

### 2.2.1 Strategy and Strategic Management

As already discussed in the earlier chapter, Tsoukas & Knudsen (2006) highlight the importance of understanding what is implicitly involved in adopting particular theoretical perspectives, and in so doing, to better appreciate what is at stake when different conceptualisations of strategy are suggested. Each school has a perspective of its own, but at least some areas of agreement (Chaffee 1985: 89–90) can be identified. First, strategy concerns both organisation and environment; they are inseparable, and the organisation uses strategy to deal with changing environments. Second, the substance of strategy is complex. Due to the new combinations or circumstances brought by change, the substance of strategy is unstructured, unprogrammed, nonroutine, and non-repetitive. Third, strategy affects the overall welfare of the organisation, and fourth, strategy involves issues of both content (the actions taken) and process (the processes by which actions are decided and implemented). Fifth, strategies are not purely deliberate, and sixth, strategies exist on different levels. Firms have corporate strategy (What businesses shall we be in?) and business strategy (How shall we compete in each business?). Finally, strategy involves various thought processes. Strategy involves conceptual as well as analytical exercises, the former being the heart of strategy-making with which leaders of the organisation engage.

However, not even these areas of agreement are indisputable. For instance, although the conceptualisation of strategy in terms of corporate and business (or competitive) has gained widespread acceptance in strategic management (Furrer et al. 2008), this notion of hierarchy of strategies is based on the rational approach to planning and strategy-making, and therefore, the relevance of this hierarchy of strategies to emerging theories of strategy should be questioned.
According to Johnson (1985), strategic decisions are likely to be concerned with some of the following:

1. the long-term direction of the organisation;
2. the scope of an organisation’s activities;
3. the matching of organisation’s activities to the environment in which it operates;
4. the matching of the organisation’s activities to its resource capability;
5. major resource implications; and
6. the expectations and values of the stakeholders in the organisation.

Therefore, the definition of strategy is closely related to the definition of strategic management, and usually these two concepts are presented as intertwined, as can be seen from e.g. the definition by Schendel & Hofer (1979): “Strategic management is a process that deals with the entrepreneurial work of the organization, with organizational renewal and growth, and more particularly, with developing and utilizing the strategy which is to guide the organization’s operations” (emphasis added), or, in the definition by Jemison (1981): “Strategic management is the process by which general managers of complex organizations develop and use a strategy to coalign their organization’s competences and the opportunities and constraints in the environment” (emphasis added). (Nag et al. 2007: 954-955.)

On the other hand, the definitions of SM may be, actually, about the strategy in itself, like the one by Bracker (1980): “Strategic management entails the analysis of internal and external environments of firms to maximize the utilization of resources in relation to objectives” or, the one by Van Cauwenbergh & Cool (1982): “Strategic management deals with the formulation aspects (policy) and the implementation aspects (organization) of calculated behavior in new situations and is the basis for future administration when repetition of circumstances occur.” (Nag et al. 2007: 954-955.)

Their comprehensive literature review led Nag et al. (2007: 942) to the following definition of SM: “The field of strategic management deals with (a) the major intended and emergent initiatives (b) taken by general managers on behalf of owners, (c) involving utilization of resources (d) to enhance the performance (e) of firms (f) in their external environments.”
2.2.2 Definition of strategy

Nevertheless, the content and scope of strategy itself still needs to be defined. Most of the standard textbooks on strategy offer a definition such as “top management’s plans to attain outcomes consistent with the organization’s missions and goals” (Wright et al. 1992: 3), or the collection of choices the organisation makes in order to survive and succeed in its environment (e.g., Johnson & Scholes 1999; Shrivastava 1994; Thompson & Strickland 1995). Håkansson and Snehota (1989) claim that the essence of many definitions converges in the concept of strategy as “the pattern in the stream of decisions and activities… (Mintzberg & McHugh 1985: 6) … that characterizes the match an organization achieves with its environment … and that is determinant for the attainment of its goals …” (Hofer & Schendel 1978, 25). The emphasis is on the pattern of activities that has an impact on the achievement of the organisational goals in relation to its environment.

Still, it seems that all the viewpoints of the different schools and perspectives cannot fit into one single definition. One solution is to abandon the pursuit of one single definition that fits all and to accept that strategy might mean different things for different people in different contexts. For example, Mintzberg (1987) accomplishes this feat and offers five different definitions for strategy in the form of five P’s.

First of all, strategy can be seen as a plan: a direction, a guide or course of action for the future, a path to get from here to there, therefore representing intended strategy. Second, strategy may also be perceived as a pattern: certain consistency in behaviour over time, representing realised strategy. Third, strategy can be a position, the locating of particular products in particular markets. Fourth, strategy is a perspective, an organisation’s fundamental way of doing things, or, its “theory of the business” (Drucker 1970, 5). And fifth, strategy is a ploy, a specific manoeuvre intended to outwit an opponent or a competitor.

In line with what has previously been said, these definitions present each one point of view, and each of them has its flaws. People’s actions tend to deviate from what they intended to do, but both do exist: organisations develop plans for the future (intended strategy) and also evolve patterns out of their past (realised strategy). If the intentions are realised fully, they can be called deliberate strategies, but if not, they are unrealised strategies. There are also emergent strategies, where a pattern realised was not expressly intended.
Different perspectives regard the deliberate-emergent continuum with different emphasis. So-called entrepreneurial strategies are broadly deliberate but can emerge in detail and even orientation; ideological strategies originate in shared beliefs and intentions exist as collective vision of all actors; strategies originate in process, and are partly deliberate, partly emergent (and also deliberately emergent). There can also be so-called umbrella strategies, where strategic boundaries or targets have been defined within which other actors respond to own experiences or preferences. (Mintzberg & Waters 1985.)

Few strategies are purely deliberate or purely emergent, but they mix these in some way, exercising control and fostering learning at the same time. Strategies form and are formulated. In addition to this, the total absence of strategy (Mintzberg et al. 1998) might also be possible: if the strategy is to be seen as a rational, goal-directed scheme that directs the coherent whole of choices made in the organisation, it is possible that this kind of status is never reached –some choices are always made, but if they are not based on any coherence, it could be seen that the path the company is taking is not based on any actual strategy, either.

2.2.3 Strategy as practice

According to Whittington (2006), there is a current shift in the conception of strategy. Traditionally the strategy discipline has treated strategy as property of organisations, that an organisation has a strategy of some kind or another. But now, strategy is beginning to be seen also as a practice, something that people do (e.g. Hambrick 2004; Jarzabkowski 2004).

The ambition of this practice turn is to overcome social theory’s ancient dualism between, as Schatzki (2005) characterises them, ‘individualism’ and ‘societism’. According to this view, individualists emphasise the role of individual human actors too much and neglect macro phenomena, whereas societists concentrate on the role of large social forces, and do not put emphasis on micro phenomena. Practice theorists try to take both sides into account.

According to Whittington (2006), there are three core themes for practice theory: (1) society (i.e., the practices of organisations and their wider social fields): how social ‘fields’ (Bourdieu 1990) or ‘systems’ (Giddens 1984) define the practices – shared understandings, cultural rules, languages and procedures – that guide and enable human activity; (2) individuality (actual activity, praxis): people’s actual activity “in practice”; and (3) the actors (strategy’s practitioners) on whose skills and initiative activity depends. Actors are seen not as simple
automata, but as artful interpreters or practices; actors become important since their practical skill makes a difference.

As an example, Grant’s (2003) study of contemporary planning in oil companies suggests that strategic planning may not conform to the stereotype of strategic planning anymore, and through that study the potential of intra-organisational studies of what managers actually do can be seen, to explain larger patterns of strategic activity.

The focus of this thesis is the level of an individual agent in the strategy process; in other words, the practitioner of strategy, and his/her activities of strategising. The objective is to describe the process of strategy formation and therefore the process aspects and little of the content issues are of interest. It should be noted that all the questions typically posed by strategy researchers relating to the content of strategy (how do firms behave, why are firms different, what determines success or failure in international competition; Rumelt, Schendel & Teece, 1994) are posed at the organisational level of analysis. In this study, the organisational and network levels (or intersubjective, social structure and extrasubjective levels of analysis, Weick 1995) are also addressed, but the main focus is at the level of the individual agent in the strategy process.

From this ‘strategy as practice’ tradition’s point of view, the focal point of research is the practitioner of strategy, and his/her activities of strategising (Whittington 2006). In this thesis, the strategy may be seen in a similar way as Tsoukas (2006) presented it, as an answer to the question: that is, in what direction should a firm channel its activities. The process is about continually making sense of the world and trying to find this answer.

2.3 The relationship between strategy, objectives and decision-making

The relationship between the concept of strategy and the concept of objectives are not as clear or as straightforward as one might think. For example, Mintzberg et al. (1998) mention how in strategic management literature there’s often some confusion about the relationship between objectives and strategy, and the word ‘objectives’ is even used to mean strategies: “The first stage, objectives setting, serves primarily to identify relevant strategic alternatives, where or in what strategic direction the firm as a whole as well as its organizational subunits should go” (Peter Lorange 1980: 31).
The question concerning the relationship between the objectives and the strategy is a crucial one, since it relates also to the question of effectiveness of an organisation. Research on business strategy has been primarily concerned with understanding what makes a business organisation effective in its environment, and to explore the organisational processes required to enhance this effectiveness. The criterion of effectiveness has been assumed to be the accumulation of monetary wealth over time, achieved by exchange with other parties in the environment. The accumulation of resources is supposed to be the prerequisite for the survival of the organisation, and the dominant idea in the conceptual core of business strategy research has been partly derived from biology ("survival of the fittest"). Thus, the content of a strategy, the activity patterns that affect the achievement of goals, are defined by reference to the factors that determine the organisation’s effectiveness. (Håkansson & Snehota 1989.)

But the survival may not be the ultimate goal in itself; survival may just be a prerequisite for the achievement of the actual objectives placed upon the company. It is not even clear what the legitimate objectives for a company or strategic actors are. The four perspectives on strategy presented by Whittington (2001) showed how different approaches differ in the way the objectives (and therefore also the outcomes) of the strategies are perceived. Classic and Evolutionary put all emphasis on profit maximisation whereas Processual and Systemic approach saw the possibility of existence of different kinds of objectives, based on different values and social contexts.

One way of approaching this relationship might be through the intentions behind the strategy. Mantere (2003) discusses this theme in his thesis and states that philosophers use the concept ‘intention’ while psychologists tend to favour the concept ‘goal’ as in ‘goal-directed behaviour’. Intentions direct actions, which are performed in order to reach goals (Searle 2001; Heckhause & Kuhl 1985). Heckhause & Kuhl (1985) also present that people have goals of different orders, *i.e.*, goals form systems in which larger goals break down into smaller ones. The same can be said of intentions.

But how does decision-making relate to intentions and goal-directed behaviour? As already discussed, the concept of strategy is often used as if it would be a master intention or an objective of large magnitude. However, as Mantere (2003) also points out, Searle (2001) has stated that there is a gap in rational decision-making, and that the gap manifests itself in three distinct contexts: (1) between the deliberative process and the decision itself (*i.e.*, thinking of goals/needs and coming to a decision); (2) between the intention to carry out
the decision and the action that takes place; and (3) between individual intentions and their causes and is extended to carrying out patterns of action. These gaps are summed up in Table 4 below.

**Table 4. Searle’s (2001) gap in rational agency (in Mantere 2003).**

<table>
<thead>
<tr>
<th>Context</th>
<th>Manifestation of the gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>The making of an individual decision</td>
<td>Between deliberation and decision</td>
</tr>
<tr>
<td>Once a decision has been made</td>
<td>Between intention and action</td>
</tr>
<tr>
<td>In the midst of a larger project</td>
<td>Between individual intention and action; and the pattern of action</td>
</tr>
</tbody>
</table>

What this means is that the viewpoint of the traditional definition of strategy on decision-making – that a rational, goal-directed scheme directs the choice made in the organisation – might not be that straightforward. The rationality of decision-making has been under discussion between different viewpoints, and the question is whether decision-making in organisations is somewhat rational (bounded-rational), or not rational at all, moved by the whims of political movers and shakers (the garbage can model) (Eisenhardt & Zbaracki 1992).

### 2.4 On strategising and organising

It would be difficult and even pointless to talk about strategy without organisation, or about strategising without organising. While strategising refers to those planning, resource allocation, monitoring and control practices and processes through which strategy is enacted, organising is about the creation and use of structural practices and coordination processes by internal stakeholders to enact the organisation’s identity, culture and interests (Jarzabkowski & Fenton 2006). Traditionally, strategy seems to be a higher priority than structure: you need to know where you want to go to before you decide how to organise to get there. This classic Chandlerian view has had much support over the years, but recent developments in both theory and practice of strategy and organisation has led researchers to question some of these assumptions. Academic research has recently emphasised more process- and practice-oriented theorising, while contemporary organisational practice is characterised by more complex, global and networked innovating forms than in previous eras. (Pye & Pettigrew 2006.)

Now, in a world of accelerating change, approaching strategy and organisation as interlinked and practical activities is more effective than traditional static and detached approaches that give priority to analysis. In fact,
strategies and organisations are transitory: strategising and organising become constant in managerial work (Whittington et al. 2006.)

For example, the study of Grant (2003) already mentioned showed a shift in the nature of strategy work, with less emphasis on analysis and forecasting, and more on communication, coordination and control.

As strategies and organisations are constantly being made and re-made, organisation and strategy become reconceived as continual activities of strategising and organising rather than states. This work, performed by managers through often strenuous and artful activities, is ‘hidden’ by nouns; but, as Karl Weick (1969: 188) observed, ‘verbs keep things moving’. (Whittington et al. 2006: 618.)

Organising consists of reducing differences among actors (Weick 1979). For an activity said to be organised, it implies that types of behaviour in types of situations are systematically connected to types of actors (Berger & Luckmann 1966, 72; Tsoukas 1998). According to Weick (1979), an organised activity provides actors with a given set of cognitive categories and a typology of actions. The organisation is both a given structure (i.e., a set of established generic cognitive categories) and an emerging pattern (i.e., the constant adaptation of those categories to local circumstances) (Tsoukas & Chia 2002: 191).

Rethinking the relationship between strategy and organisation in more dynamic process terms as strategising and organising reveals much more than, for example, classic resource allocation decisions (Pye & Pettigrew 2006). Whittington et al. (2006) present a shift from dualism to duality: whereas traditional theory has sought the analytical clarity of conceptual dualism, practical activity in fast-paced environments entails integrated dualities. In Chandler’s sequence, ‘organisation’ follows ‘strategy’ as a separate variable, but in constantly changing environments it is easier to see the two run together as simultaneous activities. This goes further than interdependence in which organising partly shapes strategising. This duality implies a blurring of boundaries, so that strategising and organising become very similar or even common: in the heat of the moment, practitioners may not be able to distinguish the two. As Whittington et al. (2006: 618) put it, “the duality of strategising/organising rescues strategy from its pedestal, and puts it back into the complex, untidy reality of organisation”.

Or, according Mintzberg et al. (1998: 34), “structure follows strategy as the left foot follows the right”. The past counts, as does the environment and organisational structure, which is a significant part of the past. Claiming that
strategy must precede structure would mean the same as saying that strategy must precede the established capabilities of the organisation: the capabilities that are embedded in its structure.

Pye & Pettigrew (2006: 584) see in this dynamic network of strategising-and-organising interrelationships a political learning process which lies at the heart of change, and they describe strategising and organising as “two interwoven threads, not unlike a double helix, which twist and turn, bringing each to the foreground from time to time, as they work in tandem to bring about change, held together by leadership”.

Colville & Murphy (2006) came to the same conclusion and state that the best way of making sense of the relationship between strategising and organising is through leadership: leadership acts as an enabler of articulating strategy and organisation during times of profound change. This also relates to human agency, and linking leadership with strategy and organisation because of the need to deal with movement (and process) also humanises strategising and organising.

Pye & Pettigrew (2006) also commented on the analysis conducted by Rivkin & Sigglekow, and stated that it shows the complexity of interacting decisions which makes effective strategising difficult and encourage firms to organise themselves to strategise well, and that their position in the relationship between strategising and organising illustrates their mutual interdependence as well. Pye & Pettigrew (ibid.) also remind us that the purpose of strategising and organising is ultimately to change behaviours of people, rather than being ends in themselves.

2.5 Implications for the process of strategy formation

Each of the ten schools of thought and the four perspectives on strategy also have implications for managerial action of its own. As Whittington (2001: 117) says, “We argue that the differences between the four basic approaches to strategy do matter. With their different perspectives on both human action and environments, they provide radically opposed recommendations for managers and governments alike.”

Basically, all the different perspectives presented differ in three aspects: what is strategy (the content of strategy), what is strategy for (the objectives/outcomes) and how is strategy done (the strategy process). Classical and Evolutionary approaches see profit maximisation as the natural outcome of strategy-making, Systemic and Processual approaches are more pluralistic, envisioning other possible outcomes as well as just profit. Similarly, the ten schools of thought also
vary in dimensions of root, context, similar situation, form of organisation, and stage.

From the perspectives presented by Whittington (2001), the Classical approach is most relevant in a mature, stable and relatively predictable environment, capital-intensive and with monopoly power. The Evolutionary view fits small firms, emerging industries and Anglo-Saxon conglomerates, whereas the Systemic approach suits non-Anglo-Saxon, family and state firms, and the Processual approach protects bureaucracies and knowledge-based firms.

Tsoukas & Knudsen (2006) emphasised process and constructivist views as the mode of explanation in future strategy studies as well as the significance of the enactive approach in which thinking and acting are seen as being perpetually engaged in a dialogue.

One of the premises of processual research is that all phenomena to be studied are historical and contextual, embedded in space and time. The effect of context can be seen in the form of strategy: some strategies seem to be more rationally deliberate (especially in mature mass-production industries and government), while others tend to be more adaptively emergent (as in dynamic, high-technology industries). Sometimes it becomes more individually cognitive than socially interactive (in much of small business, for example). (Mintzberg et al. 1998.) The effect can also be seen in the objectives of strategic action and strategy formation: according to Systemic theory, apparently foolish or perverse behaviour may be perfectly rational when seen in context. The sociological imagination prompts a search for other sources of power in the environment and other rationalities for action. (Whittington 2001.)

For this particular (more descriptive) study, with an interpretive research approach and process view, naturally some of these perspectives and schools of thought have more to offer than others. Local conditions, culture, social relationships and the small size of the companies have been recognised to play an important role in the way organisations operate and strategies form in small software companies in Kainuu, Finland, and due to these contextual factors limiting this study, some perspectives are more applicable in the analysis than others.

The purpose of the short field review was to make visible to the reader what kinds of choices have been made and what kinds of perspectives have been assumed – and accordingly, what have been left out of the review. Due to the interpretive, descriptive and processual nature of this study, from Whittington’s classification, Processual and Systemic approaches are the most relevant due to
their pluralistic view of the objectives of strategy-making. The Processual perspective’s focus is internal (politics/cognitions), strategy is crafted and the processes of strategy-making are emergent, while the Systemic perspective’s focus is external (with emphasis on societies), strategy is embedded in nature, and the processes are more deliberate. For the Systemic strategist, effectiveness depends upon understanding context and playing by local rules. The systemic perspective, with its emphasis on context, highlights also two other factors that are believed to be important in strategy-making: one is managerial values – the beliefs and preferences of those who formally lead the organisation, and the other is social responsibilities – specifically the ethics of the society in which the organisation functions, at least as these are perceived by its managers.

Since the view adopted in this study on strategy formation includes both internal and external processes of an organisation and their interplay together with the cognitive processes of entrepreneurial mind, both internal and external perspectives as well as both sides of strategy, emergent and deliberate (as well as the possible absence), are important to understand.

In the next chapter, the aim is to establish the inner and outer contexts for strategy formation and the change processes. The Network view is used as a perspective for understanding the embeddedness of a company in its context as well as the dynamics inside and outside the organisation producing change.
3 Network, organisational development and change

As already stated in the introduction, there has been a tendency for process scholars from organisation theory and business policy backgrounds to focus on the relationship of process and the inner context of the firm in the research of strategic change – and thereby de-emphasise both the explanatory role of outer context variables and the analytical exploration of the alternative content areas for strategic change (Pettigrew 1990).

After discussing the content and process issues of strategy research in chapter 2, we now turn the focus to the outer context. According to Smirchich & Stubbart (1985: 725–726), there are three different conceptions of the environment, and the understanding of researchers has gradually moved from the first towards the third:

1. \textit{The objective environment}: an organisation is embedded within an “environment” that has an external and independent existence. Environmental analysis entails finding things that are already somewhere waiting to be found and then delineating a strategy that will meet them.

2. \textit{The perceived environment}: The “environment” still remains real, material and external, but the strategist is permanently trapped by bounded rationality, and the challenge is to minimise the gap between their flawed perceptions and the reality of their environment.

3. \textit{The enacted environment}: From an interpretative worldview, separative objective “environments” do not exist. Organisations and environments are labels for patterns of activity. What people refer to as their environment is generated by human actions and accompanying intellectual efforts to make sense out of their actions. Strategists create imaginary lines (like in star constellations) between events, objects, and situations so that they become meaningful for the members of an organisational world.

Bearing the latter conception in mind, the conception and role of the environment in the strategy formation process is now looked at from a different perspective: the network view, which in contrast to the faceless environment of the early organisation theorists characterises the environment as a network of relationships in which each individual and company is embedded.

Companies are deeply interrelated through their mutual resource dependence. Any single firm is dependent on its customers, suppliers, personnel, and other relationships. This means that firms cannot individually control their own
activities or futures: the network positions and roles of firms are dependent on the relationships they have with other firms. To put it more precisely, the character of a certain social unit is possible to define and understand only in terms of its exchange relations with other social units (e.g., Arndt 1983; Jarillo 1988). This basic network notion of how individual actions and relationships are embedded in the larger network highlights the interdependence between companies and the difficulty with traditional strategic planning (Möller & Halinen 1999; Ford & McDowell 1999). It is also impossible to explain the strategic behaviour of a company without paying explicit attention to the network of relationships among them (Nohria 1992).

The network view, and the IMP (International Marketing and Purchasing Group) perspective in particular, emphasise the situational and historical grounds for the activities of firms in a network environment. In a sense, all major situations are unique and can only be understood in the context of the network situation and from the perspective of the history that has produced the current relationships and positions. Firms and their positions are historically constituted.

The network view also offers a basis for explanation of change, stemming from both inside and outside a firm. In addition to network dynamics and the change processes in the network context, the organisational change and the question of agency are also discussed in this chapter.

In this chapter, the concept and idea of a network is presented in order to show its role as an external context for the processes of change and strategy formation of a single organisation. Understanding change and organisational development is impossible without understanding an individual organisation’s embeddedness in a larger network, network processes and dynamics, and their significance to the change and development of a single organisation. The theory of networks is discussed. The relevance of the concept of network to this study is presented, and the relevance of network and change to the strategising process is discussed.

3.1 Approaches in network studies

There are several research streams in network studies, and therefore definitions of a network vary accordingly. For example, network can be seen as (a) “the total pattern of relationships within a group of organisations which act to attain a common goal” (Van de Ven & Ferry 1980); or (b) “a number of loosely connected organisations linked together by various types of bonds or social relationships”
(Aldrich 1979); or (c) “sets of two or more connected exchange relationships” (Möller & Wilson 1995: 120). The first interpretation comes from the area of strategic nets; the second from the social networks approach; and the last from the markets-as-networks approach. The two latter approaches are also the ones that have been applied in this research. The social network approach is interested in the relationships individuals build, hold and develop, whereas the markets-as-networks approach focuses on exchange relationships between organisations. At a general level, the definition of a network could be as follows: “A network is a model or metaphor which describes a number, usually a large number, of entities, which are connected” (Axelsson & Easton 1992: 205).

Studies focusing on inter-organisational relations and networks have increased remarkably during the last couple of decades. The approaches have their roots in organisation theory, social exchange theory, sociology and social psychology (Johanson & Mattsson 1994, Håkansson & Snehota 2000). Although it has been claimed that the growth in the number of studies has not ensured a clear accumulation of knowledge or even conceptual consolidation and that the increase in the number of studies has contributed to a rather messy situation with differing concepts, theories, and research results, there does still seem to exist a fairly limited number of concepts and theories, and the field appears to be segmented into a fairly limited number of distinct and theoretically meaningful perspectives (Oliver & Ebers 1998).

Fundamentally network research can be seen to belong among the approaches that were developed to emphasise the influence of the environment on the internal development of firms and the dependence of organisations on scarce resources in the environment. However, in contrast to the faceless environment of the early organisation theorists, the network researchers began to characterise the environment as a field of relationships with actors with whom an organization has to do business (Nohria 1992: 6; Powell & Smith-Doerr 1994: 369). According to Oliver & Ebers (1998), the central paradigm among the network studies has tended to view inter-organisational networking as an intentional response to dependencies among organisations that aims at enhancing the power and control of the networking organisations in order to foster their success.

The different theories in this field include transaction cost (e.g., Williamson), strategy (e.g., Porter, Pfeffer, Teece), institutional (e.g., Zucker, DiMaggio and Powell, Scott, Meyer and Rowan), population ecology (e.g., Freeman, Hannan and Carroll), resource dependence (e.g., Pfeffer and Salancik), structuration (e.g., Giddens), contingency (e.g., Thompson), industrial marketing (e.g., Håkansson,
Uppsala school of network analysis), network (e.g., Powell, Burt, Bradach and Eccles), decision-making, exchange (e.g., Blau and Emerson), industrial organisation (e.g., Porter), evolutionary (e.g., Baum and Singh), political power (e.g., Zald), and labour law, bargaining and agency (e.g., Eisenhart, Jensen) (Oliver & Ebers 1998; Easton 1992).

The analysis made by Oliver & Ebers (1998) revealed four substantive configurations of variables that constitute distinct research paradigms: social network, power and control, institutional theory, and institutional economics and strategy perspectives. These four paradigms differentiate, and on the other hand, also unite the seemingly heterogeneous field. While the social network and the institutional economics and strategy perspectives are situated at literally opposite ends of the spectrum, the other two research perspectives, on the other hand, occupy the middle ground.

Another type of review of disciplines where the concept or metaphor of networks is being used is by Araujo & Easton (1996) who identified ten such paradigms. Network studies in economic geography and the organisational forms and market structures are closest to those in marketing, but deal with a higher level of aggregation than markets. Traditional interorganisation theory; the field of the diffusion of innovation; entrepreneurship studies; and the social networks are distinguished by their concern with non-economic exchange and influence processes. Policy networks and network organisation are more normative paradigms, and the actors-resources-activities model in Industrial Networks and actor-network theory both move beyond the actor-defined network.

Inter-organisational network research seems to stretch out between two focal points: a social network perspective at the one pole, and a governance perspective at the other. Social network perspective takes interest in how structural properties in their internal and external networks, as well as their positions within these networks, influence organisations and their members. Governance perspective, on the other hand, covers all theoretical approaches that study the institutional mechanisms by which inter-organisational relationships are initiated, negotiated, designed, coordinated, monitored, adapted and terminated, and thus is meant to comprise both institutional theory and institutional economics approaches. In contrast to the network perspective, the governance perspective focuses less on the structural properties of inter-organisational relationships and actor positions. Rather, this perspective concentrates on attributes of both the networked actors and content of their relationships within a particular institutional context. (Oliver & Ebers 1998.)
The “second variant” of governance perspective – institutional economics and strategy approaches – focuses on how to forge networking relations, and how to organise them, so that actors can gain access to, and best utilise, such resources that will reduce their dependence or will otherwise improve their competitive position.

As a conclusion, Oliver & Ebers (1998) point out the predominance of motivation and intention for networking that have received a lot of attention in the literature. According to them, conceptual focus on motivations and intentions is problematic because the possibility of unintended outcomes is systematically neglected when the focus lies on actors’ motivations and intentions. Thus, they state that future research faces the challenge of developing useful conceptualisations of the processes that are involved in the inter-organisational networking and in providing more detailed analyses of these processes, their triggers and consequences.

Therefore, it is important to take both aspects into consideration: the motivations and intentions of actors, and the processes that are involved in the networking. The motivations and intentions direct the action, and the interacting processes affect the way the actual process of strategy formation unfolds.

The most interesting perspectives for this study are the strategy approach, since studies in this field have focused on how firm strategies impact inter-organisational relationships and networks, or on how outcomes of inter-organisational relationships and networking affect an organisation’s strategic position and comparative advantage; the industrial marketing school with their network analysis; and network view, the studies of which focus on how the positions of actors within their network of relations, and the content of these relations, affect their opportunities for action. Also the resource dependence view offers interesting views on the process through which organisations reduce their environmental dependencies using various strategies which enhance their own power within the inter-organisational system.

These theories behind different network research approaches are already familiar from the strategic management field and literature review, since these two fields are studying the different aspects of the same issue: basically, the other one is about strategising, the other one about organising. In fact, networks can be seen as a kind of organising logic, a way of governing relations among economic actors.

These approaches offer a more profound understanding of the so-called environment often seen to surround an organisation (‘markets-as-networks’).
However, since this study is not so much about interorganisational relations than it is about processes, these theories and the picture they give of the networks as a context in which the strategies can emerge constitute only a part of ‘the whole picture’, and not a theoretical basis for this study. But it is crucial to understand the nature of networks and their influence on the organisational development, on the interdependence between organisations, and therefore also on the interdependence of the strategy formation.

3.1.1 Markets as Networks approach

During the 1970s a major international research venture into industrial marketing and purchasing, called the International Marketing and Purchasing (IMP) project, was started. It emphasised the role that long-term, stable relationships play in industrial markets and the phrase ‘interaction model’ of buyer-seller relationships was coined to describe the approach. The second IMP project moved from the analysis of dyadic interaction processes to a network-level analysis. (Easton 1994.)

The European tradition in the research field of organisational marketing/business and business marketing/organisational buying behaviour has been the basis for the emergence of the industrial network approach as a separate paradigm. This approach differs from others mainly in terms of its scope: it is concerned with understanding the totality of relationships among firms engaged in production, distribution and the use of goods and services in what might best be described as an industrial system. (Håkansson & Snehota 1989.)

The propositions of the network model or organisation-environment interface can be summarised as follows:

1. Business organisations often operate in a context in which their behaviour is conditioned by a limited number of counterparts, each of which is unique and engaged in pursuing its own goals.
2. In relation to these entities, an organisation engages in continual interactions that constitute a framework for exchange processes. Relationships make it possible to access and exploit the resources of other parties and link the parties’ activities together.
3. The distinctive capabilities of an organisation are developed through its interactions in the relationships that it maintains with other parties. The identity of the organisation is thus created through relations with others.
4. Since the other parties and the interaction also operate under similar conditions, an organisation’s performance is conditioned by the totality of the network as a context, *i.e.*, even by interdependencies among third parties. (Håkansson & Snehota 1989.)

Easton (1994) presents four metaphors for industrial networks: relationships, structures, positions and processes. The last metaphor relates to change, which is discussed more in the next chapter. Change is a central feature of much of what is written about industrial networks, since networks are concerned with relationships and these cannot be conceived of in anything but dynamic terms. Network processes can be seen as the third kind of mechanism that affect the coordination of firms in an industrial system, in addition to the invisible hand of the market argued for by economists and a hierarchy or the so-called visible hand. In this third form, coordination is not achieved by some grand master plan or quasi-hierarchy since the firms concerned are too independent and the activities too numerous and diverse to control. But neither, in general, are firms so independent from one another that the market dictates and controls their actions. The direction of change is governed by the pattern of relationships that the participant firms judge, on a resultant rather than a collective basis, to be most favourable.

In terms of strategy, the networks-as-positions perspective provides a contrast with the Porterian position. The network position characterises the rival forces in terms of the organisations with which the focal firm has relationships and, in addition, handles both conflict and cooperation among them. The general picture is of a firm at the centre of a web of relationships that both constrain it and provide it with opportunities. By changing patterns of relationships, a firm can change position, acquire more control over its own destiny and better achieve what the stakeholders require. (Easton 1994.)

To summarise the viewpoint of the IMP perspective, in their introductory article for the special issue of Industrial Marketing Management, Möller & Halinen (1999) present some core aspects of the IMP perspective on network management:

1. *Developing the network vision.* To navigate in a network, management must develop an understanding of the relationships that constitute the network. The better the network vision a firm has the better its chances of foreseeing the strategic changes initiated by specific actors – competitors, major customers, suppliers, and government agencies. Network vision also facilitates the advanced evaluation of the effects of actor’s own actions on the network. As
networks are not transparent, deep understanding and vision can primarily be achieved through participating in those networks that are relevant to the firm.

2. **Developing relevant relationships.** Network relationships are not free. All relationships are the results of investments of management time and financial resources, and the development of relationships takes time. As resources are scarce, the firm should try to develop an ‘optimal set of relationships’. This, however, by definition is impossible because a firm’s actions are dependent on the actions of other actors in the network. This means that traditional strategic planning is not very useful. More important is being able – through visioning, through relevant relationships, and through having flexible resources – to utilise the windows of opportunity that open in the network.

3. **Mobilising other actors.** To be able to develop a strategic net (supplier net, distributor net, R&D net), a firm has to be able to mobilise other actors; why should they comply? A firm that has new and interesting resources to offer – products/services, process know-how, access to technology – can more easily attract equally qualified partners in the network. Success breeds success, and this is also true in the network world. On the other hand, companies with very strong positions also attract antagonism, coalitions of firms trying to change or at least balance the distribution of power in the network.

In short, from the network perspective, traditional strategic planning is not very useful due to the strong interdependence between different companies. Strategy formation is more about utilising the windows of opportunity by understanding the dynamics of the network, developing a network vision, creating relevant relationships and gaining and utilising resources.

### 3.1.2 Social networks

Research in the communication and social networks has been largely inductive in character (Rogers & Kincaid 1981). The unit of analysis is commonly the individual in a social context, and the network is defined in terms of the patterns of communication and/or social interactions occurring regularly between and among those individuals. The network studies have influenced the language and orientation of the industrial network approach, and they share the view that networks should be treated as a whole, that network boundaries are problematic and that network models must be dynamic in nature. (Easton 1994.)
In entrepreneurship studies, a number of studies of network research have been carried out. Here the distinction between actor as an organisation and as an individual is most obviously blurred and economic and social forms of relationships are more closely related than usual. (Easton & Håkansson 1996.) What mostly differentiates entrepreneurship research on networks from industrial network research is that in the former, the interdependence of social and economic, i.e., interpersonal and organisational dimensions of business networks, has been more emphasised. An approach that embraces both dimensions has been seen as needed because an emerging new venture tends to be strongly identified with the entrepreneur while the entrepreneur identifies him/herself with the venture (Szarka 1990). Many of the changes in small firms, such as access to resources, the structuring of information and the support structure, seem to be closely tied to personal networks (Mønsted 1995).

When an industrial network is seen to consist of actor, activity and resource networks, the entrepreneurial network has been constructed of exchange/production, communication and social/personal networks (Johannisson 1987; Szarka 1990). Johannisson (1987) states that the markets-as-networks approach takes into account only the first one of these networks. The exchange network is a firm-level network in which commercial transactions take place. These involve monetary exchanges, engender financial costs and generate income. The communication network includes the organisations and individuals who inform the business activities through official and semi-official information flows, but consists of non-trading links. The social network is formed of personal contacts with family, friends and acquaintances, and friendship between individuals is the building block of this network. (Mainela 2002.)

Entrepreneurial networks are situated at the interface of an economic competitive perspective and a social trust perspective (Mønsted 1995). On one hand, networks are natural, necessary and inseparable parts of entrepreneurship because entrepreneurs create the images of themselves as well as enact the reality through the personal networks. On the other hand, networking can be seen to arise out of the realisation that an emerging new firm lacks resources and cannot rely only on its own abilities. The former viewpoint emphasises the social aspects of networks whereas the latter stresses the strategic, competitive aspects. If the social side is emphasised an entrepreneur’s network is a system of relationships containing information, resources and social support. The main function of the network is to aid in coping with the environmental ambiguity of a new venture. It
serves to assist the sense-making process of the entrepreneur and to incorporate others into the created setting. (Mainela 2002).

If the viewpoint is in the strategic dimension, networks can be intentionally and purposefully used to acquire competitive advantage for a small firm. Then, networks are seen as a mode of organisation between markets and hierarchies, which entrepreneurs use to position their firms in a stronger competitive stance. (Jarillo 1988.) For new ventures networks are a means of quick access to resources and know-how that cannot be produced internally (Powell & Smith-Doerr 1994). The ability of entrepreneurs to build contacts and develop networks is considered essential to achieve information on what is available, advice on how to proceed, reassurance of the possibilities of the business and achievement of resources to realise the venture (Birley 1985).

Both the markets-as-networks approach and the social network approach view networks as a kind of organising logic, a way of governing relations among economic actors (Powell & Smit-Doerr 1994).

### 3.2 Change in networks: network processes

When networks are looked at from the viewpoint of the process metaphor (Easton 1994), coordination between firms can be seen to be due to the third form of coordination, network processes, the other two being hierarchy and market, as discussed in chapter 3.1. Coordination is not achieved by some grand master plan or quasi-hierarchy since the firms concerned are too independent and the activities too numerous and diverse to control. But the firms are not so independent from one another, either, that the market would dictate and control their actions. (Easton 1994.)

Håkansson (1994) has argued that an industrial network could be looked upon as a logical entity established through some general network processes. His main conclusion concerns the need to understand how single activities are related to the development of the network as a whole. Therefore, a network could be perceived as a system, a group of elements that are affected by interacting forces.

Networks are stable but not static. The continuing processes of interaction between firms are stabilised since they take place within the context of existing relationships. However, such relationships are also changing, partly in response to events external to relationships and partly because of the transactions that help to define them. In addition, new relationships are formed and old relationships disappear. Network inertia and interdependencies slow and shape change. Thus,
networks do not have lifecycles. They transform over time, merge, shift in focus and membership. (Easton 1994.)

No change is created without activities undertaken by an actor, regardless of the occurrence of new conditions in the environment (Gadde & Håkansson 1994). Change can be caused by both exogenous (general economic conditions, social, technological and cultural developments) factors that create new basic conditions, and endogenous factors. There are three types of factors that can cause the need to change: internal company factors, interaction in the relationship that creates a situation that has to be solved by making a change or suggesting one to the counterpart, and developments somewhere else, among third parties or in society generally. Change in business networks is to a large extent endogenous in relation to the network but exogenous to the single actor. (Håkansson & Snehota 1995.)

According to Lundgren (1994), stability in the relationships is a prerequisite for changes within the activities and stability within the activities is a prerequisite for changes within the relationships. Stability in the network will reduce the actors’ perceived uncertainty and thereby increase their propensity to participate in change activities.

Change is as a state of a dynamic flux, a continuous process. Changes always flow from the actual existing structure of the network, which is a product of processes that in the past have led to formation of the network’s structure as it is experienced today. This means that it is possible to anticipate change as some sequence of events, a view that is ruled out. Change affects the current economic performance but also the possibilities to develop certain capabilities and the strategic position of the company. (Håkansson & Snehota 1995.)

Håkansson & Snehota (1995) have presented a scheme of analysis of development effects of business relationships (table 5). According to them, this scheme can be used as a conceptual framework to analyse the effects of change in a relationship and/or to identify the factors that affect the possibilities of development of a relationship. Any change in a relationship can have three types of effects: changing the potential of the relationship, affecting the companies involved and their cost-revenue parameters, or causing more or less of an “explosion” in the overall network.
Table 5. The scheme of analysis of development effects of business relationships (Håkansson & Snehota 1995: 45).

<table>
<thead>
<tr>
<th></th>
<th>Company</th>
<th>Relationship</th>
<th>Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>Activity structure</td>
<td>Activity links</td>
<td>Activity pattern</td>
</tr>
<tr>
<td>Actors</td>
<td>Organisational structure</td>
<td>Actor bonds</td>
<td>Web of actors</td>
</tr>
<tr>
<td>Resources</td>
<td>Resource structure</td>
<td>Resource ties</td>
<td>Resource constellation</td>
</tr>
<tr>
<td></td>
<td>Capability development</td>
<td>Marketing &amp; purchasing</td>
<td>Strategy development</td>
</tr>
</tbody>
</table>

According to Håkansson & Snehota (1995), there are three major reasons for changes: the combination of individuals and resources, since individuals are curious and learning and resources heterogeneous, i.e., there are always things to learn; interdependencies between the activities are so complex that the individuals can never fully observe or comprehend them; and that actors are constantly looking for opportunities to improve their positions in relation to important counterparts and are therefore looking for opportunities to create changes in the relationships.

Change in the companies’ positions occur when actors make moves based on their perceptions of the game as it is being played. Actors are looking for the opportunity to improve or protect their positions in the network by building up internal or external competences that provide them with a better fit to the other actors in the network and to the network itself. (Håkansson & Henders 1995.)

The motive for the change can thus be the struggle to find stable arrangements and to experiment with workable solutions. The effect, paradoxically, is that change is generated in business networks. Actions aimed at stabilising or changing the network are always a matter of two or more actors working together. As a consequence, no single actor alone is capable of maintaining or changing the structure of the network.

Håkansson & Henders (1995) emphasise the importance of analysing the dynamics of the network instead of studying the change itself because of the fact that there are dependencies between different changes; changes are not stochastic. Though each change can be seen itself, it cannot be understood in itself. Instead, it must be put into a context.

### 3.2.1 Integration

According to Hertz (1994), change develops mainly through mobilisation and coordination of activities and resources. Both of these may occur as a result of
increased level of integration in the network. The network perspective offers a basis for understanding how the effects of integration in one relationship spread, as a result of interdependence, to other actors in the whole of an industrial system of organisations. He defines integration as “forming a whole out of separate components in a system” (ibid.: 105); it denotes a movement towards, rather than an arrival at, a position. From this definition, it follows that integration is a process of change. A key function of integration is to increase effectiveness through reduced redundancy and duplication in the resources used to fulfil a certain activity chain, to prevent duplication of activities, as well as to achieve mobilisation of resources.

The effect of increasing integration is that the space for growth and for new sets of organisations will fade away. When the community reaches a certain size and complexity, effectiveness will be reduced. In time, certain stability will come about until changes or disturbances from the environment cause a disintegration or collapse of the system and then another system takes over. Therefore, increased integration at a relational level in an industrial system could lead to changes of both evolutionary and radical type not only at the relational level, but also at the system and network levels. Which type of change will occur will depend on the origins of the process and the speed and number of the reactions of the non-involved actors.

3.2.2 Combining and controlling

When studying the evolution processes in industrial networks, Håkansson (1994) conceives the networks as “living” structures continuously relating actors, production and exchange activities, and resources to each other. They are always changing, never complete or in equilibrium. The changes are random to a certain extent, but there are also some clearly systematic elements. These elements can be traced back to two basic network processes: the one concerned with the way actors combine and recombine activities and resources, the other involving the way the actors try to control the activities and/or resources.

In the process of combining, two generally opposite tendencies can be identified: to elaborate on the existing ways of combining activities and resources (structuring) and to find new ways of combining activities and resources (heterogenising). It is also possible to identify two tendencies in the process of controlling: a tendency towards increased control by fewer and fewer actors (hierarchization) and towards diminished control of some resource or activity.
Together these processes create a particular development pattern that consists of a sequence of two distinctively different phases: (1) tendency to structure and tendency to extend the hierarchy in the same dimensions that are structured; and (2) tendency that leads to a network structure where fewer and fewer control more and more, and where there are more precise and more limited connections between activities and resources. The actors that are losing in this process try to dilute the power of the companies controlling the resources by disconnecting the activities from the resources. (Håkansson 1994.)

In this way, we can expect a pattern where periods of structuring will be broken by waves of heterogenising. The basic reason for this oscillation is that the strength of each tendency is a result of the mobilisation behind it and mobilisation will only take place when enough actors perceive the same opportunities.

### 3.2.3 Coordination & mobilisation

In comparison with the processes presented by Håkansson (1994), Lundgren (1994) studies both continuous and discontinuous change. However, he sees that this perspective is a complementary one, and that it deals with changes at lower levels of aggregation. By combining these approaches it is possible to provide a bifocal perspective on developments in networks. Lundgren’s model of the basic processes of mobilisation and coordination would result in changes in the structure and function of the network similar to those described by Håkansson (1994).

According to Lundgren (1994), coordination of activities can explain the continuance of networks, and mobilisation of resources and actors can help explain how networks come into being or are radically transformed. Continuous changes in industrial networks are generated through actors coordinating their activities within cycles. Mobilisation of resources and actors is a prerequisite for the emergence of new networks or rapid re-direction of established networks. Mobilisation in itself does not produce economic changes. They are accomplished through coordination processes. Mobilisation processes can, though, produce important preconditions for economic change.

From an intra-organisational perspective, coordination refers to the process of organising functions and flows within an organisation. The process results in increased structure and hierarchisation and in the growth of the organisation. Coordination is normally achieved through planning, control and routines. In the network approach, coordination refers to the organising activities and
relationships to increase the effectiveness of the activity cycle. Coordination in the network perspective is a process of mutual adaptation and learning, and it both changes the structure of, and affects the distribution of, power in networks. Higher output, technological development and more effective production are examples of changes that can be achieved through coordination. (Lundgren 1994.)

Mobilisation refers to the process of acquiring resources to achieve changes in industrial activities. As a result, new interdependencies are created and old ones changed. Network integrative mobilisation refers to the process of expanding or extending the network in accordance with existing activity cycles. Network changing mobilisation, on the other hand, refers to the process of establishing new activity cycles or the breaking of old ones or the combining of two or more previously unrelated activity cycles.

In sum, coordination contributes to the evolution of networks and mobilisation disturbs and disrupts the coordinated activities and will not necessarily have a positive effect on the developments in the network. However, imbalances create slack and constitute driving forces to further coordination and mobilisation in the network. These processes are also interdependent: mobilised resources must be coordinated within and spread through the network to bring about changes in the activity cycles. (Lundgren 1994.)

Socio-economic mobilisation cannot take place in isolation, but to be successful, the mobilisation process must be accompanied by the forming of new networks (e.g., research & development network). It must be a part of a general process of mobilisation involving a growing horizontal solidarity coupled with a clearer understanding of the changing power structure.

### 3.2.4 Vectors of change

Håkansson & Snehota (1995) regard change in business networks as evolutionary. Changes are always the result of a continuous collective organising process consequent to the actions of its actors, who, with only partial understanding and control of the overall structure, take action vis-à-vis single specific other actors.

Connections between resource ties, activity links and actor bonds will not just be developed by chance, but they will follow some kind of rationale that Håkansson & Snehota (1995) call network vectors.

There are two main vectors in terms of effects on the third content dimension for each of the connection. The first pair of vectors results from the connecting of
ties and links, and this causes effects on actor bonds. They are called *structurising* and *restructurising* vectors. In the case when activities are getting more and more elaborate and linked to each other and to the resources used, the network becomes more tightly structured. On the other hand, if resources and activities are combined in a novel way, the result will be the reshaping of the existing structure of actor bonds.

When connecting actor bonds and activity links, *specialisation* and *generalisation* vectors can be seen in function. When activities carried out are elaborated and adapted to the next (or previous) stage of activities in a certain specific activity chain, the bonds are strengthened. Activities thus become more closely connected to an existing actor structure and this leads to specialisation. Instead, if the company attempts to broaden its activity scope and tries to link the activities it performs to some other activity chains than the actual one, towards customers or suppliers with rather different types of technology or organisation, a new counterpart and its general capability are tried out. As a consequence, resource ties are weakened.

The last pair of vectors results from connecting of actor bonds and resource ties. If a specific resource is necessary for performing a certain activity, the actor achieves some hierarchical control over activities and activity links in which the specific resource is used. This *hierarchization* vector is often important in networks based on a specific resource. On the other hand, the heterogeneity of the resources creates opportunities to combine them with activities in new ways thereby creating new activity links and consequently weakening the existing ones. Bonds to resource providers are developed in order to tie that resource to new activity links. This leads to the *heterarchization* of the network. These vectors involve conflict of interest among the actors within a network. Each of the actors tries to gain control over the resources in order to enhance its position to the best of its ability.

According to Håkansson & Snehota (1995), in order to characterise the change, all the vectors are expected to be simultaneously at work in every network. However, there will be a large variation in their strength and relative importance for a company. Together they will form a pattern the writers have termed the ‘network logic’. Vectors of structuring, specialization and hierarchization tend to reinforce each other, and they occur when gradual changes dominate. Instead, when a more radical change is taking place, vectors of restructuring, generalization and heterarchization form a typical pattern together.
Change can be either evolutionary or revolutionary. In the evolutionary case, intersecting change vectors have the same general direction as the network trajectory; on the other hand, a revolutionary change is about to emerge when an existing network trajectory is impacted by a change vector that presents an alternative direction for change that is strong enough. (Håkansson & Henders 1995.)

The writers emphasise the function of organising of customer and supplier relationships, the routines and competence of the organisation in identifying and dealing with the development of connections in activities, resources and individuals, and the possibility to involve and mobilise other counterparts in order to amplify or to contain change. As a conclusion they state that:

1. major source of change is the interaction within relationships;
2. changes in relationships regard the connections of activity links, resource ties and actor bonds that become modified as the parties involved jointly uncover and experiment with ‘better’ solutions (thus, they are closely related to the process of collective learning);
3. modifications in relationships results in organising effect on the overall structure of the network, as a result of which learning is never accomplished; and
4. that change is incremental from the existing structure developed from collective experimentation, takes place from within the existing structure of links, ties and bonds and follow a rationale they call network logic.

3.3 Interpreting the change: The role of network visioning in strategy formation

As pointed out earlier, it is commonly argued (especially in the field of marketing) that business networks in general provide the relevant context for organisational practice (Anderson et al. 1994; Uzzi 1997; Uzzi & Lancaster 2003). According to Mouzas et al. (2008), the challenge that companies face within these ‘communities of practice’ when strategising (Gadde et al. 2003) consists of amalgamating the possibilities for action; all of which do not exist in a transparent and concentrated form, but solely as dispersed individual cognitive ‘pictures’ held by managers who are in a network. Each inter-organisational network consists of pre-existing interaction and exchange relationships and evolutionary dynamics that continually reshape what is feasible and what is successful.
Human brain’s capacity to store information vastly exceeds its capacity to process that information. Hence, there is a need for some kind of patterning, or simplification. When facing a new situation, human seeks to allocate that experience into an existing pattern or ‘chunk’. Cognitive elaboration, on the other hand, involves filling gaps with interpreting stimuli. If the data are not rich enough, the unknown parts of a particular case are likely to be unconsciously filled in with information consistent with beliefs about other, better known examples that are believed to be similar. (Reger & Huff 1993.)

Therefore, managerial interpretations of the environment are always subjective. Following the Carnegie School, these subjective interpretations are the result of human bounded rationality and cognitive bias (see Cyert & March 1963). According to Weick (1979), management is inextricably bound up with the process of imposing sense on past experience. The world is not some stable entity “out there”, to be analysed and put together, but it is enacted: reality emerges from a constant interpreting and updating of our past experience.

### 3.3.1 Sense-making and network pictures

In order to survive and grow, organisations have to keep an eye on the market and ‘the horizon’. In other words, their success depends on their ability to make sense or influence their environment and to “constantly renew meaning and purpose” in the light of new conditions. According to Choo, “adaptability in a dynamic environment presents a twofold challenge, for it requires organisations to be skilled at both sensing and making sense” (Choo 2006: 77, emphasis added).

Choo (2006) also claims that sensing, or noticing potentially important messages in the environment, is problematic because the organisation is simultaneously interacting with many different parts of the environment, and because almost every part of the environment is interconnected with other parts in complex and unpredictable ways. This also corresponds to the basic network notion of how individual actions and relationships are embedded in the larger network: companies are deeply interrelated through their mutual resource dependence, and therefore, firms cannot individually control their own activities or futures. The network positions and roles of firms are dependent on the relationships they have with other firms. (Möller & Halinen 1999.)

Like sensing, also making sense, or constructing meaning is problematic because information about the environment is ambiguous and therefore subject to multiple interpretations (Choo 2006). Weick (1995) has provided seven properties
for sensemaking in organisations, which are useful tools when trying to analyse the task of entrepreneurs, them being forced to make sense of complex things all the time. First, sense-making is grounded in identity construction: people learn about their identities by projecting them into the environment and observing the consequences of this projection. But instead of simply accepting the reactions of the environment at face value, people also try to actively influence the environment.

Second, sense-making is retrospective. People make sense of past events, not the ones taking place right now. As Mantere (2003) points out, Weick (1995) connects the notion of the retrospective nature of sense-making to Mintzberg’s (1978) notion of emergent strategy. Reacting is also something that happens after the event or action reacted to, so a reactive view of strategy is retrospective in nature.

Third, sense-making is enactive of sensible environments. Environment should not be viewed as singular, fixed and external to the enacting subject, but as a dynamic process including the subject. The subject constructs reality by doing things in the world. Mantere (2003) also notes that Weick represents social constructionist tradition, according to which reality is created by subjects, and while he agrees that this is true when speaking of social facts, he agrees with Searle (1995) when stating that there are also brute natural facts, which exist regardless of what we think about them.

Fourth, sense-making is social in nature, done by a group of people instead of a single subject. In addition to being social construction of shared meaning, also the redirection of people’s actions according to that social sense-making has to be taken into consideration. In addition to understanding, there is action in sense-making.

Fifth, sense-making is ongoing activity. People are constantly acting in situations and their actions affect the situations they are in, often against their will. The stream of action is not necessarily monotonous, but there are situations of importance that “crystallize meaning”, such as the launching of a new product in an organisation.

Sixth, sense-making is focused on and by extracted cues. Being based on familiar points of reference, cues, which can be extracted from chaos, sense-making or the creation of new meaning is dependent on previous meaning and knowledge structures. And finally, sense-making is driven by plausibility rather than accuracy: people are not looking for accurate accounts of the meaning of
concepts, but explanations that they can believe and fit into their larger schemas that serve them.

Sensing and sense-making closely relate to the notion of network pictures, which can be seen as managers’ subjective mental representations, or cognitive maps, of their relevant business networks (Bougon et al. 1977; Huff 1990; Ford et al. 2003; Henneberg et al. 2006). Reflecting the different understanding that players have of the network, network pictures are posited to work as ‘sense-making’ devices, and they form the backbone of managers’ understanding of relationships, interactions and interdependencies. Therefore they are also an important component of managers’ individual decision-making process. According to Henneberg et al. (2006), the network pictures do have a dual role of meaning-creating devices and decision tools.

Mouzas et al. (2008) note how network pictures are also the actor’s ‘network theory’ (Johanson & Mattsson 1992). As with Weick’s (1995) notion of sense-making, network pictures are actively contributing to the process of organisations’ and network’s identity construction through individual sense-making and representational processes (Holmen & Pedersen 2003). Network pictures are both retrospective and prospective: they provide a representation of recent-past events and current positions, but they also shape organisations’ future options (Weick 1979; 1988).

However, companies are not passive receivers of contextual information. They also construct the forms in which this contextual information appears by using technologies of representation such as operating reviews, key performance indicators or scorecards and negotiate with each other in a web of relationships to make business deals. (Mouzas & Ford 2003, in Hennberg et al. 2006.)

It is important to also understand that network pictures are not mental representations per se but are linked to a specific purpose. Thus, network pictures vary not only because of their subjectivity (i.e., boundedness to a specific person) but also to a certain degree because of their appropriateness (i.e., boundedness to a specific task). (Henneberg et al. 2006.)

Håkansson & Ford (2002) have suggested the use of multiple network pictures as an optimal strategy to deal with a multitude of managerial demands, and many different network pictures are used simultaneously. Certain elements of the network picture will overlap and form a strategic network picture. (Henneberg et al. 2006.) But as Mouzas et al. (2008) point out, this is not sufficient. Networking within communities of practice does not flow directly out of a
The use of network pictures can be termed as network visioning. For example, according to Möller & Svahn (2003), visioning requires the actor to develop as clear a view as possible about the network and its offering, and about the opportunities, limitations and threats, and it goes beyond traditional environmental scanning since the latter assumes relatively transparent markets, actors and processes, which cannot always be found in technology-intensive markets. Also, as stated earlier about the highly subjective nature of network pictures, visioning is dependent on subjective mental models of the actor and therefore also the ‘clear view’ is always a matter of interpretation and therefore subjective.

Henneberg et al. (2006) also criticise the way Ford et al. (2002: 3) argue that for a researcher “a company-centred view of the network provides an inadequate basis for understanding the dynamics within that world” and state that this assertion is not valid for managers who depend on a network representation that, optimally, enables them to fulfil certain company-centred functional activities. “In fact”, they write, “it is stated that network pictures represent an important aspect of a company’s strategy and its strategising process” (Henneberg et al. 2006: 413; see also Ford et al. 1998; Möller & Halinen 1999; Ford et al. 2003; Gadde et al. 2003; Holmen & Pedersen 2003; Tikkanen & Halinen 2003, emphasis added). According to Henneberg et al. (2006), this subjective network picture overlaps with Mintzberg’s (1987) notion of ‘strategy as perspective’.

3.3.2 Network visioning and strategising

Thus, network pictures represent an important aspect of a company’s strategy and its strategising process. Also Osborne et al. (2001) discuss the same idea when stating in their article that strategic groups are involved in an ongoing process of competitive enactment, and in competitive enactment, leaders’ mental models of competition positively influence strategic performance, and recursively, strategic performance modifies decision makers’ mental models (Hodgkinson 1997; Jackson 2000; Porac et al. 1989, 1995).

As Mouzas et al. (2008) pointed out, networking within communities of practice does not flow directly out of a multitude of network pictures; further interactions and exchange processes are needed. First, managers’ cognitive pictures are continually re-configured to resolve inherent conflicts and exploit
opportunities through activities and negotiations undertaken by organisations in their intermediate network. Cognitive pictures also impact on each other at different levels: at the individual ‘carrier’ level, invariably at the level of an individual manager in a management team, at the intra-company relationship level between individuals in management teams, and at the inter-company network level (Lyles & Schwenk 1992).

Second, differential knowledge for positioning and acting within a network which is the basis for organisation’s innovative action is not self-contained in network pictures, but emerge as a set of possibilities through enacted tensions and the formation of discrepancies. Possibilities are not engrained in cognitive representations, but they ‘develop’ as strategic options and need to be elaborated through interactions and specific exchange activities.

Also Hellgren & Melin (1993) talk about different levels in cognitive pictures, introducing a concept of cognitive spheres: specific knowledge structures at different levels of analysis. Three cognitive spheres should be recognised in order to understand managerial action and the changing strategies of an organisation. First, the sphere of strategic way-of-thinking implies a number of thematic set of values, assumptions, beliefs and thoughts about leadership and strategic development of organisations. Second, the sphere of corporate culture represents the way-of-thinking of the collective shared world views, values and beliefs at corporate level. And third, the sphere of industrial wisdom, on the other hand, refers to the dominating industry recipe, a conventional wisdom that expresses dominating opinions, shared by companies and actors, about the rules of the game and the freedom of action within the structural confines of a sector. The different cognitive structures do not change easily but they can coevolve. (Hellgren & Melin 1993: 63.)

Hellgren & Melin (1993) also emphasise (as do Gioia & Sims 1986) that although organisational activeness has to do with shared values and collective actions, it is always based on individual, cognitive processes. Individuals tend to have some type of cognitive structure in which information is assimilated and organised. They fill in information gaps and attempt simplification when there is a threat of information overload. They also help to perceive the environment as more coherent, to shape our own reality and to guide our own actions. The sets of values, assumptions and thoughts of which the strategic way-of-thinking consists reflect the life experience and personality of a leader. They may be modified by different situations but tend to retain a high degree of stability and to be resistant to radical rethinking. Understanding this can enhance the understanding of
strategic change process and the interplay between thinking and acting, *i.e.*, between cognitive processes and what actually happens in organisations.

But what are cognitive structures? According to Markus & Zajonc (1985: 143), they operate as interpretative frameworks and consist of “…conceptually related representation[s] of objects, situations, events, and of sequences of events and actions”. But there are also a number of partially overlapping concepts that capture different aspects of overlapping structures, such as beliefs (Donaldson & Lorsch 1984), implicit theories (Downey & Brief 1986), interpretative schemes (Ranson *et al.* 1980; Bartunek 1984), maps (Weick & Bougon 1986), and schema (Gioia 1986a).

There are also differences in the way different researchers perceive the way the mental structures come into being: are they thought-driven or action-driven. Some, however, think that thinking and acting are two simultaneous & intertwined processes (Weick 1983; Bartunek 1984): *managers learn while they act, and not through rational stage models of decision-making*. There is also disagreement on whether mental structures are more or less stable assumptions that rarely change (Donaldson & Lorsch 1984) or structures that continually change to accommodate new experience (Weick 1983).

According to Hellgren & Melin (1993), organisational research on strategic change does not focus its interest on thinking per se, but the focus is on the interplay between cognitive processes and what actually happens in organisations. Two arguments make the cognitive perspective important for the understanding of strategic action and change. First, that cognitive dimension is not restricted to the individual level (*e.g.*, of top leaders), but they exist on a corporate level as well as an industry level; these are expressed by the notions of organisational change (*e.g.*, Frost *et al.* 1985) and industry recipe (Spender 1989).

Second, individuals are also influenced by their emotions, values, hopes etc., and actions take place in interplay between cognitions and emotions. A strategic actor thinks and acts as a whole human being, not driven by any single map or scheme but rather by a far more holistic and complex mind structure that is charged with situational maps and more general assumptions, beliefs and values about the external world.

There is also a distinction to be made between network pictures and the concept of vision often used in SM literature. According to Bennis & Namus (1985), vision relates to the mental image of a possible and desirable future state of the organisation developed by the leader. A vision may be vague like a dream or as precise as a goal or mission statement, but the main point is that a vision
articulates a view of a realistic, credible, attractive future for the organisation, a condition that is better in some important ways than what now exists. With a vision, the leader provides the all-important bridge from the present to the future of the organisation.

3.3.3 Interpretation, decision-making and organising in strategy formation

Daft and Weick (1984) state that any approach to the study of organisations is built on specific assumptions about the nature of organisations and how they are designed and function. According to the most basic assumption, organisations are open social systems that process information from the environment.

The second assumption concerns individual versus organisational interpretations. Organisations do not have mechanisms separate from individuals to set goals, process information, or perceive the environment but people do. The distinctive feature of organisation level information activity is sharing. A piece of data, a perception, a cognitive map is shared among managers who constitute the interpretation system. Managers may not agree fully about their perceptions (Starbuck 1976), but the thread of coherence among managers is what characterises organisational interpretations. Reaching convergence among members characterises the act of organising and enables the organisation to interpret as a system. This assumption is also the most important one for this particular study in question.

The third assumption is that strategic-level managers formulate the organisation’s interpretation. Many participants may play some part in scanning or data processing, but the point at which information converges and is interpreted for organisation level action is assumed to be at the top manager level.

The fourth assumption is that organisations differ systematically in the mode or process by which they interpret the environment, and the interpretation process may in turn influence organisational outcomes such as strategy, structure, and decision-making.

Daft & Weick (1984) also connect interpretation with decision-making. According to them, organisations make decisions in various ways. They may be influenced by coalition building and political processing (Cyert & March 1963); by incremental decision steps (Lindblom 1959; Mintzberg, Raisinghani & Théoret 1976); by systems analysis and rational procedures (Leavitt 1975); and by programmed responses to routine problems (March & Simon 1958; Simon 1960).
Decision-making is generally part of the information and interpretation processes in organisations; it is thus supposed that decision processes may be associated with interpretation models. (Daft & Weick 1984.)

The process of interpretation, thus, is linked to both the process of decision-making and the process of organising, all of which, as presented later on, are also relevant elements in the whole process of strategy formation. The importance of network pictures relating to all these elements is highlighted in Mintzberg et al. (1998, 163), where they, while describing the Cognitive School, discuss cognitive maps and managers as both map makers and map users. According to them, how the managers create their cognitive maps is a key to the understanding of strategy formation; or in fact, in the most fundamental sense, actually is strategy formation.

The discussion of network pictures might be best summed up by quoting Weick’s (1990) notion about the purpose and role of the maps (also, in the process of strategy formation):

"With the map in hand, no matter how crude it is, people encode what they see to conform as closely as possible to what is on the map. The map prefigures their perceptions, and they see what they expect to see. But, as discrepancies accumulate, they pay closer attention to what is in their immediate experience, look for patterns in it, and pay less attention to the map. The map in hand then becomes more metaphorical, but ironically, only because it was the means by which other, more current maps were formed." (Weick 1990: 5.)

3.4 Change in organisations and organisational development

In the previous subchapters, change was considered from the viewpoint of the network: how change in business networks is to a large extent endogenous in relation to the network but exogenous of the single actor (Håkansson & Snehota 1995). However, this does not mean adopting the conception of environment as objective or even perceived; the network consists of single actors, and their actions make an “organisation” and its “environment” (or, a “network”). As Smirchich & Stubbart (1985) noted, exactly because of this sequence, environmental analysis is, in fact, much less critical than managerial analysis. In order to understand the constructivist viewpoint and the conception of enactivist environment, we now switch our focus inside an organisation and to the level of an individual strategist.
Both organisation science and management practice have shown an increasing interest towards change (Ford & Ford 1995; Orlikowski 1996; Pettigrew 1992; Van de Ven & Poole 1995; Weick 1993, 1998; Weick & Quinn 1999; a review of theory and research is offered by e.g., Armenikas & Bedeian 1990). Tsoukas & Chia (2002), however, claim that the main barriers to rethinking change (Weick 1998) – ontological and epistemological commitments – can still be seen in the organisational change research. According to them, change should not be thought of as a property of organisation. Rather, organisation must be understood as an emergent property of change. Change is ontologically prior to organisation: it is the condition of possibility for organisation. Wishing to highlight the pervasiveness of change in organisations, Tsoukas and Chia (2002) talk about organisational becoming.

As process-oriented and ethnomethodologists have already claimed, change is the re-weaving of actors’ web of beliefs and habits of action as a result of new experiences obtained through interactions (Tsoukas & Chia 2006: 186).

As this is an ongoing process, to the extent that actors try to make sense of, and act coherently in, the world, change is inherent in human action (Tsoukas & Chia 2006).

Organisation, on the other hand, is an attempt to order the intrinsic flux of human action, to channel it towards certain ends, to give it a particular shape through generalising and institutionalising particular meanings and rules. At the same time, organisation is a pattern that is constituted and shaped, emerging from change. It is “a secondary accomplishment”: a socially defined set of rules, aimed at stabilising an ever-mutating reality by making human behaviour more predictable. Also, organisation is an outcome, a pattern, emerging from the reflective application of the very same rules in local contexts over time.

Also Poole and Van de Ven (2004) present an introduction to the research of organisational change and innovation, and mention that institutional theory and evolutionary perspectives of change have dominated the research for the past twenty years. An increasing number of theories of change posit deep, hidden structures underlying organisational processes. Marx’s theory of social development is a classic exemplar of this approach. In current thought, deep structures have been elaborated as part of Gersick’s (1991) expansion of punctuated equilibrium theory, the theory of structuration, theories of organisational logics, and theories of organisational culture change. One
The advantage of these theories is that they explain how organisations that seem to change constantly on the surface maintain their coherence through more stable deep structures. The key to change lies in the dynamics of these deep structures and their interplay with the surface. One challenge these theories face is the difficulty in identifying these deep structures hidden below layers of other activity. This makes research involving these hard-to-access structures challenging. (Poole & Van de Ven 2004.)

There is also a noticeable trend toward favouring multilevel theories of change. As Dansereau, Yammarino and Kohles (1999: 346) stated, “an approach to viewing multiple levels of analysis over time should improve our ability to better choose our lenses, focus on phenomena, and capture the impacts of people shifting and organising themselves dynamically over time.”

### 3.4.1 The concept and study of change

There has been a bias toward stability in our thinking about change, and the most common approach is to conceptualise change in contrast to stability, which is taken as a reference point for gauging change. According to Tsoukas and Chia (2002), this way of thinking generates a tendency to treat stability as the given state and consider change as something unusual, a departure from stability. “Change must not be thought of as a property of organization. Rather organization must be understood as an emergent property of change” (ibid.: 570). Hernes (1976) offers a more balanced opinion, asserting that it is important that our theories provide a balance between stability and change by explaining them both as part of the same process. (Poole & Van de Ven 2004.)

Poole (2004) discusses the central issues in the study of change and innovation, including the nature of change, how change should be studied, and what are the key concepts a theory of change should incorporate. Relating to the nature of change, one crucial aspect of defining change is delineating the role of people in these processes. He mentions Bennis’s (1966) distinction between theories of change, which focus on how organisations change and factors that produce change, and theories of changing, which focus on how change can be brought about and managed in organisations. This distinction highlights the role of human agency in organisational change.

Planned change is consciously conceived and implemented by knowledgeable actors, and how planned change may be effectively accomplished is explained in theories of changing. Unplanned change, on the other hand, may or may not be
driven by human choice. It is not purposefully conceived and may move the organisation in either desirable or undesirable directions. The question is to which degree change can be controlled, or is it to some degree a force in its own right.

While planned and unplanned change may be viewed as opposite ends of a continuum, they both exist at the same time: all planned change occurs in the context of the ambient change processes that occur naturally in organisations. For example, a strategic planning process occurs in an organisation that is going through its own life cycle and also evolving as part of a population of other organisations. The intersection of these three change processes, one planned and the other two unplanned, will shape the organisation. Knowledge of the ambient change processes can enable the managers to conduct strategic planning more effectively.

To the question relating to the nature of change relates also the distinction between episodic (radical) and continuous (incremental) change as well as the basic mechanisms or motors of change. These as well as to the other two central issues – how change should be studied and the key concepts of a theory of change – will be dealt with in the next sub-chapters.

### 3.4.2 Episodic/radical versus continuous/incremental change

Weick and Quinn (1999) characterise change in terms of its tempo, defined as “characteristic rate, rhythm, or pattern of work or activity” (Random House Dictionary, cited in Weick & Quinn 1999: 365). Based on tempo, they differentiate episodic and continuous change. Episodic change is conceived to be “infrequent, discontinuous and intentional”, while continuous change is conceived as “ongoing, evolving and cumulative”. The two forms of change are associated with different metaphors of the organisation, analytical frameworks, theories of intervention, and roles attributed to change agents, as shown in table 6 below.

A corresponding division has been made by several other researchers, naming them as incremental versus radical change (e.g., Tushman & Romanelli 1985), continuous versus discontinuous change (e.g., Meyer et al. 1993) and competence-enhancing versus competence-destroying change (Abernathy & Clark 1985). Structural inertia theorists argue that change is infrequent, particular among large and/or old organisations since reproducibility generates strong inertial forces and resistance to change, which lengthens the time necessary to make a change (Hannan & Freeman 1984: 155). The punctuated equilibrium model states that policy generally changes only incrementally due to several
restraints, namely lack of institutional change and bounded rationality of individual decision-making; long periods of small, incremental change are interrupted by brief periods of discontinuous, radical change (Abernathy & Utterback 1978; Tushman & Anderson 1986; Rosenkopf & Tushman 1995). Brown & Eisenhardt (1997), on the other hand state that for innovative firms change is not the rare, episodic phenomenon described by the model, but rather endemic to the way these organisations compete, especially in high-velocity industries with short product cycles and rapidly shifting competitive landscapes.

Table 6. Comparison of episodic and continuous change (Poole 2004, adapted from table 1 in Weick and Quinn 1999).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Episodic Change</th>
<th>Continuous Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metaphor of organisation</td>
<td>Organisations are inertia-prone and change is infrequent, discontinuous, and intentional</td>
<td>Organisations are emergent and self-organizing and change is constant, evolving, and cumulative</td>
</tr>
<tr>
<td>Analytic framework</td>
<td>Change is an occasional interruption of divergence from equilibrium. It is externally driven. It is seen as a failure of the organisation to adapt to a changing environment.</td>
<td>Change is a pattern of endless modifications in work processes and social practice. It is driven by organisation instability and alert reactions to daily contingencies. Numerous small accommodations cumulate and multiply.</td>
</tr>
<tr>
<td>Perspective: Macro, distant, global</td>
<td></td>
<td>Perspective: Micro, close, local</td>
</tr>
<tr>
<td>Emphasis: Short-run adaptation</td>
<td></td>
<td>Emphasis: Long-run adaptability</td>
</tr>
<tr>
<td>Key concepts: Inertia, deep structure, or interrelated parts, triggering, replacement and substitution, discontinuity, revolution.</td>
<td></td>
<td>Key concepts: recurrent interactions, response repertoires, emergent patterns, improvisation, translation, learning</td>
</tr>
<tr>
<td>Intervention theory</td>
<td>Intentional change: Unfreeze, change, refreeze. Change is inertial, linear, progressive, and requires outside intervention</td>
<td>Redirection of existing tendencies. Change is cyclical, processual, without an end state, equilibrium-seeking, eternal.</td>
</tr>
</tbody>
</table>
Pettigrew’s (1985) study (based on a large bureaucratic organisation) on strategic change showed how change emerges as an undramatic, unglamorous process of continuous manoeuvre, punctuated only occasionally by brief moments of opportunism and achievement. According to Mintzberg & Waters (1985), researchers are at risk of seriously exaggerating the importance of change. According to them, organisations are characterized more by continuities than changes. (Whittington 2001.)

The view on change certainly depends on perspective, and on the level of analysis. As can be seen from table 6 above, episodic change has a macro perspective, whereas continuous change has a micro perspective. And, as already discussed in chapter 2, different schools of strategy also make it clear that it all depends on the perspective: change that appears incremental to one observer may seem revolutionary to another. Strategists may learn incrementally and then drive strategic change in a revolutionary fashion. In other words, organisations may bide their time until they figure out where they have to go, and then, when a strategic window opens, they leap. This also emphasises how important it is to appreciate each school of thought about the strategy process as well as to combine them into some kind of comprehensive framework: cognitive school seeks to tell us how strategists think, the entrepreneurial school how they leap, and the cultural school how they land. The configuration school suggests the sequence. (Mintzberg et al. 1998: 315.)

Although the effort of combining the schools into a single, comprehensive framework might not be possible due to an inherent conflict between the different ideologies these different models of strategy represent (Mantere 2003), the both sides of change, radical and incremental, could be seen as the different viewpoints of the same process.

### 3.4.3 Generative mechanisms of change

Change can also be defined in terms of the mechanisms that bring it about. Van de Ven & Poole (1995) defined four theories – a life-cycle model, a teleological model, dialectical models and an evolutionary model – that each views the process of development as unfolding in a fundamentally different progression of change events, and is governed by a different generative mechanism or motor.

The four theories differ in two dimensions: the unit of change dimension defines whether the change in question is premised on the actions of a single entity or multiple entities, and the mode of change defines whether the sequence
of change events is prescribed a priori or whether the progression is constructed and emerges as the change process unfolds. The two dimensions of unit and mode of change define generative mechanisms in terms of their action and process. They differ from other dimensions such as incremental and radical change based on their consequences or outcomes, rather than by their starting or process conditions.

The one archetypal theory that is the most relevant for this study in question seems to be the theory that require only a single entity’s goals, social construction, or envisioned end state to explain development, and that has a constructive modality – a motor that produces new action routines that may (or may not) create an original (re)formulation of the entity. Teleological models, which emphasise the role of leaders and change agents as well as the construction of change by organisational members views development as a cycle of goal formulation, implementation, evaluation, and modification of actions or goals based on what was learned or intended by the entity. This sequence emerges through the purposeful enactment or social construction of an envisioned end state among individuals within the entity.

However, theories of change are not always built around just one motor. Most specific theories of organisational change and development are more complicated than the ideal types. The organisational context of development and change extends over space and time in any specific case, and organisational development and change are influenced by diverse units and actors, both inside and outside the organisation. Development and change also take time to occur, and as time passes, there is opportunity for different motors to come into play, especially given the dispersion of influences.

Van de Ven & Poole (1995) also argue that combinations of these motors create composite change theories capable of capturing the complexity of change and innovation processes more completely than single motor theories are capable of.

When trying to discover the nature of change, Bennis’s distinction focuses attention on the role of human choice and on the management of change, Weick & Quinn’s on the character of the change itself, and Van de Ven and Poole’s on how the change comes about. In the latter aim, Van de Ven & Poole (1995) state that some integration between different theoretical perspectives is desirable, but it must preserve the distinctiveness of alternative theories of organisational change and development. They contend that such integration is possible if different perspectives are viewed as providing alternative pictures of the same
organisational processes without nullifying each other. This can be achieved by identifying the viewpoints from which each theory applies and the circumstances when these theories are interrelated.

Here, adopting multiple perspectives is again highlighted: the process of strategy formation is about the actions of a single actor and multiple entities (unit of change); about the processes of changing and processes of change (the role of human choice); about episodic and continuous change (character of the change itself); and about different motors of change (how the change comes about) – always depending on the situation and the level of analysis.

### 3.4.4 Approaches to the study of change

Two definitions of change are often used in organisation studies: (1) an observed difference over time in an organisational entity on selected dimensions, and (2) a narrative describing a sequence of events on how development and change unfold (Poole et al. 2000). Mohr (1982) first distinguished variance and process approaches to social scientific research, and the distinction has been quite influential in organisational studies. In general terms, a variance theory explains change in terms of relationships among independent variables and dependent variables, while a process theory explains how a sequence of events leads to some outcome. (Poole 2004.)

Variance theories offer good pictures of the mechanisms that drive a process, and variance research methods are well suited for testing hypotheses related to mechanisms. The variance approach is also useful for the study of processes that run very rapidly on a human scale, as is the case for many individual or group level change processes. However, variance approaches make it difficult to study important aspects of how the change comes about. Behind most variance theories is a process-based “story” about the relationships among variables that give the theories coherence. However, it is difficult to test or study the narrative itself with variance approaches. (Poole 2004.)

The primary focus of a process theory is a series of events that unfold through time to bring about some outcome. Explanations in process theories tend to be more complex than variance explanations due to the complexity of events, the need to account for temporal connections among events, different time scales in the same process, and the dynamic nature of processes. Process theories may incorporate several different types of effects into their explanations, including critical events and turning points, contextual influence, formative patterns that
give overall direction to the change, and causal factors that influence the sequencing of events. (Poole 2004: 11.) These two approaches are compared in table 7 below.

Table 7. Variance and process approaches compared (Poole 2004: 12).

<table>
<thead>
<tr>
<th>Variance approach</th>
<th>Process approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus: Fixed entities with variable attributes</td>
<td>Focus: Entities that participate in events and may change over time</td>
</tr>
<tr>
<td>Satisfactory explanations specify necessary and sufficient causality</td>
<td>Satisfactory explanations specify necessary causality</td>
</tr>
<tr>
<td>Satisfactory explanations are comprised of efficient causes</td>
<td>Satisfactory explanations may be comprised of final, formal, and/or efficient causes</td>
</tr>
<tr>
<td>Generality of explanation depends on uniform application across range of cases and contexts</td>
<td>Generality of explanation depends on its versaity</td>
</tr>
<tr>
<td>Monotonic, “well-behaved” causal relationships</td>
<td>Temporal ordering is critical to outcome</td>
</tr>
<tr>
<td></td>
<td>Explanations include multiple causal factors operating at different levels and for different temporal spans</td>
</tr>
<tr>
<td></td>
<td>Causal relationships are not monotonic or “well-behaved”</td>
</tr>
</tbody>
</table>

Van de Ven & Poole (2005) present a typology based on variance and process approaches. Approaches I and II adopt variance and process methods, respectively, to study change in an organisational entity that is viewed as a real social actor with an enduring identity. Approaches III and IV adopt process and variance methods, respectively, to study processes of organising.

The process research approach is discussed more thoroughly in the chapter 5, but as a conclusion of this discussion on variance and process methods and the typology presented by Van de Ven & Poole (2005), the approach III, process study of organising, is the one that has been applied in this research: it presumes that the world is composed of processes and applies the process research approach. It examines the questions like how do processes of sense-making, conflict resolution, protests, or making a living unfold over time. As Tsoukas (2001) notes, most studies using the approach III are conceptual in nature, but there have been some empirical studies. The best approach for a particular study depends on the type of questions addressed, the researchers’ assumptions about the nature of organisations and methodological predispositions, as well as the data they have access to.
3.5 The network concept of strategy and strategic change

Organisational theory studies focusing on the interface between the organisation and its environment have tended to conclude that the individual organisation is often embedded in its environment and that its behaviour is thus greatly constrained if not predetermined, which means that it is not a free and independent unit. In contrast to this, research on strategy management has been concerned with the opportunities for directing and managing the behaviour of the individual organisation, consequently assuming that the organisation possesses a certain degree of freedom of choice. (Håkansson & Snehota 1989.)

These viewpoints have been discussed in the chapters 2 and 3, and this subchapter aims at drawing these two areas, strategy and networks, together by discussing the content and process of strategy from the network view.

The relationship between strategy, objectives and decision-making was discussed in the chapter 2.3, and change in the later chapters. So far, a lot that has been said about the way strategy formation deals with (strategic) choice, but the choice behaviour is described in different ways: as problem-solving, decision-making or strategy formulation. Pettigrew (1990: 6) recommends a different vocabulary for thinking about strategy formation, since beneath words lie ontological and epistemological assumptions that “open up and close down fields of inquiry”. He himself prefers approaching the study of strategy with a vocabulary that leans more heavily on change than choice. ‘Choice’ involves connotations of deliberate decision whereas change lifts strategy formation above particular moments or episodes of decision to considering processes extending over time.

In his introduction to the book “The Management of Strategic Change”, Pettigrew (1988) states that literature on strategic management has largely concentrated towards strategy formulation, i.e., the analysis of strategic content, whereas limited attention has been given to the implementation of strategy, meaning the analysis of strategic process. Since that time, process research has increased, and also this study is an attempt to shed some light on the strategy process in itself. Process research has been discussed further in the chapter 5.

According to Pettigrew (1988: 5), one way of characterising the state of knowledge in the field is to map patterns in existing work on to the three broad classes of variables that could be described with a triangle the apexes of which are content, process, and (inner and outer) context. The management of strategic change involves consideration of the content of a chosen strategy, of the
analytical process which reveals various content alternatives, and also the management of the process of change, and the contexts in which it occurs.

In Pettigrew’s (1988: 5) figure, two aspects of context are considered: the inner and outer contexts of the firm. The ‘inner context’ refers to the structure, corporate culture and political context within the firm through which ideas for change have to proceed. Outer context refers to the economic, business, political and societal formations in which firms must operate. The process of change refers to the actions, reactions and interactions from the various interested parties as they seek to move the firm from its present to its future state. Thus, broadly speaking, the ‘what’ of change relates to the content, much of the ‘why’ of change is derived from an analysis of inner and outer context, and the ‘how’ of change can be understood from an analysis of process. According to Pettigrew (1988), theoretically sound and practically useful research on strategic change should involve the continuous interplay among these areas.

Now, the discussion on strategy in chapter 2 has tried to shed some light on the content, or the ‘what’ of change, and the discussion on change in networks on the outer context, and the discussion on organisational development and change on the inner context, adding understanding on the ‘why’ of change. However, these questions as well as the ‘how’ of change concerning this study will be answered during the empirical analysis and conclusions drawn from it.

From the network point of view (outer context), each actor’s strategic actions will have an effect on other actors in the network. And as Mattsson (1988) states, if we agree that a firm’s strategy describes major characteristics of its relations to the environment, then a strategic change implies major changes in these relations. “Thus, the management of strategic change entails both the way in which management reacts to changes in the firm’s relations to its environment and the management activities whose objectives are to cause strategic changes.” Managing strategic change therefore includes both own actions and reactions to the actions of others. Therefore, individual firms’ strategic changes are interdependent.

Easton & Lundgren (1994) have studied changes in industrial networks as flow through nodes. They consider flows as the two-way resource exchange processes which can be said to form the backbone of networks. The changes faced by an actor may have been “passed on” from organisations with which the actor has exchange relationships or they may have been initiated within the company itself. Network theory would suggest, however, that in the latter case the spontaneous occurrence of change within an actor is largely illusory. Such
changes almost inevitably occur, it is argued, in the space between organisations. Change may alter the form, structure or content of an exchange relationship, temporarily or permanently, in any of the dimensions used to characterise such relationships, i.e., economic, social, technical, legal or informational.

According to the writers, the actor has five different options when faced with a change: to reflect, absorb, adapt, transmit or transform the change. In addition, the actor may alter its amplitude either increasing or decreasing it, or to disperse or concentrate the impact of change. Different actors behave differently towards the same type of change, which according to the writers is due to two sets of variables: the relationship of the change to the core activity and the competitive/cooperative context of the network.

In sum, a company can either absorb the change or promote the change. Therefore, the change is managed. Even not reacting is bound to affect the position of the company in the network. However, managing change requires a ‘workable picture’ of change and understanding of the factors at work and often a broader horizon when it comes to monitoring the behaviour of other actors in the context. (Håkansson & Snehota.)

Håkansson & Snehota (1995) also present three important issues of managing the change for managers:

1. *handling changes* within and through relationships (entails experimentation of new arrangements of ties, links & bonds);
2. *development of the capabilities* of the company in such a way that changes can both be executed and adapted to (mobilising the resources and capabilities of others for own advantage); and
3. manoeuvring for a *position* (a status in the network) over time, that is, *strategy development* in a company (coping with the organising process in the network structure that impact on the position of the company in the overall network).

In sum, according to the network view of strategic management, the strategic thinking should cover the complex reality more widely: instead of single parts, it is essential to think about wholes; interrelationships instead of linear cause-effect chains; processes instead of snapshots. In fact, the whole dynamic complexity of networks should be considered in the decision-making.
3.6 Implications of network and change for the process of strategy formation

The content aspect of strategic change has been discussed in the chapter 2; the outer and inner context in chapter 3; and the process aspect in connection with these three areas. As Pettigrew (1988) claimed, theoretically sound and practically useful research on strategic change should involve the continuous interplay among all these areas. Based on these tips of the triangle, taking also into consideration the ontological and epistemological assumptions that different schools of research hold, a theoretical framework for this particular study in question is formed in the chapter 4.

So how what kind of implications does the discussion on change in networks and organisational development and change have for the theoretical framework? The answer is, to develop an understanding of the ‘why’ of change through creating a ‘workable picture’ of the inner and outer context of the case companies. In a way, these theoretical views serve my personal process of sense-making: in order to study the process, I have to make some choices concerning the way I want to see.

And the way the network perspective, for one, helps me in this task is in the way it makes the (inter)dependence of an organisation on other organisations visible, and how it makes it difficult to disconnect the organisation from its network, since a business organisation without its interactive environment loses its identity (Håkansson & Snehota 1989). As Håkansson & Snehota (1989) also present, it is useful to adopt the concept of “context” of an organisation rather than its environment, when the purpose is to refer to the entities that are related to the organisation. The context is enacted, it is created by the organisation itself, and in a sense it even constitutes the organisation itself.

The interrelatedness that prevails in networks and the possible impact on the focal organisation of relationships among third parties affects also the way the question of organisational boundaries and boundary setting is perceived. In addition to those resources and activities internal to the company, the resources and activities “external” to the traditional boundaries of an organisation are important and a crucial part of strategic choice and change. And in view of the role of external resources and interdependencies stressed in the network view of business organisations, it becomes meaningless and conceptually impossible to disconnect the organisation from its context. (Håkansson & Snehota 1989.)
The effectiveness of the organisation could be seen as given, not by the organisation’s “adapting” to the environment but by its “relating” to the context. It is through its relationships with others that the distinctive capabilities of an organisation are acquired and developed. It is therefore the activities taking place between the organisation and the other parties, rather than activities within the organisation itself, which are the determinants of the bargaining position and of the overall effectiveness of the organisation in achieving its goals.

Activities connected with positioning in the network and performed within the framework of external relationships – i.e., the process of relating – assume the primary role in strategy in the network perspective.

The network perspective also sheds some light on the question dealing with a single organisation’s development and change, although the actual approach in this study is more of a constructionist and the level of analysis lies inside the organisation, in the inner context of strategic change. In this approach, the world is not some stable entity “out there”, to be analysed and put together into a final picture; rather, the world is enacted – reality emerges from a constant interpreting and updating of our past experience.

And according to Smirchich & Stubbart (1985), adopting the constructionist approach would mean abandoning the prescription that organisations should adapt to their environments. The executives in an industry cannot simply stand outside the action and adjust themselves to trends: their actions make the trends. And adopting the third conception of the environment presented in the introductory part of this chapter 3, the enacted environment, means that one’s own actions and the actions of others make an “organisation” and its “environment”. Because of this sequence, environmental analysis is therefore much less critical than managerial analysis, which means challenging the assumptions on which the managers act, and improving manager’s capacity for self-reflection.

As Tsoukas & Chia (2006: 186) described organisation, it is “an attempt to order the intrinsic flux of human action, to channel it towards certain ends, to give it a particular shape, through generalising and institutionalising particular meanings and rules. At the same time, organisation is a pattern that is constituted, shaped, emerging from change.” The challenge in studying this kind of phenomenon is that e.g., the stage models of change (like Lewin’s “unfreezing-moving-refreezing”) is about trying to understand change by transforming it into a succession of positions. By breaking change down into stages reduces it to a series of static positions. And as James (1909/96: 236) put it, “the stages into which you analyse a change are states, and the change itself goes between them.
It lies along their intervals...” So in contradiction, by practitioners, the ‘change’ is experienced as “an unfolding process, a flow of possibilities, a conjunction of events and open-ended interactions occurring in time” (Tsoukas & Chia 2006: 190).

This is also the challenge faced in this study, and process research and the empirical research design is discussed in the chapter 5. Before that, however, the different aspects relating to the process of strategy formation presented in this chapter as well as in the previous one are drawn together in a theoretical framework in the next chapter.
4 The process of strategy formation

Managing strategy has been seen to mean managing the process whereby the pattern of activities to be performed by the organisation is conceived (i.e., strategy formulation), and creating the conditions necessary to ensure that these activities are carried out (i.e., strategy implementation). This kind of view has held three types of assumptions: that the environment of an organisation is faceless, atomistic and beyond the influence or control of the organisation; that the strategy, the pattern of critical activities, results from the deployment of resources controlled hierarchically (contractually) by the organisation; and that environmental conditions change continuously, and therefore frequent if not continuous adaptation is required of the organisation. (Håkansson & Snehota 1989.)

But as discussed in chapter 2, e.g., Tsoukas & Knudsen (2006) argued that strategy research will become more relevant, encompassing, and subtle if it moves closer towards a process-oriented view of the firm and opens itself up to a constructivist view of strategy-making. Adopting the network view of the organisation-environment interface and the change processes affecting a single company also suggests a different approach to the process of strategy formation as a whole.

This study is based on the series of interviews conducted with the entrepreneurs and therefore also the viewpoint of the material is strongly theirs. The understanding comes from gaining an insight of the way the entrepreneurs have experienced and interpreted the different events during their companies’ development. Although they are not alone as strategists, taking into consideration the dynamics of the network and the continuous effect of small changes, still strategy-making is partly – not wholly, but always partly – about strategic choice. As long as there are motivations and personal goals, there are also choices involved.

As Whittington (2001) states, for every manager, the strategy-making process starts with a fundamental strategic choice: which theoretical picture of human activity and environment fits most closely with his or her own view of the world, his/her personal ‘theory of action’ (how things get done: Argyris 1977). Therefore, as a researcher, I’m not the one to make the decision of which of the approaches are the most suitable for this study at hand – that choice has been made by the entrepreneurs, and my intention has been to shed light on their ‘theories of action’ and their relationship with the process of strategy formation.
For one of our entrepreneurs the environment is clearly as unpredictably fluid as the Evolutionists claim, and the best resort is to abandon grand strategy and concentrate on operational efficiency. Long-range planning is a futile diversion from the pressuring task of day-to-day survival, and the objective clearly lies in profit-maximisation. For another entrepreneur, the objectives are definitely not so much related to profit-maximising as they are to other values the entrepreneur holds. As Whittington (2001: 120) describes, in Systemic perspective, “apparently foolish or perverse behaviour may be perfectly rational when seen in context” and “the sociological imagination prompts a search for other sources of power in the environment, other rationalities for action”. And yet another entrepreneur has clearly not made any particular choice, or even been aware of a need of such a decision – probably due to the collective management culture and decision-making in that particular company. But they do take the advice of Processualist: stay close to the ground and go with the flow; they are certainly not eager to change, and the belief is that markets are typically quite tolerant of lags in adaptation and may even reward those who do not embroil themselves in endless change.

It is clear that what managers of small companies think and do has an effect on the process of strategy formation. But as much as it is about strategic choice, it is also about other factors as presented in chapter 2 (different perspectives in the SM literature) and chapter 3 (the network view and network dynamics). The purpose of this chapter is to bind together different aspects dug from the literature (also already anticipating the issues that have risen from the empirical data) and as a result, present the theoretical framework of the process of strategy formation applied in this study.

4.1 Dynamic theory of strategy

Having gained knowledge of the amount of different schools of thought and research streams concerning strategic management, and having been able to understand the various aspects of the concept of strategy itself, the interesting question naturally is what strategy and the process of strategy formation means in the light of this study?

Understandably, each aspect of strategy and the process of strategy formation are relevant: every strategy process has to combine various aspects of the different schools, or as Mintzberg et al. (1998) put it, “Can anyone possibly imagine strategy-making in any serious organization without mental and social
aspects, without the demands of the environment, the energy of leadership, and the forces of organization, without tradeoffs between the incremental and the revolutionary?” However, as Mantere (2003) stated in his thesis, different models of strategy represent different ideologies, and that between these ideologies, there is an inherent conflict (Shrivastava 1986). Therefore, my purpose is not to establish any common ground (in other words, to draw any elephants) between different schools, but rather to concentrate on the change process of the case companies and, with the help of the insight gained from different schools, to try to understand processes and mechanisms related to strategy formation.

Therefore, the approach applied in this study has been adopted based on the analysis of the case studies: the concepts and ideas adopted for this model are based on the findings and reflected in the literature. I have not chosen any single perspective or school to which to lean – in fact, it is the case companies that have made the choice of their perspective towards strategising, as already mentioned in the introductory part of this chapter.

My guide for developing the framework has been the paper written by Tsoukas and Knudsen (2006): “The conduct of strategy research: Meta-theoretical issues”. According to them, there is a dilemma in the field of strategic management: strategy thinkers have either drawn on theories that account for strategic choices but no changes, or they have drawn on theories that account for changes but no strategic choices. The crucial question would be “how strategy thinkers can model change processes involving genuine uncertainties and nonrepetitive situations, and, at the same time, model individuals and organisations as being able to make strategic choices?” (Tsoukas & Knudsen 2006: 341.)

Already Porter (1991) has argued that strategic management has been in need of a ‘dynamic theory of strategy’, with four desiderata that this kind of theory would need to fulfil. First, the theory should simultaneously deal with the firm and its environment. There has been a tendency in strategy research to focus exclusively either on the firm (as in the resource-based approach) or on its environment (as in the positioning approach), and the theory should overcome this kind of one-sidedness.

Second, the theory should allow for endogenous change. Although most economic approaches to strategic management build on the neoclassical paradigm that assumes that preferences and technology are exogenous variables, since the process of obtaining competitive advantage has often been associated with processes of endogenous changes in the technology and knowledge structure of
the firm, relying only on exogenous changes would be highly unsatisfactory from the point of view of a dynamic theory of strategy.

Third, the theory should make room for creative action. Several of the major approaches to strategic management have viewed human behaviour and strategies as ‘situationally determined’ or ‘externally enforced’, rather than intentionally chosen or constructed. The ‘strategising subject’ should be viewed as an evolving and creative actor that co-constructs, through a historical process, his or her own ‘set of opportunities’ (and by this, also the second desideratum is fulfilled).

And fourth, the theory should acknowledge the roles of historical accident and chance. Strategy researchers should abandon the classic view of scientific method and explanation founded on the covering law (or deductive-nomological) model, and the dynamic theory of strategy should aim to outline the processes or generative mechanisms that produce specific empirical events (Hedström & Swedberg 1998) – a process approach should replace the standard variance approach (Mohr 1982: ch. 2).

4.2 Generative mechanisms of strategy formation

The process approach holds also expectations about finding some patterns in the process as well as the underlying mechanisms that shape any patterning in the observed process, i.e., mechanisms that drive the process. According to Pettigrew (1997), this represents one of the greatest inductive challenges for process scholars. Such mechanisms may be directly observable, part of the conscious intentions of key actors in this process, or they may also be a feature of the immediate or more distant context, and therefore not part of the sensibility of local actors. The mechanisms may also be elements in the interactive field occasioned by links between levels of processes and context around the primary process stream under analysis (ibid.). The concept of generative mechanisms and the way they are seen in this study is discussed below.

4.2.1 Generative mechanisms in social sciences

While talking about social mechanisms, Hedström and Swedberg (1998) give an example from contemporary biology: how already the Nobelist Francis Crick noted that 20th century biologists prefer to think in terms of ‘mechanisms’ and not ‘laws’. The reason for this is that the notion of ‘laws’ is generally reserved for
physics, which is the only science that can produce explanations based upon powerful and often counterintuitive laws with no significant exceptions.

In social science, social mechanisms can be identified, meaning general types of mechanisms, found in a range of different social settings that operate according to the same logical principles. For example, the writers mention economists who often see themselves as thinking in terms of mechanisms; it is almost self-evident for an economist to see the market as a mechanism, or even use the terms ‘market’ and ‘market mechanisms’ synonymously.

Robert Merton (1967) brought together the idea of mechanism with that of middle-range theorising. He rejected attempts to develop general systems of sociological theory and advocated instead that social theory should deal with ‘social mechanisms’. In other words, a middle ground between social laws and description should be located, and these kinds of mechanisms constitute such a middle ground. According to him, social mechanisms are social processes having designated consequences for designated parts of the social structure.

As Hedström and Swedberg (1998) state, the “traditional” covering-law model provides justification for the use of “black-box” explanation in the social sciences because it does not stipulate that the mechanism linking explanans and explanandum must be specified in order for an acceptable explanation to be at hand. This omission has “given leeway for sloppy scholarship, and a major advantage of the mechanism-based approach is that it provides (or encourages) deeper, more direct, and more fine-grained explanations”.

How does the question of agency relate to generative mechanisms? According to Hedström and Swedberg (1998), mechanism-based explanations usually invoke some form of ‘causal agent’ (Bhaskar 1978) that is assumed to have generated the relationship between the entities being observed. And, in the social sciences, the elementary ‘causal agents’ are always individual actors, and intelligible social science explanations should always include explicit references to the causes and consequences of their actions. In fact, all social institutions in principle can be explained by only the intended and unintended consequences of individuals’ actions.

The problem naturally lies in how to find and/or define the mechanisms. According to Hedström & Swedberg (1998), the mechanisms are usually unobserved analytical constructs that provide hypothetical links between observable events. In analytical approach, the key characteristic is that it proceeds by first constructing an analytical model of the situation to be analysed (an “ideal type”). This theoretical model in principle is constructed in such a way that it
includes only those elements believed to be essential for the problem at hand. The problem is that even in the most trivial description of a social situation, the researchers are forced to be highly selective about which events to include and which events to exclude from the description, and this choice, implicitly or explicitly, is guided by researchers’ prior belief about the essential elements of the situation.

According to James Coleman’s (1986) typology, there are three different types of social mechanisms. These three types reflect the way macro states at one point in time influence the behaviour of individual actors, and how these actions generate new macro states at a later time. Instead of analysing relationships between phenomena exclusively on the macro level, one should always try to establish how macro-level events or conditions affect the individual (Type 1), how the individual assimilates the impact of these macro-level events (Type 2), and how a number of individuals, through their actions and interactions, generate macro-level outcomes (Type 3).

The actor in the first two types of situations is a single individual, and the mechanism is internal (and in this sense ‘psychological’ or ‘social-psychological’); in the third type, there are a number of actors, and the mechanism is typically external (and ‘social’).

4.2.2 Generative mechanisms in this study

The fourth desiderata that Porter (1991) argued the dynamic theory of strategy should fulfil concerned the historicity of strategy development and how the processes or generative mechanisms that produce specific empirical events should be outlined. The aim was to do just that, to outline the processes behind the organisational development and change in the case companies’ history. But how should those processes be viewed? Some tools for the analysis, some frame of reference were needed in order to make sense of the data – for my own personal interpretation and sense-making.

Although no actual dynamic theory of strategy exists, the other three desideratas presented by Porter (1991) were still the guiding light in formulating the frame of reference for this study. First, since the theory should simultaneously deal with the firm and its environment, the network view seemed to offer a good starting point for the analysis. Especially the markets-as-networks view shows how companies are interconnected through various ties, and how a single company is embedded in its “environment”, i.e., the network consisting of
companies dependent on each other. The social network view, on the other hand, emphasises the personal relationships between people and how these relationships form networks that bypass all organisational borders. The network view shows how the companies (and people) in a network are deeply interdependent and, hence, cannot individually control their own activities or futures. The network view also emphasises the situational and historical grounds for the activities: all major situations are unique and only can be understood in the context of the network situation and from the perspective of the history that has produced the current relationships and positions.

Second, the theory should allow for endogenous change. In other words, the processes should show how both exogenous and endogenous change comes into being. From the process view, change is “the re-weaving of actors’ webs of beliefs and habits of action as a result of new experiences obtained through interactions” (Tsoukas & Chia 2006: 186). The change is inherent in human action, taking place both inside and outside the organisation – as well as in between, in the interaction process in the relationships between individuals. Or, as Orlikowski (1996: 165) sees it, the change is “grounded in the ongoing practices of organizational actors, and [emerging] out of their (tacit and not so tacit) accommodations to and experiments with the everyday contingencies, breakdowns, exceptions, opportunities and unintended consequences that they encounter”.

And third, the theory should make room for creative action. It should acknowledge the existence of a “strategising subject”: an evolving and creative actor that co-constructs, through a historical process, his/her own “set of opportunities”. The focus of analysis is the entrepreneur and his interpretation of the history and events of his company.

According to what was stated by Hedström & Swedberg (1998) above, instead of keeping the analysis exclusively on the micro or macro level, the effort in this study is to establish how macro-level events or conditions (or, the way they have been perceived by the individual), affect the individual (type 1 mechanism), how the individual assimilates the impact of these macro-level events (or, the perceived events; type 2 mechanism), and how a number of individuals (in this case, the individuals forming the actors of a business network) through their actions and interactions, generate macro-level outcomes (type 3 mechanism).

From my viewpoint, the situational mechanism in strategy formation process is created by the interaction of the processes of Network Visioning and Strategising. The macro-level, *i.e.*, the business network as well as the social
network has an effect on the entrepreneur and the organisation through his process of perception and accordingly, the process of Network Visioning. The action-formation mechanism is at work when the macro-level impacts are assimilated by the organisation through the interaction of the processes of Strategising and Organising, and the mechanism shows how a specific combination of individual desires, beliefs and action opportunities generate a specific action. And when the organisation is generating change through the act of organising, thus affecting not only its own development but also to the development of other organisations with which it is interlinked, the process of Organising is interacting with the total network dynamics, thus forming the transformational mechanism in the process of strategy formation. A number of individuals interact with one another, and the specific mechanism (which differs depending on the nature of the interaction) shows how these individual actions are transformed into some kind of collective outcome, be it intended or unintended. The interaction between the processes is depicted in figure 2.

![Fig. 2. Opening the "Black Box": the process of strategy formation and its generative mechanisms.](image-url)
Although these mechanisms are depicted in a way that the direction of change is one-way and thus straightforward, the reality is much more complex. The impacts stemming from the macro-level (the so-called “network push” i.e., threats, and “network pull”, i.e., opportunities) are naturally very often the source of the impulse to change the behaviour of the organisation in a more radical way (“radical change”). But especially the more incremental change can also originate from the inside of the organisation, due to the constant act of organising. And in these cases, the direction of the mechanisms is less straightforward.

In this study, the assumption is, however, that the entrepreneur has a very central position in the total process of strategy formation. In small companies, the entrepreneur and managing director is responsible for the decision-making and the development of the company, and therefore his visions and objectives give the impulses for the direction of the development more than any other single factor inside or outside the company. Of course, this is one approach, one point of view, and these are not the only mechanisms at work that could be identified, affecting the development of the companies. Certain limitations already discussed in the chapter 1 have been consciously made (for example, the employees’ point of view has not been studied), and the emphasis has been placed on the entrepreneurial cognition. But the research done with the case companies gives reason to believe that those elements emerged from the analysis are the main components explaining the development of the companies and the process of strategy formation adequately on a general level.

4.3 The process of strategy formation

The prevailing interpretation has been that the strategy is first conceived and formulated on a basis of assessment of the current and projected state of the environment and of the organisational resources. The assessment permits the identification of the adaptations that will be required of the organisation, and which will be subsequently implemented (e.g., Hofer & Schendel 1978; Galbraith & Nathanson 1978). Getting the organisation to follow the plan may cause problems, but these can be solved by clear target setting, incentives and control. (Håkansson & Snehota 1989.)

The network model seems to generate another approach to the question of effectiveness management in organisations. It was claimed above that relating to the context is the central issue of the strategy. Given the relativity of the context concept, the context itself is conceived not as given beforehand or predetermined,
but as enacted; it cannot be assessed. Strategic identity, the basis of effectiveness, is achieved by the interaction behaviour of individuals in relationships. Interaction is the stream of events that ultimately determines effectiveness and constitutes strategy. Thus the effectiveness of an organisation – its strategy – is based on interactive behaviour.

Within a relationship interaction takes place between actors who are pursuing their own goals and acting purposefully. In such a setting, reacting to other actors’ actions can be more important than acting itself. And the reactive behaviour in the process of interaction is something that can hardly be planned. Rather, the behaviour of actors in these circumstances can only be guided by norms and values based on past experience, possibly in the form of organisational routines (Nelson & Winter 1982: 124).

One central element relating to the action and interaction of people is change. As Tsoukas & Chia (2006: 186) argued, drawing of process-oriented philosophers and ethnomethodologists, change is “the re-weaving of actors’ webs of beliefs and habits of action as a result of new experiences obtained through interactions”. In this ongoing process, to the extent that actors try to make sense of, and act coherently in, the world, change is inherent in human action. Approaching the question of strategy from the process view and from the network view, the process of strategy formation is both about strategic choice and strategic change. To be more precise, it is about change and changing: the strategists (in these case companies, the entrepreneurs) have a role in accomplishing change, but so do other people inside and outside the company, belonging to the business and social networks of the entrepreneurs. Therefore the role and effect of the agent is not clear, and the process of strategy formation is a lot more complex than the rational decision-making process the traditional planning and other prescriptive schools have presented.

Hence, another type of process description of the process of strategy formation is presented. Figure 2 in the previous subchapter shows the interplay with different processes immanent in strategy formation as already discussed earlier. Together, these processes are seen to form particular kind of mechanisms that, depending on the context of the strategy formation process, come into play in different ways. The empirical study shed light on the way these mechanisms are formed and the elements or processes that form them, and these mechanisms are opened up in the empirical analysis in the chapters 6 and 7.
The elements or subprocesses of which the mechanisms and the main processes of Network Visioning, Strategising and Organising consist of are drawn from the discussion in chapters 2 and 3, and they are presented in figure 3 below.

Fig. 3. The elements forming the whole process of strategy formation.

The organisation is embedded in a business network consisting of relationships; people are embedded in a social network consisting of relationships. The way the entrepreneur interprets situations located in or arising from the network, perceives the possibilities or the threats the company is facing, and the way he visualises the field of operations and his own actions in it, is dependent on a complex process of its own, called here the process of Network Visioning.

The entrepreneur is in constant interaction with his environment, and he has an effect on it as well as it does on him. The whole reality or the environment is
socially enacted: all business activities are carried on through (social) interaction, thus the interaction is the most central aspect in the process of strategy formation. It is the source of change both inside the organisation and outside the organisation, in the wider network of business relationships. The process of strategy formation consists of the deliberate side of strategy, the result of the process of Strategising, and the emergent side of strategy, the result of the network dynamics and change.

In the process of Strategising, the entrepreneur reflects on the things he constantly learns in interaction with other people about the environment, the development of his company and the things affecting the development. In some occasions, he aims at changing the conditions through planned actions, which usually involve decision-making at least at some level.

The intentions of the entrepreneur are executed by the process of Organising: the way the company creates and manages its relationship, acquires resources, coordinates actors, activities and resources and the way the entrepreneur as a manager makes it all happen: through the leadership. However, since interaction affects both ways, the network dynamics have an effect on the process of Organising, and the process of Organising can affect the process of Strategising.

In sum, since the interaction between the entrepreneur and his environment is constant, it cannot be stated, which one affects which one first: the process can only be understood as a whole.

Having established the a priori model for the analysis, we now turn to the empirical research part, and begin by describing the research design, process and methodology.
Empirical research design

For over a decade, there has been a growing scholarly interest in strategy process research, which is concerned with understanding how organisational strategies are formulated and implemented and the processes of strategic change. The field of research is wide and scholars have adopted very different views. (Van de Ven 1992.) Despite the vast amount of research there is still little understanding of the way small software companies develop their strategies and how the network they are embedded in effects on the strategy formation and the processes of strategic change.

There are several reasons for why I originally got interested in studying strategy from the process research perspective. One of them can be found from the network perspective or “the existence” and “the environment” of a company. In their summary of some core aspects of the IMP perspective on network management, Möller & Halinen (1999) emphasise the situational and historical grounds for the activities of firms in a network environment. In a sense, all major situations are unique and only can be understood from the perspective of the history that has produced the current relationships and positions. Firms and their positions are historically constituted, and in order to understand the strategy formation and strategic change in a particular case company, the history and the context has to be taken into consideration.

Another reason is the emergent nature of strategy, the role of which, based on my experiences with small companies and entrepreneurs, might be greater than could be thought if considering the mainstream research conducted in the field of strategy, emphasising logical thinking, decision-making and planning. Naturally the only way to achieve an understanding of this emergent nature of strategy is through studying the whole process of strategy development – or better yet, the whole process of the development of the organisation. According to Fox-Wolfgang (1997), organisations could be better understood if studied holistically as patterns of actions rather than through features or qualities of an organisation. Dawson (1997), on the other hand, emphasises that processual case studies are able to tell the organisation’s own story, how the change unfolded from the organisation’s perspective.

The third reason lies in the role of an entrepreneur of a small company. To a great extent, the entrepreneur is the actor responsible of the strategic visioning, strategy creation (formation) and the development of the company, and therefore his point of view, his “visioning”, is the crucial one. Since the entrepreneur has
been the heart and soul of the company, and to a great extent he might consider the company his production, even a child, it is clear that the company is an important part of his life. Therefore, constructing a narrative is a natural way in which to describe and understand organisational change and strategy formation from the actor’s point of view.

Scholars studying organisations hold different views about whether organisations consist of things or processes and about variance or process methods for conducting research (Van de Ven & Poole 1995). The differences touch both ontological and epistemological levels as well as the question concerning which research methods to use. The research approach and the underlying ontological assumptions guide the design and execution of the research, and in this section, my intention is to clarify the issues behind the choices made during the research process described here.

5.1 Process research

In the organisational process research, process has been treated as a narrative, a certain variable or concept, or as a change pattern evolving over time. The process can be approached from two directions: at the level of metaphysics and ontology, it can be seen as a sort of a ‘warp thread’ of social reality, and at the level of epistemology, as kinds of glasses through which the social reality can be studied. Two versions of the social world can be seen to exist: a world made of things in which processes represent change in things, and a world of processes in which things are reifications of processes. (Van de Ven & Poole 2005.)

5.1.1 Ontological considerations of process research

Process metaphysics as a general line of approach holds that physical existence is processual at the bottom; that processes rather than things best represent the phenomena that we encounter in the natural world around us. The stronger (Heraclitean) version of the process philosophy sees the process to have primacy over things: that substance is subordinate to process and that things are simply constellations of processes. The weaker (Empedoclean) version claims process to have priority over substance. Things are always subordinate to processes because processes inwardly engender, determine and characterise the things there are. But processes as such transcend the realm of things since there are also substance-detached processes. (Rescher 1996: 2.)
According to the stronger view, movement, change and becoming are the central issues in the life of an organisation. Substances, entities and things are secondary, conceptual abstractions. It might be tempting to reduce process into ‘things’ that can be described in terms of variables, or into static states, that can be compared in order to make the research easier. The weaker view, in fact, makes it easier to observe and empirically research the process, whereas the stronger view helps to appreciate the nature of process in general. (Tsoukas 2005; Van de Ven & Poole 2005.)

Relating to process research in strategy studies, Whitehead’s (e.g., 1979) discussions on reality’s quality of becoming is a topic of interest. According to his view, all reality is always in movement and changing, that it is in the first place an event, a creating becoming. ‘To be’ is ‘to become’. Reality can be seen as a succession of alternations of events, where each event contains a possible synthesis of previous events, but where other events can also be formed on their own. An event is a world in itself, which integrates the previous world in a particular way and allows a “growing together”. Every existing entity unites the multiplicity of the world and thus creates identity and meaning out of its relationship with other entities and parts. Conversely, new possibilities come into existence out of “that which has become”, and the created event becomes involved with what is in turn being created anew, creating yet another new event.

Whitehead sees this unbroken sequence of becoming as a creative process that leads to a “creative advance into novelty” and not to a determined and externally driven result. Reality is not only to be understood as that which must be represented, or as something of which one becomes conscious, but it assumes a series of possibilities. (Cloots 1986; Whitehead 1979; Steyaert 1997.)

5.1.2 Epistemological considerations of process research

According to Van de Ven & Poole (2005), epistemologically process research can be based on either variance-based thinking or on process-based thinking. These approaches differ on the way they form the explanation models, how data is being approached and gathered and how the analysis is made. In accordance with this division, four different types of research can be identified. In a variance research, where the organisation is seen as a thing, the change is a dependent variable to be explained by independent variables. The second approach is process research, where the organisation is seen as a thing, and a narrative is being told about the temporal sequence of events, such as the phases in the development of an
organisation. Third type is a process research, where the organisation is also seen as a process and the research produces a narrative constituting a social construction; and the fourth type represents variance research with the aim of process modelling.

Tsoukas & Knudsen (2006) discuss the differences between the variance approach (Mohr 1982) or ‘deductive-nomological model’ or the ‘covering-law model’ of explanation (Bohman 1991; Camerer 1985; Rosenberg 1988), and the process approach (Mohr 1982; Pettigrew 1990, 1992, 1997) or the ‘mechanism approach’ (Elster 1983; Hedström & Swedberg 1998). According to them, to the process/mechanism approach a social regularity has not been established, say between I and O, before a mechanism/process M describing how O is produced by I has been specified. Giving an explanation is therefore closely associated with the possibility of showing how I and O are linked to each other – how the cause I produces the effect O through a mechanism. For the process researcher the goal is to ‘open up the black box’ and show all that is inside the internal machinery. While the covering-law approach is very outcome-oriented, the process/mechanism approach focuses on the **process that produces an outcome**.

### 5.1.3 Methodological considerations of process research

In his article “In at the deep end: conducting processual research on organisational change”, Dawson (1997) presents that in processual research, there is typically one or few organisation to be studied, and a lot of time and effort is being used to conduct processual analysis, that most often is qualitative. As usually in qualitative research, also in processual research the intention is not to build any grand theory or to aim at the removal of preconceptualisation. Instead, there is continuous interaction between preconceptualisation based on extensive knowledge on the subject at hand and the empirical descriptions of the emerging themes, based on which new concepts and interpretations are done. In other words, the concepts and ideas are both constructed based on literature and generated from data-based induction.

Accordingly, the results of these studies are interpretative, in-depth descriptions on the changes taking place in one or very few companies. Strategic development and change are not regarded as a sequence of rationally planned phases of development; instead the studies stress the political, cultural and cognitive nature of processual change (Hendry & Johnson 1993, Laine 2000). It has been claimed that the major weakness of these studies lies in the poor
generalisability of their results, usually seen within a positivist frame, neglecting its scientific value within other paradigms (e.g., Steyaert 1997), although the real purpose and value of qualitative research can actually be seen in generalising into theory, not into population.

In contrast with the sharp distinction between concepts and explanatory hypotheses within the positivist approach, the way in which explanation is achieved in the interpretivist approach is by understanding the actions and interactions of respondents. Steyaert (1997), while discussing entrepreneurship studies, thought that considering qualitative research from an interpretive perspective that sees knowledge of entrepreneurship as a form of “understanding” can lead simultaneously to revaluing the full potential of qualitative research methods and diminishing the unsatisfactory evaluations of the “exploratory” qualitative research approaches so far.

In conducting this type of research, the researcher must embed him/herself deeply into the context and case in order to gain more profound understanding and vision of the connections between different things, contexts and means and their development in time. This requires also using multiple methods: observations, interviews, documents etc. (Dawson 1997.) According to Pettigrew (1997), this embeddedness relates also to the level and unit of analysis: the processes are being studied at several levels at the same time. Another guiding assumption is temporal connectedness: the processes should be studied in the past, present and future. Pettigrew also talks about the role and type of explanations and therefore represents a more outcome-oriented approach than is the case in this study.

Langley (1999) and Poole et al. (2000) identify several different types of change studies that follow the process approach. They range a rough continuum from highly interpretative to quantitative.

First, there are narrative histories that tell the story of a process in detail (e.g., Bartunek 1984; Chandler 1964; Pettigrew 1985). These rich accounts have multiple interwoven themes, and, as Langley (1999) notes, their very density may make deriving parsimonious theories something of a challenge.

Second, there is multiple case study (Leonard-Barton 1990) that is designed to compare and contrast a limited number of cases that “either (a) predict similar results (a literal replication) or (b) produce contrary results but for predictable reasons (a theoretical replication)” (Yin 1984, 48–49) through intensive qualitative analysis. These studies often use various methods of summarisation and display to draw meaning from their cases, such as visual mapping (Langley &
Truax 1994; Mintzberg et al. 1976; Quinn, 1980; Van de Ven & Grazman 1999), matrix displays (Kuhn & Poole 2000; Miles & Huberman 1994), and comparison of extracts and digests of events (Leonard-Barton 1990). They are not as detailed as narrative histories and often have more compact and explicit theoretical focus. (Poole 2004.)

The third possibility is to conceptualise process in terms of sequence of phases or stages (Bales & Strodbeck 1951; Barley 1986; Fisher 1970; Langley & Truax 1994; Poole 1981). Phase theories (such as life-cycle model) attempt to encapsulate the essentials of rich process data in a simpler account of stepwise development or typical activities.

Forthly, a process can be studied through quantitative analysis of event series. This strategy (a) specifies indicators or variables that characterise attributes of events; (b) codes events to assign values to these variables; and (c) analyses the resulting time series to test hypotheses about the sequence or identity patterns in the process.

In this study, the second option has been chosen, and the research methods will be described in the next sub-chapter.

5.2 Research design

Concerns of epistemology, method, and theorising cannot become disconnected, and methodological considerations as such are difficult to make without taking into account the research contexts, in terms of both the sites the researcher visits and the paradigmatic position (s)he takes (Steyaert 1997.) In the following, the decisions made concerning the research setting (strategy, methods and process) are discussed based on the ontological, epistemological and methodological considerations mentioned in the previous sub-chapter.

5.2.1 Researching a process

In his paper Suggestions for studying strategy process: A research note Van de Ven (1992) presents three interrelated propositions for studying strategy process in order to reduce confusion by making different views of strategy process explicit and to help individual scholars better understand the conceptual basis of their research.

Since the term ‘process’ is used in many different ways, the researcher should first define the meaning of process. Second, the researcher should clarify the
theory of process. Whereas a definition of process indicates one’s meaning of process in relation to other uses in the literature, a theory of process consists of statements that explain how and why a process unfolds over time. According to Van de Ven (1992), such a theory is needed to ground the conceptual basis of a process study on the substantive topic of the research and guide the design and conduct of empirical research. Third, the researcher should design research to observe strategic process in such a way that is consistent with one’s definition and theory of process.

In this study, the process is seen as a sequence of events of activities that describes how things change over time, or that represent an underlying pattern of cognitive transitions by an entity dealing with an issue (Van de Ven 1992). Another, at least earlier the most frequently used meaning of process has been a category of concepts of individual and organisational actions, such as strategy formulation, implementation and corporate venturing. These process concepts are operationalised as constructs, and measured as fixed entities (variables). The process view adopted in this study contrasts with this definition in a way that it takes a historical developmental perspective, and focuses on the sequences of incidents, activities, and stages that unfold over the duration of a central subject’s existence. (Van de Ven 1992.)

To this relates also the ethnomethodological approach to organisations, where organisational phenomena are not treated as entities, as accomplished events, but as “enactments – unfolding processes involving actors making choices interactively, in inescapably local conditions, by drawing on broader rules and resources” (Tsoukas & Chia 2002).

The second Van de Ven’s (1992) suggestion dealt with the theory of process, which consists of statements that explain how and why a process unfolds over time. This was discussed in the chapter 3.4.3 (Generative mechanisms of change), where it was noted that teleological models, which emphasise the role of leaders and change agents as well as the construction of change by organisational members and which view development as a cycle of goal formulation, implementation, evaluation, and modification of actions or goals based on what was learned or intended by the entity, are the most relevant ones for this study.

And according to the third suggestion, the researcher should carefully design his/her study to observe strategy process in such a way that is consistent with his/her definition and theory of process. Van de Ven (1992) also suggests that it would be generally better to initiate historical study before the outcomes of a strategic change process become known, since prior knowledge of the success or
failure of a strategic change effort invariably biases a study’s findings. This might be true when studying a strategy process the outcome of which can be regarded as “a success” or “a failure”, or, in other words, when the approach is more of a realist one. But when adopting more of a relativist view or when the approach in epistemological sense is rather interpretative – and when the process of strategy formation is regarded as valuable and interesting, and not the outcome of that process per se (i.e., the strategies), the significance of evaluating the success of the process is reduced and the actual focus of interest, understanding the process in itself, is placed in to the centre.

I’m not arguing against having a clear outcome to explain in process research – I agree with Pettigrew (1997) in his statement that having a clear outcome to explain offers the possibility “to explore how and why variations in context and process shape variability in the observed outcomes across the comparative investigation”. In this study, naturally an outcome exists: the company as it is today, and the way the entrepreneurs feel that it corresponds to the objectives they had in the beginning as well as along the way. Strategies, as a result of the process of strategy formation, on the other hand, might have come and gone, and valuing them as a success or a failure would require a whole other discussion on the criteria for evaluation.

For example, when considering the case companies analysed in this study, the success of their strategies is very difficult to evaluate. What would be the criteria, and who would set the criteria? How would the entrepreneurs evaluate the success – if the company has fulfilled the objectives set in the beginning, isn’t that success? Naturally this kind of set of criteria could be built and evaluation done, but that is neither in accordance with the aim nor the approach of this study. The aim is not at evaluating the success and outcomes of the strategy process of each of the case companies, but to understand the process of formation of those strategies.

But in sum, quite a few good guides for conducting a process (or change) research has been given (Pettigrew 1990, 1997; Van de Ven 1992; Van de Ven & Poole 2005; Langley 1999; Dawson 1997; De Cock & Sharp 2006; Balogun et al. 2003, Hinings 1997; Orton 1997, among others). The key points to be taken into consideration could be roughly summed to be the following:

– importance of interconnected levels of analysis (embeddedness)
– interconnectedness of the past, present and future
– importance of context and action
– a search for holistic rather than linear explanations of process (longitudinal comparative case study method)
– the nature of causation about change; a need to link process analysis to the location and explanation of outcomes

5.2.2 Research strategy

Process data are messy, and making sense of them is a constant challenge. First, because they deal mainly with sequences of “events”, conceptual entities which researchers are less familiar with. Second, they often involve multiple levels and units of analysis whose boundaries are ambiguous. Thirdly, their temporal embeddedness often varies in terms of precision, duration and relevance. And fourthly, despite the primary focus on events, process data tend to be eclectic, drawing in phenomena such as changing relationships, thoughts, feelings, and interpretations. (Langley 1999.)

The result may be the “death by data asphyxiation” (Pettigrew 1990), and the complexity and ambiguity of the data might make it difficult to know where to start. The challenge lies in moving from shapeless data spaghetti toward some kind of theoretical understanding that does not betray the richness, dynamism, and complexity of the data but that is understandable and potentially useful to others. Langley (1999) has presented seven generic sense-making strategies for approaching this task, and from these I found the combination of narrative strategy, visual mapping strategy and temporal bracketing strategy useful for this particular study. The narrative strategy involves construction of a detailed story from the raw data. While this serves as a data organising device, preparing a chronology for subsequent analysis, it has also a role in analysis itself by clarifying sequences across levels of analysis, suggesting causal linkages between levels, and establishing early analytical themes (Pettigrew 1990). The purpose of the narrative is not, however, to be the main product of the research and therefore the case descriptions are not “thick descriptions” with minimum data reduction.

In visual mapping strategy, matrix and graphical forms allow the presentation of large quantities of information in relatively little space, and they can be useful tools for the development and verification of theoretical ideas. Langley (1999) states that the mapping strategy may be used the most fruitfully as a theory development tool for the analysis of multiple holistic or embedded cases.

Temporal processes can be decomposed into successive “periods” that might not have any particular theoretical significance. They are not “phases” in the
sense of a predictable sequential process but, simply, a way of structuring the description of events. It also offers interesting opportunities for structuring process analysis and sense-making by permitting the constitution of comparative units of analysis for the exploration and replication of theoretical ideas. Langley (1999) calls this strategy bracketing in reference to Gidden’s (1984) structuration theory, at the heart of which the idea is that actions of individuals are constrained by structures but that these actions may also serve to reconstitute those structures over time. Because mutual influences are difficult to capture simultaneously, it is easier to analyse the two processes in a sequential fashion by temporarily “bracketing” one of them. The decomposition of data into successive adjacent periods enables the explicit examination of how actions of one period lead to changes in the context that will affect action in subsequent periods.

Almost naturally synthesising sense-making strategy was used as well, since in order to understand the process of strategy formation, the process as a whole has to be taken as the unit of analysis. In a way, the original process data were transformed from stories composed of “events” to “variables” that synthesised their critical components. Of course, now the question is whether this emerging model is a “variance theory” rather than “process theory” (Mohr 1982). Unlike in developing “real” variance models, my intention was not so much to formulate the problem in terms of explanatory variables, although the elements emerged from the material do possess some causal links. However, the elements themselves are still processes, not neat variables the behaviour and outcome of which could be predicted: the purpose of the elements is to help to understand the dynamics of strategy formation without treating them as “independent variables” having a measurable effect on the “dependent variable”.

5.2.3 Case studies

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. Qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them. (Denzin & Lincoln 2000.)

The case study is a research strategy which focuses on understanding the dynamics present within single settings (Eisenhardt 1989). Case studies can involve either single or multiple cases, and numerous levels of analysis (Yin 1984). The different data collection methods may produce either qualitative or
quantitative evidence, or both. Case studies can also be used to accomplish various aims: to provide description, test theory, or generate theory.

The case study approach has not always been recognised as a proper scientific method, and the main argument against it has been that case studies provide little basis for scientific generalisation (Yin 1994). The views have, however, changed, and the possibilities offered by case studies have been understood: the interaction between a phenomenon and its context is best understood through in-depth case studies (Dubois & Gadde 2002). Still, for example Yin (1994) is critical of some case study research, since it is remarkably hard to conduct, even though it has been considered a ‘soft’ approach, and Easton (1995, 379) has identified three types of weaknesses in case study research: (1) they remain as simply rich descriptions of events; (2) they are just examples of data that are used in a quasi-deductive theory testing way; and (3) they aim at some type of statistical generalisation through employing multiple case studies.

For a solution, based on Weick (1979), Dubois & Gadde (2002) present a stronger reliance on theory. This would help both keeping an intellectual control of the case descriptions as well as improving the explanatory power of case studies. They also say that often case study is presented as a linear process when it should be systematic combining between the theory, the empirical world, the framework and the case. All these elements are matched during the research, and they are given direction and redirection.

5.2.4 Research overview

As mentioned earlier, in process research the data is gathered from many different units and levels of analysis with ambiguous boundaries (Langely 1999). In this study, the level of the individual entrepreneur is the most important one since the viewpoint is strongly theirs – how they have experienced the company history with its events, but the individual level cannot be detached from its context: the company and the business and social networks the entrepreneur (and the company) is embedded in.

The answer to the research questions,

“How are strategies formed in small software companies?”
“What kind of processes is involved in the process of strategy formation?”
“How are those processes interlinked and form generative mechanisms in the process of strategy formation?”
is searched by describing the historical process of the companies from the establishment until present based on entrepreneurs’ interpretations on the events, feelings and thoughts they’ve experienced, covering themes such as ‘establishing the company’, ‘managing the company’, developing the company’, ‘personal biography’ and ‘strategy formation through critical events’. The reasons for concentrating on only entrepreneurs’ view despite the importance of, for instance, social, cultural and learning aspects of organisational dynamics, are multifaceted. Firstly, any “objective reality” in social settings is hard to establish, since the worldview of each individual is different. In the case of the case companies, the worldview of the entrepreneur is largely the one that counts, since in a small company he is the one to make the decisions and give direction to the company. This is not to say that the other people “belonging” to that company would not have an effect on the way the strategies are formed. The point is that they do have an effect on the entrepreneur, and the whole experience of living in and with the company is looked at from the entrepreneur’s point of view – also the way other people have affected on his visioning, decision-making and strategising.

In two of the three companies, there has been also another key person in addition to the entrepreneur, and in order to clarify certain aspects of the company’s operation, also these key persons have been interviewed. This, however, has no influence on the basic setting of the study, i.e., the aim to understand the way the entrepreneurs have experienced the company development and the different processes during it.

Research process

Eisenhardt (1989) has presented a process of building theory from case study research, which has been applied to the appropriate extent also in this study. The research set off differently than described in the process, however. This study is part of a larger research programme in software business, CreaTol, conducted in Kainuu and involving also other researchers using the same database and research strategy. The general research design, instructions, and the first thematic interview structures were created by professor Vesa Puhakka.

The development of the programme was a part of a local research and development project, and in the beginning of that project, in the end of 2005 and in the beginning of 2006, relationships with the local IT companies were established and the case companies were recruited for the research. All the companies were located in Kajaani, Finland.
For this particular study, the aim was to find three entrepreneur-led software companies (that is, the business of which is to develop software products and/or services) that would have already passed the chasm the companies tend to face after a few years’ operation. This aim was fulfilled: three entrepreneurs having this kind of company agreed to take part in the research, and they all have done a significant career in the field of software business, which gave me even a better chance to research the process of strategy formation, the time line being near 20 years in each case.

The first thematic interview sets for all the case companies taking part in the project were conducted in 2006 by a colleague, Sakari Sipola, and these first interviews were structured to be useful for different types of research purposes dealing with entrepreneurial processes. The interviews involved four wide themes, (1) Business start-up (liiketoiminnan aloittaminen), (2) managing the business (liiketoiminnan johtaminen), (3) biography (henkilöhistoria) and (4) renewal of business (yritystoiminnan uudistaminen). The interviews conducted and their details can be seen from table 8 below.
Transcriptions of the interviews were made, and based on the transcriptions the first notes and preliminary coding in paper was done. During this phase, also the research problem for this particular study was defined, literature was reviewed and the a priori construct was developed in connection with the ideas developed from the first encounters with the material, based also on previous knowledge and experience about the companies.

Based on the material, the so-called critical events were tried to identify. With critical events I refer to events the entrepreneurs themselves considered to be significant for the development of the company, and/or that marked a larger change in the company development. As earlier discussed, difficulties have been faced when trying to understand change by breaking it down into stages: this way, change is reduced to a series of static positions. The critical events are not stages, based on which I would develop a model. Instead, they are interesting moments in the history of the company, and since they are interesting, I made an assumption

### Table 8. Interviews and their transcriptions

<table>
<thead>
<tr>
<th>Company, person and the theme of interview (files)</th>
<th>Interviewer</th>
<th>Date</th>
<th>Duration</th>
<th>Pages</th>
</tr>
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<td>1:41:55</td>
<td>31</td>
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that something meaningful must have taken place in between of critical events: something that led to that event. These could also be seen as ‘changes in the main direction’ of the company’s development. The point is that while stopping the process on critical events I was able to study what has been going on between the ‘stages’, or in this case, between the critical events. I wasn’t aiming to describe the change by chopping it into pieces but trying to understand the dynamics and interaction of the processes relating to change (i.e., strategising, organising, network visioning and organisational development).

For each case, a figure was drawn with the identified critical events positioned on a timeline (like in figure 4 below). Based on the notes made and these figures, individual case descriptions were written.

**Fig. 4. Description of critical events.**

Based on this initial data and its interpretations, the second round of interviews were planned and executed in accordance with the aims of this particular study. This time also two key persons were added to the interviewee list. Each interviewee was interviewed separately, and the interviews took approximately two hours each. First, the figure presenting the identified critical events was shown to the entrepreneurs as well as to the key persons, and the significance of each event was discussed, and when needed, some events were removed and new ones added. After this, each of the events, or more accurately, the intervals (according to James 1909/96, 236) between the events was covered in the actual interview in order to understand the dynamics of the change processes.

The seven recommendations of Myers & Newman (2007) for qualitative interviewing were taken into consideration. According to the first recommendation, situating the researcher as actor, it is important to realise that also the researcher is “playing a part” “on the scene”, and the information regarding the interviewer, his/her background, experience, gender, age, nationality and relationship to the subjects and the organisation(s) may be useful in the
writing up, so that readers can assess the validity of the findings. This has been done in the interview, and it has been acknowledged that the interpretations made during this study are the interpretations of interpretations, and has to be taken in that way – not as an objective view on observable, “real” world. This also relates to the fourth suggestion reminding us that everyone is an interpreter: subjects are creative interpreters of their worlds as we are of theirs, and this is the basis of hermeneutic, interpretive research.

The second recommendation considered minimising social dissonance. This, however, was not an issue due to earlier relationships established with the interviewees and the characteristics of both the interviewer and the interviewees.

Representing various “voices” (or the triangulation of subjects) was considered at some level. Although the aim was to understand the processes from the entrepreneurs’ viewpoint, also a couple of other key persons were interviewed in order to gain a more comprehensive understanding.

Myers & Newman (2007) also suggest using mirroring in question and answers; the idea is to describe and explain their world in their own words. And sixth suggestion deals with flexibility. The interviewer should be prepared to explore interesting lines of research and look for surprises. This also includes taking into account of subjects’ differing attitudes. And the last one reminds us about the ethics of interviewing. The purpose of this study has been explained to the interviewees, the manuscript has been sent to them for comments and corrections, and permission for using the interview material for research purposes has been asked.

The interviews from the second round were transcribed as well, and the whole material was analysed with the help of QSR’s research software N’Vivo. First, the material was coded, i.e., passages in the data that seemed to exemplify an idea or concept were brought together in order to generate ideas and see new meanings in the data. Coding was also used to gather together and see all the material that was related to a category or a case throughout all of the sources. And finally, coding helped to build theory by seeking patterns in the data.

The nodes used in coding were partly based on the a priori model and partly were allowed to emerge from the data. There were two types of categories, one type for arranging the material of individual cases, and one for cross-case thematic analysis. The main thematic categories were based on the a priori model: network visioning, strategising, organising and development. The child categories were allowed to rise freely from the data during the coding.
Table 9. The free nodes (coding categories) used in the analysis.

<table>
<thead>
<tr>
<th>Type of category (descriptive coding)</th>
<th>Case descriptions</th>
<th>Node</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DA CE 0 – DA CE 13</td>
<td>Critical events in the case history of Datala Oy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EB CE 0 – EB CE 12</td>
<td>Critical events in the case history of Ebsolut Oy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GF CE 0 – GF CE 12</td>
<td>Critical events in the case history of Gisforest Oy.</td>
</tr>
<tr>
<td>Themes (topic &amp; analytical coding)</td>
<td>Adapting</td>
<td></td>
<td>Reacting and adapting to events that the company has no control of</td>
</tr>
<tr>
<td></td>
<td>Capabilities</td>
<td></td>
<td>The role of capabilities in change processes</td>
</tr>
<tr>
<td></td>
<td>Competition</td>
<td></td>
<td>The role of competition in change processes</td>
</tr>
<tr>
<td></td>
<td>Customers</td>
<td></td>
<td>The role customers in change processes</td>
</tr>
<tr>
<td></td>
<td>Decision-making</td>
<td></td>
<td>The process and issues relating to the decision-making by the entrepreneurs individually or the companies</td>
</tr>
<tr>
<td></td>
<td>Deliberate</td>
<td></td>
<td>Actions or events that are deliberate, i.e. intended</td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td></td>
<td>The process of organisational development and change</td>
</tr>
<tr>
<td></td>
<td>Emergence</td>
<td></td>
<td>The emergence of events that are not intended by the company</td>
</tr>
<tr>
<td></td>
<td>Employees</td>
<td></td>
<td>The perceived role of employees; as a type of resource</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurial</td>
<td></td>
<td>The way the entrepreneurial leadership affects the company development</td>
</tr>
<tr>
<td></td>
<td>organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Focus</td>
<td></td>
<td>The indications of a focus of company operations</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td></td>
<td>Relationship with growth; the role of growth</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td></td>
<td>The relationship between innovation and change processes</td>
</tr>
<tr>
<td></td>
<td>Kainuu</td>
<td></td>
<td>The influence of Kainuu region on the development of the companies</td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td></td>
<td>The role of leadership in change processes; the process of leadership</td>
</tr>
<tr>
<td></td>
<td>Motiv</td>
<td></td>
<td>The motiv behind the company’s existence</td>
</tr>
<tr>
<td></td>
<td>NW Visioning</td>
<td></td>
<td>The process of network visioning</td>
</tr>
<tr>
<td></td>
<td>Objectives</td>
<td></td>
<td>The objectives behind the company’s existence and operations</td>
</tr>
<tr>
<td></td>
<td>Opportunity</td>
<td></td>
<td>A business opportunity perceived in the network; network pull</td>
</tr>
<tr>
<td></td>
<td>Optimism</td>
<td></td>
<td>The influence of personal characteristics on the development; the role of optimism</td>
</tr>
<tr>
<td>Type of category</td>
<td>Node</td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Organising</td>
<td>The process of organising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>The role and process of planning inside the organisation; planning as a part of individual sense-making and problem-solving process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>Company’s position in relation to others in a network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Products</td>
<td>The whole offering of the company: goods and services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>The purpose of the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td>Reflection as a part of individual sense-making process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationships</td>
<td>The process of acquiring resources for the company activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resourcing</td>
<td>The process of strategising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategising</td>
<td>The influence of the context of software business on the development of the companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW Business</td>
<td>The role of technology in change processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Assumptions of the entrepreneurs about how things work, how things get done</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory of action</td>
<td>A threat perceived in a network; network push</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory of action</td>
<td>The role of time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory of action</td>
<td>A strategic try-out in search for new business opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory of action</td>
<td>Values as part of personal characteristics of the entrepreneurs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory of action</td>
<td>A vision of the purpose and goal of the company; a positive future scenario</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The whole research process is described in figure 5 below, in which the dotted line depicts the iterative nature of the process. After the coding and analysis of the material, individual case reports were written (chapter 6). With the help of the individual case descriptions and the analytical coding, cross-case conclusions could be drawn and theory developed by letting the data and the developed a priori model to discuss together. Finally, the cross-case report found in chapter 7 was written.
Fig. 5. The research process.
6 The case companies and the context of software business

As presented in the previous chapters, companies are not isolated individual units that would have a mind and will of their own. Not every action of them is rational and can be objectively identified and analysed, and they do not work in a perfectly planned and systemised world in which causes and consequences would be clear to all objective observers. This has been the guiding thought throughout this study, and when trying to find explanations regarding the behaviour of an organisation, also the context with all its cultural, social, political, economical and technological aspects has to be taken into consideration. As highlighted in the previous chapter, the development of the case study companies cannot be understood without looking into the mind of the creators and strategists of those companies as well as to the larger environment, or the networks, they are a part of. To be more precise, to understand the effect of both the business they’re in (software business and the networks of business actors in this field) and the culture that has partly created them (the Kainuu region and social networks) is crucial for gaining understanding of the phenomena in question.

In this chapter, first, the context of software business is described briefly. Second, the three case companies and their histories (development paths) are presented through the identified critical events. Third, the factors found through the analysis and identified as being the ones that had an effect on the birth of those critical events are discussed. And fourth, the total process of strategy formation in these three companies is analysed through the theoretical framework presented in the chapter 4, and the generative mechanisms behind the process dynamics are identified.

6.1 Software business as the context

The relative youth of the software industry and the confusion reigning in the world of concepts and definitions have in part been a hindrance to the deeper research of software business. For example, in Finland, the special characteristics of software business have gained more attention just during the passed decade, including the starting of more systematic education and research work in the most significant universities. (Seppänen et al. 2001; Seppänen 2003.)
The research work conducted in the field of software business at the University of Oulu include, e.g., Tähtinen (2001), Sallinen (2002), Warsta (2002), Ulkuniemi (2003), Helander (2004) and Kinnula (2006).

Also in the field of software business, strategy issues have gained growing interest, not least because of the bursting of the ‘IT bubble’ in the beginning of this decade. The hard times have brought the companies back to the basic questions of business: the business strategy and the business model fitting to that strategy. (Karvonen 2004.)

In the following subchapters, the context of software business from the viewpoint of the industry and the different business models is described, and the conclusions of the effect of the context on the development of small software companies is presented.

6.1.1 Software industry

It is somewhat difficult to define the borders of software industry due to the increasing convergence and integration of information technology with the other areas of industry and commerce. In fact, more flexible cluster views would be needed in addition to the traditional industry level classifications. E.g., Kuusisto & Meyer (2003) have defined the cluster of software industry as a network of actors taking part in the value network of software products and services, working in close interaction. One characteristic of software industry is the formation of subcontracting chains and networking with other companies. More than a half of the companies in this field uses subcontractors or component suppliers or is doing subcontracting themselves for other companies. Also the co-operation with other companies, universities and other partners is on average more common in software industry than in the whole SME sector in general. (Toivonen 2003.)

In Finland, the software industry (in this classification, the section ‘software and services’) is categorised to belong to the section information technology under the wider concept ‘information and telecommunication technology’ (ICT), belonging further into the larger information and communication industry (INFOCOM). Other subsections for INFOCOM are ‘telecommunications’ including public data networks, terminals, telecommunication services, and cable and TV services, and ‘communications industry’, including graphic communication, electronic communication, and recording communication. (Nukari & Forsell 1999).
Another type of categorisation is presented by Hoch et al. (1999), according to which software firms typically are categorised as operating in the software project business (customised software business), enterprise applications or in the software product business (also, Carmel & Sawyer 1998, Dubé 1998).

When developing customised software, the business is based on close relationships between the company and the customer. Typically, there are no tangible, final products, but the customised software is developed in projects. In the case of enterprise applications, ERP systems can be used as an example of the customised software based on a core product. The enterprise solutions are developed in co-operation with the customer, and their installation always requires customised work. And in the third sector, the product business, generic software is produced and sold to the mass markets. The software has to be able to function in different kinds of technical environments and able to be documented throughout the entire lifecycle of the product. The share of customised work is either small or non-existent.

6.1.2 Software industry segments: business models

Small software firms have unique characteristics that differentiate them from their bigger counterparts: they operate mainly in the primary markets, and the uniqueness of this is that the software is tailored not only to meet the requirements of a single buyer, but they also operate on business models based on selling the expertise. This could be based on selling the expertise of a single software developer or project teams, such as hiring experts to a customer organisation for a fee in which the experts work as a part of the customer’s project team. (Sallinen 2002; Okuogume & Seppänen 2004.) A useful typology of industrial software suppliers within the ICT cluster has been presented by Sallinen (2002).

An interesting aspect relating to the business models of small software firms, like the two of the three case firms in this study, is that they do almost everything at the same time: customised software and enterprise solutions, products (mainly for companies), and also subcontracting based on the mentioned selling of the expertise. Although the boundary between project and product business is not as clear as typically presented in the literature (and also in the following), the differences between stereotypes is useful to understand when analysing the revenue and business models of software companies.
Having several different business areas requires flexibility from the organisation since there are many differences in the business models between the production of customised software and software products, or project business and product business (Alajoutsijarvi et al. 2000; Hoch et al. 2000; Tähtinen 2001). Table 10 below highlights the main differences between project and product business from the marketing point of view.

**Table 10. The main aspects of software business: the marketing point of view (Alajoutsijarvi et al. 2000; Hoch et al. 2000; Tähtinen 2001).**

<table>
<thead>
<tr>
<th></th>
<th>Project business</th>
<th>Product business</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production</strong></td>
<td>Project-bound; sold before production;</td>
<td>Sold after production; customer does not take part in the production;</td>
</tr>
<tr>
<td></td>
<td>customer takes part in the production;</td>
<td>copying; version management;</td>
</tr>
<tr>
<td></td>
<td>scheduled; large and incessant marginal costs;</td>
<td>low marginal costs</td>
</tr>
<tr>
<td></td>
<td>important to optimise the utilisation rate of capacity</td>
<td></td>
</tr>
<tr>
<td><strong>Type of organisation</strong></td>
<td>Project organisation; specialised business units according to the field of main customers</td>
<td>Division of organisation according to he markets or products; matrix organisation</td>
</tr>
<tr>
<td><strong>Core competence</strong></td>
<td>Project marketing and management; business relationships and networks</td>
<td>Customer acquisition; productisation; distribution channel management; alliances and strategic partnerships; brand management</td>
</tr>
<tr>
<td><strong>Clientele</strong></td>
<td>Narrow niche; well-known; large companies</td>
<td>Wide; faceless end users; masses consisting of companies or individuals</td>
</tr>
<tr>
<td><strong>Nature of markets</strong></td>
<td>Well-known; networked; little market leadership competition</td>
<td>Distant; global; open; competitive; market leadership important</td>
</tr>
<tr>
<td><strong>Focus of exchange</strong></td>
<td>Designed with the customer; customised software for particular platform; training and support; large service content</td>
<td>Standardised software for many platforms; small service content</td>
</tr>
<tr>
<td><strong>Nature of exchange</strong></td>
<td>Interactive; reciprocal; multifaceted; repeated projects and long-term relationships</td>
<td>Opportunistic; simple; short period of time; repetitive through new programme versions</td>
</tr>
</tbody>
</table>
Also Carmel & Sawyer (1998) have presented a similar table highlighting the main differences between the production of customised software and software products on four different levels: industry, software development, cultural milieu and software developing teams. At industry level, the software product business is mainly affected by time-to-market pressures. Companies are under constant pressure to innovate and to outperform competitors in delivering their products to the market. Due to increasing returns to scale, the goal is to capture a large market share as soon as possible. The actions of software product companies are typically determined by technology push. Within the packaged product business, software products are often delivered in collaboration with other parties. Partners can fill crucial gaps in technology, such as product portfolios and R&D, reduce time to market by helping companies launch products earlier, increase market penetration and help companies to focus on their core competencies.

But the most interesting difference in the light of this study is the devotion these business models require from the strategy development. According to Hoch et al (1999), the relevance of different management areas (according to significance analysis of key success factors in each management area, by Global McKinsey software survey) differ in professional services and product business. The prioritisation is presented in table 11 below.

<table>
<thead>
<tr>
<th>Relevance of management areas</th>
<th>Professional services</th>
<th>Product business</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Human resources</td>
<td>1. Strategy</td>
<td></td>
</tr>
<tr>
<td>2. Software development</td>
<td>2. Marketing and sales</td>
<td></td>
</tr>
<tr>
<td>3. Marketing and sales</td>
<td>3. Human resources</td>
<td></td>
</tr>
</tbody>
</table>

In addition to finding the balance in prioritisation, manager should also be able to find the right mix of actions within these key management areas and the right level of management in each of the areas relative to each other. For instance, as in professional services people management is the top priority, and within this area, the focus would be, according to Hoch et al. (1999), on investing in developing and retaining people long term instead of focusing on short-term profitability by “utilising people” efficiently. In enterprise solutions, the key management area would be partnering, and within this area the management should concentrate on growing the market, but sharing it with the partners, instead of focusing on a
smaller market but taking it alone. And in mass-market software, marketing being the key area, the focus should be on investing in marketing to build dominance and not so much in limiting marketing expenses to raise profitability.

As already mentioned, the boundary between different sectors/business models is not that evident as presented in the tables. Actually, it is more about the degree of productisation and the continuum of productisation, along which different business models could be placed. The differences are still useful to acknowledge, and the most crucial question might be, what kind of prioritisation the companies developing products in the same organisations based on professional services business make when fitting these different business areas into the same organisation. The business areas differ in several aspects as discussed above, as well as according to the relevance of different management areas. How do the firms cope with these contradictions with limited resources?

According to Hoch et al. (1999), the enterprise solution companies in particular cannot address this issue simply by coping with only one business type, and therefore organisational separation and different marketing approaches for each business within the company must help solve the problem. Without separation, whenever there might be many service projects, developers are pulled off the product business to support the projects. And as a result, product development will be put on hold and market launches are delayed.

Hoch et al. (1999) conclude their analysis by stating that despite the differences, the businesses share also similarities. One of the crucial ones concerns their leaders: they not only have to accept uncertainty but to thrive on it. “Leadership is one of the most important ingredients in software success” (ibid.: 34).

6.2 Software industry in Finland and in the Kainuu region

In Finland, the government is especially keen on supporting the field of software development, and TEKES, the Finnish funding agency for technology and innovation, finances Finnish software companies with particular interest. This is due to the promising prospects of the field of software business in terms of employment and foreign capital. According to ETLA, the research institute of Finnish economy, the share of the software business of the gross domestic product is already nearly one and a half per cent. The revenue of the field is 3.5 billion euros, and approximately 30 000 people are working in the field of software
business. Approximately 40% more new ventures are being born than in other fields on an average. (Talouselämä 2008.)

37% of the revenue of software field comes from abroad. The size of the field has doubled in ten years and the growth continues. For a Finnish software company the way to survive in the competition is to specialise in a niche market, in two ways as already discussed in the earlier chapter. One way is to sell the products of their own, and the other is to make software according to the customers’ requirements. (Talouselämä 2008.)

The problem with the subcontracting business is that those companies should also grow in order to stay alive – like in many other industries. The large clients want to deal with large subcontractors that are able to offer a wide range of services. For any of subcontractors, losing a subcontract is a serious threat. Now, there are a lot of small companies in the field that are entrepreneur-led, employ around twenty people and have no intention whatsoever to grow. As Pertti Kauppinen, the managing director of Espotel stated in the article of Talouselämä in August 2008, the main aim of the entrepreneurs seems to be to live comfortably, with their summer cottages and other conveniences. The problem is that the future for a company that has given up growth is insecure, and these kinds of companies that are now for sale in almost every town in Finland. (Talouselämä 2008.)

Kainuu as a region is faced with some major challenges, including turning trend in population development, ageing of population, creation of jobs, development of entrepreneurship, overcoming the financing problems faced by local governments, and utilising the opportunities offered by globalisation (Renewing Kainuu 2012: Agreement on promoting innovation and expertise).

Kainuu has about 180 enterprises in the ICT and electronics industries but only a few companies are concentrating on the actual software business. There are a couple of larger market leaders that lead the way also for the smaller local companies. Otherwise the population of companies consists of small, privately owned and entrepreneur-led businesses that employ only a few people and rarely have any ambitions for growth.

### 6.3 The development of the case companies

Three small software companies took part in this study, which is a part of a larger research programme aiming at discovering the processes of entrepreneurship among small software companies in the regions of Kainuu and Oulu South.
Datala is one of the pioneers of the IT field in Kainuu: the company was founded already in 1983. The company is in private ownership and its office resides in Kajaani. Currently human resources total approximately 5 persons.

Datala provides ERP system TAHTI covering the following: invoice circulation, accounts payable, bookkeeping, budgeting, cost accounting, activity-based counting, salary calculation, travelling expenses invoicing, working hour registration and materials control which includes a warehouse system, processing orders, invoicing, compilation of statistics and accounts receivable. Datala also has several readymade software products for different industries: the software for soil processing, the food industry and health care. Datala is committed to update and develop its software in cooperation with its clients so that they continue to meet the current demands and needs. In addition to maintenance services, Datala provides personal and quick user support.

Besides Datala and Fujitsu Services Oy (formerly Kajaani Electronics, nowadays part of the Fujitsu Group), the third pioneer among the IT companies in Kainuu is Gisforest Oy, founded in 1989. The company employs 5 persons. The turnover of the last confirmed accounting period totalled €450 000. Gisforest is specialised as cutting edge expert of a narrow product sector, the products of which are systems utilising geographic information, i.e., GIS systems for production control, management systems and logistics solutions aimed primarily at forest industry and wood production sectors.

The person behind Ebsolut Oy is also one of the pioneers of IT business in Kainuu, although the present company was founded in 2000, and the histories of the case companies are intertwined already in their phases of establishment. Since the foundation of Ebsolut Oy, the company has gained significant growth and currently (in 2008) the company’s human resources total 60 persons.

The products of Ebsolut’s EMobile product family for vehicle use are designed to meet the needs of logistics business. EMobile CS is the platform on the basis of which EMobile Transportation has been built for transportation companies and EMobile Environment for planning and monitoring environmental management logistics. As for services, the selection includes customer-specific information system projects and subcontracting services.

Each of the case companies is involved in the activities of IT-Pooli in Kainuu. IT-pooli is an association founded by top ICT companies in Kainuu in 2000, the mission of which is to promote the prerequisites for business of the local companies. Currently there are over 20 member companies in IT-Pooli involved in networking cooperation.
The objective of the association is to pool ICT companies to look after their general and common professional interests, interconnect the members to ensure collaboration between them and improve the general operational preconditions in the field.

The summary of the case companies and their activities is presented in table 12 below.

Table 12. Summary of the three case companies (IT Pooli Magazine 1-2/2007).

<table>
<thead>
<tr>
<th></th>
<th>DATALA OY</th>
<th>EBSOLUT OY</th>
<th>GISFOREST OY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>TAHTI ERP-system</td>
<td>Software subcontracting</td>
<td>GIS map systems</td>
</tr>
<tr>
<td></td>
<td>Systems for patient representative work and treatment; injury reports follow-up and compilation of statistics</td>
<td>Software production projects</td>
<td>MapInfo Pro version 8.0 as platform for .NET environment</td>
</tr>
<tr>
<td></td>
<td>Milk account + supplement “Producer net”</td>
<td>Consulting; processes, definition work</td>
<td>MapXtreme</td>
</tr>
<tr>
<td></td>
<td>Laboratory systems (milk research, analyser interfaces)</td>
<td>EMobile CS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil processing</td>
<td>EMobile Transportation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car expense calculator</td>
<td>EMobile Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demand and standard calculation (product related to product control and pricing)</td>
<td>EMobile Taximeter (Sunit Taximeter STM)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WWW pages</td>
<td>Multi-channel and multi-level architectures</td>
<td>Geographical information systems (GIS)</td>
</tr>
<tr>
<td>Core and technology expertise</td>
<td>COBOL, AcuBench</td>
<td>Software solutions for mobile terminals</td>
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<td>UML method expertise</td>
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<td>Java, C, C++, Visual Basic and C# programming languages</td>
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6.3.1 Ebsolut Oy

In the end of 1990s a group of people, including Mr. Mauri Kemppainen (hereinafter MK), worked for a company called TJ Group. MK's own company Acura Systems had been sold TJ Group a bit earlier, and MK stayed as the leader of the unit formed around the merged company. However, it was the highest point of the IT fever in the turn of the millenium, and MK had a strong feeling that the situation cannot continue as it was much longer. The operation of the parent company didn’t seem to be systematic enough, and as the opportunity rouse in the form of a large customership, MK left the company together with 9 other people, and together they established a company of their own, Ebsolut Oy.

The background of the entrepreneur

MK had already had experience in running a business. He started off as a system developer at Kajaani Oy, a local paper mill and a large employer in the town of Kajaani. After a career of ten years in that company MK was determined that the IT field was interesting and right for him, but the circles should be a lot bigger than that. He felt that a large company didn’t give enough space for personal development and creativity, and left to work for a small company as a key person and the first employee. In a few years the company grew from a one-man-company into a larger one employing 85 people. The company had units in Kajaani, Kuopio, Oulu and Helsinki. After three and a half years, in 1985, the company went bankrupt and people were left without their jobs in the Kajaani and Kuopio units.

MK had a very trying period while dealing with the financers and pondering the position of the former employees facing unemployment. Through his relationships he got in contact with Tietotehdas, a large Finnish IT firm (nowadays TietoEnator), that had decided to establish a unit in Kajaani. MK was asked to be the leader of the unit. He doubted his abilities to run a unit of 30 people and turned the offer down. He worked for the unit, and the leader of the unit came from elsewhere.

Quite soon MK begun to regret the decision: now he was again working for a large company, and the policies were just like they used to be in Kajaani Oy. For a year he acted as a project manager and a marketing manager, and during that time a thought of a company of his own was formed. He had an idea to develop intelligent systems on AutoCad, and established a design firm called CaeMatic Oy
together with his colleagues. The company developed products of their own already from the beginning, and they even had a joint venture of 10 employees with Nokia. Also Esko Suomalainen (hereinafter ES), the operations manager of Ebsolut Oy, came to work for MK and CaeMatic.

There came problems with the personnel of the joint venture, which eventually went bankrupt and also broke the foundation for the operation of CaeMatic. MK established a personal company and did some subcontracting in software development for a few years. Meanwhile, ES and other employees of CaeMatic established a software company called Tietämystalo Acura Oy. The relationships from the time of CaeMatic still existed, and in 1996 MK and Tietämystalo Acura decided to establish a separate company, Acura Systems Oy, of which MK owned 50% and Tietämystalo Acura 50%.

Acura Systems was growing gradually for three and a half years. In 1999 the representatives of TJ Group contacted Acura Systems and were interested in purchasing the company. After some negotiations Acura Systems was sold to TJ Group, and after a while, Tietämystalo Acura as well. MK stayed in the company to run the Kajaani unit established around the former Acura Systems. MK also persuaded ES to come to work for TJ Group, and after a year when MK and a few other people decided to establish Ebsolut Oy, ES replaced MK as the leader of the Kajaani unit in TJ Group.

The summary of this background of the key persons of Ebsolut Oy is presented in figure 6 below.
Fig. 6. Background of the establishment of Ebsolut Oy.

**The start-up**

At the time of the start-up, in the year 2000, markets were craving for software developers, so it was possible for the start-up to base its operation totally on the customership with the Comptel group. Ebsolut worked as a subcontractor, developing software in Kajaani for the purposes of the customer, and during the first steps of the company, Comptel employed the Ebsolut people one hundred percent. Comptel was also co-financing the company, they had planned the business of Ebsolut together, and there was also a plan that Comptel might buy the company after the subcontracting business with them would have grown enough.

The customership with Comptel came through MK’s personal relationship with some people from Tampere. Their company had contacts with Comptel and they told about this rising business opportunity. Also Tampere people and MK had
plans relating to future cooperation including joint ownership. So the beginning of the business was quite secured, leaning on a single, strong client and future acquisition plans. The idea was also to acquire other customerships in order to secure the operation of Ebsolut during business fluctuations in Comptel’s business network. Similarly through MK’s personal relationships other customers, large Finnish companies like Metso and Valtra, were acquired: large companies with which projects can be made or that buy software development as subcontracting. An ideal situation would be that the different customers’ work would back each other up: when some customers have no work to give, the other ones might have a different situation. The strategy was to get started with subcontracting and project business and then gradually start to develop own software products, but no clear vision yet existed of what kind of products those could be. Even internationalisation had been in mind in the beginning.

**Relationship with Comptel fades**

In the aftermath of the IT hype there came radical changes in the software industry worldwide around the year 2002. The business of Comptel started to fade, due to which also the purchasing of subcontracting from Ebsolut diminished gradually and finally ended totally. In the end, the end of business with Comptel came quite suddenly. The large company did not inform small contractors of its internal affairs, and even though one of Comptel’s executives sat at the board of Ebsolut, the situation seemed to come as a surprise to him as well, resulting to his resigning from the board.

At that time, Ebsolut had almost twenty employees working for Comptel’s assignments, and when the business with Comptel started to fade, it was practically on MK’s responsibility to find new customers to keep the employees employed and busy. The situation required rapid reaction: finding new customers from the field and re-alignment. Naturally this was not an easy task to do during the decline of the markets. The location in Kainuu did not make the task any easier, since the majority of customers located in Southern Finland.

Although the situation was not easy, Ebsolut did also have other customers in different fields other than tele operator and mobile phone business, which gave some stability in the turmoil of IT business. At the same time, new possibilities were searched for, and own product development was seen to be one option. A project related to wireless communication in roadworks site control (LATO
project) with VTT, Technical Research Centre of Finland, already during the same summer built a basis for the product platform, eMobile, to be developed.

Product development

New business had to be developed to replace the gap left by the decline of Comptel’s subcontracting. Ebsolut started to think about its own products more actively, and, for example, through existing customer relationships an idea about wireless information transfer was borne and that technology could form the basis for the products. One of the customers at that time was Valtra, a large Finnish tractor manufacturer, for which Ebsolut had made different kinds of projects. Through the relationship with Valtra an idea was developed about a system for in-vehicle computers.

The company decided to develop a product platform type of solution, onto which it would be possible to develop solutions for different fields and customers. The project gained funding from TEKES, Finnish Funding Agency for Technology and Innovation, and for a year and a half Ebsolut built a core product onto the platform. This development has continued with different kind of solutions relating to wireless communication and in-vehicle computers.

Co-operation with a local in-vehicle computer manufacturer Sunit has had a central role in developing the product platform. MK had known Sunit’s managing director through different kinds of local events and networks already before any kind of thought of co-operation existed. After discussions in IT-Pooli and other similar events, they started also to think about possible co-operation. Ebsolut and Sunit worked together already during the LATO project in 2002–2003 and after that, when one of Sunit’s main customers asked them to include a taximeter in their system, Ebsolut started a joint product development with Sunit around this system.

In the beginning, the idea was to develop the product platform and to standardise it in a way that could result into a product that also other similar customers or software companies could use in the same way. The platform has been improved, and the development of own solutions has been begun, but the original idea about the standardisation has not realised yet.

Even though the idea of the product came through the existing customers, the purpose was not to build products competing with the customers’ products. Instead, Ebsolut was looking for gaps on the market that the customers were not aiming at and into which Ebsolut could fit in with its products.
The product range in the field of wireless communication and in-vehicle computers seemed reasonable since this field offered a possibility to build productised software that can be used in different applications for different customers in different devices. The limitation was made to include only the so-called professional users meaning the field of in-vehicle computers, and for instance mobile phones were excluded. There are not many hardware manufacturers in this field, and since one of the manufacturers is a local company operating internationally, with which the company had already existing relationships, the choice seemed reasonable enough.

After the taximeter project, in discussions with Sunit an idea was brought up that the two companies could start developing a system for parcelled freight onto the eMobile platform. A project around the product-to-become, eMobile Kuljetus (eMobile Transportation), was kicked off. The project “KulHa” spawned also further development projects, and the development work has been done all this time until the end of the year 2008. Ebsolut and Sunit have jointly developed the software to work solely in Sunit’s terminal, and therefore Ebsolut has not been able to use that software in other environments. However, in its own product development work Ebsolut has been able to develop a PDA client to meet also different kinds of needs in the customer end.

In the beginning of the product development the idea was that the projects and subcontracting will have a diminishing role, or that they could even be separated from the product business totally. Quite soon it became clear, however, that the product development requires so much resource that some part of the operation has to also bring revenues to the company. If the project business had been separated during the strong phase of product development, the product business may have not been able to develop. Product development needed financing, and hence the company changed its objectives and began to develop each business area simultaneously. More customers were searched for subcontracting and project business, and each business area is considered equally important. This way the new product development is possible, and if project business will begin to flourish, it can be separated into a company of its own that could concentrate on offering specialist services.

Ebsolut has also done different kind of experiments in the product field. During the early phases of the company a feasibility study founded by TEKES were conducted in order to make a prototype of a system relating to ultra sound research. The purpose was to see whether this area would be suitable for business. A similar search has been made together with some customers in order to see
whether a joint product development would be possible. In the field of mobile business, for example, Ebsolut tried cell phones as terminals but came to notice that it is not actually their business.

Unit in Jyväskylä

At the time when Tietämystalo Acura was sold to TJ Group, ES was no longer working for that company, but there were other people running that company. After the acquisition, these people, also including ES’s brother, became the employees of the large parent company. Working for a large company was not something that they wanted to do, however, after having the chance to work as entrepreneurs. Eventually in 2003, the Jyväskylä people left TJ Group and gained an ownership in Ebsolut. For Ebsolut, this gave a chance to widen its operations geographically, and also to reach for a new kind of business. This TJ Group’s Jyväskylä unit had had a close customer relationship with Valtra, and since the relationship was based on personal relationships, Valtra followed their contacts to this Ebsolut’s new Jyväskylä unit.

For a while the business in Jyväskylä seemed to be prosperous, and it employed six people at its best. However, despite of the common history with Ebsolut and Jyväskylä people, the cultures and expectations of these two groups clashed, resulting in a peaceful separation. Ebsolut had also made a delineation concerning their core business, which dealt with more traditional systems than the more Internet-type of business the Jyväskylä unit was concerned with. They gave up the ownership in Ebsolut, and Jyväskylä’s business remained in their hands.

Partners in Tampere

Already when establishing Ebsolut, MK had had some plans with the people in Tampere, through whom the relationship with Comptel came to exist in the first place, that they might take a larger role in Ebsolut’s operation and also have an ownership in the company later on. Around 2003 these plans and also the contracts made earlier were realised.

Ebsolut and the partners set up also another company together, and the idea was that the partners could benefit the Ebsolut’s operation by providing customer relationships and competence that Ebsolut did not hold. The expectations concerning the co-operation were high, but after a while it became clear that the interests of all the parties did not meet eventually. The relationship turned out to
be quite negative, and the difficult situation consumed a lot of energy and resources. The values and workings of the partners proved to be unacceptable for Ebsolut, and besides the cultural differences, there were also different points of view concerning the vision of how to develop the business and into which direction.

The idea of the partners was to build a system platform, on which the developed software would work on every operating system, meaning that the software development would be extremely machine-based, requiring different kind of competence than what Ebsolut possessed at that time. This would have meant a totally different business area, and it would have had to be developed leaning solely to the partners holding the necessary channels and resources. In other words, this would have been too risky business for Ebsolut.

The partnership lasted only for a year, after which arrangements were made to detach Ebsolut from the agreements established earlier. Ebsolut continued to develop its business independently.

The growth strategy

After these tryouts Ebsolut has focused its operations in Kajaani. Other units in different cities, especially in Southern Finland, have been in mind, but the purpose has been to plan the company’s operation on Kajaani unit’s terms: what it wants to be, and what kind of competence the people located in Kajaani hold. The business faced the downturn together with Comptel’s fading and continued to be slow until the turn of 2004–2005.

The idea of growth had existed already from the beginning, but during the year 2004 these ideas reached a culmination point in the form of a documented growth strategy. Through his personal contacts, IT Pooli among others, MK got background support for his thoughts and ideas, which led to announcing the formal strategy to the management team and employees. Another factor affecting the change in strategic thinking was the eMBA programme in which MK participated during this same period.

Being a small actor in software business seemed to mean living too much hand to mouth, and the possibilities would have been far more limited for a small company. For MK, it meant a choice: either to stay as a small company, with only a few employees, or to aim to grow the operations in a way that there are more customers and projects, and also several business areas as supporting structures.
When concentrating on subcontracting and project business, sales of the company have been based on a large part on the personal relationships of MK. More systematic sales operations begun in 2005, when the development of the product had reached a level where a dedicated sales person was needed to boost the sales of the product. After that, the amount of sales people has grown, and the company has had a clear effort to develop the sales management as a whole. Also the amount of employees in total has nearly doubled during the past few years: at the time of the last interviews, there were more than sixty employees working for Ebsolut.

**Selling the shares to KPO**

One of the partners in co-operation in the area has been the local telephone operator, Kainuu Puhelinosuuskunta (KPO) that, like the other companies belonging to Finnet group of telephone companies, has developed through years towards a company providing all kinds of ICT related products and services. Ebsolut has worked with them in different regional development projects, both companies belong to the IT Pooli, and Ebsolut has also used their product platforms in their own operations. The managing directors had also participated in the same training in which they worked in the same team and came to think about their companies’ strategies together. Already earlier they had been talking about ownership, and the same issue rose again during the training, after which they decided to act. In the beginning of 2008, at the time of the last interviews, KPO had purchased the majority of the shares of Ebsolut.

The plan is that Ebsolut continues as it is, and synergies in the operations are searched for. The business cultures of the two companies are being kept separate. Growth is still an objective, and the operations of the parent company may give a possibility for new kind of product applications.

Based on the interview material, twelve periods were recognised, nine of which can be identified as ‘critical’. With critical I mean events that represent a turning point in the history of the company – a new threat or a new opportunity that is (and was back then) perceived as such by the entrepreneur. The periods and critical events are shown in figure 7 below.
6.3.2 Datala Oy

Since 1973, Tapio Pulkka (hereinafter TP) had been working for Kainuun osuusmeijeri (cooperative dairy in Kainuu), at the ADP department. In the beginning of the 80s, the whole business of information processing was changing, and the dairy did not consider it necessary to keep up the ADP department in that extent, and started to slim down the work force. People with temporary employment were in danger of notice of termination, and the employees started to ponder together what could be done. The ADP manager who had already earlier bought a company of his own in order to do some extra business at the side of his regular job suggested that now, since the company existed, it could be turned into a business that produces ADP services for dairies. This way it was possible to secure the jobs of the people with temporary employment and hence, they could be able to stay in Kainuu. Another basic reason was the responsibility towards clients: as the department was cutting down its operations, the customers would have been left to their own devices without any kind of support.
The ADP department had already earlier made some market research and found out that this kind of company would have all the chances of survival. When conducting the market research, Nokia Data was one of the possible partners that might need the services of the new company, and they also saw market possibilities for their own products in this kind of partnership. When setting up the co-operation, they also found out that Nokia Data could provide the machines with which the software could be produced, and also customers, other large dairies, that could need the kind of services the company was about to provide. However, the Kainuu dairy did not after all have the readiness to be engaged in this kind of project, and at the same time, in the spring 1983, it came publicly known that no more people were hired, and the two years’ terms were about to end in the July of the same year.

TP and the other employees-to-become of Datala still stayed at the dairy but were surprised by the dairy’s unwillingness to take advantage of the new company. They were in belief that it was a custom in these kinds of situations to help out the spin-offs in the beginning, but as far as the dairy was concerned, the situation was just the opposite. It seemed that the life of the start-up was wanted to be made as difficult as possible.

Since the manager of the ADP department was one of the people running the start-up, a new ADP manager was needed. The managing director offered the position to several people, also to TP, but the position was not wanted, since the general opinion was that no chances were given to succeed in that position. There became tensions in relationships between people inside the house.

TP stayed at the department nearly a year after the company was started, but then he finally moved to work for Datala. Although the dairy was reluctant to use the services of the company, and actually did inform that on the contrary, they will do everything they can to make sure that the company won’t succeed, in the beginning they were forced, however, to take advantage of the competence of the people in Datala. Slowly the cooperation faded, but did see a new dawn after a decade when all the key people at the dairy had been changed.

The operation of Datala Oy began in 1983. At the time of start-up there were three shareholders: the former ADP manager and the two employees who had had been in danger of getting fired. After a couple of months, the third employee came along, and after a half a year, the fourth. TP was the fifth shareholder and the last
one when he came along about a year later. These five employees bought the shares and paid the share capital.

The reasons for the start-up were clear: the jobs of the colleagues and of their own had to be secured, and the main thing was to be able to stay in Kainuu and not to be forced to move to Southern Finland or somewhere else, away from their home region. And for TP, the job at the ADP department hadn’t been very satisfactory anymore. It gave no real challenges, just repetition of routines day after day. Besides, there was a clear need for this kind of company on the market – meaning large dairies, needing dairy industry software and maintenance. Already when working for the ADP department at the dairy, they were serving also other dairies, and therefore a pattern for the operation of the company existed already. In addition to this, also some work for telephone companies had been made as a freelancer, and this became another customer group for the start-up. They started with financial management software and later on moved towards more demanding software. Another business area was the sales of hardware: in 1984 microcomputers came into market, and Datala took them as a part of their service.

None of the shareholders did have any kind of information concerning start-up and running a business, and therefore the local trade promoter of the Kajaani town was of valuable help, providing them with all the necessary information in order to get the business running. The first managing director took part in a course for entrepreneurs, and also TP participated in some extent while still working for the dairy. The new company aimed to make marketing strikes in Kainuu and to get people to be acquainted with the software. The problem was that the machines at that time weren’t very easy to use, not to mention the software, and the markets were not ready. And the core issue was that the strengths of the Datala people were thought to be in software, not in marketing or business. After a while, the managing director wanted to do something that was more in line with his core competence, meaning software production, and it was agreed that TP would take over the managing director’s position.

Problems with contracts

The machines were purchased from Nokia Data, and they, in return, made a commitment to buy work hours from Datala. This contract was supposed to secure the beginning of the operation of Datala, and therefore the disappointment was great when they realised that Nokia Data was not going to honour their part
of the contract. To make it even worse, they did not even give any discount on the rental rates for the machine. Datala felt that a large company like Nokia Data does not need to care of the small subcontractors. There would have been plenty of work, but they refused to give them outside, since they were able to do them inside the house as well. They even hired more people to do this.

Gradually Nokia Data came to realise that doing just the maintenance work is not economically very lucrative, and some of the customers requiring maintenance came to Datala. Later on, the supervisors did correct their misbehaviour, and Datala did get some compensation. Therefore, the relationship between these two companies survived.

Veitsiluoto

At the same time, a new market for Datala’s services was opened: the forest industry through Veitsiluoto Oy (a former Finnish paper giant) and its forest department. This relationship came also through Nokia Data, but through a totally different department and different people that with whom Datala had these contract issues. They had been co-operating earlier, and recommended Datala. For Veitsiluoto, Datala came to take care of their systems of wood procurement and payroll computation. Nokia Data had this customership earlier: the wood procurement was one of their projects, but then they handed it over to Datala, which became the subcontractor in charge.

The situation changed a few years later, in the beginning of the 90s, when the ownership of Veitsiluoto changed. This was the beginning of the time of the great fusions in the forest industry in Finland. The machines were changed into those made by Hewelett Packard, which meant that the developed system had to go, and a new system, corresponding to the new operating system, was required. Another newly founded spin-off (in fact, Gisforest Oy) continued the work with their self-developed system. For a while, Datala continued to deliver requirements and other work, and even one of the employees went to work for Gisforest in order to continue this work.

From Honeywell to Acu Cobol

Losing this major customer meant that something had to be done. More major changes in technology were faced in the beginning of the 1990s, when Datala also decided to give up Honeywell and to switch to Acu Cobol, which unlike
Honeywell was not dependent on the operating system. The company had been looking for a new tool for some time and been trying to figure out which language would be a wise choice. Somebody noticed an article in a magazine telling about experiences with Cobol. They decided to give it a shot, and to their surprise and joy the existing programmes started to turn easily into Cobol, so the choice was made, and Datala renewed all its programmes with the new language.

The project was started as a thesis that Petri Kyllönen (the present managing director) together with other students made for Datala as part of his studies. After the thesis, he remained as an employee in the company.

**Growth intentions**

The end of 1980s had been the time of economic expansion in Finland, and in the turn of the 1990s, also Datala had clear inclination towards growth. There were already seven people working for the company, and the aim was to grow the business and increase the amount of employees – the smallest reason not being the badly-needed credibility in the software business. With the help of new techniques and renewed products, it seemed that the company might be able to get new customers and widen its markets.

However, the economy in Finland was about to face the worst recessionary period in decades, and before Datala managed to make any moves towards growth, the signs of the approaching recession were clear and therefore also all the plans were frozen. Luckily also a few people had left Datala, and that helped the company to operate quite normally throughout the recessionary period in the beginning of 1990s.

Throughout the 1990s the business in the tele operator and dairy markets were growing, and especially around 1997–98 the people in Datala were busy, especially the growth in the dairy business gave them plenty of work. A few years later, the situation was totally different, due to the radical changes in the dairy industry.

Another period of growth intentions were faced in the beginning of the new millenium, during the hype in the IT business. Everybody was talking about WAP, and as far as Datala was concerned, it seemed to them that everybody had been begun to work around it. They felt that if they didn’t catch the train now, they would be totally left behind this time. Datala had already made plans with Kajaanin Puhelinosuuskunta, KPO, and a couple of other IT companies operating in Kainuu concerning co-operation, and the plans were about to be executed.
However, due to discussions with the people he knew, working in the IT industry and having also broader vision on the industry business, TP started to doubt about the profitability of this sort of a project. It was questionable how they would be able to get profits out of this kind of business: many firms were already working hard around the new products, and still it began to seem that there wasn’t any money coming from anywhere. In the nick of time, Datala decided to withdraw from the project. Luckily any great investments had not been made, only some working hours. And in this phase as well, when the business went down in the tele industry and in the IT sector in general, Datala just kept its low profile and continued the business as usual.

**Product development & sales activities**

After the business and the amount of customers in the dairy industry started to diminish, another business area had to be found. Throughout the years and different projects, Datala had also developed products of its own, and just during the passed few years had been actively concentrated on the productisation. Earlier the time had passed by making projects and maintenance, and it had been felt that the importance of productisation had not been understood properly but now.

In 2003, they made a clear decision, even a strategy, concerning the productisation, according to which they started consciously to allocate resources to the job of developing the usability of their existing systems and turning them into more standardised products.

This meant also that marketing and sales activities had to be developed. Already in the beginning of the company’s history, this area has been considered to be the weakest part of the company’s operations. Datala has taken measures to gain competence in the sales activities inhouse as well as together with partners from the network, although so far the results have not been too good.

One of the most recent measures is the co-operation between Datala and Ebsolut. TP and MK have known each other for years; in fact, MK’s first company CaeMatic located in the same facilities as Datala did. But not before the recent years, when the two companies have both belonged to the IT Pooli, have they considered co-operation. During common training sessions and field trips the directors have begun to talk about co-operation possibilities, which from Datala’s point of view are quite simple: they have products that can be integrated into Ebsolut’s systems, and Ebsolut has skilled sales people. When Ebsolut is selling its eMobile Transportation system, customers often ask for financial
administration programmes. Some sales have already been made, and now the two companies have also consummated an agreement which in addition includes an idea about joint product development.

Changes in management

In the beginning of this year 2008, after 25 years, TP decided to step aside and let Datala choose a new managing director. Petri Kyllönen, who has been in Datala since the beginning of the 90s, has now taken over. TP is still actively involved in the company’s operation as a consultant, but wishes that PK will find his own way and also a new way for the company.

Now the company feels that a new transitional period is facing them. Some kind of general stream in technology should be found, but they are not certain, what it would be this time – Java or some other language. Cobol has a bit outdated echo in it, although when it comes to the functionality of the solution, the language does not matter. With the new managing director in charge, Datala hopes to find new ways for development and growth.

Thirteen periods were recognised based on the interview material, ten of which can be identified as ‘critical’. With critical I mean events that represent a turning point in the history of the company – a new threat or a new opportunity that is (and was back then) perceived as such by the entrepreneur. The periods and critical events are shown in figure 8 below.

Fig. 8. Critical events in the history of Datala Oy.
6.3.3 Gisforest Oy

Before the great fusions in the Finnish forest and paper industry during the 1980s and the beginning of the 1990s, Olavi Patr ikainen (hereinafter referred to as OP) worked for the local paper company, Kajaani Oy, as an office manager at the forest department. During the fusions also Kajaani Oy was merged into Yhtyneet Paperitehtaat in 1989. OP was faced with a decision: either to move to Valkeakoski and continue the work there, or to figure out something else. That something else proved to be establishing a company in Kajaani based on the management system developed for the forest department, meaning that the major part of the product development had been done years before the actual start-up of the company.

Product development and start-up

In 1982, OP and other employees at the Kajaani Oy forest department developed a comprehensive integrated management system. This related to the cultural change in ways of work, and that was also the time of the first computers with which this kind of system was possible to develop. OP had earlier been working for Oy Nokia Ab at the forest department of wood processing as a timber bookkeeper, and at that department the bookkeeping was done by a punch card machine. Therefore ADP and management by ADP were familiar to OP.

In 1971, Kajaani Oy was looking for a forester that could deal with ADP. This kind of mix of competences was very rare, and after discussing with the office manager, OP was hired. His job was to develop the ADP system of the department together with a colleague. And when in 1982 the department got brand new Hewelett Packard machines, and modern interactive information processing was possible, the system started to grow in order to cover each and every one of the operations at the department that were then integrated with each other. The system was also presented to other companies like Rauma-Repola, Rosenlew and Tehdaspuut, who in return were inspired to develop systems of their own.

In the 1980s, changes in the forest industry had already begun, and one of the changes was the disintegration of Puulaaki Oy, the joint logging company in Tampere. The forest manager of the smallest one of the remained parts, Kyrō Oy, contacted OP and inquired after the possibility of buying the system. The system was developed for purely in-house usage and was not exactly for sale, but they made a bargain, and the OP’s team took care of the training. The defects and
necessary changes that were noticed in the outside use made the system even better. Next year, a wood processing company Myllykoski Oy contacted them and asked for the same system.

This way, OP had the chance of “practicing” the development and sales of an own product along with his post as an office manager, and gained the experience and self-confidence needed in the company establishment. Otherwise it could have been a cataclysmic change to be forced to abandon the safe position during the fusions, but the development of the system had given the necessary competence needed in the take-off. He did not want to leave to Valkeakoski to work as an ADP support, and the choice in Kajaani would have been unemployment. That’s when the idea of establishing a software business was born. At the same time OP had been discussing with the forest manager of Veitsiluoto Oy, a large paper company, about the sales of the system, and they had agreed that if OP gets the permission from Yhtyneet Paperitehtaat to resell the system, they will make a bargain. The former superior of OP helped to arrange the negotiations with the representatives of Yhtyneet Paperitehtaat, and based on those negotiations, an agreement was made.

In other words, the business idea, the product and the first customer all already existed when the company was established in 1989. The company had also experienced employees, since OP took his former subordinates, the ADP people from the forest department, to work for him. Still, the choice of becoming an entrepreneur was not an easy one. But a decision had to be made: OP had used to a more open and relaxed way of management and to a certain degree of freedom and creativeness in his job at Kajaani Oy. He knew that the situation would change dramatically when working for a large, traditional and authoritarian company in Valkeakoski, and that was something his was not ready to cope with. Something had to be done, and since all the pieces of puzzle were there, eventually the choice was clear.

Already from the beginning OP had a clear idea about the operation principles of the company: it should be always working on a financially stable ground. This was also the reason for purchasing premises near the customer already in the beginning. OP bought the former Makkola milk shop premises for his company, locating on the yard of present UPM-Kymmene (a paper giant, resulting from the great fusions). The company was called Gisforest, according to the vision of geographical information and maps integrated in the system.

The company did not disintegrate from the Yhtyneet Paperitehtaat before the April 1990. Before that, Gisforest had to make sure that the system will work
Without problems at Yhtyneet Paperitehtaat. Hence, the start-up and the the beginning of the business was not an abrupt event but came in gradually, during the process of one year. When establishing the business, all the customers were already known to OP. Good and close relationships with the customers made it possible to further develop the system jointly in order to gain market potential from the same customers year after year.

From growth to dying markets

The business got a good start, and they even had to hire more people, five in total in addition to the five existing ones, since Veitsiluoto required a lot of work with the changes to be made for the system in addition to the work that the changed organisation at Yhtyneet Paperitehtaat required. Yhtyneet Paperitehtaat was merged with another large company, Rauma-Repola Oy, already in the next year 1991. Luckily it was easy to hire more people since there was information processing students available in Kajaani. Also the earlier, smaller customers (Myllykoski and Kyrö) needed services.

However, the boom was quickly over, and there was not enough work for everybody. Some of the employees were temporary, which made the situation easier. With the remaining employees Gisforest got along just fine, and the company still had steady work with the existing customers. Also some new customers came along (e.g., A. Ahlström Oy).

The forest and paper industry in Finland was changing rapidly through fusions, after which, today, there are now only three companies existing: UPM, Stora Enso and Metsäliitto. Two of the large fusions were the merging of Repola Oy and Kymmene Oy, forming UPM-Kymmene, and the merging of Veitsiluoto Oy and Enso-Gutzeit Oy, forming Enso Oy in 1996. These were great shocks for Gisforest, since these fusions meant losing all its main customers during the same year. Luckily, due to the competitiveness of its product, the management system, Gisforest succeeded in selling the system over and over again to also these “new” companies formed and was able to maintain its operations. Finland was (and is) a relatively small market area, and OP had already during the Kajaani Oy time got to know all the key people in the forest industry; everybody knew everybody in general. In that respect, finding the right contacts and re-selling the system was not that difficult a task, especially when the product met their needs. And for OP, there was never real danger in the situation, since the company was free from debt already then, and if put in between a rock and a hard place, the company could
have been shut down. But there was no need for that, and Gisforest was able to continue the business – not as usual, but anyway. The fusions continued in 1999, when Finnish Enso and Swedish Stora merged in 1999, forming the present Stora-Enso.

Product development

The vision in already 1989 was that maps should be included in the system. When participating in GIS exhibition in Vancouver in the same year, he saw that the time was not right to introduce a GIS system due to the level of technology. The capacity of the computers was too small and the processing speed too slow in order to be a part of a management system. But the vision remained and when the time was right, the idea was executed. OP knew that the only way to do it is to embed the maps into the administrative system, and not the other way round. They compared the solutions of MapInfo and ArcInfo, and since the MapInfo could be embedded into Gisforest’s system whereas ArcInfo was built to be the controlling system, the choice was clear. Gisforest has always had an emphasis on the usability of the system: if concentrated on the wrong elements, the clearness and the ease and speed of use might be lost.

Through his experience in the forest department of the paper companies, OP knew how the management is done and in what kind of real-world situations the system is used and how it can make the management, information sharing and decision-making easier. Besides maps, Gisforest had also a vision of 3D modelling as an aid of illustration. One of the employees told that he had seen a 3D modelling programme on an excursion and got excited about the possibilities. The program was bought, and some modelling relating to logging was done. The problem was that the customers of Gisforest were not ready to adopt this solution, although it would have worked well. Some investments were made and therefore wasted in exploring the possibilities of this business opportunity, which gave Gisforest a lesson that it is not good to be ahead of one’s time – or ahead of customers. Now this is a software product made by others, and OP has also helped this company to sell the software for Gisforest’s customers. Even though the markets would be now ready for the product, Gisforest has not tried to develop it anymore. There are no longer customers left but three, and the product would be too difficult to sell.

Along with the changes in customers’ systems, also Gisforest switched into Microsoft’s product environment, adopting the .NET architecture. This, however,
was done quite unceremoniously, forced by changes in markets and environments. Otherwise the product development has been gradual and constant together with the customers. New improvements have been come up with, and the customers have been willing to adopt them. Now the software products of Gisforest include their own MapXtreme .NET map component, software for locating errors in topology, software for GPS tracking, and a printing program for maps in MapInfo.

**Growth intentions & new business opportunities**

The business of Gisforest still correspond the original idea based on which the company was established. The problem is that the markets for the forest industry’s management system have gradually crumbled away due to the fusions. Now the company holds the maximum amount of customers that it is in any case possible to have in Finland. The challenge is to develop new business opportunities and find new markets – in other words, to re-invent the business of Gisforest.

A few years back, OP had a vision of widening the business based on map solutions to other type of customer segments in different fields, outside forest industry. New solutions like Google Maps provide new opportunities, and Gisforest had some plans how to proceed. At that time, IT Pooli and the companies involved were trying to get proper common facilities, an IT building, to be built in Kajaani. Plans already existed, and Gisforest made a reservation for office facilities with a vision of enlargening the business. But in the end, permission for the building never came. In the beginning of 2007, Gisforest together with Ebsolut, Datala and Fujitsu moved into the same building with the Kajaani unit of Department of Information Processing Science of the University of Oulu, forming a small-scale IT house. At the same time, Gisforest got a new managing director as OP was retiring – which he had been planning to do already two times before. And OP thought that the development of the business and taking a new course would be the job of the new managing director, who indeed had plans and new ideas for the future. Unfortunately, the arrangements did not last, and striving for the new opportunities would need a lot of work and staying up to the development speed, which is fast on those markets. This will be the challenge for the new managing director of Gisforest.

Gisforest has always been a quite independent actor, partly due to its very particular kind of business and strictly defined customers and markets. However, OP believes in local cooperation and reflection of ideas with people in his
network, and was e.g., active in establishing the IT Pooli. This is also partly due to the changes in the customers, since as the companies in the forest industry have become large global actors they pose greater requirements also from their system developers. Co-operation and joint development (like visual design etc) becomes a necessity.

Besides, many of the companies in the region have a common history, like the way Yhtyneet Paperitehtaatal, Gisforest and Sunit have been connected years back: Yhtyneet Paperitehtaatal needed hundreds of in-vehicle computers for the system OP and co. had developed, which Sunit then provided. Or Gisforest and Ebsolut: MK and OP have known each other for years, and MK in fact was encouraging OP to become an entrepreneur and had a part of the ownership as well in the beginning. And just now, due to the personal relationship between OP and TP, Gisforest and Datala have come to think about some co-operation as Datala has systems into which maps could be integrated.

Eleven periods were recognised based on the interview material, eight of which can be identified as ‘critical’. With critical I mean events that represent a turning point in the history of the company – a new threat or a new opportunity that is (and was back then) perceived as such by the entrepreneur. The periods and critical events are shown in figure 9 below.

Fig. 9. Critical events in the history of Gisforest Oy.
6.4 Discussion

In this chapter, first, software business as a context as well as its implications on strategy and business models was discussed. The business models of software companies differ in regard to the degree of productisation of their supply, and having several different business areas requires flexibility from the organisation since there are many differences in the business models between the production of customised software and software products, or project business and product business. Therefore, also the prioritisation between different management areas depends on the business model chosen, and deciding on the priorities may be challenging in firms operating on several business areas simultaneously. The position of strategy in this hierarchy of management areas is not clear.

The history and the path of development of the case companies was presented through the critical events identified from the material. Some of the critical events of the three firms were of similar nature, and some were faced by one firm only. Both the similarities and the differences in the nature of the events were keys to opening up the processes behind the mechanisms generating the events. In the following chapter, the analysis of the cases is presented in the form of the generative mechanisms and the processes composing the whole process of strategy formation.
7 The generative mechanisms in the process of strategy formation

The aim of this study was to identify the processes affecting the process of strategy formation and the way in which they work together, thus forming the so-called generative mechanisms. In order to do this, the interview material was analysed with the help of the identified critical events. However, the events were not detached from their context, but the whole process of the company development was considered when trying to analyse which interacting elements had an effect on the emergence of a certain critical event, and what happened after that as well as before the emergence of the next critical event.

In order to present the elements in their context to the reader, two critical events common to all case companies are summarised in subchapter 7.1. Next, the elements (which, in fact, are also processes) are detached from their case context, and a more abstract model of the whole process of strategy formation based on the analysis made is presented. The actual results of the analysis is presented in the form of the generative mechanisms identified based on the interaction of the processes on the lower abstraction level in subchapter 7.2, and the generative mechanisms and their dynamics are discussed in subchapter 7.3.

7.1 The elements emerging: Describing critical events

In order to show the emergence of different elements relating to the process of strategy formation, two critical events common to all case companies have been chosen and described: start-up and change in markets. The selection of these events and cutting of them from their context, and the whole process of company development, are for demonstration purposes only and do not form the actual basis for the analysis. The actual basis for the analysis has been the developmental processes themselves, described by their main characteristics and the critical events in chapter 6.3.

7.1.1 Start-up

The start-up has been understandably the most memorable event in the companies’ histories. In each company the decision of the start-up related to larger changes in the organisation the entrepreneurs were working for, and for each entrepreneur it
was also about employing themselves and their friends – two of them would have otherwise had to leave Kainuu and so would have their friends/colleagues as well.

“[The idea of] establishing this firm was born because we wanted to get jobs for these colleagues, to guarantee their jobs here in Kainuu since they wanted to be here, and on the other hand, the jobs of our own did not correspond our wishes anymore, there were no challenges, it would have been just repeating routines...”

The effect of “network push”, or the way changes at the network level due to the processes of mobilisation and coordination by different actors affect individual actors and force them to act or react in one way or another, can be seen e.g., in the way forest industry was changing through the fusions and OP’s current job was gone; in the way IT sector was booming and rapidly changing, and MK did not trust the parent organisation’s ability to stay focused; and in the way the Kainuu dairy was downsizing its ADP department even though there would have been opportunities in the markets and possibilities to develop the operation in a totally different way.

Similarly, “network pull”, or the way the “windows of opportunity” opened up in the network due to the interaction with other network actors, can be seen in the way the business opportunities presented themselves in the form of ready customerships of Comptel, Nokia Data and Veitsiluoto.

In fact, what also connects the events of start-up phase of the companies is the fact that they already had their first customers existing and the first steps secured when leaving their jobs:

“...since I had a ready-made large bargain. So I knew that it will guarantee work for many years ahead. So it was an easy take-off. A paying customer ready. Or actually two paying customers. But of course, that’s why it was so easy. One didn’t need any marketing or anything, we had already sold the capacity.”

“Our basic competence happened to match with the markets at that moment, there was demand for software developers, and besides it could be seen what kind of reckless flight it was in the industry, based on personal experiences. So it was clear that we have to do it feet on the ground ...perhaps the time was just right in a way that it would have been almost stupid not to establish a company when thinking that even a customer came in as a financer. ...I guess luck also helps, if you happen to be in a right place at a right time.”
Another reason for the start-up for all and especially for two of them was their distrust towards large companies’ way of doing things. They wanted to do something that has a purpose, freedom of thinking and acting, and that they are able to do something that they are really good at and enjoy doing. And this was something that they felt that the large employers were not able to offer them. So besides the effect of network push and pull, it all depended on the way the entrepreneurs interpreted the situation on the markets and in their personal lives, and what kind of values and personal motives or objectives they held.

As the interviewees stated about the real motivation for the start-up:

“Frankly, there was no other motivation than the situation in itself. I refused to register myself as unemployed and I refused to move. Then me and my wife came up with a story of our black tom cat when people asked us that why won’t we move to Valkeakoski, and I couldn’t say that I don’t want to be a part of such an authoritarian leadership organisation after having used to a higher level of freedom. ... I must confess that the only [purpose] was to maintain my living. There had to be something to do. ... And to admit the real goal ... Or from what I wanted to be freed. Is the authoritarian leadership. Since that was the other reason. And that’s why we developed the black cat theory, that when I didn’t dare to say it [the reason], we just said that we have a large black cat and it has a fixed territory, it cannot be moved.”

Another one of the interviewees explained the motivation and objectives as follows:

“It has been growing through the experiences I have had while working for others, and I think that the foundation lies in the countryside where I worked as a boy. That has resembled the way an entrepreneur works, and it has been a necessity to do everything in order to stay alive and to keep the siblings alive as well. So I guess also the roots have an effect and the way the character and experiences have been formed, towards this kind of more independent way. That I can do what I want and nobody will come to tell me that I can’t do that.”

Before the start-up, through the interpretation of the situation on the markets (and in their personal lives), they each had formed a different vision, network picture, on the way the industry was constructed and the role of ADP in it, and how their company would be embedded, i.e., positioned, in the network: who would be their customers, who would be their customer’s customers and what
kind of services and partners and resources they would need. They had been in the business in their field for a long time already, and therefore, to all of them, the business network was already familiar. Through the interaction with the business network as well as with their social network the picture had been formed during a long period of time.

One of the interviewees interpreted the situation at the market and drew his own conclusions:

“I felt like I could do something by myself again, especially when it was obvious what kind of life and way of work it was in that company. It was the boom fever and the operation was not very systematic. It felt like that business life cannot go on like this much further, and since this kind of opportunity came along, that we had a possibility for a business of our own, it just felt like a right moment to leave...”

And so did the other one of the interviewees, grabbing an opportunity the company they were working for did not want to see existing out there:

“We presented an idea [to the management] that we could establish a separate company together with another dairy, and the company could do software and solutions for dairy industry ...one of the reasons why we left there was that they could not see the demand for this kind of software development ...they [the management] didn’t understand and did not want to come along...”

All of them had personal contacts, people with which they were able to discuss about the possibility of becoming an entrepreneur and the thoughts and feelings they had relating to it. The reflection of their situation and the information they received from their network and other sources through interaction formed an important support or effect on the decision-making that had to be done.

For one entrepreneur, a peer support was significant when making the decision of start-up:

“But during that ride we discussed about it [the business idea] and he [another entrepreneur] said that go for it, just do it. ...That another entrepreneur was able, after listening my talk while driving that cabriolet, to inspire and courage me. And that’s why I think that all these Intotalo type of concepts and other entrepreneurs’ support organisations are good. That people have the chance to get support. For me, it came this way personally.”
The actual point of decision-making - when the decision of becoming an entrepreneur was made - was identified by all the entrepreneurs interviewed. However, the process that led to that point was not that easily recognised. Some planning had to be done in order to take the necessary steps for the start-up, to decide what to do next. But the planning in this sense does not imply any straightforward process that they went through. Business plans were made at some level, but since the customers were already acquired, most of the energy went to the consideration of organising the start-up.

The first one of the following quotes states the sequence of events, and the second one about the level of planning made:

"After [having the first customer] we started to think more about other things, we had a good customership and knew that based on that, we’ll manage, and it’s possible to get other customers as well. But we didn’t think about it more closely before we had made the decision that we’ll establish this company."

"Because the customers for whom we were able to offer this service were all well-known. Everybody was well-known. So I really didn’t think about it any further. At that point, if I had been cunning and clever, I would have been thinking about also the future needs and been prepared and so forth. But it was all black-and-white, I concentrated on serving those customers from whom I was able to get money immediately. Basically, from this month’s work had to be paid in the next month. This was what I aimed at, getting the firm free from debt. This is how a concrete management situation it was."

So naturally, also the objectives that the entrepreneurs had set for their companies played a role in the way the process of strategy formation was about to form. These were also closely connected to the personal motives and objectives for a start-up: to employ oneself and one’s colleagues, to be able to stay in Kainuu, to have freedom of choice and a sort of a “good life”.

For one company, it was about having more opportunities in personal and career life, which gave a form also to the basic objective for the start-up:

“The express [objective] was to gain certain fame and success through workings [of the company] in a way, to get the operation in such an order that it will interest also other parties, customer partners and even investor financiers, that being one of the first starting points. ... to manage financially and perhaps to get ahead in life somehow through the business, either by selling it or getting
partners to be interested in it... But I have never had such an image that when you establish a company it will remain ‘till the end of the world...”

The more concrete planning of the operation brought about also more concrete objectives for the operation. The objective for the constant stream of income was already mentioned earlier, and other concrete objectives concerned the way the company was about to operate, what kind of products/services it was going to develop – in other words, the things that are often referred to as strategies (product strategy, marketing strategy etc). And in order to begin the actual work, the operations of the new companies had to be organised. The question of employees was solved before the decision of the start-up had been even made: it was the team that was working together in the earlier company that spun off and formed the new company. And as mentioned earlier, securing jobs for people was one of the basic motivations for even establishing the company in the first place.

One of the interviewees described the organising as follows:

"There was no need for too hard a workout, when thinking of what kind of competence we had. We had these certain key people and those basic guys came along so it was quite easy to start to think about the solutions. At least the main lines. Then, to think about more closely of what kind of products we could develop, what they could be, they started to become clear later on. In the beginning, we didn’t make strict definitions that what they are and in what field they would fit. ... Of course one strategy was that we’ll do the job here in Kajaani, we won’t travel back and forth customers’ premises. And in that way we’ll be able to provide affordable price level. When there are customers that can work in that way, it works well. Like the first customer was, we did the work for the end customers located in different countries from Kajaani."

The employees were ready, and also the relationships with customers were already existing. What remained to be done was to get financing, premises and equipment, and the work could begin:

"Well, after that it was obvious that the company would begin, having done the first bargain. Then it was, of course, deciding about the employees. And after that the thoughts were just in the work to be done and the delivery of the system. Meaning, the thoughts were different. One just had to begin to organise...”
7.1.2 Change in markets

Another critical event common for all of the case companies was not activated so much by the desires or objectives of the entrepreneurs but rather by an outside impulse, stemming from the relationship or the network level and pushing them to react in one way or another ("network push").

In the case of Datala, the demand in the dairy industry, based on which they had established their operations and from which they had started off, started to slow down towards the end of the 90s after being a lucrative markets for the whole 90s. Datala had to figure out something else to do.

The business of Ebsolut, on the other hand, had based its business on the customership with Comptel, and after a couple of years, when the telecommunication business boom turned into bust, this relationship started to fade quite rapidly and they had to find more customers as well. And Gisforest found itself in an even worse situation, discovering that the great fusions in the forest industry had swept most of its customers during just one year.

All the cases, but the two latter cases especially, demonstrate the network change processes (coordination, mobilisation) at work, and the overall explosion they might cause at the network level, reaching also individual organisations. By interacting with the network, some hints might have been received of the possible changes, but their interpretation and therefore being prepared was totally another thing:

“There really weren’t too many signs. The only alarm bell tinkling was that since I have been used to working together with larger companies, the thing is that there will always be surprises. The large companies keep the larger moves in secret, and when there is going to be moves, they will cause problems to partners, especially for small ones.”

“Yeah, it just [crashed]...I would have been a real guru to see that Stora will buy Enso or which way around it was. That has not been seen by any Finnish businessman or business guru. They just happen. ...But it was like that, it crystallised the role of an entrepreneur, to be prepared also for this kind of situations. Anything can happen.”

Something had to be done, and fast. For Gisforest, due to its industry specialisation, there weren’t that many choices. The company was in good shape, since OP had been striving to get rid of all the debts, and by that time, had also succeeded, so there were no “lives at stake”: 159
“At that time, the former milk shop [where we had our premises] still had wooden doors. And I had been able to get the company free from debts. So I said that, listen, I found a box of four inches’ nails from the basement. So if the customers will disappear, I’ll just nail the doors shut and I’ll go home. The answer was quite simple. In principle, the situation was that easy. I didn’t have any debts. … If an entrepreneur loses his will to fight, it’s over. But I still had the will to fight.”

The total situation and development of the company affected the **interpretation** of the situation as well as the strategic choices the company had. Naturally one factor was also the entrepreneurs’ **strategic way-of-thinking**: a number of relatively stable thematic sets of values, assumptions and thoughts about leadership and strategic development in organisations, that also reflects the life experience and personality of a leader (as discussed in chapter 3.3). The **personal characteristics** of the entrepreneurs – values, attitudes, assumptions, earlier experiences, education etc. – lie behind the formation of the individual strategic way-of-thinking.

This strategic way-of-thinking seemed to be a key factor in interpreting the situation of the company in the network, its possibilities and also in deciding, what kind of measures are to be taken. One solution was to rely on the existing relationships and to do active marketing, one was to kick off different kinds of product development projects, or even to develop the business model of the company. One of the most straightforward ways to regard the development of the company is as follows:

>“The changes in the environment, they just have to be adapted to. That is such [a] simple and clear [rule], they just have to be adapted to. …If the customers would have the demand, it [new business creation] would be natural. But now we cannot create demand in these current customers, they are so large and live their own lives. We just aim to serve them.”

Again, the **objectives**, both personal and set for the company, had a clear guiding effect on the choices the entrepreneurs make in situations like these. For the companies with wider array of business areas, product development and productisation has been seen a way to form a sort of safety net as well as a way to grow:
“Of course, you see, the amount of …customers have diminished and the projects as well, projects are the ones that also carry us through. And if there are no projects, we have to think about some other way. And then we have started to think that if not projects, then products.”

“We had in mind then, when establishing this company, that subcontracting and this project business is the way we are going to get off the ground. But we had a dream that we could come up with some software products and to start to develop them alongside with other operations. And so it has come true, that we got also other subcontracting-type customers, and when this original customership faded gradually, we had to make some re-organisation.”

The product development naturally required some changes in the organisation of the work inside the company and leadership: people were assigned to product development projects, and the employee resources had to be divided between subcontracting, projects and product development. The usual practice was that the product development was used to fill up the gaps that were not resourced to other assignments. Through the interpretation of the situation and the possibilities in the market, some kind of network picture had been formed about the way the network was re-structured and how the companies could be re-positioned, based on which the organisation outside the company, i.e., the relationship creation and networking, was done:

“It related to these global-, European investments made by teleoperators and failures there, and they started to show and… the sector started to fade. That was something that surely would have had an effect if we had been trying to be there longer. But we searched for other customers as well, from other industries… To have the sustainability in that way.”

7.1.3 The elements inside the mechanisms

The purpose of the description of two critical events, and the processes causing the emergence of those events was to present the different elements identified during the analysis of the case material. The purpose of going briefly through some critical events common to all case companies was to show that despite the particular nature of the event, these elements or processes emerging from the material are similar.
The individual differences can be clearly seen in the process of strategy formation of the companies. The individual way of looking at the world and perceiving the environment and their companies, the personal values, characteristics and experiences they hold, the kind of networks they have around them – all these issues also have an influence also on the way they manage their companies and decide on the objectives: on the direction in which the company should go and on the measures to be taken.

As already stated in chapter 4.2.2, the process of strategy formation could be seen to be catalysed by a change in a network, which is perceived by the entrepreneur either as an opportunity ('network pull': the opportunity is pulling the company into a certain direction) or a threat ('network push': because of the threat, the company is pushed towards a certain direction). However, since it is a question of a process with no particular beginning or end, these kinds of beginnings are always artificial in nature, and are used in demonstration purposes only. A manifestation of so-called radical change could be the one described as this kind of triggering element: the process of strategy formation is a constantly ongoing process, in which change is inherent in the action and interaction of people, but the process may be knocked down from its regular pattern by a more radical change in the network requiring special attention, immediate reaction and/or adaptation. In the case examples, one of these kinds of changes was, for example, the great fusions of companies in the forest industry or the bursting of the IT bubble in early 2000.

Without any more radical change, the changes in the network relate to the ongoing process of sensing and sense-giving of the entrepreneur while trying to create an actable picture of the world in which he and the company are operating in. Depending on the entrepreneur’s sphere of strategic way-of-thinking, influenced by his personal characteristics such as personality, competences, background, experiences, values, personal goals etc., the entrepreneurs are likely to react in different ways to even changes with identical nature. In some companies, a perceived threat might be reacted on a routine basis by adaptive organising, almost completely passing the process of strategising. This might be the case when the strategic way-of-thinking highlights the narrowness of the markets, limited choices and the importance of the ability to adapt and keep the operation of the company as steady as possible. On the other hand, for other entrepreneurs the option would be to analyse the situation more closely, to think about different options and try to find also not so obvious choices for action. The same goes also with the perceived opportunities. The role of the entrepreneur
might be relatively limited in the process: he may raise discussion about the opportunity inside the company, and the company either reacts or chooses to be not reacting (which is also a form of reacting). Or then the entrepreneur himself actively is looking for opportunities and thinking of ways to make use of them, raises discussions inside the organisation or in interaction with his own social network – meaning, that the process of strategising is active (almost) all the time, both proactive and reactive. The way the entrepreneur acts in the process of strategising is dependent on the issues relating to his personality, experiences and the way of acting. Hence, the elements of motivation and objectives, personal characteristics, reflection, decision-making and planning are the main components in the process of strategising which eventually explain also in part the total process of strategy formation.

The change is inherent in human action, and therefore the changes are both internal and external to the organisation (blurred boundary, in any case). In some cases the entrepreneur himself might be seen as the source of the impulse for change, but then again, at the same time he is influenced by the constant interaction with the network and the people inside the organisation. In other words, it is impossible to say which comes first, the impulse or the impulse for the impulse. Instead, it is a question of constant process of interaction.

Also, there’s no one particular direction for the process. In interaction, the impulses work both ways. The other people in the organisation, or, for instance, a creation of a new resource (such as a product or knowledge or competence) may be the “source” of impulse which means that the organising process has an influence on the strategising process, which again affects the way the entrepreneurs perceives his environment since the situation is interpreted in this new light. In addition, all these processes are simultaneous and there’s no way of saying which one comes before or after which.

In conclusion, at the heart of the process of strategy formation lies the ongoing process of sense-making. People are constantly acting in situations and their actions affect the situations they are in – often against their will. And as Weick (1995) noted, the stream of actions is not, however, monotonous: there are situations of importance that “crystallise the meaning”, such as the launching of a new product in an organisation, i.e., critical events.

The different elements of which the process of strategy formation can be seen to be formed are summarised in figure 10 below.
Fig. 10. The relationships between the elements inside the processes.

As a summary of the findings of the analysis, the differences perceived in the development of the case companies could be interpreted through six aspects:

a) the entrepreneurs’ differentiating ways of interpreting their environment, influenced by the entrepreneurs’ personal characteristics and hence also the differentiating goals (network picture);

b) differentiating way of working with strategic questions relating to the development of the company and the way of perceiving strategic issues, also influenced by the personal characteristics and differentiating goals (strategic way-of-thinking);

c) differentiating way of managing and leading the organisation and sharing their visions, especially influenced by the personal characteristics and values in particular (leadership);

d) differentiating collective organisational way of perceiving the strategy of the company and the company and its operation in the whole, influenced by the earlier development of the company and the previously mentioned elements (corporate culture);

e) the path that the company has gone through, the developmental history and learning from it (organisational development and change); and
f) the perception of the industry or the business network each of them is embedded in and the rules applied developed in the course of time (industrial wisdom).

Three of these elements are the cognitive spheres mentioned in chapter 3.3.2: the experiences gathered by individuals are cumulated into a collective corporate culture and further into a collection of industrial wisdom. Only the individual level of cognitive spheres is included in this study, and the collective side of the process is outside the limits of this study. This concerns also all the other elements as well. The elements on the right side of figure 10 are clearly more individual-centred while moving down and to the left side of the figure, the degree of collectiveness in the strategy formation increases (figure 11). But since this study is based on the way the entrepreneurs view the world, also the collective aspects of the process are described from the individual’s point of view – how the entrepreneurs as individuals take part in the collective parts of the process. Besides, the line between individual and collective parts of the model is not that straightforward, either. In addition to the substance elements emerged from the material, another element (or process) was found to be central for the whole model. That is, the process of interaction.
Each element, including the personal characteristics and strategic way-of-thinking, includes also an interactive aspect. Even the sense-making of an individual is basically done in interaction with other individuals. According to Weick (1979), people in organisations are continually engaged in talk in order to find out what they are thinking and to construct interpretations of what they are doing. He encapsulates the main sense-making receipe in the question: “How can I know what I think until I see what I say?” (quote from Graham Wallas’s *The Art of Thought*).

Enactment is the process by which individuals in organisation actively create the environments which they face and which they then attend to. The centrality of interaction can also be seen at the company level: the interdependence of an organisation on other organisations makes it difficult to disconnect the organisation from its network, since a business organisation without its interactive environment loses its identity. Therefore, according to Håkansson & Snehota (1989), it is useful to adopt the concept of ‘context’ of an organisation rather than its environment, when the purpose is to refer to the entities that are related to the
organisation. The context is enacted, it is created by the organisation itself, and in a sense it even constitutes the organisation itself.

But as mentioned above, in addition to the centrality of interaction, the three elements (network picture/vision, leadership and organisational development and change) were found to be the most crucial ones when trying to open up the mechanisms inside the process of strategy formation. Their role in the mechanisms as well as the role of the other elements will be discussed in the next subchapter.

7.2 Forming the mechanisms: The processes of Network visioning, Strategising and Organising

As established in the a priori model in Chapter 4, the generative mechanisms of the process of strategy formation were seen to be formed by the interaction of three main processes: Network Visioning, Strategising and Organising. The elements’ or processes’ relation to these main processes, and their emergence from the cases were discussed in the earlier subchapter.

The first part of the change processes described in the previous subchapter was gaining knowledge and experience of the situation the business was in, and what kind of opportunities there were opening or opened up, and also what kind of threats the companies or the entrepreneurs personally were facing. This corresponds to the process of **network visioning**. However, this is not a straightforward process that could be neatly divided into sequences of events; on the contrary, the elements of network visioning do not follow any particular sequence, and they are all related also to other activities of the whole process of strategy formation.

The processes involved also the phase where the decisions of where the organisation wants to be and the measures the organisation is going to take were made. The process of **strategising** is not only inseparably connected with the process of network visioning, but also with the **organising** of the actors, activities and resources.

Together these processes interactively form the total process of strategy formation. And as is the case with process view in general, it is impossible to say where the process begins and where it ends – they are parts of the same system, and depending on the way the phase is cut from its context, the process, the sequence of the elements presented can be different.
In this sub-chapter, the elements recognised from the material are described in more detail, and also their interrelatedness is discussed.

7.2.1 Network Visioning – network picture – Strategising

Several elements or sub-processes are seen to have an effect on the larger process of network visioning, namely the personal characteristics of the entrepreneurs, their strategic way-of-thinking, the perceived position of the company in the network and the network picture the entrepreneurs form. First, these elements are described briefly based on the analysis of the material, after which the interconnectedness of these elements as well as the link – network picture – with the process of strategising is discussed.

Personal characteristics

When an individual has a significant influence on the decision-making of a company, the cognitive structures and the personality, attitudes, self-esteem and the way of behaving built by the past experiences of the individual have an effect on the both personal and company objectives and therefore play a crucial role in the whole process of strategy formation. They also affect the way the entrepreneurs view the network around them and interpret the possibilities and threats the company is facing (with reference to the section strategic way-of-thinking and business network and position).

These past experiences include the lived life with all its aspects such as childhood, family and friends, education and working experience. Childhood and family background have given the basic material for the structure of the entrepreneur characteristics. They told that as a child, they have been given responsibility and they have even had to do hard work already in the early age, which they feel have given them the sense of social responsibility and the qualities they have needed as entrepreneurs.

What comes to the educational background, each one of these different entrepreneurs has a different background. One has studied accounting at college level, the second one business and information processing at college level and has also an eMBA degree, and the third one computer science at the university. The education background and the strongest skills the entrepreneurs consider to possess are reflected in the way they emphasise different aspects of the company operation, let it be profitability or customer relationships or the technical aspects
of software production. As to the working experience, there are also similarities: they all have had the experience of working for a larger company on an ADP department – and none of them liked it. In a way, they avoid getting into the same position they were in the large companies and rather stay close to the ground where they are able to affect things themselves.

Personal attitudes and values are more difficult characteristics to evaluate even somewhat objectively. As discussed in the section *Motivation and objectives*, values and personal assessment of the priority of things can be seen from the way entrepreneurs describe their objectives. The purpose of a business is to make money for the owners, but some of these companies were not established to do just that, but to create jobs. And this kind gesture of social responsibility can be also seen in the way the entrepreneurs set priorities.

In small companies, the personal characteristics of the entrepreneurs are often strongly reflected in the company’s operation. Especially together with the fact that the companies were established in order to create jobs, this is clearly an element affecting the process of strategy formation.

*Strategic way-of-thinking*

As already mentioned in the earlier section, the personal characteristics of the entrepreneurs affect the way they see the possibilities and the position of the company; or in other words, strategic way-of-thinking consists of a number of relatively stable thematic sets of values, assumptions and thoughts about leadership and strategic development, reflecting the life experience and personality of a leader.

The way-of-thinking may be modified by different situations, but usually it tends to retain a high degree of stability and is resistant to radical rethinking. This can also be seen in the case of the entrepreneurs: even though the changes experienced in the course of time may have altered some aspects of their thinking, the basic principles still tend to remain the same. These principles might even be very concrete and operational, like keeping the company free from debt and avoiding greater risks.

The strategic way-of-thinking relates also to the way the entrepreneurs see the company’s position in the business network and the way the opportunities are to be taken advantage of. This could also be seen as “strategic way-of-acting” as part of the larger network visioning and strategic way-of-thinking, like in the way one of the entrepreneurs describes his company’s position in relation to competitors.
and states that their competitive strategy is to do everything that they do in a way that the customers is satisfied, always, and that it is more important to concentrate on the capabilities of their own than those of the competitors.

A common factor within each entrepreneur’s strategic way-of-thinking is the relationship with change. The inevitability of change is clearly recognised and approached even with quite fatalistic view, emphasising the ability to be flexible and adapt. As small companies either with a small market niche or working as subcontractors, customers are the ones that are actually making the decision in which way to develop the operations. Therefore, the most important quality of the company is seen to be the ability to react and adapt to the changes in and from the customers (e.g., citation c in table 13).

The strategic way-of-thinking is also reflected in the way priorities are conscious choices and the way they are declared. Some highlight the importance of the frugal way of life, some societal responsibility, some customer-centered service. The entrepreneurs also have a different view on the management and leadership issues in general: what is possible and what is not, and how to find some balance between control and fatalism.

As a roundup of the discussion concerning the elements of personal characteristics and strategic way-of-thinking, some illustrative citations of the entrepreneurs have been chosen in order to highlight the connections between these elements and the linking element between the main processes: the network picture. These citations are presented in table 13 below.

Table 13. Relationship between personal characteristics, strategic way-of-thinking and network picture.

<table>
<thead>
<tr>
<th>Network picture</th>
<th>Personal characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>I have learned from home the lesson that you always have to try and to do something. To be active. (2)</td>
</tr>
<tr>
<td>b)</td>
<td>[...] that you never take anything for granted. As an entrepreneur, you can develop just as a crazy solution as you wish. (2)</td>
</tr>
<tr>
<td>c)</td>
<td>At that point, if I had been cunning and clever, I would have been thinking about also the future needs and been prepared and so forth. But it was all black-and-white, I concentrated on serving those customers who paid me immediately. (2)</td>
</tr>
<tr>
<td>d)</td>
<td>You just have to take it all into the back of your head and create your own [model]. And work with that. (2)</td>
</tr>
<tr>
<td>e)</td>
<td>This field of business of ours [...] you have to take it in a way that surely everything is going to change. [...] you just have to be prepared. (3)</td>
</tr>
</tbody>
</table>
The citations show how both the personal characteristics and the strategic way-of-thinking guide the way the entrepreneurs interpret the environment and form the network picture. The strategic way-of-thinking is also seen as a model or a collection of rules-of-thumb that help to make sense of complex situations. The constant change makes the forming of network picture also an ongoing process, as discussed next.

**Interpretation and network picture**

One of the things affecting strategic way-of-thinking and the strategising process is the way the people responsible for the decision-making perceive the business context and the environment, the playground outside their own company and their circle of direct influence. The process of this sense-making of the environment is called here ‘interpretation’. The process is, however, quite difficult to detach from its outcome, the network picture, which can be seen as managers’ subjective mental representations, or cognitive maps, of their relevant business networks. Unlike the concept in itself (‘network picture’) might suggest, there’s no static picture in question, but it is rather an ever-changing representation of the situation at hand. The meaning of this comes clearer when it is remembered that network pictures are always linked to a specific purpose: they do not vary only because of their subjectivity (i.e., boundness to a specific person) but also because of their appropriateness (i.e., boundness to a specific task) (Henneberg et al. 2006).

Depending on the width of the markets the case company is operating in, the vision of the network is either well-defined or more blurry. If the niche is narrow and well-defined, also the actors are well-known and relationships are quite straightforward. If the target market is not clearly defined, and the company is operating at several business areas at the same time, the picture is mistier.

The companies are involved in different networks depending on their business areas and the areas of expertise. In addition to business networks, there are also collaboration networks, the purpose of which is to support the business and get access to other networks. One of these networks common to them all is the IT-Pooli, in the establishment of which all the interviewed entrepreneurs were involved. One of the purposes of IT-Pooli is to find new business opportunities for the companies together, and in a way to help in the process of network visioning.

The cognitive sphere of industrial wisdom has also an influence on the interpretation and the process of network visioning in general. In the course of
time, while working on the field of software business, the entrepreneurs have taken part in the so-called sphere of industrial wisdom: in other words, they have learnt what the rules of the game played in the network are, and what is possible and what is not (e.g., citation c in table 14).

The element of network picture proved to be crucial in identifying the mechanisms working inside the process of strategy formation. As a sense-making device, it connects seamlessly the act of sense-making and strategy-making: in other words, the processes of Network Visioning and Strategising. Network pictures were discussed in chapter 3.3, and according to that discussion, they have a dual role of both meaning-creating devices and decision tools. As the process of Network Visioning is, in fact, about meaning-creating and Strategising about decision-making, both the processes use the same element: the network picture.

**Network visioning**

Through the relationships, the entrepreneurs are linked in the business (as well as social) network(s). In addition to the direct contact to the environment (network) through the relationships, they also have a particular kind of view of their environment in general (network picture), which they can use to evaluate the possible changes or the opportunities/threats of the company in the network. The network picture is a constantly changing entity, depending on e.g., experiences as well as the specific nature of the situation at hand.

As discussed above, each situation is interpreted in different ways, coloured by the personal characteristics and strategic way-of-thinking of the entrepreneurs. In an interaction with the sense-making, a network picture is formed based on the subjective evaluation and the characteristics of the task or situation at hand.

The way this process is manifested in the entrepreneurs’ talk can be seen for instance in the way they evaluate their position and thus the possibilities in their network (e.g., the citation c in table 14), or in the way they evaluate the reasons for certain critical events to have taken place. For each entrepreneur, the process of network visioning is different, and it certainly does not mean a rational process aimed at foreseeing the future or anticipating the movements of other parties in the network. As they say, in retrospective, some changes may have given hints about their emergence already in the past, but these have not been that evident at the time being, when trying to deal with the everyday life of the business.

The network visioning has also some proactive aspects, since even if foreseeing the future is not easy when even possible, some signs from the
environment can be looked for, based on the experiences and things learned from mistakes.

Also the way the network visioning is done or is perceived by the entrepreneurs, has an effect on the process of strategising (with reference also to the elements of strategic way-of-thinking and planning). Some believe that being proactive pays off, some that it is waste of time, since there’s no way to foresee the changes – the main thing is to be able to adapt (e.g., citation a in table 14; citation a in table 16).

Network visioning includes also the concept of vision (of the future), which can also be seen as seeing the path which to take and what kind of steps there exist when trying to reach that vision. That is also considered an important aspect to be developed: the entrepreneurs felt that this kind of vision should exist more clearly.

If anything, network visioning is about sense-making. According to Weick’s (1995) seven properties for sense-making in organizations, (1) it is grounded in identity construction (the entrepreneurs learn about their identities by projecting them into the environment and observing the consequences of this projection), (2) it is largely retrospective (the entrepreneurs make sense of the past events, not the ones taking place right now, since sense-making is based on experiences), (3) it is enacting of sensible environments (the subject constructs reality by doing things in the world); (4) it is social in nature (in addition to the nature of sense-making as the social construction of shared meaning, one must also take into account the redirection of people’s actions according to that social sense-making); (5) it is ongoing (the entrepreneurs are constantly acting in situations and their actions affect the situations they are in – often against their will); (6) it is focused on and by extracting cues (familiar points of reference that can be extracted from chaos); and (7) it is driven by plausibility rather than accuracy (the entrepreneurs are looking for explanations that they can believe and that fit into their larger schemas, the ones that serve them).

As a roundup of the discussion concerning the elements of strategic way-of-thinking, interpretation and network picture, some illustrative citations of the entrepreneurs have been chosen in order to highlight the connections between these elements and the wider process of network visioning. These citations are presented in table 14 below.
Table 14. Entrepreneurial views on Network Visioning and related elements.

<table>
<thead>
<tr>
<th></th>
<th>Strategic way-of-thinking</th>
<th>Network picture</th>
<th>Industrial wisdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network visioning</td>
<td>&quot;[…]we aim to develop more our own capabilities than to concentrate on thinking hard what others do. We have been thinking that it’s too hard work for this kind of a small company to build [the strategy] from that side. Of course you have to have the understanding of the markets, but that’s it.” (3)</td>
<td>&quot;[…] I wasn’t able to imagine that, and we haven’t reached any that kind of [position] that we would be like one of these larger […] companies in Finland […] But there in between, to find our [niche] there […]. This cleared to me already in quite an early stage and now that we are here at the bottom end, working as a subcontractor, we could also [reach out for] the next level, that we could have also subcontractors and the clients […]” (3)</td>
<td>&quot;Perhaps one [has learnt] in these [circles] that even if one would want to get into those larger competitive biddings that attract larger companies, it’s no use to get involved. The thing is to know one’s position […] Perhaps it’s also a part of some unwritten law and you know that, even if it is not even talked about, those things are still realities.” (3)</td>
</tr>
</tbody>
</table>

From the quotes, it can be seen how the two cognitive spheres interact in the process of Network Visioning, and also in the way in which the position of the company and the network picture the entrepreneur holds relates to the main process.

Moving next to the next main process, the process of Strategising, it should be noted that these main processes share a common element: the network picture. Besides relating to sense-making, it also relates to decision-making and works as a tool when the entrepreneurs try to make sense of their environment and make decisions accordingly.

### 7.2.2 Strategising – leadership – Organising

As in the case of Network Visioning, the main process of Strategising is also affected by several elements or sub-processes. These elements include network picture, reflection, planning and decision-making, and leadership. Again, first, these elements are described briefly based on the analysis of the material, after which the interconnectedness of these elements as well as the link – in this case, leadership – with the process of Organising is discussed.
Motivation and objectives

The motivation for establishing the company in the first place and after that continuing the operation is naturally dependent on first the people involved in establishing and, subsequently, the shareholders. In small firms, like the case companies involved in this study, usually the entrepreneur is the key person in both cases and both manages and owns the company, at least for the most part.

Therefore there are at least two types of objectives guiding the operation of the company: the objectives for the personal life of the entrepreneur and the objectives for the company. The role of the company is also two-fold: on the other hand, it can be seen as a subject in itself, having its own objectives and its survival being a purpose in itself; and on the other hand, it can be seen as an object, a tool or a medium for achieving other higher goals.

The motivation for establishing the companies was already briefly discussed in the case descriptions. One common factor was the entrepreneurs’ distrust of large companies’ ways of doing things. They wanted to do something that had a purpose, with freedom of thinking and acting, and that they would able to do something that they are really good at and enjoy doing. And this was something that they felt that the large employers were not able to offer them. Their future was insecure not only with regard to their jobs, but also with regard to the possibilities the large employees could offer to the employees wanting to get ahead and have a freedom to create and discover something new.

Based on these personal reasons for establishing the company, the companies were born to create jobs – for the entrepreneurs and their colleagues. And that’s what the companies are also today: viewed as jobs and businesses at the same time, and even the job view often being the most dominant one. This naturally has an effect on the objectives of the businesses and the decision-making behaviour, such as risk taking (risk avoidance or even aversion) and the way of organising (with reference also to the section personal characteristics: values; e.g., citations a and b in table 17).

The objectives set for the business development include, like in other companies as well, also objectives dealing with profitability and growth. Not surprisingly, each entrepreneur wishes his/her company to be profitable, but there is no clear view or opinion on growth. One of the companies recognised the need for growth in order to maintain the competitiveness as the main customers are large and require size also from its subcontractors. If the company is not large enough, it belongs to the second or third ring in the value chain/network, which
again diminishes its possibilities to develop its position (with reference to the section business network and position). On the other hand, also other kinds of views exist relating to the question of growth. Two of the companies highlight a low-profile and even a modest way of operating and keeping the operations down to earth, securing the jobs of the core staff and/or the profitability of the company.

The significance of the process of setting the objectives is also recognised. Whether it is mentioned as having the vision of the future of the company or setting more operative objectives, it is a question of having a sort of a point of reference in the future.

At present, one episode in the companies’ lives is in a way coming to an end as two of the entrepreneurs are stepping aside and letting the next generation to take over, and the third has sold the firm to a larger company. When they were asked to think back the objectives and the way the entrepreneurs feel the set goals have been reached, they were relatively satisfied with the way the companies have developed. Some areas with the need of improvement were identified, like new business opportunities or marketing and sales, but for the most part it is felt that the companies have served the purpose they were built to serve: saving the jobs…and loving it.

Reflection

In this context, the concept of reflection refers to the constant, ongoing process of thinking and problem-solving relating to the general development of the company and the way things seem to be or not to be working out. All the entrepreneurs emphasised the immersive nature of the responsibility of the management and how they go over and over different issues wherever, whenever they have time.

But this element of reflection also highly emphasises interaction and the social relations the entrepreneur holds. A lot of the thinking is done with a friend or an acquaintance, in order to get feedback and encouragement. Others might be too modest to share their problems with others, and try to reflect the thoughts with themselves or only with the people inside the company. The problem with this, as they have found out, is the lack of new, fresh ideas, coming from the outside of the company (e.g., the citation a in table 20).

Although all the entrepreneurs talked about the restrictiveness of a large company with its inability to be flexible and open to new ideas, also a small company may prove to be mentally restrictive if it is not able to offer new opportunities and interesting challenges. By actively searching for new
opportunities in interaction with their network, the entrepreneurs are able to create new visions and find new energy to develop the company. Even though the vision creation and strategy description would not be systematic, the reflection of the possibilities and the creation of new visions give a focus to the entrepreneur: what is the direction and what are the objectives (with reference also to the section planning and motivation and objectives; e.g., the citation h in table 15).

Planning

Planning has a close relationship with the process of reflection, but the main difference is that the need for change or action is identified and conscious measures are to be planned – which also lies in the heart of the process of strategising. Planning is also closely related to the motivation and objectives: some objectives are the outcome of planning, especially those ones dealing with operational goals such as growth or profitability. Establishing a company usually requires also formal planning and the creation of actual business plan. Surprisingly enough, as time goes by, planning may no longer be that obvious part of the strategy formation process as one might think, or the planning may occur mainly on a more operative level (e.g., the citation f in table 15).

As already noted when discussing about the elements of strategic way-of-thinking and network visioning, some entrepreneurs still don’t think formal planning will solve anything due to the rapid changes in the network, and therefore they specifically highlight the ability to react and adapt. In this case, the planning is seen to mean planning on a more strategic level; some planning is done constantly as an ongoing process, since without planning, the work inside the company wouldn’t get organised.

The position the entrepreneurs hold towards more formal planning also relates to the personal characteristics, such as education and background, and how these are reflected in the strategic way-of-thinking. Formal education (like strategy and other management studies) might have also introduced some formal methods into the process of strategy formation (e.g., the citation g in table 15).

Depending on the company’s way of doing things, planning is either done – at least partly – together with the management team, or then solely by the entrepreneur, perhaps with the aid of his social network and relations. But these are also the questions that are always considered difficult and the need of development is stated by everyone. From the interviews can also be seen the close relationship between formal planning and the creation of communicable visions.
and the creation of network picture: by forming a workable picture of the environment and the company’s position in it, the entrepreneurs are able to plan the moves to be made in order to develop towards the desired outcome. But in addition to this, the vision for the future has to be communicated inside the organisation as well, and this part has in some cases proved to be challenging.

**Decision-making**

Decision-making naturally relates closely to planning and leadership. It is also the element that crystallises the responsibility the entrepreneur or managing director holds: anything can be planned, but in the end, it is only the actual decision-making (and the following action-generation) that counts.

The importance of social network and relations with other people were emphasised already earlier when discussing the element of reflection. Reflection and the support entrepreneurs get from their family, friends and colleagues is important, but still they feel alone when the time of actual decision-making arrives. The managing director may use experts’ help, but the final decision has to be made solely by the entrepreneurs. Which is why the temptation for postponing difficult decision might sometimes be overwhelming.

The way the entrepreneurs regard the issue of decision-making may also change in the course of time (as part of their personal characteristics and strategic way-of-thinking). The experiences have their effect on the decision-making, and some say that as they’ve become older, they also consider things more thoroughly.

Decision-making is also a constant process along with the other processes of network visioning, reflection and planning. And therefore, decision-making is also closely related to change: since the environment and the situations are changing constantly, managing the operations requires also constant decision-making (in many cases, of how to react or adapt).

As a roundup of the discussion concerning the elements of planning and decision-making, some citations of the entrepreneurs have been chosen in order to highlight the connections between these elements and the linking element between the main processes of Network Visioning and Strategising: the network picture. These citations are presented in table 15 below.
Table 15. Relationship between network picture, planning, decision-making and Strategising.

<table>
<thead>
<tr>
<th>Planning</th>
<th>Decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) &quot;We weren't able to see the competition in that sense. It has rather gone like that those customers we have, partners, we have clung to them and gone with them, so there hasn't been competition like that in our sight.&quot; (3)</td>
<td></td>
</tr>
<tr>
<td>b) &quot;But it is in human nature, you just don't want to admit that the [situation] is like this. You don't learn from the history and draw predictions to the future. […]&quot; (2)</td>
<td></td>
</tr>
<tr>
<td>c) &quot;We have tried to learn [from the failures], to analyse the situations, what kind of signs there have been, so that we could spot them in the future.&quot; (1)</td>
<td></td>
</tr>
<tr>
<td>d) &quot;We would like to grow the share of the product business, but […] since we are a subcontractor in the network, it’s not that easy, we are dependent also from the others.&quot; (3)</td>
<td></td>
</tr>
<tr>
<td>e) &quot;So for any kind of wider strategies or something else, there was not [time for that]. I could almost say that it’s needless to think [such things] because you cannot foresee them [the changes]. The [main thing] is to have control of your company and to know that you can manage the risks.&quot; (2)</td>
<td></td>
</tr>
<tr>
<td>f) &quot;[…] in practice, management and operations are harsh work, and there’s no time for scientific analysis or choices or something like that […] It has to be more concrete.&quot; (2)</td>
<td></td>
</tr>
<tr>
<td>g) &quot;At that time [while taking business courses] I also came to think about the development of the company and developing of the company, and that’s how I’ve learned those things and even have come to apply [them]. I can’t really put my finger on it, that what they are exactly, but all this kind of systematic way of doing things and planning. Like forms for the different parts of the business life, more accurate forms.&quot; (Interviewee nr. 3.)</td>
<td></td>
</tr>
<tr>
<td>h) &quot;If [the reflection] is fun, it’s like looking for alternatives. It’s about using your imagination. Like child’s play. Just during the Easter I played with a 4,5-year-old-boy. It’s the same kind of play. Looking for choices and going back and forth and reflecting things. And then every once in a while making decisions.&quot; (2)</td>
<td></td>
</tr>
</tbody>
</table>

From the situations it can be seen how the network picture has an effect on planning and decision-making, and how them both affect the main process of Strategising.
And in table 16 below, there are some citations of the entrepreneurs presented which highlight the connections between the two cognitive spheres intersecting with the process of Strategising as well as to the linking element of leadership.

Table 16. Entrepreneurial views on Strategising and the relating elements.

<table>
<thead>
<tr>
<th>Strategic way-of-thinking</th>
<th>Leadership</th>
<th>Corporate culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) “So for any kind of wider strategies or something else, there was not [time for that]. I could almost say that it’s needless to think [such things] because you cannot foresee them [the changes]. The [main thing] is to have control of your company and to know that you can manage the risks.” (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) “[…] in practice, management and operations are harsh work, and there’s no time for scientific analysis or choices or something like that […] It has to be more concrete.” (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) “I personally have the habit that I talk with people and get perspective on things through these people. […] I have discussed with everybody and without exception everybody’s opinions can be known when you talk with them. (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) &quot;When you're managing people, the decision-making has to be quick. Since I know myself, from my own experience, that a slow decision-maker as a supervisor, he loses the respect [of the employees] quickly. […] In decisions concerning people this kind of interactive leadership is good, in my opinion.” (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) &quot;It was kind of catchy in a way that when I presented it [the growth plan], it felt like that even the key people were a bit disbelieving, but it has turned out that they also saw that [the development] can start from here. I think it somehow also inspired them, having that kind of perspective, while it might had been earlier so steady and grey.” (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) But they are rather silent people and won’t share their opinions easily, they could do that more. Since it’s not forbidden and everybody knows it, it’s not about that. Perhaps the salespeople are more like that, they bring new ideas from the customers and such things. […] The organisation is very low, we are all buddies here.” (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) &quot;When our company started, it was like that we took care of the managing director’s job as a team. Already in the beginning, when I wasn’t even working for that company, I was involved anyway.” (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) &quot;[When setting the objectives] we aim at involving everybody that are working for us, one way or another.” (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the quotes, it can be seen how the two cognitive spheres interact in the process of Strategising, and also the way in which the position of the company and the network picture the entrepreneur holds relates to the main process. The collective side of the process is not in the scope of this study; however, especially in one of the companies, the sphere of corporate culture is more clearly involved in the process due to the collective nature of their operation.

Moving on to the next main process, the process of Organising, it should once again be noted that these two main processes share a common element as well: the leadership. According to Pye & Pettigrew (2006), this is actually the core process by which strategising and organising are brought to life. The leader, the change agent inside the organisation, has to face the inevitable shifting of priorities, redistribution of resources and associated processes of power and influence, all of which require both will and skill to act effectively with impact. The element of leadership, as well as the other elements relating to the main process of Organising, are discussed next.

7.2.3 Organising – organisational development – Network Visioning

As in the case of Strategising, the main process of Organising is also affected by several elements or sub-processes. These elements include leadership, organising, relationships, and organisational development and change. Again, first, these elements are described briefly based on the analysis of the material, after which the interconnectedness of these elements, as well as the link – in this case, organisational development – with the process of Network Visioning is discussed.

Leadership

The visions and plans created have to be also somehow realised in action, in other words, through the process of organising. In addition to the entrepreneur and the management board, other people in the organisation also have a significant role in the process of strategy formation.

The element combining the processes of strategising and organising is leadership: the way visions and plans are communicated to people and how they are made aware of the objectives and of the means to an end. And vice versa: the way the people have an effect on the process of strategising. According to Pye & Pettigrew (2006), to achieve transformations, leaders need to both acquire sources of power as well as then use power skilfully to bring about effective strategising
and organising. As well as the more usual suspects of control over resources, positional power and networks of relationships both inside and outside the organisation, the ability of senior managers to control the flow of information and to frame the way matters are considered is crucial. In the case companies, leadership is also considered to be linked directly to decision-making: the effectiveness of leadership is considered to depend on the effectiveness of decision-making.

In small companies, it is not even clear which part of the whole process of strategy formation is taken care of by the entrepreneur and which is managed collectively. In one of the case companies, especially in the beginning, the managing director’s tasks were dealt with as a team (e.g., citation g in table 16), which also means that the element of leadership and its role might be blurred: it is no longer about interaction between the manager and the employees, but the whole process of leadership is collective in nature. In other cases, where the distinction between the leader and the employees is clearer, the purpose of the leadership is not only to share the vision and objectives and get things organised, but also to create motivation and inspire people.

The relationship between leadership and the personal characteristics and strategic way-of-thinking of the entrepreneur is highlighted through the selected citations from the entrepreneurs in table 17 below.

Table 17. Relationship between personal characteristics, strategic way-of-thinking and leadership.

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Personal characteristics</th>
<th>Strategic way-of-thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) “[H]is value is this kind of caring about people and he feels it like that if one makes a compromise in a way that people are not temporarily or otherwise dismissed, and work is arranged even if it would cost the company, the people will be more committed and will also make compromises in other situations.” (Interviewee nr. 4.)</td>
<td>b) “Perhaps he hasn’t been thinking this as a business but rather as a job. Because if you would be thinking it as a business, it usually ends up in a more cynical point of view.” (Interviewee nr. 4.)</td>
<td></td>
</tr>
</tbody>
</table>

The plurality of values and objectives can be seen from the citations above. The companies were established to save and/or give jobs, and that’s what they are still today: jobs for people.
Organising

Organising refers to both internal activities, like coordinating activities and resources and mobilising actors, and external activities such as creating and managing relationships (and coordinating activities and resources and mobilising actors within the network). Different aspects of organising, such as resource/capability issues (like recruiting and other employment issues), activity and work process issues (like the company’s particular way of doing things), mobilisation of employees, and the ways of networking and finding new customers and partners emerged from the interviews.

In a way, it is also about implementing the strategies, either consciously or subconsciously. The employees may not recognise the strategy behind the operation, but still the operation, due to leadership, may follow the strategy defined by the management (e.g., the citation e in table 19). In other cases, no clear strategy might exist, and the operation is managed by basic rules and objectives, and the strategies (the direction for the development of the company, in this case) emerge from the network, as requirements from customers or as new business opportunities or threats (e.g., the citation c in table 19).

One area often connected with strategy issues is growth, the implementation of which naturally requires decisions concerning things such as resources, customer base and product development. In company with multiple business areas, the implementation of growth strategies is not a straightforward task and includes always the other side of the coin: growth in the number of projects means increasing the number of employees, growth through products means investing in product development. In small companies, where the security of the jobs is of high importance and where the project business and product business are not necessarily separated but involve the same people, the task of organising is not that straightforward but include decisions containing value aspects (e.g., the citation c in table 20).

The way the operation is organised has also an effect on the strategising process. Sometimes the way things work can be seen only during the everyday operations, which then has an effect on the other elements of the process of strategy formation (through leadership and interaction) such as objectives, reflection, planning and decision-making. This includes also the activites external to the company: through relationships, by organising in the network, the company creates itself a position. The amount and type of relationships depends on the
business the company is in and what kind of position it is trying to gain, which, naturally, is linked to the process of strategising.

**Relationships**

The business network consists of the different kinds of relationships the company holds with different parties, like the customers, partners, suppliers etc. The type of relationship the entrepreneurs talk about the most is naturally the relationship with the customers. Being small software firms with either subcontracting/project business or highly narrow niche market, the customers are the ones that have a huge influence on the development of these companies. The entrepreneurs emphasise the importance of the ability to react and to adapt to the requirements made or changes caused by the customers (citation c in table 19).

Therefore, the relationships and changes in them have an effect also on the organising and strategising of the company. Customers or partners may offer new kinds of business opportunities, taking advantage of which means also emergent changes in strategies and ways of organising. But the business is not done with just anybody. Certain values are highly respected, such as honesty and integrity, and of course a certain similar way of thinking about things (e.g., the citations a and b in table 18).

And in addition to creating possibilities, the actor bonds, activity links and resource ties also create dependencies that affect also the development of the company. As a subcontracter, the company is dependent on the customer’s work load, and when the slower period in economy begins, the people working for the customers return immediately to the subcontractor. In other words, the small company carries the risk. In the same way a company that has a very narrow market niche will suffer immediately from the larger changes taking place in the customer segment. One aspect of strategy relates to finding ways of reducing risk, or making the basis of the company operations so secured that changes would not have that large an effect (e.g., the citations c and d in table 20).

The relationships the company has are mostly, in the case of these companies, the result of the work of the entrepreneurs, and therefore also the personal characteristics of the entrepreneurs do have an effect on the relationship development. The connections between relationships and and the personal characteristics and strategic way-of-thinking of the entrepreneur are highlighted through the selected citations from the entrepreneurs in table 18 below.
Table 18. Relationship between personal characteristics, strategic way-of-thinking and leadership.

<table>
<thead>
<tr>
<th>Relationships</th>
<th>Personal characteristics</th>
<th>Strategic way-of-thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) &quot;We have good relationships with them and we can even consider them as an example in a way since they express themselves to be this kind of a societal actor or what it is. […] I think that is why we also have this business relationship with these guys, we have a connection with them and I can look up to them, their actions.&quot; (3)</td>
<td>b) &quot;Everything is based on your ability to selecto those customers with whom you want to work with. […] You have to know yourself and the type of customers that can deal with you […]. (2)</td>
</tr>
</tbody>
</table>

Development and change

Basically, when talking about the process of strategy formation, it is also about the development of the company in general. The change is constant: every day, every action will have an effect on others inside the company as well as on other people in other organisations, transmitted through relationships.

Strategy formation in itself is both about change and changing: through their actions, people (and especially the entrepreneurs) aim at accomplishing change through organising, resulting in change of some kind – but not always in the way as anticipated, since the change will have a life of its own due to the interacting changes generated by interconnected group of people – companies. As Morgan (1995) presented when discussing the contributions the chaos theory would have to offer to organisation studies, the life of an organisation could be understood as a continuously changing entity, the order in which is created by the chaos, and that even the most powerful managers are only ‘butterflies’ (the so-called ‘butterfly effect’ in chaos theory) in the middle of large, overlapping systems.

Organisational development and change is also the last linking element connecting the main processes of Organising and Network Visioning. Due to the constant acting and interacting both inside and outside the company, change is constant and with that, the development of the company is an ongoing process as well. In fact, the narratives of the case companies are attempts to describe this process of organisational development: how they have changed in the course of time. As the company develops, through relationships it has an effect also on other companies that it is linked to, and in the course of time, the network in itself changes, having again an effect on the processes of Network Visioning,
Strategising and Organising. With the effect on network dynamics, the process of organisational change and development is the linking element between the main processes of Organising and Network Visioning.

As a roundup of the discussion concerning the elements relating to the main process of Organising and its linking to the other main process of Strategising, some illustrative citations of the entrepreneurs have been chosen in order to highlight the connections between the main processes and the linking elements: leadership and development and change. These citations are presented in table 19 below.

Table 19. Entrepreneurial views on Organising and the relating elements.

<table>
<thead>
<tr>
<th>Organising</th>
<th>Development and change</th>
<th>Strategising</th>
<th>Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) &quot;We are looking for all kind of possibilities how we could cooperate for the clients, how we could work here in Kainuu in a way that we could serve them as a larger group, or even a few of us together, what kind of combination would be suitable in each situation.&quot; (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) At some point, we have seen those [opportunities for growth] and we have also tried to pursue them, but then there have come coincidences and such... Sometimes we have seen an opportunity for growth, but then we have decided to manage the situation by scheduling, there have been several this types of situations.&quot; (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) &quot;The customers are the ones that define with which tools we do the work for them. [...] whatever decision you make, you’ll always have to be able to adapt to the customers’ changes and to change immediately.&quot; (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) &quot;They [the customers] guide our operations] totally, like “a ram in a tether” (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) &quot;Well, I guess it goes step by step. Even though our management team is quite small, that’s where it comes from, like the information of what kind of strategies we have. And then again, it’s not certain that these people that work with these things, while working that they realise that this is the strategy we’re following or acting according to it, but they do know how they’re supposed to act. So with these terms of reference and this whole resource planning, that’s how the strategies are implemented indirectly.&quot; (3)</td>
<td></td>
<td></td>
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<tr>
<td>f) &quot;When our company started, it was like that we took care of the managing director’s job as a team. Already in the beginning, when I wasn’t even working for that company, I was involved anyway.&quot; (1)</td>
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<td></td>
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</tbody>
</table>
The citations show some aspects of the way the linking elements – leadership and development and change – interact with the process of Organising. Both the individual attempts of managing change and the network dynamics causing change at the organisational level affect the process of Organising – and the process affects the individual attempts and the change processes at the network level.

To sum up the discussion relating to processes of the last mechanism, Organising – development and change – Network Visioning, a few citations of the entrepreneurs have been chosen in order to highlight the connections between these elements. Also a connection with the process of Strategising is shown through a couple of citations. These citations are presented in table 20 below.

Table 20. Relationship between Organising, Strategising and Network Visioning, linked by development and change.

<table>
<thead>
<tr>
<th>Organising</th>
<th>Development &amp; change</th>
<th>Network visioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) “There has to be always some knock which makes you think that this thing has to be taken seriously into consideration… As people we love so much the ease of living that we should have those kinds of idea men that would be going and developing all the time… We are more like hard-working people that develop when they are forced to… Of course we aim at [development] but if I say it directly as it is, we haven’t [much done that].”</td>
<td>“One thing that our strong growth is based on is, how should I put it, a kind of overly optimistic point of view. If a customer, a potential customer calls and says that they have this kind of thing that should be done with, say, LabView or Lisp, we seize the opportunity immediately. We find the guy that can do the job and hire him. But also issues such as how long the job takes and can we sell the competence also elsewhere should also be considered. So there’s a certain coherence missing. Another growth factor is that there are a few outsourced people in our company. […] And they hold a quite risk as well since usually there’s a reason for the outsourcing, and probably the reason is that they [the customer] don’t see that there would be that much work load in the future, and on the other hand, we see it in an overly optimistic way that if they know some technique, we can sell it also elsewhere.”</td>
<td></td>
</tr>
</tbody>
</table>
These citations show the challenges posed by the context of software business and by operating several business models at the same time pose for in a small software company. Strategic choices have been made, but at the same time it has also been a question of strategic change. The citations also show the interaction between the main processes and how impossible it is to say which of the processes comes first. Each of them is a constantly ongoing process, and they are all intertwined, affecting each other constantly.

So how are these elements able to explain the process of strategy formation? How is strategy formed and formulated at the same time? The answer to the question, as well as to the opening of the generating mechanisms inside the main processes, lies in the elements linking the main processes: network picture,
leadership, and development and change. These keys and the generative mechanisms are discussed next.

7.2.4 The keys to the mechanisms

The processes discussed above form the mechanisms operating inside the process of strategy formation. And when combining the model in figure 4 consisting of all the elements with the one presented in figure 1 (the main interactive processes in the whole process of strategy formation), a more detailed model can be formed, a model which also shows the relationships between different subprocesses (elements) in addition to the main processes. This model is shown in figure 12 below.

During the empirical analysis, it was found out that the case companies differ in six main areas, three of which were the different cognitive spheres relating to the company and the industry the companies belong to. The other three, as we can see also from figure 12 below, are the intersections between the main processes: the network picture/vision, leadership, and organisational development and change. The elements in the intersections are also seen to be the key for opening up the interaction between the main processes and identifying the actual generative mechanisms explaining the whole process of strategy formation.
But before moving into the mechanisms themselves, there is also a fourth element which is actually the key to understanding the whole process, namely, the objectives. As discussed in chapter 2.3, in the literature, often the concepts of strategy and objectives are confused and even used as synonyms. This is understandable in the sense that without objectives, there would be no business – the companies are always established for some purpose, and even though the purpose and the objectives might be changed (or change) in the course of time, the organisation is still a medium in order to reach those goals. As Tsoukas (2006: 186) put it, “organization is a secondary accomplishment, in a double sense: first, it is socially defined set of rules aiming at stabilising an ever mutating reality, by making human behaviour more predictable. Second, organization is an outcome, a pattern, emerging from the reflective application of the very same rules in local contexts, over time.”

As already seen in the context of the cases, the objectives can also be much more multifaceted than concentrating merely on profit-maximising, as is traditionally implied by the strategy literature. In fact, the case companies have a
series of different objectives, and some of these are both conscious and clearly expressed, some are conscious but not so widely recognised at the company level, and some of them are almost unconscious, especially those ones relating to personal issues. What is the most interesting though is the fact that the entrepreneurs did not discuss too elaborately the relationship between the objectives and the mode of operation. What makes it interesting is that while having several objectives (and smaller goals relating to them), the activity cycles set off by the objectives work in interaction. It is possible that the activity cycles initiated by two different objectives might reinforce each other, but it is also possible that the objectives might be contradictory in the sense that the action generated based on them might work against each other.

If we think that each objective forms its own mechanism (based on the objective, certain courses of action follow), and if some of the objectives contradict each other, also the following mechanisms would then work against each other, resulting to unexpected consequences. As an example, if a person A is blowing a ping-pong ball on a table towards a person B who’s at the other side of the table, blowing the same ball towards the person A, it is impossible to tell, which way the ball ends up going. This is analogous to the way the mechanisms initiated by different contradicting objectives work against each other.

In the case of the case companies, one of the interviewees has expressed the following objectives:

- Objective 1: to give jobs to people and keep them employed
- Objective 2: profitable operation
- Objective 3: own product development
- Objective 4: growth (and catch investors’ interest)
- Objective 5: add own, personal possibilities (“to get ahead in life”) – relating to Objective 2

Now, these objectives represent both individual and the company’s objectives, and the objectives are in different, also hierarchical, relation to each other. From these expressed objectives can be seen two top priorities: to be able to work in Kainuu and give work also to fellow co-workers; and gather personal wealth. In case these priorities are equally important, as it seems to be the case, the guiding motivation behind the actions is complex and in some situations, also contradicting.

If we consider the original expressed objectives, at difficult times, a contradiction can be born at least between the objective 1 and 2. It is possible that
contradiction never occurs, but it is more likely that at some point the life of the company some adjustments could be needed. Objective 3 and the following activities would in addition require a very systematic approach in order to obtain Objective 2 simultaneously. The Objective 4, on the other hand, would require either successful action based on Objective 3, or alternatively, getting more customers for projects or subcontracting. If a lot of people are hired to do different projects, and it is questionable whether the competence of these people will be needed after the projects end, the odds that a contradiction between Objective 1 and Objective 2 will occur grow. The occurred contradiction might then be solved by the action based on Objective 3 (attaching people to own product development), which after this might again contradict with Objective 2, requiring again adaptive actions.

In the following subchapter, the relationship between objectives and the other elements are discussed and presented as mechanisms working inside the whole process of strategy formation.

7.3 Generative mechanisms

Based the empirical analysis of the data, it can be seen that the case companies differ in six main areas, three of which are the different cognitive spheres relating to the company and the industry the companies belong to. The other three areas are the ones we can see from figure 11, namely the intersections between the main processes: the network picture/vision, leadership, and organisational development and change. The elements in the intersections are also seen to be the key for opening up the interaction between the main processes and identifying the actual generative mechanisms explaining the whole process of strategy formation.

7.3.1 Action-formation mechanism

The elements of the strategy formation process were discussed briefly in subchapter 7.2 and as it was found out, the element of objectives seems to have a central position. Also the possible contradiction and resulting from that, the following processes working against each other, were discussed. Objectives have a great influence on both the strategising process and the organising process – in traditional sense, to the way strategies are formed and the way they are implemented. In this process view, emphasising historical dimension of the organisation development, both processes are seen to be equally part of the
strategy formation process, and objectives being the element that have a strong effect on both these processes.

In addition to this, as discussed in chapter 2.4, approaching strategy and organisation as interlinked and practical activities is more effective than traditional static and detached approaches that privilege analysis. Instead, strategies and organisations are seen as transitory: strategising and organising become constant in managerial work (Whittington et al. 2006, 615–616). Strategising and organising have also another common nominator: leadership. Pye & Pettigrew (2006, 587) saw in this dynamic network of strategising-and-organising interrelationships a political learning process which lies at the heart of change, and described strategising and organising as “two interwoven threads, not unlike a double helix, which twist and turn, bringing each to the foreground from time to time, as they work in tandem to bring about change, held together by leadership” (emphasis added).

What this means in the light of the generative mechanism is that there are two factors affecting and guiding the interaction of strategising and organising: objectives and leadership. If only a company would possess only one single, straightforward and clearly expressed objective, the leader would be able to share his visions without distortions and to guide the organisation to take the needed measures in order to obtain the goal, it actually might be possible to foresee to some extent the direction of the company development. However, in real-life situation this very seldom if ever is the reality. Instead, the companies have several types of objectives, and the reality is nothing like the examples presented in the strategy textbooks, making it difficult to even guess how the situation will eventually turn out.

This interplay between strategising and organising, guided by the stand the entrepreneurs held in relation to objectives and leadership, form the actual action-formation mechanism in the core of the company processes. The relationship between the element of objectives and the processes of strategising and organising is presented in figure 13.
Fig. 13. The action-formation mechanism in the process of strategy formation, figure a.

In this figure, the objectives $x$ and $y$ represent two different objectives of the entrepreneur (or of the company). Each of them has an effect on the process of Strategising (forming out of the interaction of the elements of network picture/vision, reflection, and planning and decision-making), which, for the sake of the clarity of demonstration, could be described as starting an activity cycle of its own. Through leadership, the effect is transferred into the process of Organising. Even though there are two loops presented in the figure, it is still the same process of Strategising and Organising in question.

Although, in that figure, the arrows are drawn into one direction, the direction can also be the opposite one. The elements in the process of Organising may, through leadership (or interaction in general), affect also the process of Strategising.

What this means for the development of the company is that, for example, despite the fact that the company would be aiming at profit-maximising, other objectives relating to relationships or personal goals might confuse the activity cycle of strategising-leadership-organising. This is emphasised in figure 14 below, showing a situation where the company/entrepreneur has $n$ objectives, each having a different effect on the activity cycle. Some of the objectives might give support to each other, some might be contradictory. And again, despite the graphic presentation with several loops, it is just one activity cycle with several objectives in question.
However, the action-formation mechanism is just one part of the whole process of strategy formation. It takes impulses through another mechanism, and it transmits changes through a third mechanism. The former mechanism is described next.

### 7.3.2 Situational mechanism

As was discovered based on the theoretical model developed and the empirical analysis, the Strategising-leadership-Organising action cycle does not solely explain the whole process of strategy formation. As Weick (1979) stated, management is inextricably bound to with the process of imposing sense on past experience. The world is not some stable entity “out there” to be analysed and put together, but it is enacted: reality emerges from a constant interpreting and updating of our past experience. From the network view, the challenge concerning strategising is about amalgamating the possibilities for action in the network. These possibilities do not exist in a transparent and concentrated form, but solely as dispersed individual cognitive ‘pictures’ held by managers who are in a network. Each inter-organisational network consists of pre-existing interaction and exchange relationships and evolutionary dynamics that continually reshape what is feasible and what is successful.

The process of Network Visioning is both about sensing and making sense of the environment, or the context in which the company is embedded. Sensing means noticing potentially important messages in the environment and making sense-constructing meaning. These also relate to the notion of network pictures, which can be seen as managers’ subjective mental representations, or cognitive maps, of their relevant business networks.

This process of Network Visioning (formed out of the interaction of the elements of network dynamics, interpretation and network picture/vision) interacts with the process of Strategising through this network picture, thus forming the situational mechanism of the process of strategy formation. This
mechanism and its relation to the action-formation mechanism are presented in figure 15 below.

![Fig. 15. The situational mechanism in the process of strategy formation.](image)

In addition to the element (or process) of (forming) the network picture, also the element (or process) of interpretation is a crucial factor in the situational mechanism. Interpretation does not only concern the environment but also the actions and development of the company itself, when the entrepreneur is interpreting and updating the past experiences. This way, the mechanism of action-formation is tied to the situational and historical factors.

In addition to these two mechanisms, there is still one more mechanism relating to the process of strategy formation: the transformational mechanism.

### 7.3.3 Transformational mechanism

The network view, as discussed in chapter 3, emphasise the situational and historical grounds for the activities of firms in network environment. In a sense, all major situations are unique and only can be understood in the context of the network situation and from the perspective of the history that has produced the current relationships and positions. Firms and their positions are historically constituted.

Firms are also deeply interrelated through their mutual resource dependence, which means that they cannot individually control their own activities or futures: the network positions and roles of firms are dependent on the relationships they
have with other firms. A network can be seen as a logical entity established through some general network processes, and for a manager it would be important to understand how single activities are related to the development of the network as a whole.

This part of the process was not, however, in the scope of this study. The interviews did shed some light on the way the entrepreneurs view the context of their companies and the way they perceive the opportunities or threats arising from the environment, but naturally the material cannot give any ‘objective’ information on the way the actions of individual companies cumulate in the network thus resulting into the wholeness of network dynamics. Therefore, this part of the process of strategy formation process, the transformational mechanism (i.e., how a number of individuals through their actions and interactions, generate macro-level outcomes), has to remain on a theoretical basis.

But theoretically speaking, based on the discussion in chapter 3, the transformational mechanism can be seen to relate to the action-formation mechanism through the organisational development and change which, from the network view, can be seen as a change in the relationships the company holds. The changes in the company level are transferred to the network through relationships, which further causes reactions and therefore changes in other companies and, eventually through the network processes (coordination and mobilisation) at the network level. This is presented in figure 16 below.

![Fig. 16. Transformational mechanism (theoretical).](image-url)
Through the network dynamics, the transformational mechanism is again related to the situational mechanism. The changes perceived in the environment are interpreted and taken into consideration in the process of Network Visioning, affecting the situational mechanism and being transferred into the action-formation mechanism through the process of Strategising.

To conclude with, the mechanisms consist of constant, ongoing processes that interact with each other in unpredictable ways. The way the environment/network and the situations, opportunities and positions are interpreted has an effect on the way the objectives, the direction and the development of the company is perceived and the operations are directed, which has an effect on the measures taken, meaning organising, which has an effect on the organisational development and change, through which the whole network develops and changes. Which, again, has an effect on the process of Network Visioning, and the process goes on and on.

The presentation of these mechanisms concludes this chapter discussing the empirical analysis of this study. Next, in the final chapter of this thesis, the theoretical and managerial implications of these findings are discussed.
8 Conclusions

In this chapter, the research results yielded by this thesis are summarised. The aim of this study was to increase understanding of the process of strategy formation, and of the processes and mechanisms producing that process, in small software companies in Kainuu region. In a way, this study represents one way of creating an “enactable picture” of the reality, something which to lean on when trying to understand the organisational life – and strategy formation – in a small, entrepreneurial-led software business. The main research question was,

*Q: How are strategies formed in small software companies?*

To answer this question, the paper written by Tsoukas and Knudsen (2006) of the conduct of strategy research was used as a guide for developing the framework and thus the basis for this study. They stated that the crucial question to be answered in strategy research would be, “how strategy thinkers can model change processes involving genuine uncertainties and nonrepetitive situations, and, at the same time, model individuals and organisations as being able to make strategic choices?” (ibid., 341).

To be able to answer this question, first, the answers for the other research questions were needed:

*Q: What kinds of processes are involved in the process of strategy formation?*

Porter’s (1991) four desiderata for the dynamic theory of strategy were considered in trying to answer this question as well as the mentioned question posed by Tsoukas and Knudsen (2006). First, since the theory should simultaneously deal with the firm and its environment, the network view seemed to offer a good starting point for the analysis of the context. The network view encouraged us to see the way the companies (and people) are embedded in a network, through relationships, and due to the interdependences they are not able to individually control their own activities or futures. The network view also emphasises the situational and historical grounds for the activities. All major situations are unique and can be understood only in the context of the network situation and from the perspective of the history that has produced the current relationships and positions.

Second, the theory should allow for endogenous change. In other words, the processes should show how both exogenous and endogenous change comes into being, and for this, the nature and processes of change were discussed and
searched for among the data. The network perspective also helped us to see how the changes taking place inside the company (i.e., endogenous change) and the changes taking place in the network (i.e., exogenous change) are interdependent.

Third, the theory should make room for creative action and to acknowledge the existence of a “strategising subject”: an evolving and creative actor that co-constructs, through a historical process, his/her own “set of opportunities”. The unit of analysis was, hence, the entrepreneurs and their process of sense-making and interpretation of the history and events of their companies. The process of strategy formation identified involved both individual and collective sides of the process.

As a result, the question was answered as follows:

A: The processes involved in the process of strategy formation include Network Visioning, Strategising and Organising. Network Visioning involves the elements of network dynamics, interpretation and network picture. Strategising involves network picture, reflection, planning and decision-making and leadership. Organising involves leadership, organising and organisational development and change. Other elements involved in the process are personal characteristics of the entrepreneurs, their strategic way-of-thinking, and the set objectives.

The second sub-question was

Q: How are those processes interlinked and how do they form generative mechanisms in the process of strategy formation?

This question also relates to the fourth desideratum, which concerned the historicity of strategy development and the way in which the processes or generative mechanisms that produce specific empirical events should be outlined. With the help of the a priori model, the answer was searched in the empirical part of this study by analysing the cases of three small software companies in the Kainuu region. As a result, the answer to this second sub-question can be summed up as follows:

A: The processes are linked to the elements in the intersections of the processes: network picture, leadership and organisational development and change. With these elements, the generative mechanisms in the process of strategy formation can be described: the action-formation mechanism, the situational mechanism and the transformational mechanism.
By answering these research questions, this study aims to increase both empirical and theoretical understanding of the nature of the processes or generative mechanisms through which the strategies are formed in small software companies – i.e., to open up the ‘black box’ of strategy formation. Keeping the four desiderata for the dynamic theory of strategy in mind, the firm and its environment were connected through the network perspective, thus enabling the visualisation of the situational mechanism and the transformational mechanism. Through the relationship between strategising and organising (through leadership), endogenous change as well as creative action and “strategising subject” were allowed, thus enabling the visualisation of the action-formation mechanism. Network perspective and process view also take into consideration the roles of historical accidents and change at both organisational and network levels. The elements of organisational change and development and network dynamics also became the linking factors between the action-formation and transformational mechanism.

8.1 Contribution

This study represents process research and approaches strategy as practice. Both emphasise the significance of context-relatedness, and this context-relatedness also shows how impossible it is for any company to follow guidelines developed in and for totally different contexts based on totally different basic assumptions and values about the purpose and efficiency of business, as well as the notion of success. A great part of strategic management literature has been developed by American researchers and authors, through the analysis of US companies, for the companies having the insight of the US business culture. Any real insight of the process of strategy formation can be obtained only by first understanding the reasons behind the company’s existence and the motivations and dynamics that drive its development. Rarely are these reasons and motivations rational in a purely economic sense, and rarely are the dynamics in control of any individual company.

If the true objective of a small company located in Kainuu were to shift its operations towards growth and internationalisation, the first step would not be to learn the lessons from (American) strategic management literature, but to gain insight of the company’s own process of strategy formation and understand how the hidden motivations (and the historicity, so-called path dependence), as well as the dynamics of networks, in which the company is embedded affect the
development of the company. The intention is not to undervalue the usefulness of
SM literature but to emphasise the importance of the companies or their
strategists gaining an understanding of the mechanisms affecting their actions and
being able to put the lessons learnt from the literature into their context. After all,
how could you develop something you do not understand, or with the tools the
usage purpose of which you are not aware?

So, at the theoretical level, this study represents an effort to open up the
‘black box’ of strategy formation, following the guidelines of the four desiderata
mentioned, and to present one view of the generative mechanisms behind that
black box. This study increases understanding of the different interacting
elements relating to the strategy formation in small companies.

The study also increases understanding of the reality of small software
companies and the effect of the context of software business on the development
of the companies. The choices relating to the business models and the relative
importance of different management areas in different business models are
closely related to the strategy formation. The less independently the companies
produce software (according to the typology of Sallinen 2004, for instance), the
more their operations are customer-led, and vice versa. The importance of
strategy issues grows as the companies “gain independence” by developing their
own software products and offering them to wider markets. Change in the
emphasis between different business areas also requires adopting different
management skills (as well as marketing skills, based on Alajoutsijärvi et al.
2000).

Recognising this, as well as the different elements affecting the process of
strategy formation, may help the companies to be aware of the mechanisms
affecting their development, and thus to guide the development more into the
direction deemed appropriate.

8.2 Implications for practitioners

As already mentioned, the aim of the study is to increase the level of
understanding relating to the mechanisms guiding the development of small
software companies. The aim has not been to produce any normative guidelines
for companies to develop their business, but rather tools to increase their level of
self-awareness relating to their personal and business objectives and measures
taken. In a way, the mechanisms depicted may function as a tool for sense-making
for the entrepreneurs, or, as a map to work with the relations between different
elements and events. “If you’re lost, any map will do” (Mintzberg et al. 1998, quoting Weick). This idea corresponds to the view presented by Michaud & Thoenig (2003), when they state that management of organisational complexity stems from a very special quality: dynamic do-it-yourself. According to this contrast to the ready-for-use/plug-and-play thinking, do-it-yourself management presupposes an intimate knowledge and awareness of the particular context of the manager’s intervention, in the activities of the organisation and the environment in which the firm operates. No solution that may be valid at a given moment or in a given context will necessarily ever be valid for other moments or in other contexts.

The situation faced in small companies is similar to the start-ups aiming for rapid growth, since, as small entrepreneur-led (or led by a small group of establishing shareholders) companies, they will probably face the same elements and mechanisms as found in the cases, and awareness of them might make the tasks of management and strategy development easier. Although I do not believe that strategy will ever be formed in a totally planned and controlled manner, I do believe that being aware of the whole process may help the entrepreneurs to develop skills with which to be able to affect the process.

Opening the black box of strategy formation may also help people working in the field of regional development, with the aim of growing and internationalising the local companies. Gaining an understanding of the different elements relating to the process of strategy formation may help to form a basic common understanding of the situation of the company and the context at hand, making the discussion and consultation easier.

8.3 Suggestions for further research

This study was a multiple-case study of small software companies. Naturally the findings of this study cannot be generalised to the whole population of software companies, but rather the aim has been to provide input for the formation of theory, and thus to generalise into theory. Topics for further research might include to opening up the role of the context more, finding out the applicability of the generative mechanisms to different contexts, as well as applications outside the context of the software business.

In addition, this study focuses only on small companies, so one interesting topic would also be to study the applicability of the generative mechanisms to
larger companies and to open up the role of the social context (the collective side of the process).


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