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# Managers' cognitions on performance of the firm

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<b>Tiivistelmä</b> Yrityksen menestys on johtamistieteen perimmäinen kiinnostuksen kohde. Yrityksen ylimmän johdon käsitykset menestymiseen johtavista tekijöistä määrittävät toimintaa yrityksessä. Tässä tutkimuksessa on pyritty monimenetelmäisen tutkimusmetodologian kautta ymmärtämään ylimmän johdon yrityksen menestymiseen liittyviä käsityksiä. Tutkimuksessa on keskitytty erityisesti pk-yritysten toimitusjohtajien käsityksiin yrityksen menestymisestä.  Tutkimuksessa tarkasteltiin liiketaloudellisesta kirjallisuudesta löytyviä yrityksen menestymistä kuvaavia malleja. Tutkimuksessa syvennyttiin johdon käsityksiin erityisesti johtajuuskognitioita käsittelevän tutkimuskirjallisuuden kautta. Johtajuuskognitioita tarkasteltiin sisällönanalyysin, kognitiivisten karttojen menetelmän sekä retorisen diskurssianalyysin keinoin. Yrityksen menestymistä käsittelevä kirjallisuus ja erityisesti menestymistä käsittelevät ideaalimallit esittävät menestyksen syntyvän monen keskenään harmoniassa olevan elementin yhteistoiminnasta. Tutkimustulokset tässä tutkimuksessa osoittivat, että johtajuuskognitiot ovat erilaisia toimitusjohtajien välillä samallakin toimialalla 22 toimitusjohtajan ryhmässä. Tulosten valossa voi todeta, että toimitusjohtajan käsitys yrityksen menestymisestä on rajallinen. Käsityksissä vaihtelivat menestystekijöiden painotukset ja niiden väliset yhteydet.  Yrityksen menestymistä ei ole aikaisemmin juurikaan tutkittu toimitusjohtajan ajattelun näkökulmasta. Toimitusjohtajan äänen esiin nostaminen tuo yrityksen menestymisen tarkasteluun käytännön näkökulman. Kolmen tutkimusmenetelmän hyödyntäminen paljasti esiin erilaisten menetelmien erilaiset hyödyt ilmiöiden ymmärtämisessä.		
<b>Asiasanat</b> Toimitusjohtaja, johtajuuskognitio, retoriikka, suorituskyky, pk-yritys		



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<b>Abstract</b> <p>Firm performance has long fascinated management researchers. The managers at the upper echelon of the firm are in a position to influence the action the firm takes. This study focuses on the Managing Directors (MDs) of small- and medium-sized enterprises (SMEs). The focus in this study is on the MDs' cognitions related to firm performance. Multiple methods are used to explore the MDs' cognitions related to firm performance.</p> <p>The study first explores the performance models found in the academic business literature. The managerial cognition research stream offers a theoretical background to understand the MDs' thinking. Content analysis, cognitive mapping, and the analysis of rhetoric are used to understand the MDs' cognitions related to firm performance. The performance literature presents ideal performance models which consist of harmonious elements. The results in this study indicate that the MD's cognitions on firm performance are different. MDs' personal and cultural history moulds managerial cognitions. The results suggest, that the MD's cognition on firm performance produced by his/her personal and cultural history, is always partial, revealing some aspect of reality.</p> <p>Firm performance is rarely studied from the perspective of the MD. The MD's view on firm performance gives room for the practitioner voice. Multiple perspectives on qualitative material encompassing three different research methods provide a different kind of knowledge related to firm performance, and highlight the different opportunities offered by these methods.</p>		
<b>Keywords</b> MD, managerial cognition, performance, cognitive mapping, rhetoric		



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*Timo-Pekka Uotila*

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## Abbreviations

MD	Managing Director
SME	Small- and Medium Sized Enterprise
EFQM	European Foundation for Quality Management
MBNQA	Malcolm Baldrige National Quality Award
BSC	Balanced Scorecard

# 1 INTRODUCTION

This dissertation explores the thinking of Managing Directors (MDs) on firm performance, which is one of the major concerns for the MD. In short, an MD's task is to safeguard the firm's performance. In its narrowest sense, firm performance refers to profitability or the growth rate of the firm. A broader interpretation of firm performance acknowledges both shorter-term and longer-term performance, and for instance the value that the existence of the firm creates for its stakeholders. The concept of performance can be also approached from its different levels; the firm performance is the MD's natural concern, but to achieve it sometimes requires focusing on individual or business-unit level performance. The MD faces a variety of different decisions regarding how a well-performing firm should be managed. Despite scholars making some suggestions, no single uniform universal way to manage a firm to deliver high performance has been found. There are, however, different kinds of performance models created by academics, consultants, and other practitioners suggesting different actions an MD might take.

The aforementioned then poses a challenge for the MD striving to lead a firm toward success, who must ask: what elements should I take care of and what issues should I give my attention to? This dissertation explores the different ways the MDs construct their cognitions of the elements leading to performance of the firm.

## 1.1 The MDs of SMEs in the spotlight

The focus of this dissertation is the cognitions of the firm performance of the 22 MDs working in small- and medium-sized enterprises (SMEs) in the Finnish manufacturing industry sector. I focused on the MDs' in a single industry to have one less element that would add to the variety in the MDs' thinking. There are three main reasons why I focused on this particular group. First, the position of an MD in an SME is different from that of an MD in a large company. In SMEs, the MDs are often closer to the operative action than in a large company, where the hierarchy and responsibilities are often more dispersed. Second, I wanted to focus on the MDs instead of whole top management team. The MDs have to focus on a wider array of issues related to firm performance, compared for instance to financial or product managers. Moreover, the MD has a special role in a firm, being the main person responsible to the board of directors for firm performance. Third, SMEs are considered one of the most important bedrocks for a working

economy. Thus the performance of SMEs is a particularly interesting research topic. In this study the terms manager or MD refer to the managing director if not otherwise stated.

### *Managing directors as firm leaders*

Since Barnard's (1938/1968) report on the *functions of the executive*, the role of MDs in management has been a topic of interest. MDs are in a special position in organizations because they have the power to steer firm processes and resources through means not available to other managers. Their position in the *upper echelon* (Hambrick & Mason 1984) of the firm hierarchy opens up the possibility to use their power in the management of firm. Thus the MD of the firm plays a crucial role in the management of the firm. However, the aim in this study is not to try to convince the reader of the importance of the MD or top management, as others have already taken that path (cf. Hambrick & Mason 1984). Instead, the focus of this study is on the beliefs MDs hold on the performance of the firm.

Management research is based on the assumption that through the right kind of management it is possible to enhance the performance of the firm. The whole research area is geared toward creating better performing companies and helping organizations to reach their goals. However, this has proven a challenging task. There are different understandings concerning the performance of the firm, the routes to improve it and beliefs behind the performance of the firm. Researchers, practitioners, and consultants with diverse backgrounds each suggest different routes toward making a high performing firm. For instance, a recent article in the *Harvard Business Review* (Kirby 2005) presented ten different influential research-based books trying to explain firm performance, all of which identified a group of different well-performing companies, used different 'yardsticks' to measure firm performance, and suggested different kinds of actions to generate good performance. The quest to identify the actions leading to good performance has not been easy and the research field is vast and fuzzy.

Despite the variety of interpretations of firm performance, an MD's role is to manage a firm in such a way that it progresses toward a set goal. Mintzberg (2009: 10-11) suggests that managing can be seen as taking place within a triangle, which consists of art, craft, and the use of science. In his thinking, art facilitates the formation of ideas and integrates different elements; craft refers to making connections, having experience, and using practical learning; and science provides analysis and systematic evidence. The expectations for the MD to manage a firm successfully are easily summarized but difficult to bring into action. Reflecting the MD's beliefs and making the MD's thinking explicit provides a way to improve or hone the beliefs on which these actions are built.

*Cognitions of the managing directors in the focus of the study*

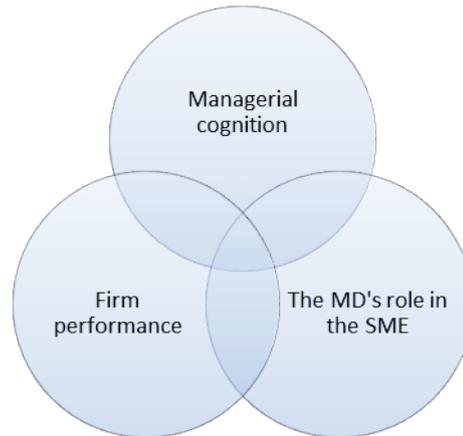
There are many different terms used in studies of the minds of managers. Walsh in his review (1995) of 'managerial and organizational cognition' lists a plethora of concepts that includes cognitive maps, interpretive schemes, causal maps, strategic frames, core causal beliefs, and cognitive inertia.

The term cognition is used in this study. Other terms are also used in the studies of managerial cognition, such as beliefs, perceptions, attention, or thinking. In here the overarching term used is cognition, but other terms are sometimes used in text when suitable.

Cognition refers to the individual thinking. Cognition can be seen as both process and outcome of the action of individuals striving to understand their surrounding environment both consciously and unconsciously. The dictionary definition of cognition is twofold. The Oxford dictionary defines cognition first as a process: '*The mental action or process of acquiring knowledge and understanding through thought, experience, and senses*' (Oxford dictionary). The Oxford dictionary also offers a second outcome-oriented definition: '*A perception, sensation, idea, or intuition resulting from the process of cognition.*' Cognition can be seen both as a process of knowing and simultaneously as an outcome of the process of cognition. In this dissertation the dual nature of cognition is acknowledged. Managerial cognition is understood simultaneously as a process through which the MDs make sense of the world, and on the other hand as a cognitive framework that guides the attention of the MD.

In this study I do not separate cognition from the influence of motivation and volition of the managers; wishes and expectations for the future may influence MDs' cognitions. Also, in this study I do not separate cognition from emotions; the fear of not surviving in the competition may influence managers' cognitions.

Huff (1990: 12-13) presents six basic subjects related to cognition that have featured in managerial cognition studies: perception and interpretation, attention, memory, knowledge representation and learning, problem-solving, and social cognition. The approach taken does not follow a single research avenue, but rather aims to understand MDs' perceptions of performance from different angles.



**Figure 1.** Theoretical framework of the study

The academic literature that forms the basis for this dissertation is in the area of business research and within it management research. The focus of this dissertation can be found at the intersection of the literatures of managerial cognition, firm performance, and the MDs' role in the SMEs.

#### *Overview of the context of the SMEs*

The context of this study is manufacturing industry in Finland and particularly the sector's SMEs. There are different ways to classify SMEs. The European Commission divides SMEs into three groups based on the number of employees: micro enterprises employ 0-9 people (turnover under 2 million), small enterprises 10-49 people (turnover under 10 million) and medium enterprises between 50 and 249 people (turnover under 50 million) (Annual report on EU SMEs 2013/2014). Large enterprises are thus enterprises employing 250 people and above. This study follows the EC classification presented, focusing therefore on organizations employing a minimum of 10 and a maximum of 249 people.

Small and medium-sized enterprises form the core of the Finnish economy. A recent survey (SBA Fact Sheet 2014) shows that SMEs in Finland employed 890 254 employees at the time of the survey, of which small- and medium-sized companies employ 545 200 employees (micro enterprises employ 345 054 employees). Large companies in turn employ 517 971 employees. Based on these numbers SMEs are notable employers in the Finnish economy. There are 15 145 small enterprises and 2580 medium-sized enterprises in Finland. Assessing the performance of SMEs in general depends on the measures used (SBA Fact Sheet 2014). The gross value added was estimated to be 3% above the 'pre-crisis level' in 2013, indicating that SMEs had partly recovered from the economic downturn

in 2008 and managed to expand their business. Altogether SMEs value added<sup>1</sup> was 51 billion, compared to large enterprises 35 billion. However, the number of SMEs and the number of employees working in the SMEs have decreased, and there were 550 fewer SMEs (0.2%) and 19 000 (2.1%) fewer employees than in 2008. The crisis in 2008 thus shaped the business environment, and micro and large enterprises especially suffered. The study took place in a period immediately following the recent economic crisis.

In the European Union, five key sectors account for 78% of all SMEs, 71% of the SMEs' value added, and 79% of SMEs' employment in European Union. These key sectors are manufacturing, construction, business services, accommodation and food, and wholesale and retail trade. There are also differences in performance between sectors in the Finnish economy. SMEs in the electricity and gas sector have been performing well compared to SMEs in the manufacturing sector. In the electricity and gas sector there was an increase in the value added of 26% (since 2008), compared to the reduction in manufacturing sector of 13%. One reason is that the performance of the manufacturing SMEs was often tied to the performance of the large enterprises, which have been facing large structural changes in the industry (especially the ICT and forest industries). The future estimates on the Finnish SME sector suggest that value added will increase by 3.8%, but the number of SMEs is expected to decrease by 1200, and employment within them to decrease by 10000. Moreover, in addition to the issues besetting micro enterprises, the small enterprises are seen to be at risk. There are however some modest signs of improvement in the overall economy, which may have a positive effect on SME performance.

The Small Business Act 2014 (SBA) fact sheet suggests the SME sector performance in Finland is best approached from the policy perspective. Compared to other European countries Finland shows above average performance measured through European Commission SBA metrics<sup>2</sup> and has one of the best profiles, outperforming seven of the nine SBA areas. There are however signs of stagnation in Finland's performance, and while the country continues to perform well compared to other European countries, development has stalled and in some areas has deteriorated. The report highlights that the implementation of the SBA has been only moderate in recent years.

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<sup>1</sup> Value added = net contribution of the firm to the economy (European SMEs according to Annual Report on European SMEs 2013/2014)

<sup>2</sup> SBA dimensions are Entrepreneurship, Second change, Responsive administration, State aid & procurement, Access to finance, Single market, Skills and innovation, Environment, and Internationalisation (Annual report on EU small and medium sized enterprises 2013/2014)

Finnish SMEs currently operate in an unpredictable and challenging business environment. On the European Union level there seems to be reason for cautious optimism, as forecasts suggest the number of European SMEs will rise by 0.1 percent, the SMEs gross value added (GVA) by 6.3 percent, and the number of employees by 0.8 percent. However, as uncertainty has become the definitive factor of the business environment, these figures could change substantially. It should be noted that Finland seems to belong to a group of countries with a positive rate of GVA but a negative growth rate for employment. This means Finland is recovering from the slump in the economy without SMEs creating the new jobs (annual report on EU SMEs 2013/2014)

The higher-level EU wide context highlights the increasing importance of SMEs from the societal perspective, as they are one of the main drivers of economic growth. The MDs of SMEs play a major role in sustaining and continuously improving firm performance. Based on these basic assumptions it becomes clear that it is important to study the MDs of SMEs from the perspective of one individual firm, but also from the perspective of society at large.

## 1.2 Objectives of the study

The aim of this study is to explore MDs' cognitions of firm performance. The MD has the power to mould the firm's dominant logic (Prahalad & Bettis 1986). Managerial thinking, often studied through the terms *beliefs*, *mental models*, *knowledge structures*, *schemas*, *cognitions*, or *strategic frameworks* influence how managers at different organizational levels construct their image of the internal organizational and surrounding business environment. The way an MD categorizes, arranges in his/her mind, and understands the business environment of the firm, and on the other hand the resources, processes, and operations of the firm, influences that MD's business decisions. However, the MD is not the sole actor in the field, but is instead surrounded by his/her social environment, which influences the MD's thinking.

The goal for this study is to understand the cognitions of MDs on the firms' performance, and therefore three sub-questions are investigated:

- 1. What elements are present in managing directors' talk on firm performance?**
- 2. What kind of causal relations between the performance elements are present in managing directors' cognitions?**

### 3. How do managing directors talk about firm performance?

The choices made in selecting the research objectives also frame some questions outside of the focus of this dissertation. This study is not a linguistic study per se, even though language plays important role in it. The focus in this dissertation is also not on whether the managing directors actually implement their cognitions or not in their everyday management activity but on how MDs understand and construct firm performance in their minds.

A range of methodological choices are available to study managerial cognition, and the current study adopts qualitative research methods. The chosen approach was based on interviews with 22 managing directors on the subject of firm performance. This interview material was then used to explore the managerial thinking on firm performance. To understand that management thinking I adopted a multi-method approach. The use of different methods provides windows into the different aspects of management thinking on firm performance. These different approaches and analysis techniques revealed three different kinds of readings of the same material. This meant that one set of qualitative data was approached from different complementary directions. All three methods are based on the assumption that it is possible to study management thinking through the language used by managers.

Content analysis, cognitive mapping, and rhetorical analysis were chosen as the research approaches in the study. Each method provided a different, but complementary, view on the managing directors' beliefs on firm performance.

- **Content analysis** provides information on what kind of speech the MDs use, the topics the MDs refer to when explaining the performance of the firm, how the themes are related to the literature, and the more general elements MDs refer to when they explain the factors leading to the performance of the firm. Content analysis thus provides cues on how managing directors perceive firm performance.
- **Cognitive mapping** provides information on how the individual MDs view the firm performance. Cognitive mapping reveals which topics are the most important in the MD's thinking on firm performance, how different factors leading to the performance of the firm are organized in the MD's thoughts, and the relationships between different performance elements. Cognitive mapping thus illustrates how managing directors organize their thoughts related to the performance of the firm.

- **Rhetorical analysis** provides information on how the MDs talk about the performance of the firm. Rhetorical analysis isolates the different rhetorical practices evident in the MDs' explanations of firm performance. Identifying these different rhetorical practices makes it possible to understand how MDs justify and legitimize their beliefs on the factors leading to the performance of the firm. Rhetorical analysis thus provides cues on why beliefs are as they are.

### 1.3 Approach of the study

I have adopted a constructive approach to management research in this dissertation. In the context of this dissertation that means focusing on the understanding of the firm performance from the perspective of the phenomenon itself, instead of choosing one management theory and reflecting the phenomenon against it. The socially constructed nature of reality is taken as a guiding assumption and terminology from this theoretical field is adopted to guide the research process. Social construction of knowledge (Berger & Luckmann 1966), the connection between the mind and society (Vygotsky 1978; 1986), and the dialectic between autonomous agents and social structures (Giddens 1984) have been influential in guiding my understanding of the development of cognitions in general.

I will describe my understanding of the formation of MDs' thoughts that has guided the decisions made within this dissertation. I will first start from the role of the social environment in managerial thinking, and explore the theoretical underpinnings related to the formation of management thought. I will explore how institutionalization, legitimation, and the roles adopted can aid understanding of the formation of knowledge at the social level. Second, I will focus on MDs' thinking from the individual perspective, by focusing on the concepts such as significant other and internalization. Through the exploration of these two differing dimensions (social and individual) and by selecting certain theoretical literature I will construct my view of the formation of MD thinking.

#### *Institutionalization of MDs' thought*

The MDs are in the middle of the changing social environment and make daily judgments related to their business. However, in order to survive the constant information load, the MDs create heuristics, ways of thinking, to aid their continuous interpretation of their environment. It is far easier and very human to create a pattern on how to respond to the different stimuli, compared to thinking issues through every time they occur. These heuristics or the process of

*habitualization* save the MDs time, and free cognitive resources to focus on the issues which demand more critically attention. Thus the certain framework through which the business is interpreted helps in daily decision making.

The institutionalization of a given factors emerges when the MDs create similar heuristics of the environment. Similar *typifications* of the MDs' environment lead to institutionalization of a certain issue. The practice becomes institutionalized fact, or the way things are done. For instance, an MD may adopt certain institutionalized practices or measures related to firm performance (such as using the Balanced Scorecard) to follow the success of the firm. In the realm of management studies these institutionalized practices have been studied for example through the concept of 'industry recipes' (Spender 1989). Thus, the subjective typifications may become objective institutionalized practices, which again guide the individual interpretation of the environment. The socialization of these institutional practices leads individual MDs to internalize these ways of perceiving the firm's performance (Vygotsky 1978; Berger & Luckmann 1972). MDs institutionalized practices (to interpret firm performance) may be deeply rooted in the expectations of the owners of the firm or its customers.

#### *MDs and the social sphere of knowledge*

The way knowledge is passed is tied to the socially constructed world of *knowers* and *non-knowers* (Berger & Luckmann, 1972). In the MDs' social network, knowers are those defined as important sources of knowledge related to the firm's performance; knowers might include researchers and academics providing expert knowledge to assist in managing the firm. However, knowers could equally be practitioners, for instance the MD of a successful firm in the field can be considered the possessor of knowledge. Independent of who the knowers are, they are defined as knowers because of their role. The issue of who the knowers are (e.g., which role is considered as the most important source of knowledge) is however subject to ongoing debate and in constant flux.

MDs by themselves are knowers in their firms. There are other knowers in the firm too, and the MDs have to balance between the other knowers. The MDs role and profession itself is loaded with expectations (e.g., to lead their firm toward success). Moreover, the role of the MD requires understanding different perspectives. The top management board may consist of a sales director, product director, technology director and financial director, each of whom may have a different understanding of how to achieve firm performance. In addition, all of the top managers may have different stocks of knowledge on which they draw. Sometimes these views might be conflicting, making the legitimation of actions between the groups challenging. Even if the top management team agrees with

the direction of the firm and the means with which to achieve it, the MD might still be in the middle of rival schools of thought: is the performance to be delivered through investment in technology, or should the focus be more on customer satisfaction? Academics, consultants, business schools, and the media all uphold different fragmented conceptualizations and provide material for different knowledge repositories, on which the MDs can draw and which can be used as construction material for MDs' beliefs.

#### *The legitimation of MDs thoughts*

Legitimation refers to the process of the explanation and justification of certain elements from the institutionalized tradition (Berger & Luckman 1972). The MDs legitimize their action to themselves and to other people around them by repeating existing ways of thinking. There are four levels of legitimation that can be identified (Berger and Luckman 1972: 112-114). The first the language used; the concept of 'firm performance' encompasses many learned assumptions related to it. The second is connected to pragmatic explanatory schemes, such as phrases like *the customer always comes first*. The third level refers to the institutionalized truths and experts defining these truths, which could be for instance business schools, or consultants defining what exactly constitutes firm performance. The fourth level refers to the symbolic universes. These are MDs' theoretical constructions of the world, where everything makes sense. Moreover, such constructions reflect the MD's identity. As there is an inherent need to put everything in place and in order, different institutionalized practices and roles have a place in MDs' minds. As the MDs strive toward balance and putting everything in order in their mind, they come to reinforce the current institutionalized way of thinking.

#### *The clash between expert and practitioner knowledge*

Social constructionist literature highlights the contradiction between the knowledge of different sets of experts who explain phenomena in society from their own standpoints (cf. Berger & Luckmann 1972: 136-137). Different kinds of experts also provide tools for the MDs to think about their firm performance. One such source of tools to understand and interpret firm performance is academia. However, the academic literature does not offer only one solution to MDs, it offers a choice. Even within the business studies there are different sets of experts, approaching firm performance from different angles. The challenge is that it seems that the research is fragmented into different disciplines that all have their own established authoritative figures and beliefs. There may even be competition between the different sets of experts, whose approaches to firm performance may vary widely. The MD wishing to draw from the academic

literature will then face a challenging task of identifying which sets of experts to believe. Moreover, the practical world always encompasses more than one theory. As there is no universal view of firm performance, MDs are forced to construct their own view of firm performance.

The MDs have agentic characteristics, meaning that the actions and thoughts of the individual MDs are not completely determined by their social environment. Giddens (1984) suggests that there is a reciprocal relationship between the 'agency' (the MD) and the 'structure' (the social environment). The MDs are therefore free to make their own choices and interpretations of the business environment, even though they are simultaneously constructing the environment and being influenced by it. The question is, do they accept (consciously or subconsciously) the knowledge produced by academics as material that could support their decisions related to firm performance, or do they follow practitioner (e.g. successful MD in competing firm) knowledge within their field, or do they construct individual views which may differ considerably from those mentioned above. This dissertation is geared also to examine these questions.

#### *The meaning of meaningful others in the formation of thinking*

The meaningful people around the MD in the social environment at a given time who maintain that MD's subjective reality can be called significant others (Mead 1972; Berger & Luckmann 1972). The MDs interpretation of the environment is mediated through these significant others (Berger & Luckmann 1972: 68). The MD's significant others maintain his/her subjective reality. In a way the MD can align him/herself with various significant others, such as the owners of the firm or the most important customer. The significant others reaffirm however the identity and being of the MD. Even though the focus in this study is on the MD's cognition, not on the MD's social network in general, the opening of these background assumptions clarifies the approach taken in this dissertation.

#### *The relationship between language and thought*

Language affects the formation of an individual MD's cognition. According to Vygotsky (1978) language is acquired through social action in the individual social environment. The language MDs use is thus part of the cultural language of management, the particular industry, and the MD's expected vocabulary, as seen in contemporary society. Through language it is possible to transfer both MD's subjective meanings to others, and also to create concepts and make sense of their environment. In addition, MDs use language to categorize their subjective reality through different concepts and conceptions. The approach taken in this study is influenced by Vygotsky's view of the role of language as a psychological

tool, which organizes subjective reality, and on the other hand moulds our social environment (and is moulded by it).

Furthermore, Vygotsky (1978; 1986) saw that thinking and speech are not connected through genetic heritage, but by the socialization to the specific culture an individual lives within. As MDs become socialized to the culture of MDs, the language used to describe the events is simultaneously internalized. It is never possible to capture the internal world of the MDs as a whole. However, the language used is a reasonably good indicator of an MD's thinking, or at least provides a tool to analyse it. In line with Vygotsky, the current dissertation adopts an approach where *thought* and *word* are two separate processes, albeit interrelated ones.

Vygotsky (1986: 217-219) provides the concepts of inner and external speech to aid understanding of the relationship. Inner speech refers to the MDs' internal world and the meaning and semantic aspects of the words. Examined from this direction one word can convey the meaning of whole sentences, and can encompass many thoughts, feelings and even whole discourses. External speech on the other hand refers to the phonetic aspects of the speech, referring to turning thoughts into sentences. As the nature of these different forms of speech is different, it is impossible to transfer the entire meaning of thoughts to an external listener. However, the construction of the thought into understandable language is an act in itself, and offers a window into the MD's thinking. In simple terms, words could be described as the rough manifestation of the thinking of the MDs, that permit the thoughts to be manifested.

#### *The summary of the view of the formation of MDs' cognitions*

MDs are individuals, and their backgrounds influence their cognitions on firm performance. However, they are also part of the constantly evolving social world, which introduces new and different ways to understand firm performance. MDs are central to firm performance, especially in SMEs, and therefore it is important to study MDs cognitions on performance.

In conclusion, the focus on this study is on management thinking on performance. I see MDs' cognitions on firm performance as complex, fuzzy and difficult to summarize. However, I will purposely do violence for this complex reality in order to make sense of managers' thinking on performance, by classifying and simplifying this reality. This means focusing on the performance themes in the MDs talk, causal relations between the performance elements, and MDs' ways of talking about firm performance.

## 1.4 Structure of the study

Section one introduces the subject and presents the background assumptions in this study. The topic researched, context, and the nature of the study are explained. The overview of the research and the different methods used are presented. The focus is particularly on the way different chapters contribute to the study, each in their own unique but complimentary way.

Section two explores the literature on firm performance and presents some of the most often used performance models in practice and also in the academic literature. It also explores the way a firm's top-level managers, especially managing directors, see the performance of their own firm. The meaning of the MD role in the SME context and the beliefs MDs' assign to firm performance are then discussed. The section aims to justify why it is important to study managers' beliefs on firm performance. The section ends with a discussion and a framework used to study MDs' beliefs on firm performance.

The third section presents the empirical research in the study. It first describes the empirical material and research context. Then, the section proceeds to present the chosen multi-methodological research approach, and continues to justify the chosen decisions. The last part of the section details the different research methods used.

The fourth section reveals the findings of the study. The section is divided into three stages, each presenting the findings from different approaches. First, the performance themes are identified from the managers' talk. Then, the cognitive maps of the individual managing directors are explored. Last, the rhetoric the MDs use to justify their explanations is identified.

The fifth section reflects the findings against the study framework. Moreover, the contribution of the study is discussed and the study evaluated. The section constructs a view of MDs' beliefs on firm performance, by combining the results from the study.

In the sixth section the research process is reviewed, the choices made during the research process evaluated, and the multi-methodological research approach appraised from a researcher's point of view.

**Table 1.** The structure of this study

Section	Overview and main themes	Purpose and outcome of the section
<b>Section 1</b> – Basic assumptions of this study	<ul style="list-style-type: none"> <li>• Social constructionism</li> <li>• Relation between language and thought</li> <li>• Relation between the MD and the social environment</li> </ul>	<p><b>Purpose:</b> to frame the research</p> <p><b>Outcome:</b> to make basic assumptions visible in the study</p>
<b>Section 2</b> – Theoretical exploration of MDs' beliefs on firm performance	<ul style="list-style-type: none"> <li>• Performance research and models</li> <li>• MD's role</li> <li>• Thinking in organizations</li> </ul>	<p><b>Purpose:</b> to construct a theoretical framework for the study</p> <p><b>Outcome:</b> to clarify the theoretical basis of the dissertation</p>
<b>Section 3</b> – Presenting empirical research	<ul style="list-style-type: none"> <li>• Multi-method research</li> <li>• Empirical material and context</li> <li>• Research process</li> </ul>	<p><b>Purpose:</b> Presentation of methodological choices</p> <p><b>Outcome:</b> Presenting in detail three different research approaches</p>
<b>Section 4</b> – Presenting the findings	<ul style="list-style-type: none"> <li>• Three steps with different point of views to the researched issue</li> <li>• Content analysis, cognitive mapping, rhetoric analysis</li> </ul>	<p><b>Purpose:</b> to provide three complementary, but different, views on empirical material</p> <p><b>Outcome:</b> Three unique vies on empirical material, each providing their own view on the MDs' beliefs on firm performance</p>
<b>Section 5</b> – Discussion and conclusions	<ul style="list-style-type: none"> <li>• Forming an answer to the research question</li> <li>• Constructing the view of MDs' beliefs on performance</li> <li>• Evaluation of the research</li> </ul>	<p><b>Purpose:</b> to provide a concluding answer on the research agenda by focusing on the information given by the three separate research methods separately</p> <p><b>Outcome:</b> view on MDs' beliefs on firm performance</p>
<b>Section 6</b> – Reflecting the research process	<ul style="list-style-type: none"> <li>• Reflecting the research process</li> </ul>	<p><b>Purpose:</b> to provide clarity to the research process</p> <p><b>Outcome:</b> Insights and experiences are reflected</p>

## 2 MANAGING DIRECTORS' COGNITIONS ON FIRM PERFORMANCE

Managerial cognitions influence the actions performed in the firm's business environment. Top managers' perceptions related to firm performance are important, as they guide the attention, interpretations, and decisions to act made by the top management.

It seems that firm performance research and research on managerial cognition are separate research areas, although there have been some attempts to merge them (cf. Jenkins & Johnson 1997). This section first explores how firm performance is depicted in the literature, and then examines how managerial cognition and firm performance may be seen to be linked.

The literature on firm performance provides tools for managers to understand their environment. By projecting a certain image of firm performance, the literature draws a normative picture for MDs concerning the appropriate kind of actions to be taken. In addition to normative performance models providing tools for understanding firm performance, they also shape academic and practitioner thinking.

The section starts with a discussion on the different ways organizational performance is presented in academic texts. Three distinct practical models of firm performance used in the management literature are identified and described. Then, the literature on managerial cognition is explored. The section closes with a discussion of the potential influence of the management models on MDs' cognitions.

### 2.1 Performance: the ultimate goal of management research

Firm performance in general is a multidimensional concept. The management literature has identified various dimensions related to the concept, and there have been several attempts to classify and define firm performance at the organizational level. The management literature makes a distinction between financial performance and a broader understanding of performance. For instance, Venkatraman and Ramanujam (1986) categorized performance according to three domains: financial performance (e.g., sales, profitability); operational performance (e.g., non-financial indicators, such as quality); and

organizational effectiveness (e.g., broader definitions of performance). A similar but more recent example is presented by Richard et al. (2009), who review how performance is studied and depicted in academic literature and make a distinction between performance and effectiveness. In their view, organizational effectiveness is a broader concept than organizational performance, which stems from the organizational theory literature, and therefore has different performance goals as compared to more focused management research<sup>3</sup>. Richard et al. (2009: 722) define organizational performance as follows:

Organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profit, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.).

Even if there is a somewhat uniform view in the area of management studies on the multidimensionality of firm performance, different research streams have suggested different routes toward it. In addition, to the research focusing on organizational effectiveness (organizational theory literature) and on performance outcomes (management literature), the desire for rigorous research within specific areas has generated discipline-oriented performance research. For instance, there is an established body of literature on the connection between human resource management and performance (Guest 2011; Huselid 1995). Sparrow and Cooper (2014) acknowledge this fragmentation, and call for a broader view to performance and for research that crosses disciplinary boundaries.

Different disciplines (such as marketing, human resource management, operations research, and management accounting) have relied on (at least partly) different performance measures. In addition to academic literature, there is a plethora of practitioner magazines that carry the message that by giving effort to a given issue (e.g., digitalization), firm performance will improve. These points of view are not necessarily contradictory, but they offer a fragmented view of firm performance. The MD's perspective, though, requires an understanding of performance from a more holistic perspective.

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<sup>3</sup> Richard et al. (2009) distinguish between performance and organizational effectiveness, which they state is a broader concept consisting of a wide spectrum of measures focusing on different outcomes, encompassing also those that do not have a direct link to economic metrics. In this study, the difference between these two concepts is acknowledged. However, for the sake of clarity, the concept of performance is used to describe the overall performance of the firm, encompassing elements sometimes included in the organizational effectiveness concept.

At least since the introduction of behavioural theory of the firm (March & Simon 1958; Cyert & March 1963), several competing goals of the organizational actors have been identified. It is suggested that the firm acquires competitive advantage and maintains its direction through reaching its goals. The way these goals are defined can be influenced by any of several factors. In the context of SMEs, the goal differs according to the perspective taken. Classic authorities in the field of management research (Cyert & March 1963) have focused on the challenges that multiple performance goals in the organization create. They identified five operational goals that real-world organizations usually have: production, inventory, market share, sales, and profit. These goals exist in an implicit hierarchy, formed by the negotiating process between different coalitions in the organization. From the perspective of the MD, he/she has to identify the most important goals the firm is striving toward. The relative importance of the various possible goals remains a valid question, even after 50 years, as different routes for achieving success are still being investigated. The main questions are which goals to fulfil and whose goals are the most important. This debate continues in the management literature. Recently, one of the prevailing debates has been that between the shareholder and stakeholder views of the firm. The proponents of the shareholder view understand the goal of the organization to be the maximization of shareholder value (Sundaram & Inkpen 2004). The proponents of the stakeholder view understand the goals of the organization more widely, stating that instead of focusing on shareholders, the organization should focus on multiple stakeholders, including employees, suppliers, customers, and society, as well as shareholders (Freeman, Wicks & Parmar 2004). The view holds that stakeholder influence on performance and goals are important and worthy of measurement.

Bateman et al. (2002) identified a hierarchy of five different firm-goal goal categories from interviews with top managers. **Ultimate goals** capture the top managers' values and long-term focus, being more social and personal and going beyond the borders of the firm, acting as an abstract guiding framework for other goals. **Enterprise goals** reflect the traditional business goals, such as growth or profitability of the firm. **Strategic goals** reflect the goals for achieving strategic objectives, such as improved quality, or customer relationships. **Project and process goals** are the lowest status goals, representing tactical daily tasks such as opening a new factory, or listening to customers. This hierarchy of goals suggests that in addition to the various goals related to different organizational actions, top managers are also concerned with goals at different levels of the hierarchy.

The mainstream approaches to performance of the firm in the management literature rests on some underlying assumptions. One of the most prominent and classical ways to view the performance of the firm is to seek sources of **competitive advantage** (Porter 1985). Despite (or perhaps because of) the ambiguousness of the concept (Thomas 2003), it has gained vast popularity. The ways to acquire competitive advantage are grounded on two prevailing assumptions. The first assumption suggests that competitive advantage is acquired through focusing on the right kind of resources. These unique, rare, inimitable, and unsubstitutable resources (Barney 1986) are seen to be at the root of sustainable competitive advantage. The second assumption suggests that through the right kind of positioning against its competitors, a firm can find a position where it gains competitive advantage vis-à-vis its competitors (Porter 1998). A firm can acquire a competitive advantage through focusing on negotiating lower costs than its competitors, or through differentiating its products or services from those of its competitors and demanding a premium price. Academic performance models reflect these assumptions, focusing on the performance stemming from inside the organization, or performance achieved through positioning the firm.

This study rests on an assumption that academic literature influences MDs' thinking on which performance and goals are relevant (Knights & Morgan 1991; Abrahamson 1991; Kieser 1997). How firm performance is presented in management literature is thus an important influencer of MDs' thinking. Therefore, this section will explore the various ways in which performance is depicted in the management literature. The purpose is to offer an overview of the different performance models in the literature, and specifically the most common performance models that mould MDs' thinking on performance. The goal is not to present a systematic literature review of all possible ways to understand performance.

#### *The academic literature on performance management*

The performance discussion has spread widely to different disciplines. There have been various ways in which the literature focusing on the performance of the firm has been reviewed. For instance, taking the perspective that "performance measurement is an interdisciplinary topic that crosses traditional boundaries among academic disciplines" (Srimai, Radford & Wright 2011: 663), Srimai et al. (2011) reviewed performance measurement and, focused on diverse academic disciplines such as operations management, strategic management, management accounting, and organizational behaviour. They identified four

different transitions that the performance measurement field has gone through since the 1980s:

- operations to strategic orientations – from an operations and production focus to strategic and customer-oriented approaches
- measurement to management – toward the use of performance measurement as a strategic management tool
- static to dynamic – the performance management system as a measurement-information-learning chain, facilitating the adaptation to environment and creating competitive advantage
- shareholder to stakeholder – toward good governance

In the evolution of the field of performance measurement through these four transitions (Srimai et al. 2011), the focus has changed; from being related to the operations and production in 1980s, it moved toward a strategic and customer focus from the 1990s onward. Later, the prime focus shifted on to the way the performance measurement and management systems were applied, and therefore on to the methods by which performance management could be used to guide the direction of a firm. The internal elements of the firm were of major interest. The third transition focused on the contingency between the firm and the business environment. There was a need to respond to the changing external environment more efficiently, which moved performance measurement in a more dynamic direction. The fourth transition has been the movement toward taking the social and environmental aspects of performance measurement into account. Those companies seeking to establish the legitimacy of their behaviour have to deal with various domestic and international institutions, such as the International Organization for Standardization (ISO), whose environmental certification requires that environmental and social issues are taken into account in business processes and reflected in performance measures.

The global trends shaping business life have influenced the ways in which firm performance has been approached (Bititci, Garengo, Dörfler & Nudurupati 2012; Neely 1999). In their review on the performance measurement challenges for the future, Bititci et al. (2012) examine the suitability of performance measurement in the emerging future context. Taking a holistic, systems-based approach, they conclude that the field of performance measurement follows global and business trends. The authors list several emerging trends affecting the future field of performance measurement:

- Collaboration in multicultural networks and the emergence of open innovation, both of which force companies to consider how to measure performance in inter-organizational networks.
- The rise of service-dominant logic, which directs attention toward service supply chains in the service-dominant networks
- The transition from manual work toward knowledge work, which forces performance measurement toward a perspective that emphasizes people, teams, and social systems
- The expected role of SMEs as a major source of future economic growth, which turns the focus on performance measurement in the SME context
- The increasing role of sustainability, which challenges companies to focus on social and environmental performance measures

Performance literature suggests that in addition to the challenges caused by the growing trends, there are issues related to the underlying assumptions, and that those assumptions should be reconsidered when creating future performance research (Bititci et al. 2012). Possible directions for future research include the following: 1) changing the emphasis on control toward an emphasis on learning, especially in the case of autopoietic networks, for which the focus should be on the reciprocal interactions instead of bureaucratic control; 2) moving from rational performance control toward cultural control, acknowledging the issue that performance measurement is tied to the social environment and shaped by individuals' and communities' values and perceptions; and 3) focusing on the holistic, interpretative nature of performance, understanding it in the context of evolving social systems. Neely (1999) describes the isomorphic forces prevalent in the management accounting and related research fields focusing on firm performance, and describes seven drivers for change that have revised performance measurement: the changing nature of work, increasing competition, specific improvement initiatives, national and international quality awards, changing organizational roles, changing external demands, and the power of information technology. These forces have guided performance research toward a more future-oriented, multidimensional direction.

The defining feature of the performance management discussion is its wide variety of different contributors from different disciplines. The most frequently cited articles related to measuring performance come from authors from fields outside of but related to performance measurement, such as accounting, information systems, operations management, and operations research (Neely

2005; Taticchi et al. 2010). It is important to highlight the different notions of firm performance, as the ways in which firm performance is conceptualized affects an MD's understanding of his or her firm's performance.

In summary, performance research constructs an image of the research field, moving from simpler, concrete performance outcomes to more complex, dynamic ways to understand firm performance. In addition, there are approaches that have tried to adopt more practitioner-oriented, holistic performance models. The dichotomy between academic rigor and practitioner relevance is quite pressing in these models; the models are rather well adopted in practice, but have received criticism on several aspects from the academic community.

The models presented here have been chosen to provide a holistic view on firm performance, and are especially used by practitioners in the manufacturing industry. The purpose is not to argue on behalf or against of these models, but rather to represent the state of the art of holistic performance models in the management field.

### 2.1.1 Performance models

Several different models have been developed to measure and manage firm performance. Research for this dissertation has identified three domains that have developed performance models. The most common models used in the field will be described below. These models are all fairly established in the management literature, but they are also widely used in practice.

#### Models related to the Balanced Scorecard

Models based on management accounting have evolved from single measures toward a wider perspective. Early on, traditional management accounting models focused on costs (e.g., production costs) and on evaluation of managerial operating efficiency using such measures as return on investment (ROI) (Chenhall & Langfeld-Smith 2007). However, as the business environment changed and the focus moved more to the intangible assets of the firm, the meaning of measurement of direct labour costs diminished, and the mere short-term comparison between revenue and costs lost its significance (Chenhall & Langfeld-Smith 2007; Johnson & Kaplan 1987). It followed that non-financial measures gained appreciation, leading to the evolution of measures related to firm strategy, such as measures of manufacturing, marketing, and research and development (R&D); the older measures focusing on the short-term goals (such

as labour, productivity, machine utilization, and standard cost variances) were replaced by the measures of quality, delivery time, inventory reduction, and machine performance (Bromwich and Bhimani 1989, cited in Chenhall & Langfeld-Smith 2007).

Performance management literature states that instead of financial performance measures being used as the foundations of overall performance measures, they should be used among a broader set of measures. Many organizations have adopted these measures, but the true challenge is to give non-financial measures equal status in the development of strategy, processes, bonuses, and other rewards (Eccles 1991). Instead of seeing the change from the financial measures to a broader view toward performance merely as a changing of perspective, it should be viewed as a change in management philosophy, to a philosophy that regards performance measurement as “an ongoing, evolving process” (Eccles 1991).

The desire to quantify business performance and the unintended consequences of the resulting masses of quantification data are major recurring themes (Neely 2005). One-dimensioned focus on performance may lead to unwanted consequences, such as manipulation of the performance data. Porter (1992) states that relying on performance measurement that is based only on financial measures may lead to an organizational behaviour of pursuit of short-term benefits at the expense of long-term value creation. The literature stemming from the management accounting perspective has slowly started to take the wider scope of performance measures into account in the performance models. The field has evolved from single measures toward a more comprehensive understanding of firm performance.

The issues and problems related to some of the traditional measures of a firm's performance (such as profitability) are not new. There were recommendations in the literature early on that in order to capture a meaningful evaluation of strategic performance, more future-oriented measures should be used, such as the quality of a firm's transformation and the satisfaction of multiple stakeholders in addition to stockholders (Chakravarthy 1986). The question of the nature of performance and the way it describes an organization's ability to reach its goals is not a very new one.

In recent management literature, the traditional business performance measures have been increasingly criticized. In their critical account, Atkinson et al. (1997) state that performance measurement systems that “lack the focus and robustness needed for internal management and control” were designed to provide information to compare and evaluate companies' performance over time easily,

instead of focusing on communicating the “decision-relevant” information used in everyday management. Focus on simple quantitative measures does not capture the intangibles of firm performance. The early performance models relied on quite simple ways to provide information on firm performance. However, as organizations depend on the skills, knowledge, and motivations of their employees and suppliers, they cannot rely on the traditional methods of obtaining expertise on the markets. As Atkinson et al. (1997) state:

Formerly, they [organizations] relied on short-term, market-based contracts that use audits to verify compliance with specified, measurable contract parameters, such as quantity, quality, and delivery time. Now they establish longer-term, implicit contracts that rely on trust, motivation, and a learning relationship to deliver intangibles such as service, flexibility, and innovation.

Multidimensional performance management systems have been one answer to the need for a more comprehensive picture of firm performance. A review of the citations in the performance measurement and management field suggests the work of Kaplan and Norton dominates (Neely 2005; Taticchi et al. 2010). Other influential works have been those of Charnels et al. (1978), Dixon et al. (1990), Neely et al. (1995), Eccles (1991), Lynch et al. (1991), and Banker et al. (1984). In the literature on the ten most cited performance measurement and management models, Kaplan and Norton have three works (Kaplan & Norton 1992; 1996; Kaplan 1996), where they present their **Balanced Scorecard** (BSC), a multidimensional model of performance measurement and management. Other performance management and measurement systems that aim to capture several dimensions of performance have also been presented. These systems include the **performance pyramid** (Lynch & Cross 1991), the **results-determinants framework** (Fitzgerald et al. 1991), and the **performance measurement matrix** (Keegan et al. 1989). However, the Balanced Scorecard is the performance management model that has gained a fairly established position among management researchers and practitioners.

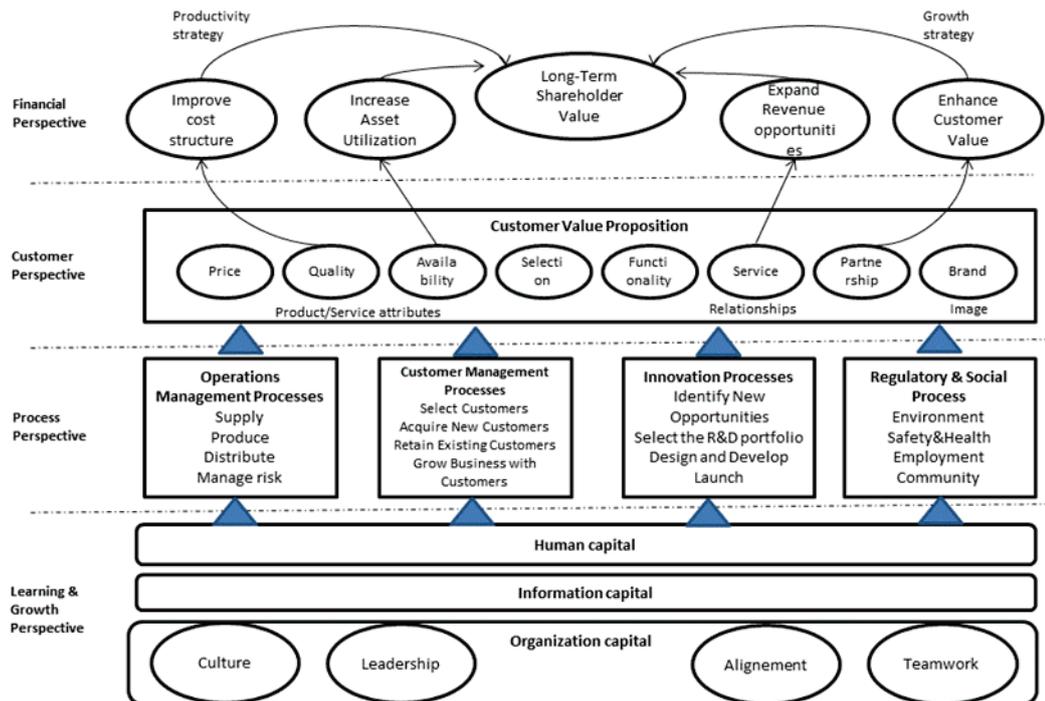
The BSC is one of the most dominant performance management systems in the management literature and has widely influenced managerial thinking. This model originated from the notion that the business environment around the world has significantly changed over the past several decades. The BSC model is widely used in management education and training. It is taught in business schools, and numerous consultants use it.

The new economy is based on knowledge. The rationale for the need and formation of a new kind of performance measurement and management system

was the idea that the source of competitive advantage no longer lay in the companies' ability to invest in and manage physical assets; rather, it lay in the exploitation of intangible assets (Kaplan & Norton 1996). This led to the creation of a measurement system that complemented financial measures with perspectives on the *customer*, *internal business processes*, and *learning and growth*.

#### The Balanced Scorecard

The BSC has evolved since its creation. Kaplan and Norton (1996) state that the BSC started to evolve as some companies started to use it as a cornerstone of their strategic management systems. Used in this way, it addresses one of the major challenges in other management systems, in that it provides a tool linking an organization's strategic goals to its short-term actions. In addition to the four perspectives, Kaplan and Norton present four processes that support this goal: translating the vision, communicating and linking, business planning, and feedback and learning. The first process aims to clarify the vision of the firm, and to bring that vision to the consciousness of the employees. The second process focuses on communicating the vision by setting goals and linking rewards to performance measures. The third process focuses more on the business unit level, on the setting of the targets, and on allocating resources and establishing milestones. The fourth process focuses on feedback and learning by supplying strategic feedback and facilitating strategy review and learning. These four processes together form a systemic, learning management system. Kaplan and Norton (1996) state that companies use the BSC to clarify and update strategy, communicate strategy throughout the firm, align unit and individual goals with the strategy, link strategic objectives to long-term targets and annual budgets, identify and align strategic initiatives, and conduct performance reviews to improve strategy.



**Figure 2.** Balanced Scorecard as a holistic strategy map (Kaplan 2010)

One of the arguments in support of the BSC in comparison to traditional financial measures is its ability to engage leaders in double-loop learning (Argyris 1991), which financial measures are not capable of, as they focus only on the one perspective of performance and do not involve strategic learning (Kaplan & Norton 1996). The elements that lead to strategic learning with the BSC are as follows (Kaplan & Norton 1996): 1) it makes a firm's shared vision explicit, by defining the target results of the firm in clear and operational terms; 2) it provides a strategic feedback system by combining different perspectives and teaching managers to think systematically about the assumptions underlying their strategy; and 3) it facilitates the strategy review, which is crucial for strategic learning, as it presents multiple perspectives and causal relations between performance drivers and objectives, thus making it possible to focus on the validity of a business unit's strategy and the quality of its execution instead of focusing merely on financial objectives and the possible explanations for why they were not met.

The popularity of the BSC has inspired scholars to develop their own balanced performance measurement and management metrics. For instance, Maltz et al. (2003) developed their performance framework based on the BSC. The framework follows the BSC in its performance dimensions, but adds a personnel development dimension to explicitly address the human factor in organizations.

It then proceeds to identify baseline measures for these dimensions, such as sales, revenue growth, and quality of leadership development. The framework then suggests additional measures depending on whether the firm represents high or low technology, whether it is a small or large firm, or whether the firm's product cycle is under or over three years. The framework is one illustration of how the BSC has had an effect on the performance management research and on suggested practical implications.

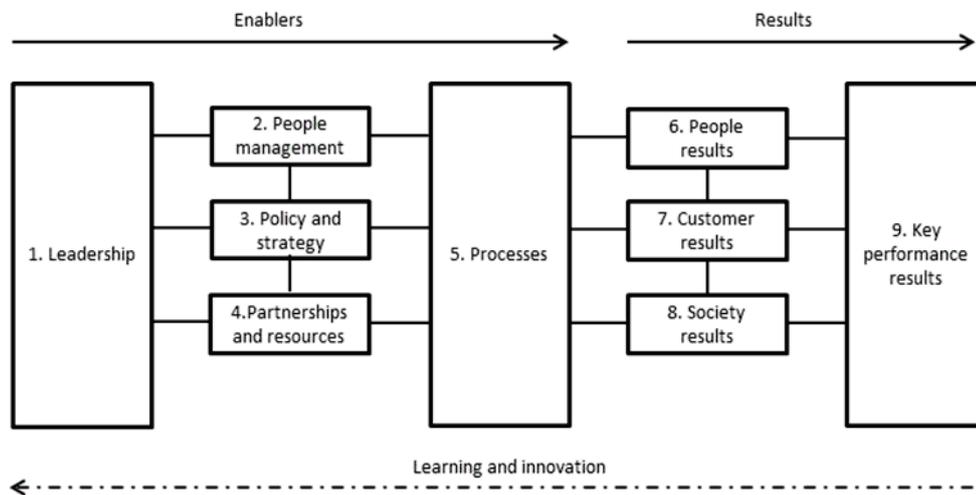
### Quality management models

Another group of multidimensional performance management models stems from the quality management research tradition. SMEs, following pressure from larger business customers, have faced the need to embrace the quality management models, systems, and thinking.

These models draw from the philosophy of Deming (Anderson et al. 1994). There are four identifiable assumptions that underlie performance models derived from Deming's philosophy (Hackman & Wageman 1995). First, the quality of products and services is considered important. Even though delivering quality causes some costs, the costs of good quality are thought to be less than the costs inflicted by poor quality. Second, people are perceived to be capable of being proactive and to take the initiative, as long they have the appropriate tools and training. This suggests that investments in personnel development pay off eventually. Third, organizations are systems of highly interdependent parts. Instead of an exclusive focus on a single element leading to good performance, the systemic nature of performance should be taken into account. Fourth, senior management of the firm is ultimately responsible for quality. The role of the MD and the way he/she sees the organization and its environment are important for firm performance.

Three performance models can be identified that have focused on the quality and performance of the firm. The European Foundation for Quality Management (EFQM) model, the Malcolm Baldrige National Quality Award (MBNQA) model, and ISO 9000 are all related to quality improvement and consequently to the improvement of organizational performance. There are significant differences between the models. As the EFQM and MBNQA models are frameworks for organizational excellence, ISO 9000 is a standard for quality management systems in organizations. In order to comply with the ISO 9000 quality standard, organizations are required to conduct internal audits and to obtain external audits by certified external auditors. The focus below is on the EFQM and MBNQA models, as they provide holistic performance evaluation models for the companies.

**The EFQM Model.** The EFQM model is widely used in self-assessment of organizational performance and for strategy development purposes. The EFQM model includes nine elements, of which five are **enabler elements** (leadership, policy and strategy, people, partnerships and resources, and processes) and four are **result elements** (customer results, people results, key performance results, and society results). Each of the criteria is further divided into sub-criteria, which are further divided into **guidance points**, the actions that organizations should undertake in order to meet the criteria. The enabler elements focus on the organizational processes, on the ways of doing things in a firm. The underlying thought is that good performance in result elements is achieved through mastering the enabler elements (Prabhu et al. 2000). The result elements include the different dimensions of the performance, which are of interest to multiple stakeholders.



**Figure 3.** The EFQM excellence model (EFQM 2012)

The EFQM Excellence model is represented as a tool for assessment and development, which can be used in organizations in the following ways (The EFQM excellence model: EFQM model 2010):

- To evaluate how far along a firm is on its route to excellence; to provide an understanding of strengths and challenges in relation to its vision and mission
- To form a common vocabulary and a way of thinking to aid efficient communication of ideas, both inside and outside of the organization

- To combine ongoing and planned development programs and projects, to remove the overlapping parts, and to identify the gaps
- To create a structure for the organization's management system

The EFQM Excellence model uses a self-assessment method to gather information related to both the enabler and result elements. The range of self-assessment methods varies. There is not one universal way to conduct self-assessment; there are indicators that different ways can be successful, as long as they fit the organization, are used continuously, and foster participation (Samuelsson & Nilsson 2002). Through the self-assessment, it is possible to identify the strong areas or the areas that need improvement, which can then be used in the strategy development process (Ritchie & Dale 2000). The self-assessment models used were found to be different among the groups of nine large organizations. Whatever model is used, the method of conducting a self-assessment should be compatible with the organization's culture (Samuelson & Nilson 2002).

The academic literature generally finds a positive relationship between the use of self-evaluation and firm performance (Ahmed et al. 2003; Brown and Van der Wiele, 1995; Finn and Porter, 1994; Samuelsson and Nilsson, 2002; Van der Wiele et al., 1996).

Even though the EFQM model identifies certain enabler and result elements and assumes that there are connections between the elements, it is non-prescriptive in nature. The model suggests that there are multiple ways to achieve sustainable excellence, and that there are various ways to implement the model (Ghobadian & Woo 1996; Bou-Llusar et al.2005).

The EFQM model is hierarchical, as the relationships among its elements are considered important. The logic of the EFQM model suggests that improvement in *Leadership* affects *People*, *Strategy*, and *Partnership and Resources*, which lead to improvement in *Processes*, *Products*, and *Services*. This leads in turn to improvement in *People results*, *Customer results* and *Society results*, and eventually to improvement in *Key Performance Results*. There is also a constant feedback loop from higher hierarchical elements to lower level elements.

The EFQM model provides a comprehensive model for measuring business performance relevant to many stakeholders, even though it is sometimes criticized for lacking theoretical validity (Bou-Llusar et al. 2005) or for not having suggested causal connections among the elements (Gomez et al.2011). In an integrative review, Kim et al. (2010: 694) state that their research indicates

that most previous studies have missed the holistic nature of the model, and suggest that “significant contributions to theory and practice may be readily available from a more rounded use of the model.” The EFQM model is also found to be a comprehensive, working quality management model, enhancing firm performance (Bou-Llusar et al. 2009). The EFQM model as a comprehensive performance model underlies the systemic nature between enabler and result criteria, bringing forth the idea that success in one element is not enough in the process of becoming excellent (Naylor 1999).

**The MBNQA model.** The Malcolm Baldrige National Quality Award (MBNQA) model is the North American equivalent of the EFQM model. The models have some similarities, although they are not identical. The MBNQA model consists of driver, system, and results elements. Leadership is the main driver element in the model. The sub-elements in the system element are process management, human resource development and management, strategic planning, and information and analysis. The sub-elements in the results element are divided into two categories: financial results and customer focus and satisfaction. The model has evolved over time and currently consists of a leadership triangle (leadership, strategic planning, and customer focus criteria); a results triangle (human resources, process management, and business results criteria); and measurement, analysis and knowledge management criteria (Dror 2008).

**Table 2.** MBNQA characteristics (MBNQA 2012)

<b>MBNQA characteristic</b>	<b>Definition</b>
<b><i>MBNQA core values and beliefs</i></b>	Systems perspective, visionary leadership, customer-focused excellence, valuing people, organizational learning and agility, focus on success, managing innovation, management by fact, societal responsibility, ethics and transparency, delivering value and results
<b><i>Self-evaluation dimensions for processes</i></b>	<b><i>Approach:</i></b> How systemic are firm's processes? <b><i>Deployment:</i></b> Are processes used consistently around the firm? <b><i>Learning:</i></b> Is there constant evaluation of processes? Are the results shared around the organization? <b><i>Integration:</i></b> Do the processes fit the firm's current and future needs?
<b><i>Self-evaluation dimensions for results</i></b>	<b><i>Levels:</i></b> What is the firm's current performance? <b><i>Trends:</i></b> Are the results getting better, staying the same, or getting worse? <b><i>Comparisons:</i></b> Compared to other companies, how well are you doing? <b><i>Integration:</i></b> Do you follow the appropriate results? Are they used as a basis for organizational decision making?

The model was originally developed on the premise that leadership acts as a driver and affects the organization as a system, and eventually leads to performance. However, as Wilson and Collier (2000) have pointed out, the general idea behind the MBNQA model was hierarchical (leadership – system – performance); the original model was drawn as recursive, meaning that all the elements in the model were dependent on each other. Wilson and Collier (2000: 363) criticize the original model defined by Baldrige experts:

Essentially, they had no idea how these specific performance relationships and directions of causation should be defined. Therefore, they defaulted to the premise that “everything is related to everything else” and they used two-headed arrows among all Baldrige categories to define the specific performance relationships

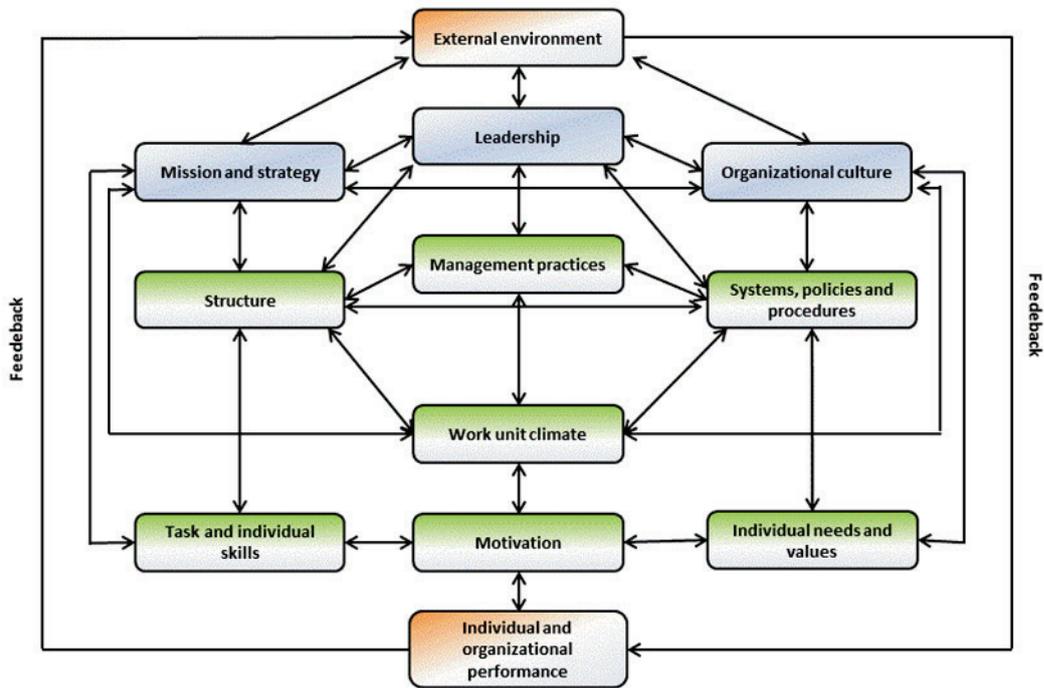
There has been growing interest in the relationships among the elements in the MBNQA model. In their analysis of the relationships in the MBNQA model,

Wilson and Collier (2000) found that the model is recursive in nature. Their findings support the general idea behind the model that leadership drives the system and thereby leads to customer and financial results. Leadership was thus identified as the most important driver for system performance. Moreover, they state that leadership has effects throughout the systems, although in their sample on the United States automobile industry, they failed to find a direct relationship between leadership and financial results. Also, they found that of all the system elements, information and analysis have the strongest effects on other system elements. Meyer and Collier (2001) found that leadership drives all other elements in the MBNQA model, the leadership and information and analysis elements are linked to organizational performance resources, and that human resource development, management, and processes are linked to customer results. Ghosh et al. (2003) further found that leadership is the most important element and the driving force behind the other elements in the MBNQA criteria.

The models stemming from the quality management literature have influenced management thinking, and have also been implemented in practice. The last part of this section presents theoretical performance models from the performance literature.

#### More academic models

Theoretical models have also guided the conceptualization of firm performance. The model presented by Burke and Litwin (1992) can serve as an example. Burke and Litwin's (1992) model represents a theoretical holistic performance model. The model stems from a systems thinking perspective (Katz & Kahn 1978); this perspective assumes that an organization can be described in terms of an input-throughput-output continuum, emphasizing feedback and interaction with the environment. The model itself is based on the theoretical literature and practical experience.



**Figure 4.** Burke & Litwin's (1992) model of organizational change and performance

The model emphasizes change. The underlying assumption stemming from the open system perspective is that the firm is in constant interaction with its environment. The arrows in the model represent the reciprocal relationships among the various system elements. By assuming reciprocity, Burke and Litwin (1992) emphasize the systemic nature of firm performance; change in one system element affects the whole system. The elements in this model have been divided between **transformational elements** and **transactional elements**. Mission and strategy, leadership, and organizational culture are considered transformational elements, whereas structure, management practices, systems, policies and procedures, work unit climate, task and individual skills, motivation, and individual needs and values are considered as transactional elements. The model is causal in that even though suggesting reciprocal relationships among the elements, it suggests that transformational elements play a more dominant role. This means that the change in the transformational elements has broader consequences as compared to the change in transactional elements. To put it another way, the change in transactional elements is not sufficient without simultaneous change in transformational elements. The model suggests that change in the firm starts from change in the business environment. Changes to the transformational elements of the model require more time, as it is likely that the change requires new kinds of action and change in the organizational culture.

Transactional elements, on the other hand, are more easily changed. The term *transactional* refers to short-term reciprocity with people and groups, and more formal agreements of reciprocal favours. The change in the transactional elements is thus easier to achieve. Burke and Litwin (1992) compare transformational and transactional change to the leadership and management dimensions of a manager's behaviour.

The major contribution of the Burke and Litwin (1992) model is the causal explanation for the relationships among system variables. They conclude that behaviour fostering well-performing organizations is hierarchical. To implement changes in the external environment, the transformational variables should be changed first, then the transactional variables. This approach underlines the role of organizational culture and of the MD as one of the creators of that culture.

### 2.1.2 Lessons learned from the performance literature

The performance models presented in this section provide a window on how performance is depicted in the management literature. The performance literature in general has moved from performance measurement toward a performance management perspective. The driver behind this change has been the aim to provide more suitable ways to manage firms in a business environment characterized by constant change. In addition to providing financial information, the performance models presented are designed to produce information on the intangible assets of a firm. Through a focus on the wider aspects of firm performance, the function of performance models has developed from being operative performance measurement systems toward being more future-oriented strategic management tool, providing means for learning and development. There are several characteristics present in the performance discussion in general that are also seen in performance models.

#### *Linear time perspective*

The performance models assume a linear time perspective. The models offer a linear and mechanistic view of firm performance, even when taking into account that the models might be thought simple and mechanistic. The performance models offer a tool to categorize the actions required in competitive environment, and provide a way to simplify and understand a complex and uncertain environment.

The models suggest that companies do not function in an isolated bubble, but work in the changing environment. It seems that the assumption behind the

models is systemic in nature, and therefore that input into the system is transformed within the firm, and turned into an output. Feedback from the environment is seen as affecting the future input, thereby creating a developing system. There is a built-in assumption of learning and development of the firm, as the models suggest that companies constantly receive feedback from the environment based on their actions, and adapt their behaviour accordingly.

#### *Division into process and outcome dimensions*

The models draw a distinction between the process and outcome elements. Process elements are actions that eventually lead to success, whereas outcome elements are something measurable and which depict the consequences of these actions. Process elements focus on the action and on the creation of the future performance potential, whereas outcome elements focus on the measurable performance. The arrow of time flows quite directly from the process elements toward outcome elements. The process elements are traditionally studied in terms of effectiveness, whereas the outcome elements are more often tied to the term performance in the management literature. All of the presented models have been designed to produce a balanced view on firm performance.

#### *Common causal relations between the performance elements*

The performance management models present in the literature acknowledge the multidimensionality of organizational performance, and they provide a holistic view of firm performance. The models are hierarchical in nature, offering causal relations among the various factors affecting firm performance. The models suggest that there exist both soft and hard elements in the performance system. Soft elements in the models refer to the intangible, human related issues such as employees and learning, whereas hard elements refer to the more tangible issues, such as technologies or systems

The performance models share common elements. The **finance perspective** is integrated in the business thinking. The final goal of the performance models is to help companies toward the success. The BSC refers to the financial perspective, quality models to key performance indicators, and Burke and Litwin's model to the more vague individual and organizational performance. The external environment, especially as it relates to customers, is present in the performance models. In addition, internal processes and practices are mentioned as ways to manage organizations and to gather relevant information. Quality models, in particular, underline leadership as a foundation that the management system of a company should be built on.

One underlying characteristic of these models, sometimes explicitly mentioned (Burke & Litwin 1992, MBNQA), is their systemic nature with regard to the interrelationships among the performance elements. The models are also built on the principle of **equifinality** (Katz & Kahn 1978), meaning that the performance of the firm may be reached through different routes. The models suggest hierarchical organization of different elements, with softer elements seen as bedrocks for success; these elements include leadership (MBNQA, EFQM), learning and growth (BSC), or mission and strategy, leadership, and organizational culture (Burke & Litwin 1992). Harder performance elements, such as structure, systems, processes, and practices, are seen as more easily transformed, but still tied to the softer performance elements.

The hierarchical arrangements of the elements in the different performance management models have been under critical examination. The systemic nature of these models has been articulated explicitly, although there have been differing views on what kinds of causal linkages among the elements in performance models actually exist. For instance, it has been suggested that enabler elements in the EFQM model are highly reciprocal, and that they should be investigated as a bundle (Dijkstra 1997; Bou-Llusar et al. 2009).

The performance literature acknowledges the existence of multiple stakeholders. Customers, employees, suppliers, owners, and social communities are all stakeholders that influence and are influenced by firm performance. Performance literature has identified the existence of multiple stakeholders and their sometimes conflicting needs. However, stakeholders as such are not necessarily as homogeneous a group as is sometimes suggested; for instance, employees are a heterogeneous group, consisting of people with different goals and needs. However, the performance models seem to assume a rather uniform attitude of the stakeholders toward common goals.

#### *Lessons learned from performance literature*

For the MD, the models offer a tool to understand complex reality. The performance models offer neatly organized models of firm performance, suggesting that performance can be understood through different causal relations. However, the literature has presented conflicting evidence concerning the elements present in the performance models. In general, the models build on a common basis, but the existence and use of any of these performance models does not in itself ensure performance improvement. It seems logical to assume that the different ways in which these models are implemented, understood, and accepted influences organizational outcomes. Moreover, the models suggest that they should be tailored to suit the needs of the particular companies. Therefore,

comparisons of the relative usefulness of the various models has been difficult. Despite this difficulty, there have been research endeavours in which comparisons have been made.

In conclusion, some converging characteristics can be identified in the models.

One of these characteristics is the timeframe of the performance. The MD faces the question of whether the firm requires actions to ensure the current, daily performance or if it possible to invest in the elements cultivating future performance. This resonates with the performance management models' concepts of *leading and lagging*, *transactional and transformational*, and *enabler and outcome* variables.

Another characteristic is the plurality of the stakeholders. The MD faces various stakeholders, who sometimes have conflicting needs. Performance models acknowledge that different stakeholders have differing needs, all of which ideally should be addressed. The major decision the MD faces in this context is whether to focus solely on the shareholder perspective, or to view firm performance through the perspectives of other stakeholders as well. To put the challenge more precisely, the MD must evaluate how much weight to assign to each stakeholder group (including shareholders) when decisions are made.

Yet another major issue related to the aforementioned questions is whether the MD should focus on the external business environment or on the firm and its internal potential. Changes in technologies and markets and, on the other hand, the need to cultivate firm capabilities create competing directions of attention.

Through the performance models, the otherwise nebulous concept of firm performance has been simplified and put into a more understandable form. With theoretical frameworks dealing with organizational timeframes, contexts, stakeholders, and other elements, the research and management of performance has become somewhat easier. However, there is a danger in the simplification of the reality. The conceptual models offered by academics and consultants ease the anxiety caused by the complex environment. The performance models presented above can be seen to provide rather mechanistic and clear-cut views of firm performance and of the elements contributing to it. The models are always idealizations and simplified examples of the ideal firm. It is important to remember that these models are supposed to serve as guiding frameworks, not actual pictures and mirrors of reality, even though they can be sometimes considered as such.

In a powerful essay, Berger and Luckmann (1966) discuss the symbolic universe as a major tool for legitimizing the knowledge that experts produce. The symbolic universe is individual property, a means to understand a complex reality. Symbolic universes favour order, and they facilitate escape from the chaos and the dark side of human life. In a symbolic universe, everything is in its rightful place, and marginal phenomena stay marginal. The symbolic universe is a means to understand this world in a simple and logical way. Following on from that line of thought, the MD needing to make decisions producing success in a complex environment draws from these legitimized models and practices, and further arranges his/her thoughts accordingly.

## 2.2 Managing directors' cognition and firm performance

The previous section explored the different ways how performance and different performance models are presented in the management literature. This section is geared to explore how the performance models influence managers' thoughts according to the literature. Moreover, the question is also raised what do the managers' believe about performance and further, what are the outcomes of the beliefs related to firm performance.

To begin, the MDs play a special role in the SMEs. They have the power to define the firm's strategic logic, guide the management processes, and define the resources tied to these processes. Even though the MDs are not sole responsible actors in the firm's decision making, they have a position with power to guide the firm's direction. The way how the MDs make sense of the environment is influential on the subsequent firm's action. The MDs' thinking is thus important issue to study. This section first presents an overview of the research done focusing on the role of the managers. Then, the focus is turned especially towards the MDs beliefs and the effect of MD thinking on performance. Last, at the end of the section the consequences of the management beliefs are discussed.

### 2.2.1 Managers' role in firm performance

Management studies stem from the assumption that firm management matters. Various classic (Barnard 1938; Mintzberg 1980; Quinn 1988), established (Hambrick & Mason 1984), and emerging (Adner & Helfat 2003; Kor & Mesko 2013) research streams have identified the importance of top-level management as a source of firm performance. MDs' performance in a firm has been characterized through a variety of actions and roles.

MD's roles have been a subject of study in the management field for a long time. An early work on the topic, *'The functions of the executive'* by Chester Barnard (1938), focused on the organization from the perspective of executive management. Barnard studied organizations as cooperative systems, where the desired outcomes from actions are achieved through the cooperation of members of an organization, and the particular focus of the book is on the 'executive system', which is the system of top-level managers in an organization seen as responsible for the management of the firm. Barnard (1938) thus highlighted three functions as the most crucial for the executive system: 1) providing and maintaining a system of communication, 2) recruiting employees and encouraging them to work toward a common goal (by getting employees to identify with the organization) through incentives and authority, and 3) the formulation of a purpose and objectives. Mintzberg (1980) outlined ten activities of managers grouped under the categories of interpersonal roles, informational roles, and decisional roles. Interpersonal roles include Figurehead, Leader, and Liaison. Informational roles include Monitor, Disseminator, and Spokesman. Decisional roles include Entrepreneur, Disturbance Handler, Resource Allocator, and Negotiator. Interpersonal roles are related to the status of the manager and development of interpersonal relationships. Informational roles are related to the receipt and dissemination of information. Decisional roles are related to the various decisions the manager is required to make. Together, these roles can be seen as capturing the different dimensions of managerial work. Quinn (1988), on the other hand, found eight role categories, namely, Producer, Director, Coordinator, Monitor, Facilitator, Mentor, Innovator, and Broker. These early definitions of managerial roles were influential in both management schools and consultancies.

More recently, researchers have approached the role of the MD from another perspective. Hambrick and Mason (1984) presented their influential *upper echelon* theory, which focused on the top managers of a firm and was inspired by Carnegie School theorists (Hambrick 2013). The key idea of the theory is that top executives interpret their surroundings based on their personalities, experiences, and values. When these interpretations are acted out, they become embedded in executive behaviour. The theory suggests that when this behaviour is tied to questions related to firm strategy, a firm serves as a reflection of its top-level managers. Concepts familiar to Carnegie School-inspired researchers—bounded rationality, limited search, information overload, and coalitional dynamics—also inspired the upper echelon theory (Hambrick 2013:110) and are present in contemporary management discourse. The upper echelon theory relies heavily on the background characteristics of top management team members and uses them as proxies in order to understand team values and cognitions. Moreover, the

theory makes a strong claim that in order to understand organizations, we should study top-level managers and their values, biases, and experiences. It also claims that the predictive power of the background characteristics of an entire top management team provides a clearer picture compared to focusing only on MDs background characteristics.

Top-level managers' functional background and their functional positions have been seen as defining such executives' beliefs (Dearborn & Simon 1958). However, the managerial cognition literature provides conflicting evidence on the mechanisms influencing MD cognitions. For instance, Chattopadhyay et al. (1999) studied the impact of functional and social conditioning on executives' beliefs and drew the conclusion that functional conditioning—from the previous and current executive management positions—has little impact on the formation of executive beliefs. However, they found similarities between the top-level management teams' beliefs and concluded that the beliefs held by such teams tend to converge toward similarity (i.e., they exhibit isomorphism).

Approaching the role of MDs from a more socio-constructivist perspective, it can be said that the role itself carries several expectations. For instance, Berger and Luckmann (1966: 94) state:

*By virtue of the roles he plays the individual is inducted into specific areas of socially objectivated knowledge, not only in the narrower cognitive sense, but also in the sense of the 'knowledge' of norms, values and even emotions.*

The roles that MDs play influence the type of knowledge they consider important and more specifically, the elements of the world with which they connect. Considering the perspective of Berger and Luckmann (1966), one can assume that these at least partly institutionalized definitions also affect the expectations MDs of strongly performing firms have of themselves.

In addition to the managerial effects MDs have on firm performance, they have a leadership and symbolic role in the firm. MDs' roles in SMEs are loaded with expectations (Katz & Kahn 1978). MDs are agentic (Giddens 1984) actors, meaning that MDs themselves have the power to formulate their role. However, institutionalized expectations exist and beliefs related to these are reinforced, for instance, through the management literature.

Top management's role in a firm's success has been explored in different disciplines. In particular, recent research in the domain of strategic management

has lately focused on dynamic managerial capabilities (Adner & Helfat 2003). These are described as

*...the capabilities with which managers create, extend, and modify the ways in which firms make a living-to help explain the relationship between managerial decisions and actions, strategic change, and corporate performance under conditions of change (Helfat & Martin 2015:1282).*

These managerial capabilities are seen as a source of competitive advantage, as some MDs are more prone to lead companies to success and respond to technological and market changes in the environment (Rosenbloom 2000). By giving attention to certain issues in the environment, considering them meaningful, and leading their organizations according to direction thus formed, top MDs differ from their competitors.

Adner and Helfat (2003) studied companies in a single industry and found that though managers faced a similar uncertain industry environment, they made different decisions at different times. The authors argue that dynamic managerial capabilities reflect managerial cognitions, human capital, and social capital. Environmental changes require a shift of cognition from MDs. Adner and Helfat (2003) state that it is crucial to explore both managerial and organizational effects to understand firm actions in a turbulent environment. Further, they stated that the interaction between these effects is the determining factor, called dynamic managerial capability. Eggers and Kaplan (2009) follow Adner and Helfat (2003) and state that managerial cognition is a dynamic managerial capability that can shape adaptation by established firms. For instance, approaching the topic from an HRM point of view, Budhwar and Sparrow (2002) found several different logics of action that managers working in various contexts applied to the same identified problem.

The mechanism through which managers' perceptions (or mental models) are translated into action in organizations is often explained through the concept of dominant logic (Adner & Helfat 2003; Kor & Mesko 2013). Managers' dominant logic refers to how they conceptualize their environment and make resource allocation decisions based on this conceptualization (Prahalad & Bettis 1986, Bettis & Prahalad 1995). Further, MDs play a crucial role in guiding various processes in a firm to promote creative and cognitive inputs at different organizational levels. These processes guide the information MDs receive from the organization. In their conceptual article, Kor & Mesko (2013) stated that the *ability to recognize the need to revitalize the dominant logic* and a firm's rate of success in achieving evolutionary fit are dependent on the MD's and executive

team's managerial capabilities. Accordingly, the importance of dynamic managerial capabilities is underlined in the formation of different dynamic capabilities.

The MD is in charge of the operative actions in an organization. This means that the MD is responsible for decisions that are often, if not always, made with the top management team and intended to lead the firm forward. The MD plays a crucial role in providing direction for the firm by guiding processes and aligning resources inside the firm (Sanchez & Heene 2004). Moreover, it is often assumed that MDs must be aware of changes in technology and markets, foster relationships with partner companies (and potential future partners), and be aware of competitors' moves. They are also responsible for ensuring good relationships with financial institutions, especially in the case of SMEs, and with political institutions in some cases. Finally, from the perspective of the MD, the most important factor is responsibility to (other) owners of the firm who have invested in the firm and expect a return on their investment. The MD must balance multiple desires, wishes, demands, opportunities, and threats in order to master this role.

### 2.2.2 Managers' thinking as a research topic

The contribution of managers to their firm's performance is clearly important, and consequently the mind of the manager has long fascinated researchers. Nevertheless, capturing the managerial mind has proved a challenging task. Instead of analysing MDs' minds in general society, management research has analysed MDs' minds in organizational or external business environments, with a focus on the relations between MDs' mind-set and firm performance. For instance, Eden, Jones, and Sim's (1979) "Thinking in Organizations" presented some openings and offered encouragement regarding the examination of managers' minds.

However, researchers have adopted different conceptualizations and approaches depending on ontological and epistemological assumptions. Accordingly, they have used different methodologies to capture the essence of the managerial mind. One pragmatic approach used to explore the managerial mind in the field of management studies is cognitive mapping. Following the path set by Eden et al. (1979), Huff (1990), in her edited book *Mapping Strategic Thought* and later *Mapping Strategic Knowledge* (Huff & Jenkins 2002), provided a collection of approaches to capturing the mind of the manager, with a focus on managerial cognition. At the end of the 1990s and the beginning of the 2000s, this approach gained popularity, and other books were published on the topic, including

*Managerial and Organizational Cognition – Theory, Methods and Research* (Eden & Spender 1998) and Hodgkinson and Sparrow's (2002) *Competent Organization*, which combines psychological analysis and strategic management.

Researchers studying managers' thinking have drawn particularly from two distinct theoretical bases. The Carnegie School, especially through the concept of bounded rationality as well as Weick's (1979; Daft & Weick 1984) concepts of sense-making and enactment have influenced research.

First, research on the effects of managerial cognition on performance has its roots in the Carnegie School (Simon 1976; Cyert & March 1963; March & Simon 1958). Contemporary management researchers (Argote & Greve 2007) continue to explore Carnegie School ideas; new research avenues have been suggested (Gavetti & Rivkin 2007), and influential conceptualizations of companies based on the ideas (i.e., the attention-based view of the firm) have been presented (Ocasio 1997). Carnegie School ideas have significantly moulded management research, particularly the focus on decision making.

*Bounded rationality* is one of the most influential concepts derived from the Carnegie School. A certain set of factors always influence individuals' decisions, creating a closed system of variables. Similarly, decisions in organizations are always seen as boundedly rational; individual cognitive capacity, time, and information are limited, and constrain rational decision making.

The executive's role is seen as managing different communication flows and exercising the authority and power to affect decisions made at lower levels in the firm hierarchy. Decision making refers to constant unconscious and conscious processes, where alternatives are continually examined and abandoned and others selected. Decision making in the firm can be understood through three factors, namely, those that influence organizational goals, organizational expectations, and organizational choices. Organizational goals depend on which dimensions of which goals are considered important as well as the level of aspiration toward these goals. Former goals, current performance, and the performance of competitors influence these goals. Organizational expectations are based on a firm's current direction of attention. The dimension of the environment toward which a firm's attention is directed influences these expectations. Decisions and choices are based on addressing an identified problem in the environment and on heuristic behaviour.

Second, attention is sequential and tied to different issues in different periods. Avoidance of uncertainty stems from the assumption that markets, suppliers, shareholders, competitors, and politics, for instance, create uncertainty.

Companies strive to avoid uncertainty by focusing on short-term feedback from the environment and creating a balanced environment. This short-term focus often leads to engaging in problem-oriented behavior and responding to perceived problems. To balance the environment, companies rely on informal rules for actions, for instance, creating internal budgets. As a firm's environment changes, it strives to acquire new direction. That search for new direction is based on problems identified from the firm's current course of direction. This search is motivated by the inability to meet organizational goals and is seen as continuing into the future; it is aimed toward the proximity of problems. The search is biased as it is based on executives' backgrounds, hopes, expectations, communication, and unresolved conflicts.

The final assumption is that companies learn. A firm adapts to its environment by changing the direction of its attention and goals and searching for a new direction. Goals are especially relevant for learning; they are based on the firm's and other companies' experiences with similar previous goals. Moreover, a firm learns through changing the direction of its attention, addressing some performance measurements and neglecting others, and focusing on certain parts of the competitive environment and neglecting others. New ways of searching for solutions to problems are learned through experience.

Accordingly, the fundamentals of the relationship between organizational action, top management's role, and managerial thinking were formed early in related research. Building on, refining, and challenging previous research related to managerial thinking, Weick (1976) suggested that part of being in the world includes *sense-making* of the most immediate environment. He questioned the concept of bounded rationality and the assumptions behind it. Weick's (1979) studies on *enactment* and *sense-making* shook the assumptions behind the bounded rationality concept. He stated that instead of managers processing information from unchanged environment, they

*...create their own constraints through an active constructive process, in which they rearrange, isolate, and demolish seemingly objective features of their surroundings, in turn giving rise to subjective differences in perception* (Hodgkinson & Healey 2008: 390).

To make sense of the environment, managers must answer the question: What's going on? (Weick et al. 2005). According to Weick (1995: 17-62), sense-making can be described through seven properties: it is grounded on identity construction; it is retrospective; it is *enactive* of sensible environments; it is social; it is ongoing; it is focused on and through extracted cues; and it is driven by plausibility rather than accuracy. Sense-making refers to "...such things as

placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding, and patterning” (Weick 1995: 6). From the manager’s perspective, sense-making refers to managers’ constant pursuit of understanding what is going on in their immediate environment. This sense-making leads to continuous categorization of the environment, which can be seen as stemming from individual minds or formed through social processes. Sense-making is tied to language, talking, and communication since through the explication of situations (e.g., MDS’ descriptions of performance), the environment is talked into existence (Weick et al. 2005). Thus, sense-making focuses on the interplay between interpretation and action, gearing the direction of focus toward interpretation rather than choice (Weick et al. 2005; Daft & Weick 1984). This study leans toward Weick’s (1979) constructivist conceptions of cognition in organizations.

<b>Assumptions about environment</b>	Unanalyzable	<b>UNDIRECTED VIEWING</b> Constrained interpretations Non-routine, informal data Hunches, rumours, change opportunities	<b>ENACTING</b> Experimentation, testing, coercion, inventing the environment, learning by doing
	Analyzable	<b>CONDITIONED VIEWING</b> interpretation within traditional boundaries, passive detection, routine, formal data	<b>DISCOVERING</b> Formal search, questioning, surveys, data gathering, active detection
		Passive	Active

**Organizational intrusiveness**

**Figure 5.** Organizational interpretation modes (Daft & Weick 1984)

In their classic study, Daft and Weick (1984) found that organizations and their managers interpret the business environment and ways to understand it differently (Figure 5). The assumption can be that the business environment is more deterministic, including the belief that the environment is concrete and measurable, and strategic action should fit this environment. The environment can also be seen from a more proactive direction, meaning that it is impossible to capture the environment as it is, and the environment is constructed by acting, which accordingly influences the formation of the business environment. Interpretation of the business environment thus influences the actions taken by a firm or manager.

In addition, organizational learning theorists (Argyris & Schön 1974; Argyris 1991; Senge 1994) focused on managerial thinking. The focus has often been on

the interplay between individual thinking and organizational activities. Argyris and Schön (1974) and Senge (1994) focused on the interplay between individual and organizational learning, first referring to double-loop learning as a way to reflect on present actions and find root causes of problems and second, describing a focus on mental models as one of the pillars of a systems thinking-oriented way of capturing an organization. Argyris and Schön (1978) suggested two underlying theories that guide managerial activities. *Espoused theory* refers to theory guiding managerial actions, which can be explicated. *Theory-in-use*, on the other hand, refers to the more tacit underlying mental models guiding individual actions. Challenges arise when the discrepancies between these two theories become overly wide.

MDs' cognitions, or mental models; related processes such as reasoning, memory, attention, and perception; and the social environment in which an MD operates and brings issues into existence through language form the basis of the field of managerial thinking. The following section discusses why MDs' cognitions are an especially interesting topic of study.

### 2.2.3 Managerial cognition research

The field of **managerial cognition** research was established to operationalize the managerial mind, or managerial thinking. The approach of this research stream is based on the notion of managerial and organizational cognition and identifies managerial thinking as an important aspect of an organization, studying it through different concepts. One of the notions of this research stream is that managerial cognition is relevant to the performance of the firm. However, the topic has not been widely studied. In the managerial thinking field, the managerial cognition tradition has the most established roots regarding research on the managerial mind and its relation to firm performance. While managerial cognition research is not flawless, it provides a decent foundation for the exploration of MDs' minds and thinking. For the purposes of this study, it provides the necessary tools for exploring the phenomenon of performance in MDs' thoughts.

Research on managerial cognition has matured over time. The research conducted prior to 1995 was relatively focused and comprised the discipline of managerial and organizational cognition. Walsh's (1995) vast review can be seen as the end of an era (Huff 2013), as subsequent research on managerial cognition gained popularity and spread to other disciplines instead of becoming a distinct research approach. In his review, Walsh (1995) categorized managerial and organizational cognition studies by individual, group, organizational, and

industry levels. He further classified the studies into four categories based on whether a study focused on the use, development, or representation of knowledge structures. Further, he presented a variety of methodological approaches used in the field of managerial and organizational cognition. In addition to organizing the previous literature and providing a framework for future research, Walsh (1995: 284) highlighted a variety of terms used to study cognitive phenomena in organizations and stated that researchers in the field have been working “alone together”.

In recent years, the cognitive perspective has again received attention. Reviews have focused on cognition in management and organizations from a general perspective (Hodgkinson & Healey 2008) or, for example, cognitive perspective in strategy (Narayanan et al. 2011; Kaplan 2011) from a specific point of view. Literature reviews have clarified this fuzzy field.

First, employing a psychological perspective, Hodgkinson and Healey (2008) divided cognition research into work from a human factors tradition or organizational tradition. These traditions are partly overlapping; research conducted within the human factors tradition has focused on humans’ information processing capabilities and mental models, drawing from a computational metaphor. The focus is on the “stage-based sequence of functions, including sensory and perceptual processes, memory, and decision making, culminating in the execution of skilled responses” (Hodgkinson & Healey 2008: 389). An additional area of emphasis is humans’ interaction with their environment (e.g., technology) and its effects on individual knowledge structures. The organizational tradition stems from Simon’s (1947) concept of bounded rationality, which entails the idea that managers’ decisions are always bounded as they are faced with the limits of their own cognitive capacity, time, and the information available. Under these two traditions, Hodgkinson and Healey (2008), categorized the research on cognition in organizations into five major perspectives: (1) schema theory and mental model approaches, (2) behavioural decision theory, with a focus on heuristics and biases, (3) attribution theory, (4) theories related to social identity theory, and (5) enactment and sense-making theories.

Second, Kaplan (2011) reviewed and presented the development of the managerial and organizational cognition literature from a strategy perspective. In the review, which begins with Porac et al.’s (1989) seminal paper, Kaplan identified different phases of the development of cognition research. She chronologically categorized the research field, beginning with the formation of proof of concept, which was focused on the validation of the concept as legitimate

and distinctive from other concepts. She then proceeded to the phase of testing the accuracy of managers' cognition and further establishing links to strategic outcomes. Recent research has focused on the interaction of managerial cognition and other concepts in the strategy field, such as capabilities and incentives.

Third, another recent sizable review aims to provide an integrative framework on the cognitive approach in strategic management. The review and model from Narayanan, Zane, and Kemmerer (2011) integrates various cognitive aspects of the strategy literature. Strategic cognition is constructed based on *structure* elements (i.e., organizational identity, strategy frames, and organizational routines) and *process* elements (i.e., strategy formulation: scanning, sense-making, and decision making; strategy implementation: sense giving, issue selling, and sense-making; organizational learning; and strategic change). Antecedents (i.e., environmental, organizational, individual, and decision specific factors) influence the formation of strategic cognition, which results in different outcomes (i.e., process outcomes, strategic actions, and economic outcomes). The general outcome of the review is that connections between different elements form diverse avenues for future research.

Fourth, Huff (2013) divided research on cognition into five separate themes. Research focusing on the *attention* of managers' comprises the first category of cognitive research. This approach states that concepts and ideas are central for cognitive activity and that words reflect these ideas. The frequency of words used, which reflect a certain idea, serve as an indicator for the dominance of this idea. These studies most often focus on explaining the direction of attention. The second category comprises studies focused on *categorization*. The assumption in these studies is that categorization of the surrounding reality is a critical cognitive activity. These studies often draw from Kelly's (1995) personal construct theory and are interested in how managers categorize their environment. These studies often use the repertory grid technique and are more predefined than attention studies, which are very open ended. Third, *causality* studies form the core of managerial and organizational cognition research and stem from the assumption that managerial beliefs form the basis for analysing past performance and imagining new ones. The focus of these studies is mapping managers' cause-and-effect chains. Fourth, studies focused on *arguments* stem from the idea that reasoning is an important aspect of cognitions. The studies are interested in conscious argumentation and divide speech into claims. The idea is that to make a decision to act, managers must balance options for and against a particular action. The last group focuses on the *schemas* of managers. The underlying assumption is that expectations based on previous experiences

influence cognitive actions and are used to infer, or fill in the gaps. The assumption is that schemas are stored in the memory, and subjects are not aware of knowledge structures. Thus, the focus of these studies is revealing hidden cognitive structures to managers. The present study relies on Huff's (2013) categorization of managerial cognition research.

In conclusion, the managerial and organizational cognition field has been evolving since the 1990s and reached its prime in 1995 with Walsh's (1995) conclusive review. This review can be seen as a turning point, after which the research stream focused on managerial and organizational cognition began to diminish, with the cognitive perspective becoming one of the most commonly researched topics. Recent reviews have done an excellent job building a research framework and integrating prior research, thus helping scholars advance the field and seek out the most fruitful research avenues in the future. In addition, the reviews show that the topic of managerial cognition remains interesting and enjoys the attention and appreciation of the research community. The field of managerial and organizational cognition is diverse, but a common factor among the studies is a focus on the somewhat hidden rules of action, be they at the individual, group, firm, or industry level. The approach taken in the present study focuses on the effects of individual MDs' cognitions on performance. However, it also acknowledges that MDs are part of a network of MDs and that cognitions are influenced by group, industry, and institutional environments.

#### 2.2.4 Managerial cognition and the social environment

MDs do not construct their thinking separate from their surrounding environment. The interrelationship between the mind and wider social environment has been a focus of the social sciences since G.H. Mead's introduction of the idea in *Mind, Self, and Society* (1934/1972) and Lev Vygotsky's *Mind in Society* (1978). These ideas in these cornerstone studies on the mind in society remain effective in research conducted in different domains, including management. The underlying statement of these pragmatic philosopher-scientists is that the formation of the individual mind occurs in a social context that includes relationships with other people. Later management research leaned on the research field built on the assumptions of the aforementioned authors.

The social and institutional environment affect MDs' cognitions (e.g., Porac et al. 1989). MDs are part of a network consisting of, for instance, customers, owners, competitors, suppliers, employees, partners, other influential actors such as business and media professionals and consultants, and, in some cases, academics

and individuals associated with business schools. It has been argued that management fashions (Abrahamson 1991; 1996; Kieser 1997) are circulated in a network of these actors in a cycle of demand and supply and sustained by management gurus or fashion setters. The need for new ways to understand management, appropriate rhetoric that supports these new ways, and managers use of this new rhetoric create a circle of management fashion, with one trend lasting until the next emerges. Another mechanism through which managerial cognitions converge is the concept of **isomorphism** (DiMaggio & Powell 1983). DiMaggio and Powell (1983) used the term isomorphism to describe the tendency of organizations to move toward similarity. They suggested that paradoxically, by trying to change organizations in the same field, the organizations become increasingly similar. The authors called this institutional isomorphism and stated that it is a “useful tool for understanding the politics and ceremony that pervade much modern organizational life” (DiMaggio & Powell 1983).

Three mechanisms of institutional isomorphic change have been identified: coercive isomorphism, mimetic isomorphism, and normative isomorphism (DiMaggio & Powell 1983). Coercive isomorphism is a result of pressure (both external and internal) from the other organizations on which an organization is dependent and from the cultural expectations of the society in which an organization functions. Mimetic isomorphism results from imitation in the organizational field. Normative isomorphism results from professionalization. The MDs examined in the present study are all part of the same industry and are thus subject to the similar powers moulding the competitive field. In addition, they have somewhat similar professional and educational backgrounds. MDs make decisions based on the changes in external environment as well as the knowledge and intuition gained along their individual paths to their current positions.

MDs’ cognitions of the business environment influence the formation of the business environment. Previous research has given considerable weight to the isomorphism between actors working in a similar field, which drives cognitions toward similarity (DiMaggio & Powell 1989). For instance, the formation of *industry recipes* (Spender 1989), or expected ways of doing business within an industry, and congruence between cognitions of competitors were the early catalysts for studies focusing on MDs’ cognitions.

From the perspective of isomorphism, MDs can be seen as susceptible to isomorphic forces, which mould their thinking in the same direction. Through similar typifications (Berger & Luckman 1966) of reality, different institutionalized practices are formed and upheld. MDs face greater risk when

changing a management paradigm than when merely adapting to the current, prevailing paradigm. Naturally, however, MDs are not indifferent. Overemphasis of the role of social reality diminishes the meaning of individual MDs into nothing. Nevertheless, MDs act in a reality where different institutionalized thoughts, social roles, and expectations prevail.

Studies focusing on managerial thinking are increasingly drawing from the sociological literature, for instance, from the work of Giddens (1984), such as Whittington (1992), and Huff (2013). Whittington (1992) drew from the sociological literature and used Giddens' (1984) ideas to describe the development of **managerial agency**. MDs are in the middle of sometimes conflicting social systems. Giddens' underlined the multiplicity of the institutions that form individual thoughts. Agreeing with institutional theorists, who believe that institutions form individual thinking, Giddens took a stance in a more voluntarist direction, suggesting that these institutions are themselves subjective constructs and the multiplicity of different spheres of knowledge diminishes the power of single institutions. As Whittington (1992: 695) stated, "the conflicts between these 'dimensions', and the possibility of reflexivity and knowledge, open up a space for human agency." Agency and structure are recursively bound together (Huff 2013: 343). Here, agency refers to MDs' capability to act in a voluntarist fashion, but each MD's actions influence the social rules (the structure) that affect the actions of other MDs.

A crucial aspect of agency is MDs' personal experiences. Past experiences influence current beliefs and affect the factors considered important for firm performance (Argyris 1992). MDs' history thus influences their cognitions on firm performance.

Managerial agency refers to the multiplicity of knowledge domains of which an MD is part and allows judgments based on the logics of these different domains. Managers in general and MDs in particular can be seen as acting in a larger social context. For instance, Whittington (1992) listed communal, economic, domestic, political, and intellectual social systems, all with different logics of action. Following this idea, MDs can be seen as influenced by traditional management knowledge domains such as the financial, technological, production, marketing and sales, and human resource knowledge domains. Approached from this perspective, managers

*...are not only managers, but may also be patriarchs, patriots and professionals, capable at work of drawing resources and inspiration from all of their social identities. Managerial agency derives from both*

*the enabling and the contradictory nature of the structural principles by which people act* (Whittington 1992: 707).

In conclusion, MDs are susceptible to the different forces that form their thinking, be it their personal history or current social environment. The next section explores these issues in more detail, with a focus on managerial cognition.

### 2.2.5 Influence of managers' cognitions on performance

The academic literature on managerial cognition is focused on various issues and uses numerous methods to capture managers' cognition. The focus is directed toward both external and internal issues, such as cognitions on competitors, technological change, industry stability (rate of change), and firm resources.

In the previous literature, the relationships between firm performance and MDs' cognition have been considered from different perspectives. Early research, for instance, focused on companies' responses to changes in the business environment (Barr & Huff 1997; Barr, Stimpert & Huff 1992; Reger & Palmer 1996), the cognitive complexity of MDs (Calori, Johnson & Sarnin 1994), competition (Daniels, Johnson & Chernatony 1994; Hodgkinson & Johnson 1994; Porac & Thomas 1990; Porac & Thomas 1994; Porac, Thomas & Baden-Fuller 1989), and strategic groups (Reger & Huff 1993). More recent research has studied, for instance, relations from the perspective of the capability development of the firm (Laamanen & Wallin 2009; Eggers & Kaplan 2009; Kaplan 2008) and how cognitions are related to actions in different (i.e., stable or more dynamic) industries (Nadkarni & Barr 2008, Nadkarni & Narayanan 2007).

The early research on managerial and organizational cognitions focused particularly on MDs' or other top managers' cognitions on competition. Porac et al.'s (1989) study had a wide audience and is considered a classic in the field. In the study, Porac et al. (1989) suggested that rivalry is a cognitive construct formed within a competitive group. The present study uses their article as an illustration of the field of cognition in management research. This lengthy and detailed explanation of Porac et al.'s (1989) article is justified by the following reasons. First, the article is a classic in the field of managerial and organization cognition research, thus creating a bedrock for the present research. The article is heavily cited and remains relevant for current research on strategy and cognition; it is one of the studies toward which new approaches are further reflected (cf. review conducted by Kaplan 2011; Porac et al. 2011). Second, although the research was conducted in a different national and industrial context, the study

provides insight on the formation of the cognitions of MDs of SMEs in the Finnish manufacturing industry since Scotland is not highly culturally distant from Finland. The study also examines the managerial cognitions of MDs of SMEs in a single industry using qualitative research based on interviews.

Porac et al. (1989) focused on Scottish knitwear producers and concluded that top managers held very similar sets of beliefs related to competitors (i.e., knitwear firms with the capability to produce a certain kind of knitwear). In addition to traditional market analysis (focusing on entry barriers, product differentiation, and pricing), the researchers stated that the focus should be on managers' interpretations or beliefs about these elements, especially competition. The researchers found that beliefs formed the basis of strategic groups, as the managers saw only certain firms as potential competitors. Further, these sets of beliefs were reinforced because the companies working in the same field relied on four main informal sources of information rather than structured environmental analysis (Porac et al. 1989). First, a firm's agents around the world gathered information on market trends. Second, manufacturers relied on exclusive design consultants to interpret fashion trends and designs. Third, top managers visited shops and exhibitions for information. Fourth, information was acquired through informal contacts in trade associations and local communication networks. Beliefs were found to be reinforced through the enactment process, as managers' identification with a certain type of producer affected the type of agent selected to supply certain types of shops, which, in turn, sell products to customers with certain preferences. Market feedback was received through a similar chain, reflecting the needs of certain customers, shops, and agents and reinforcing the identity of a producer of certain kinds of products and defining competitors in a limited fashion.

Porac et al. (1989) identified core causal beliefs in their study, namely, those concerning the transactional network, which includes customers, competitors, suppliers, and retailers. The core causal belief concerning customers was "the top 5 per cent of wage earners are unaffected by economic trends". The beliefs concerning competitors were "Scottish companies are not good at fashion design" and "friendly competition". Beliefs related to suppliers were "Scottish spinners are the finest in the world" and "buy equipment for quality and flexibility". A belief related to retailers was "minimum order quantity is one". Porac et al. (1989) concluded that this set of core beliefs is both a cause and an outcome of focused business definition.

The convergence of top management's cognitions may thus create biased understanding of an MD's own firm and its relation and position in the

competitive environment. It can also create “industry recipes” (Spender 1989), which are expectations about how a firm should behave in a certain market. Beliefs related to the business environment can thus limit the attention of top managers.

### *Cognitions about competitors*

Research on managerial cognitions has focused on competitors of firms and how managers categorize the competitive environment and position themselves in the competitive field (Hodgkinson 1997; Daniels 2002). By categorizing the competitive environment, managers make sense and simplify the complex competitive reality (Hodgkinson 1997). The main contribution of these studies is the idea that a group of firms considered to be competitors is a cognitive construct rather than an independently existing real-world phenomenon. Reger and Huff (1993) followed the path created by Porac et al. (1989) and found that cognitive categories of competition are shared within the same industry. However, Daniels, Johnson, and Chernatony (1994), in their study on managerial cognition in a somewhat stable industry, concluded that it is more appropriate to assume divergence instead of similarity regarding managerial mental models of competition. Daniels et al. (1994) also compared the mental models of managers within the same firm and the mental models of managers in different companies with the same position and concluded that the most similar cognitions of competitions were those of managers within the same firm. Further, Daniels et al. (1994) suggested the divergence of managerial cognition and proposed that this finding implies that the functional effect on managerial cognition is smaller than the firm effect.

Daniels et al. (2002) more deeply investigated the issue of whether managerial cognitions of competitors are divergent or convergent and concluded that managers’ cognitions converge and functional influences are “sub-ordinate to institutional influences”, especially at the middle management level. Top management’s cognitions regarding competitors were more diverse and more strongly influenced by their task environment. The authors also stated that the issue of convergence and divergence may be due to the research methods used (Hodgkinson 1997), differences in industry characteristics in general, or the specificity of exploration using cognitive maps (i.e., a focus on a specific aspect such as the competitive environment vs. a focus on general managerial cognition).

*Cognitions related to changes in an industry*

Managerial cognition research has focused on changes in the business environment, especially changes in technology. Nadkarni and Barr (2008) examined letters to shareholders and compared managers' cognitions from two industries: one characterized by rapid change and one that is more stable. All of the 24 selected companies had good performance. The authors found that managers from industries characterized by rapid change paid attention to changes in the task environment (i.e., competitors, customers, and suppliers) whereas managers from more stable industries paid attention to changes in the general environment (i.e., politics and regulations). They concluded that the characteristics of an industry affect the attention and causal logics of managers as well as further strategic actions. These findings suggest that the industry itself influences managerial cognition.

On the other hand, Nadkarni and Narayanan (2007a), in their quantitative study, compared the complexity and focus of the strategic schemas of 225 companies across 14 industries to industry velocity, using letters of shareholders as proxies. They found that focused strategic schemas fostered persistence, which is effective in industries with low velocity, and complex strategic schemas fostered flexibility, which they saw as effective in high-velocity environments. Kiss and Barr (2015) found that strategic actions in new ventures are influenced by the managerial capability to notice and interpret environmental changes and make decisions regarding required actions. The complexity or centrality of a belief structure influences whether companies take action in industries with different growth phases. For instance, a highly complex belief structure may inhibit actions in a growing industry since managers, instead of reacting to environmental signals, may find more possible courses of action and connect with the environment.

Recently, a number of studies have focused on MDs' cognitions and their role in firms' adaptation to a changing business environment. Kaplan (2008) explored letters to shareholders and the role of managerial cognition in relation to other organization-level factors such as capabilities and incentives and concluded that in the face of technological changes in the environment, the adoption of new technology is most successful when capabilities, incentives, and MDs' cognition are all aligned to adoption of the new technology. They also emphasized that even if organizational-level factors are not fully adopted, MDs' cognition can compensate for this deficiency. The study emphasizes business environments with high levels of technological change and states that especially in a turbulent environment, MDs' cognitions play an important role. Eggers and Kaplan (2009) studied MDs' cognition in the face of changes in technologies and explored the

direction of MDs' attention (i.e., toward emerging technology, current technology, and the industry). They concluded that the effects of MDs' differs depending on an MD's direction of attention, accelerating entry when an MD's attention is aimed toward an emerging technology or industry and hindering it when aimed toward current technology. The authors also noted that organizational elements are important and are prerequisites for actions; however, companies with similar organizational orientations but different MDs' attentions may be driven in different directions. Both of the studies outlined above are focused on turbulent industries, use letters to shareholders as a proxy for managerial cognition, and draw from Ocasio's (1997) attention-based view of the firm. These findings indicate that MDs' cognitions are important in terms of a firm's response to technological changes.

Tripsas and Gavetti (2000) used a qualitative approach in their in-depth case study<sup>4</sup> of the Polaroid Corporation's response to radical technological change in the market and its transformation from an analogue to digital imaging firm. The firm invested heavily in capability development and was technologically ready for changes in the competitive market space. However, firm beliefs in the top management team created *inertia* regarding the firm's adaptation to changes. For instance, there was a solid belief in the "primacy of technology", which had been legitimated in the firm's history. However, the new business landscape favoured rapid, incremental, market-driven product development instead of lengthy, large-scale, technology-driven invention. The business model also stemmed from the firm's analogue era, during which it focused on consumables instead of hardware as its major source of income. The managers' beliefs influenced which capabilities were further developed in the firm (i.e., neglecting product development and manufacturing capabilities). Tripsas and Gavetti (2000) concluded that companies facing radical changes in their technological environment should distinguish the need for development of new capabilities from the need to renew executives' strategic beliefs.

#### *Cognitions about firm resources*

Another research stream is focused on firms' internal elements. This view suggests that MDs' cognitions influence the way a firm's resources are used. In addition to simplifying the external business environment and positioning their firm accordingly, MDs construct understanding of the resources and capabilities of the firm. Top managers conceptualize and develop the needed resource

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<sup>4</sup> The study examines a large multinational firm, but the issue of top management cognitions and inertia caused by flawed beliefs is relevant to the SME context.

configurations in the present and future business environment (Kunc & Morecroft 2010).

Cognitions regarding internal resources affect managers' behaviour. Kunc and Morecroft (2010) conceptualized managerial decision making as comprising three interrelated phases. In resource conceptualization, managers in the same industry build a certain resource configuration that is believed to affect firm performance (Barney 1986). These conceptualizations are further reinforced if the outcome of the resource configuration is positive and leads to good performance. Drawing on Weick's (1979) enactment, the resources conceptualized as leading to good performance of the firm are enacted by managers. In their view, this leads to resource development, which consists of managers' decisions to invest in certain areas of a firm as well as the creation of processes and routines inside the firm. These decisions naturally facilitate the growth of some resources while hindering the growth of others. The identification of resources leading to good outcomes requires a) the identification of key resources (both inside and outside of the firm) and b) an understanding of the causal relationships between these resources and firm performance (Morecroft 2002; Kunc & Morecroft 2010). Finally, causal ambiguity (King 2007) between resources and firm performance makes it difficult to assign a clear role in firm performance to certain resources, thus highlighting the role of managers' subjective cognition in these relationships.

Managerial cognition is important for firm performance, and the manager's role in leading a firm toward success has an established place in research. There is credible research supporting the assertion that top managers are a factor that contributes to differences between successful and unsuccessful companies. The managerial cognition research in particular has been revived in recent years and is has been refocused on managerial thinking and the factors leading to firm success. According to a short review of research papers published in top management journals, these studies often take a quantitative approach to the issue. Apart from a few case studies, the managerial thinking field is built on quantitative research, which provides insight on different aspects of the nature of MDs' thinking. Managerial cognition research is somewhat focused on a narrow range of issues present in the competitive environment. A holistic approach could provide a more comprehensive view of the issues MDs consider important.

## 2.3 Summary and positioning of the study

The focus of this study is on the effects of management thinking on performance, which includes a focus on themes, causal relations among performance elements, and ways of talking about performance. The aim is thus to deeply examine the issues of competitive advantage and performance, especially the elements of these concepts and their relationships in managerial thought. In particular, a hierarchical view of the elements leading to success is missing in the field of management research. This means turning attention to the more operational definitions of performance that are present in the explanations of MDs. Accordingly, this section explored the most influential performance models, which are often built on assumptions about the creation of competitive advantage. The section also explored how firm performance is presented in the academic literature and how MDs' cognitions on firm performance influence the actions a firm takes to achieve success.

Managerial cognition studies are based on the idea that managers' cognitions define how managers understand the surrounding business environment. The literature suggests that a manager's view of the world is inevitably bounded (Simon 1947). Therefore, cognitions determine which parts of the environment are closely scrutinized and which go unnoticed. Moreover, cognition determines which elements are considered meaningful and which are considered less important. In addition, MDs' interpretation of the environment leads to constant *enactment* (Weick 1979; Daft & Weick 1986) of the environment. As a result, MDs' cognitions play an important role not only because they influence the everyday actions of MDs and are used to make formal decisions, but also because the actions based on these cognitions constantly mould the competitive environment.

Based on the literature presented here, I approach the empirical material with some assumptions or preconceptions. MDs' cognitions on firm performance are prone to isomorphic forces. However, there is always room for agency, or differentiation in the beliefs. Accordingly, the question I seek to address with the empirical material is: To what extent are beliefs on performance similar and to what extent do they differ?

My assumption is that firm performance is always culturally constructed and defined. MDs are part of society, and this affects their thinking. For instance, the discussion related to sustainability as a dimension for measuring the performance of a firm is relatively new. Thus, I am interested in what kind of world is reflected in MDs' cognitions of performance.

I aim to achieve the research goal of understanding firm performance from MDs' perspective by addressing the following three sub-questions:

1. What are the elements of MDs' talk about firm performance?
2. What are the causal relations between the performance elements in MDs' cognitions?
3. How do MDs talk about firm performance?

The performance models in the previous literature are rather homogenous regarding their underlying assumptions. The models assume stable and predictable management, which means that they are systemic in nature and assume that different elements should work together to achieve a certain outcome. Input, throughput, and output (i.e., thinking, adaptation, and feedback) from the environment are present in these models. The models do not typically assume an emergent, complex system view that embraces uncertainty, resonance between the individual actors, and self-organization.

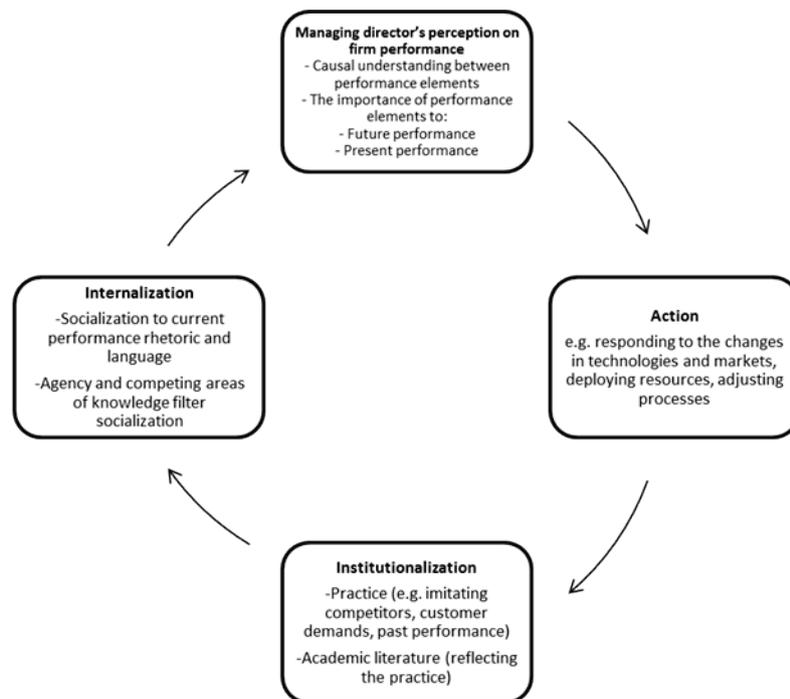
The literature presented in this section suggests that performance consists of multiple dimensions and should be approached in a balanced fashion. The performance literature produces ideal models of firm performance, but firm performance has been rarely studied from the MD's perspective. Investigating how the SME context and manufacturing industry influence the themes important for firm performance is an interesting topic. The first research question sheds light on this issue.

In the literature, firm performance is multidimensional and is presented as such. It also reveals that managers focus on different dimensions of performance and hold distinctive beliefs regarding the most important dimensions of firm performance. Performance models suggest a hierarchical view of firm performance, proposing that performance is achieved through the causal relations between performance elements. The way MDs view these causal relations, however, has not been widely studied. Firm performance is inevitably subjective due to its ambiguous nature and the difficulty confirming causal relations among the elements. This leaves space for MDs' subjective interpretation of firm performance and causal relations among performance elements. The second research question is geared toward examining these relations.

The language provides a tool to organize MDs' thoughts on firm performance. Managerial cognition research is focused on the what managers pay attention to

in the business environment. However, it has not examined the ways managers' talk about performance. The explanations that the MDs have related to the firm performance reflect their cognitions. The third research question is aimed at answering the question of how MDs of SMEs talk about firm performance.

According to the literature, top management cognitions are meaningful and can be distinguished from firm orientation and resources (Kaplan 2008). Management beliefs are reflected in MDs' interests in the market, technologies, and firm capabilities. The literature suggests that isomorphic forces drive beliefs toward similarity and has identified the existence of industry recipes. It appears that in stable industries especially, beliefs converge. However, performance consists of multiple elements, which differ in MDs' thoughts. Moreover, the ambiguity of the relationships among the elements creates divergence in MDs' thinking. Figure 6 reflects how MDs' thinking influences the business environment as presented in the management literature.



**Figure 6.** Managers' cognitions and their influence on the business environment as presented in the management literature

### 3 EMPIRICAL RESEARCH

This section presents the methodological choices of the present study and discusses their justifications. Three different research approaches will be presented, all of which provide synergistic points of view on the studied phenomenon.

#### 3.1 Research context and empirical material

Twenty-two MDs formed the researched group in this study, all of them working in the manufacturing industry. The data were gathered from small- and medium-sized manufacturing enterprises (SMEs) in the Finnish manufacturing industry. Only MDs from the same industry were chosen for the sample, as the focus of the study was on MD cognitions inside a single industry. Doing so also made the comparison between the cognitive maps easier.

*Companies.* The selected MDs all led companies of small to medium size, typically with 50 to 250 employees. The annual turnover of the companies varied from EUR 1 500 000 to over EUR 20 000 000. All the firms had both domestic and international B-to-B (business-to-business) customers. The performance of the companies differed; the average earnings before interest and taxes (EBIT) percentage (2005–2011) for the companies varied between -1.5% and 21.7%, and growth percentages (2005–2011) ranged between -37.4% and 69.3%. The companies included foundries, machine shops, heavy industry manufacturers, and other technological competence-requiring companies<sup>5</sup>.

*The MDs.* The selected MDs came from different backgrounds<sup>6</sup>. All but one of the interviewed MDs were male. Their educational backgrounds varied, from an MD with only basic vocational education to an MD holding a doctorate-level engineering degree. Most of the MDs had been educated in engineering at polytechnic or university level. Most possessed strong experience in either the manufacturing industry or similar positions in a different industry. The time the interviewed MDs had spent in their current positions ranged from 1 to 18 years.

Although the background characteristics of the MDs are presented here, this study will not speculate on the possible effects these characteristics may have had

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<sup>5</sup> See table in the appendix3 for more detailed information on the companies.

<sup>6</sup> See table in the appendix4 for more detailed information on the MDs.

on the findings. Rather, this study aims to analyse and understand different cognitions.

*Interviews.* Interviews were conducted face-to-face with each MD. This meant that each MD was administered a relatively open thematic interview by an interviewer asking one main question: “What do you consider to be the performance of a firm?” In some cases, the interviewer elaborated with questions such as “what elements most influence the performance of the firm?” and continued with other spontaneous questions related to the MD’s answers. These interviews were conducted using a method inspired by the laddering technique (Bourne & Jenkins 2005; Eden & Ackermann 1998). In this approach, the interviewer asks a new question after each of the interviewee’s responses. The interviewer asks questions such as “why is that?” repeatedly and encourages the interviewee to elaborate on his/her answers. For example, the interviewee could answer that customer satisfaction is the most important element for a well-performing firm. The interviewer might then continue to ask why customer satisfaction is the most important element and what consequences follow good customer satisfaction. As new themes emerge, the process continues. The interviewer can also go backward in the so-called decision chain. To continue with the above example, the interviewer could ask what should be done to ensure the firm reach an acceptable level of customer satisfaction. These back-and-forth questions enable the researcher to draw reasoning chains later in the analysis phase.

The interviews in the present study lasted from 1 hour to 2 hours and 30 minutes. They were conducted in the respective company meeting rooms, tape recorded, and transcribed for analysis. Interviews were collected as a part of a larger research project. In total, seven researchers conducted the interviews.

As mentioned, the interviews were recorded and later transcribed. Permission was gathered from the MDs to record the interviews, with promised anonymity in the gathered data. To conform to this, all names of the companies and MDs were changed. Once transcribed, the interviews totalled 467 pages of material (font Times New Roman size 12, line space 1.5, margins 2cm) at approximately 180 000 words. The amount of gathered interview data varied between the participants, the shortest interview contributing only 3 600 words and the longest 13 000 words. Most interviews were between 6 000 and 9 000 words.

Many of the interviewed MDs used their own firm as the framework for their explanations of firm performance, even when the question inquired about firm performance in general. Some MDs were more explicit than others when describing firm performance, providing rich descriptions of the causes and effects

of the factors leading to success. Other MDs' descriptions provided only basic descriptions of the elements leading to success. Thus, the empirical material gathered is not homogenous. However, the previously described interviewing technique encouraged the less forthcoming MDs to elaborate on their thoughts, and it provided structure in the interviews with MDs who gave more expansive answers.

In general, all the interviewees were able provide the material asked for by the interviewers. The MDs defined firm performance in different ways. In most cases, the MDs could explain the success factors of a firm easily, but the coherence of their explanations differed from person to person. The MDs could explain the areas that they recognized as important, and often these explanations were well thought-out and logical, but there were occasions when the MDs' explanations were superficial. Even when firm performance was not a new topic to the MDs, their experience in explicitly talking about it varied greatly.

The interview process focused on and encouraged cause-and-effect-style answers, but both general and detailed descriptions of business environments also appeared in the material. Sometimes, the interviewer strayed from the interview protocol and simply asked questions to keep the discussion going; this provided variety to the material. In summary, the interviewed MDs produced material in a variety of ways and were able to answer the questions relatively easily, even though some were a bit cautious at the beginning of the interview.

### 3.2 Multi-methodological approach in analysing the material

The background assumptions in this research resemble those found in the *pragmatist* research tradition (Wicks & Freeman 1998). The topic of interest in this study is to tap on the reality the managers' construct in their minds, instead focusing on the more visible, verifiable and concrete reality. The interest of knowledge in the study stems from the pragmatic need and curiosity to understand the managers' cognitions on performance. In order to understand the managers' cognitions, the managers' are given the voice, instead of imposing an already existing overarching theory to the respondents. Instead of searching for replicable causal relationships or regularities, the focus is on the understanding the world of managers from their own standpoint, using different methods as a tool. Also, instead of assuming that the researcher acts as an objective external observer, the subjective influence of the researcher's interpretations is acknowledged.

This research falls under the category of multi-method research. Multi-method research can be done through the triangulation of qualitative and quantitative approaches, or by combining various forms of qualitative approaches. In this dissertation, the qualitative approach to multi-method research has been adopted. However, rather than aiming to confirm the research results through triangulation, this study aims to offer complementary views to a researched subject.

This study uses multi-methodology to analyse the same empirical material from three different angles. Multi-method research refers to the different issues regarding to the research process, a common one being the use of varying research methods and/or data. In this study, several research methods were applied to process the same empirical material.

Multi-method research aims to understand a phenomenon using different research methods, and, as noted previously, can consist of both qualitative and quantitative elements. In this dissertation, all the used research methods are qualitative in nature. However, they each provide different kinds of information regarding the researched topic. Different kinds of questions posed to the data require different kinds of analysis. By applying varied analysis methods, different kinds of information and knowledge may be acquired from the researched topic. The multi-method approach thus gives room to assorted epistemologies.

The multi-method research community is constantly evolving. For instance, there is no unified consensus as to what should be called *mixed-method* research, and what should be termed *multiple-method* research; there are also debates as to whether the mixed method should consist of both qualitative and quantitative research approaches, what approaches are counted as belonging to each of the categories, and whether juxtaposing these approaches is at all fruitful (Cresswell 2011).

Greene (2007:20) defines mixed-method research as a way to view the social world as follows:

*That actively invites us to participate in dialogue about multiple ways of seeing and hearing, multiple ways of making sense of the social worlds, and multiple standpoints on what is important and to be valued and cherished.* (in Cresswell 2011:272)

There are also debates regarding the nature of mixed-method research; that is, whether it should draw more from the qualitative research tradition (Cresswell 2011; Denzin 2010). Within the mixed method research area, two approaches can

be identified: mixed or emergent approach and science- or evidence-based approach. These two approaches draw from different research traditions, offering different kinds of explanations and legitimations for the conducted result. For instance, Howe (2004) and Denzin (2010:423) criticize the more evidence-based versions of mixed-method research, stating that mixed-method experimentalism fails to understand the “deeper roots of qualitative methods” and take a “technocratic approach” to the role of participants. From the qualitative research tradition, another approach is offered, called *mixed-method interpretativism*.

The combination of different research methods has both advantages and disadvantages. Using different research methods requires time and effort, as the researcher must familiarize with various underlying assumptions and method usages. Even more challenging in such research projects is getting the work published. Cresswell and Tashakkori (2007) acknowledge the challenge of publication and suggest that good mixed-method<sup>7</sup> research be well developed, contribute to the phenomenon in an integrative way, and reflect the mixed-method research tradition. On a positive note, once accepted for publication, research using combined approaches tends to attract more notice (Molina-Azorin 2011; 2012). For instance, Molina-Azorin (2012) researched articles published in the *Strategic Management Journal* (1980–2006) and found that those using mixed-method approaches (combining qualitative and quantitative analysis and data) received more citations compared to mono-method studies. In general, multi-method studies are recognized in the field of management studies, and accepted studies also receive attention from academic audience.

Multi-method research is at the centre of a fruitful debate. Cresswell (2011:277) mentions Giddings’ (2006) challenging article, *Mixed-methods Research: Positivism Dressed in Drag?*, Howe’s (2004) plea for mixed-method research to return to its natural home within the interpretivist framework and take on “the democratic aim of seeking to understand and give voice to the insider’s perspective” (2004:54), and Denzin and Lincoln’s (2005:9) comments on the mixed-method movement taking the qualitative approach away from its origin in a “critical, interpretive framework.”

The multi-method research approach fit with the present study’s research questions, as I wanted to explore the MDs’ thinking on firm performance from different angles. In the area of management studies, multi-paradigm approaches are believed to “...help construct alternative representations, exposing different dimensions of organizational life. As each lens offers a selective focus,

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<sup>7</sup> Cresswell and Tashakkori (2007) use the term *mixed methods research* and incorporate both qualitative and quantitative approaches in the research method.

researchers seek multiple perspectives of particularly complex and ambiguous phenomena” (Lewis & Kelemen 2002:259). In the present study, separate approaches were treated as individual research cases in such a way that they answered different questions posed to the material. Even though the approaches were all treated as separate cases, they provided harmonious points of view to the data, offering three different, but complementary, ways for the researcher to make sense of the interview material.

Content analysis, cognitive mapping, and rhetorical analysis were all used as research methods in this study.

**Table 3.** Research questions and research methods

<b>Research question</b>	<b>Research method</b>
What elements there are in the managing directors' talk on firm performance?	Content analysis
What kind of causal relations between the performance elements are present in managing directors' cognitions?	Cognitive mapping
How do the MDs talk about firm performance?	Rhetoric analysis

### 3.3 Describing the analysis techniques

The processes of content analysis, cognitive mapping, and rhetorical discourse analysis are presented in this section.

#### 3.3.1 The process of content analysis

Answers to the first sub-question were sought through simple content analysis. It has been suggested that in addition that content analysis acts as a lone research method, it has the potential to be used in conjunction with other research approaches (Duriau, Rheger & Pfaffer 2007; Gephart 1993; Denzin & Lincoln 1994). In their review of content analysis in management and organizational studies, Duriau et al. (2007) affirmed that content analyses in this area focused on the justification of the analysed data sources (e.g., annual reports, mission statements) and reported comprehensive reliability testing, thus avoiding coder bias. Duriau et al. (2007) also referenced the critique provided by Gephart (1991),

who claimed that the position at which content analysis is sometimes positioned—the “frontier” between the qualitative and quantitative research—can hinder rather than facilitate the growth of content analytic studies because of its “factionalism.”

This dissertation adopts a more interpretive approach to content analysis instead of quantifying or counting words. The classic model of content analysis followed in this study divides the process into three iterative phases: data reduction, data display, and conclusion drawing (Miles & Huberman 1984:21). These process phases are explained in greater detail below.

#### *Data reduction*

Content analysis was used in this study to capture the themes in the MDs’ answers related to performance. This content analysis started with data reduction. Data reduction is a process of refining raw data by selecting, focusing, simplifying, abstracting, and transforming gathered data (Miles & Huberman (1984:21). It is a process that happens continuously during the research process as the researcher makes choices concerning the empirical material. It is not separate from analysis, as the choices made affect the results. In this study, empirical material from the first three interviews was first coded to create an understanding of the performance elements. The resultant analysis structure enabled the creation and tuning of a more elaborate research framework.

The software program NVivo 10 was used to build different categories of themes present in MD responses. In this phase, “nodes” were coded under different themes, such as “customer satisfaction” or “internal production process.” The MDs’ interviews were read carefully and different categories formed. After the first round of reading, a node tree emerged from the interviews. This first tree consisted of nodes presenting different levels of abstraction. To illustrate, this included a node called “customer satisfaction,” but also a node called “customer as a source of innovation.” As the understanding of the themes present in the interviews grew, the level of analysis started to clarify. Categories consisting of similar items but representing different levels of abstraction were later merged as the analysis continued.

#### *Data display*

The data display process illustrated the formed categories, drew different models, and categorized data into matrices. NVivo 10 was used to illustrate different connections between the themes and aid the comprehension of different relationships among the MDs’ explanations of performance. Annotations and

memos available in the software program were used to record the ideas formed during the analysis, and later to return to the earlier logics of categorizing the data. Different visualizations also facilitated the researcher's understanding of the amount of speech across each theme, which were evaluated using matrices.

One of the biggest decisions during the process of content analysis was the level of analysis. To provide an overview of the researched data required a high level of abstraction. However, too common a thematic division would not extract anything useful from the data. Ultimately, the emerged themes were categorized under two main themes, *focus on internal elements* and *focus on external elements*. The elements were further divided into five internal performance elements and four external ones. Internal elements included culture and values, resources, processes, operations, and finance and accounting metrics. External elements included competitors, customers, partner networks, and society and institutions. The MD interviews were coded according to these themes.

**Table 4.** Preliminary matrix of empirical material

	Focus on internal elements					Focus on external elements			
	Culture and values	Resources	Processes	Operations	Financial metrics	Competitors	Customers	Networks	Society and institutions
MD1	***	***	**	*	-	-	**	***	-
MD2	**	**	**	**	***	-	***	*	-
MD3	**	**	***	**	***	*	***	***	**
MD4	-	**	**	***	-	**	***	***	**
MD5	-	**	***	**	**	-	***	-	-
MD6	*	***	***	**	**	-	*	-	*
MD7	***	***	**	**	-	**	***	-	-
MD8	-	***	**	*	**	-	***	***	-
MD9	-	**	**	***	***	*	**	*	**
MD10	-	*	**	***	***	**	**	**	-
MD11	-	***	**	**	**	**	***	*	***
MD12	*	**	**	***	**	-	**	***	*
MD13	*	***	***	-	**	-	***	*	-
MD14	-	*	***	**	***	**	**	-	-
MD15	***	***	**	*	-	-	**	*	-
MD16	**	**	***	*	**	-	**	***	**
MD17	-	**	***	**	**	*	***	***	-
MD18	-	**	***	**	***	**	-	-	*
MD19	**	***	*	**	*	-	***	***	**
MD20	*	**	**	***	**	-	***	**	**
MD21	-	**	**	***	***	**	*	***	-
MD22	-	**	***	**	***	**	**	**	***

Theme present in the MD's talk, with high importance: \*\*\*

Theme present in the MD's talk, with moderate importance: \*\*

Theme present in the MD's talk, with low importance: \*

Theme missing in the MD's talk: -

To clarify the research process, Table 4 was compiled to illustrate where all the identified performance elements fell in the matrix with the MDs. The table was then filled according to the degree to which each performance element was present in the MDs' speech in different cases. NVivo 10 was also used to assist the analysis. The evaluation was based on a scale that ranked the themes as being of high, moderate, or low importance, or as missing from MD speech. The evaluation considered the number of straight comments related to a specific theme, the importance given to the specific theme, and if the theme was not explicitly mentioned but was interpreted to belong to a certain category. The table provided an overview of the individual MDs' responses regarding certain performance elements.

The process produced one categorization of data, with more focus on the differences between the individual MDs. The final themes were acquired when the qualitative data were once more rearranged under the themes which would best describe the MDs' thinking and produce a balanced view of the overall group's responses regarding firm performance.

#### *Conclusion drawing and verification*

The third part of the iterative cycle, conclusion drawing and verification, involved deciding what the data meant and noting regularities, patterns, expressions, possible configurations, causal flows, and propositions (Miles & Huberman 1984:22). Conclusions were made based on the sorted empirical data. As the process continued, more careful classifications were made, new matrices were formed, and the final results were achieved. Different themes were presented in the order that they appeared in the MDs' responses. Text pieces were used to illustrate the ways MDs spoke of different themes. Also illustrated were the kinds of themes present in MD responses related to firm performance, which themes were most often used, and what kind of constructs the MDs used to describe firm performance.

### 3.3.2 The process of cognitive mapping

The second sub-question, "*What kind of causal relations between the performance elements are present in managing directors' cognitions?*" was answered by applying the method of cognitive mapping. Content analysis revealed the themes present in the MDs' responses and offered insight as to what elements the MDs constructed to represent firm performance. To capture the hierarchical relationships between the elements leading to performance, cognitive mapping was applied. Cognitive mapping differs from traditional

content analysis; in addition to determining *what* individuals are thinking, it explains *how* they arrange their thoughts and outlines the relationships between different contents in the thought processes (Fletcher & Huff 1990; Chaney 2010).

Cognitive mapping also serves as a tool to research managerial cognitions (Huff 1990; Huff & Jenkins 2002; Eden & Spender 1998). It is used to assess the structure and content of individuals' cognitions on given issues and to obtain graphical representations of individual understandings of a particular issue at a particular point in time and space (Daniels et al. 1995; Ahmad & Azman Ali 2003). As such, cognitive maps are highly context-bound (Chaney 2010). Laukkanen (1994) suggests that cognitive mapping can be used at least five different ways; namely, to analyse discourse, model a respondent's domain of reality, explore respondents' domain-related beliefs (worldviews), map cognitive structures (i.e., schemas, mental models), and to study respondents' arguments.

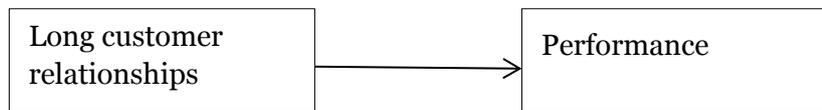
The analysis of the MDs' cognitions started with reading and mapping individual interviews separately. Careful reading and re-reading was done to identify the central elements the MDs' thoughts on reaching good firm performance. The identification of the most important themes was an interpretive process based on the following issues: the MDs' explicit mentioning of the given issue; the amount of speech related to the theme; and the overall importance the MD gave to the given theme compared to other themes. For instance, an MD might state that employees are the most important element for firm performance, but not elaborate on the argument or produce only simple or superficial elaborations. The same MD might later explain in detail how the firm's new technology provided a competitive advantage. Thus, technology would be assigned a more important role in the MD's cognitive map.

The data analysis followed the principles of qualitative content analysis. The first phase consisted of encoding interview data one by one. The transcripts were read several times so that the researcher could fully understand the MDs' interpretations of performance and select the relevant concepts and relationships. The second phase of the analysis consisted of visualizing the interviews by drawing complete cognitive maps. In the maps—flowcharts of all the relevant concepts raised by the interviewees—the concepts link to one another, the relationships between them symbolized by arrows. Each type of relation was marked by different arrows as follows: connector (is included), one-way arrow (one-way influence), one-way arrow with (-) (negative influence), and two-way arrow (mutual influence). The most important elements identified were written down in the table. The third phase compared the cognitive maps of

different MDs to find potential similarities and differences. In the next section, the process of drawing a cognitive map is explained more carefully.

To illustrate with an example, an MD might see that one of the most influential elements leading to firm performance is the long-term customer relationship. The concept of a long-term customer relationship is identified during the interview transcript reading and drawn on the map. The concept might be something the MD returns to often in his/her responses, or be something through which the MD views all the other aspects of performance. The following excerpt is from an MD's interview, the interpretation of which is illustrated in the cognitive map in Figure 7.

And I would say, that one thing, how we have made it, I would say, is that we have listened to the customer and have tried to react to the needs stemming from the field. In my time [working in different position] I even got negative feedback from the owners and the current MD that I thought things from the customer perspective too much, but I would say that it has been one issue where we have been [good], which has led to success. We have managed to create long-term customer relationships; we have, let's say 20-year, over 20-year lasting customer relationships.



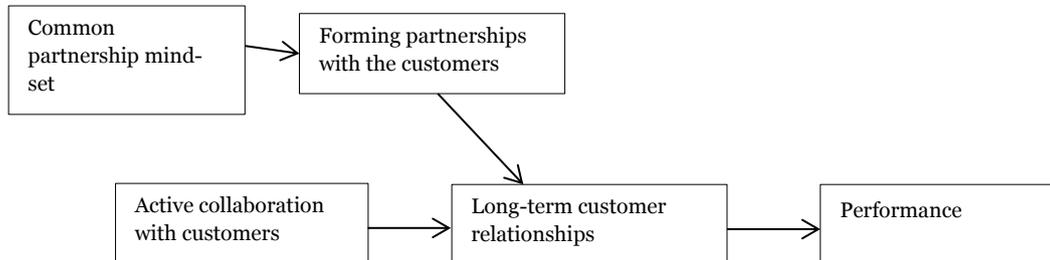
**Figure 7.** Creating the cognitive map (part 1)

During the interview phase, *why*, *why is that*, and *what causes that*-type questions were used to encourage the MDs to elaborate on their arguments. The MD in our example was thus asked to explain how long-term customer relationships lead to good performance. The explanations were then added to the map:

Interviewer: How do you manage to create and keep that, is there some kind of recipe?

MD: I don't know. I don't know. I really don't know...But maybe there is one thing...Of course the same is said in the basic course books, keep in touch with your customers. And of course, we genuinely try to be partners with our customers. And of course, if you look at our customer base, you'll see that majority of our customers are, are like that, that the customer

also has the partnership mind-set. To do collaboration and if...and if something happens, and it has happened, that one side does not want to continue collaboration and wants to do things differently, then we have decided to go on our separate ways.”



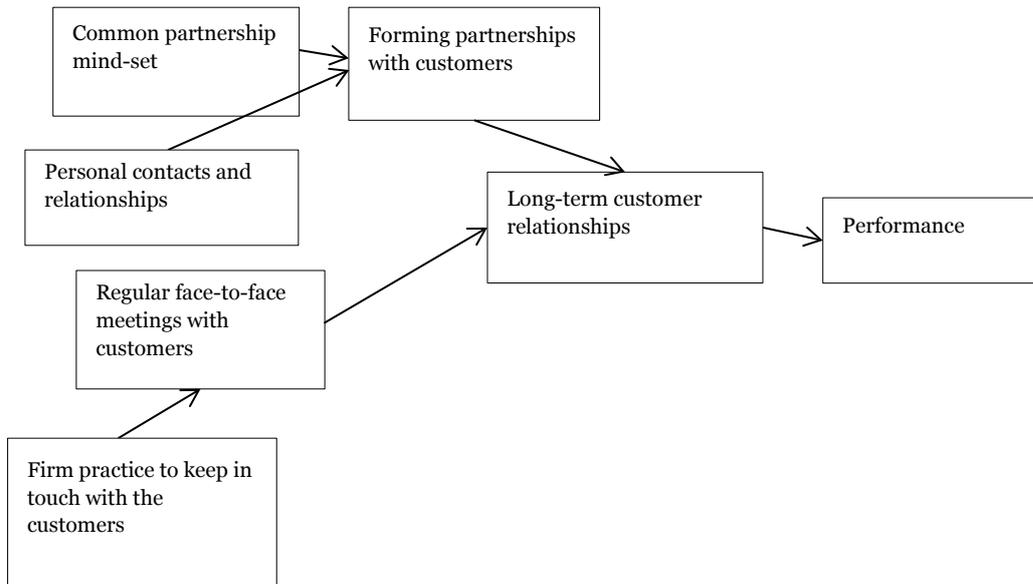
**Figure 8.** Creating the cognitive map (part 2)

The concept of long-term customer relationships is elaborated on by adding the concepts of *forming partnerships with customers* and a *common partnership mind-set*. The relationships between the concepts are illustrated by the arrows connecting them. As the elaboration of the concept continues, new concepts are added to the map. The strength of the lines illustrates the importance of the concepts. The stronger the line, the more important the concept.

MD: Relationships break up, and it means...We have sworn quite heavily on the name of personal relationships and contacts, and the thing is...Of course as a firm...but in the end there are people who do things. And if you can create trusted feelings between the companies, or people...Most often things work out then.

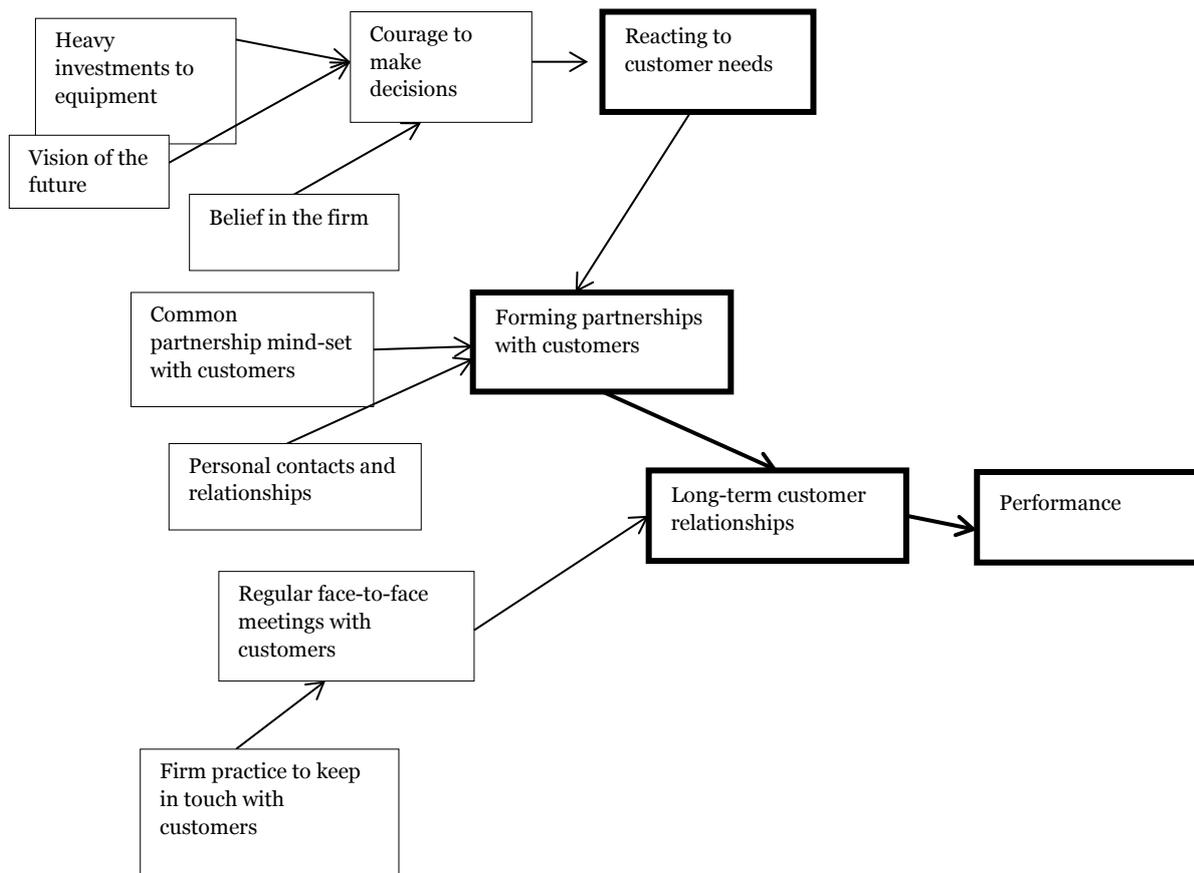
Interviewer: Yes. So in your firm, have you done something that would encourage this customer orientation or something like it? Are there some kinds of practices or principles [supporting it]?

MD: Well, no, except that it is part of our strategy. We search for certain kinds of customers, we try to build something...In a way we demand that our sales department keeps in touch with our biggest customers regularly, that there are regular meetings with the customers. And with the biggest customers they are MD-level meetings, 3–4 times per year. Either face-to-face or through conference calls.



**Figure 9.** Creating the cognitive map (part 3)

As the interview is read more carefully, the structure of the cognitive map starts to emerge. The MDs comment on long-term customer relationships later on in the interview to complete the visualization. In the cognitive map, the MD's argument chains are visible. The maps do not aim to be accurate mirrors of the real world or act as representations of the MD's mind, but are the researcher's interpretation of the MD's cognitions on performance. Most of the MDs were sent the cognitive maps drawn from their interviews and were asked to reply if they saw a necessary change. No MDs reported changes.



**Figure 10.** Creating the cognitive map (part 4)

The last phase of the analysis compared the cognitive maps. Eden and Ackerman (1998) recommend different ways to compare idiographic cognitive maps, such as categorizing concepts and comparing emergent value systems or central issues in the maps; focusing on clusters, emergent topics, or themes; creating hierarchical clusters; identifying island clusters; focusing on feedback loops; identifying intervention opportunities (focusing on the tails of the causal chains); focusing on the potent constructs (constructs which support many others); and taking a holistic perspective and using different combinations of analysis methods to gain a more complementary view of the models. This dissertation used an exploratory approach, and the analysis matured during the research process. The final foci in this analysis were the central elements observed in MD responses, the supporting constructs that the MDs used to explain firm performance, the clusters formed around certain elements in the map, and the overall structure of the MDs' cognitive maps.

Some researchers also suggest that computer-aided analysis software be used to compare cognitive maps (Laukkanen & Eriksson 2013). Some of these programs provide statistical tools to analyse such maps<sup>8</sup>. However, the use and the need for statistical measures should be carefully considered, as they present a risk of reaching simplified outcomes for a messy reality (Eden & Ackerman 1999:206). This dissertation focused on both the structure and content of the overall maps, and map comparison was done through the careful categorization of the maps' constructs, structure, and content. NVivo10 computer software was used to draw the maps, facilitating their structuring and re-structuring.

### 3.3.3 The process of rhetorical analysis

Rhetorical analysis was applied to answer the third sub-question, *How do MDs talk about firm performance?* This is a major approach used in business studies to investigate the discursive aspects of organizational life (Balogun, Jacobs, Jarzabkowski, Mantere, & Vaara 2014). One categorization of the bodies of the discursive scholarship is to divide it into six areas: post-structural, critical discourse analysis, narrative, rhetoric, conversation analysis, and metaphor (Balogun et al. 2014). Hardy (2001:27) offers a lengthy explanation of the nature of discourse analysis:

Discourse analysis explains how discourses are made meaningful (Alvesson 1998) through discursive activities that include the production, distribution, and consumption of texts (Fairclough 1995; Woodilla 1998). This approach to discourse also pays attention to interdiscursivity, which focuses on how an individual text is constituted from diverse discourses (Fairclough 1995), and intertextuality, since "any text is a link in a chain of texts, reacting to, drawing in and transforming other texts" (Fairclough & Wodak 1997:262). Fairclough (1995) points out that textual analysis is insightful because texts constitute an important form of social action, a source of evidence for claims about social relations, and a sensitive barometer of ongoing social processes. They are also a means by which social control is exercised and resisted.

The key concept of this dissertation is the power of language and its influence and connection to individual MDs' thoughts. Language and its use in the field of management are sometimes approached through discourse, which itself is rather an ambiguous term. Hardy (2001:26) refers to Parker (1992) to state that

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<sup>8</sup> Decision Explorer, Cognizer, and CMAP3 are most often mentioned (see Eden & Ackermann 1999; Clarkson & Hodgkinson 2005; Laukkanen & Eriksson 2013).

“discourse refers to the practices of talking and writing (Woodilla 1998), which bring objects into being through the production, dissemination, and consumption of text.” Text can refer to different things, such as the written and spoken language, cultural artefacts, and visual representations (Grant et al. 2001). Balogun et al. (2014:179) reviewed different discursive approaches in the field of strategy, mirroring Fairclough’s (2003:17) stance toward discursive studies as “representing some part of the [physical, social, psychological] world—there are alternative and often competing discourses associated with different groups of people in different social positions.” Influenced by Fairclough’s (2003) categorization of the different aspects of the world, this dissertation is especially interested in the psychological and social aspects of the current discourse, such as how the discourse moulds the MDs’ thinking.

Discourse analytic studies are classified differently when applied to management studies. One classification by Alvesson and Kärreman (2000) divides discourse analytic studies into four categories: micro, meso, grand, and mega. The current research leans more toward the grand and mega approaches. The present study also makes use of rhetorical analysis under the discourse analysis umbrella (Balogun et al. 2014). Thus, the focus here is not on everyday conversation and speech analysis, but rather the wider perspective of how the MDs use rhetoric.

#### *Rhetoric moulds management thinking*

The study of rhetoric concerns how the speaker’s arguments are constructed to be persuasive. Such studies emphasize the role of language and its constructive nature in the process of creating different realities, considering the arguments and speech itself as organizational actions. Everyday use of the term *rhetoric* often pits it against *reality*. The rhetorical approach, however, considers rhetoric as a means to create reality, and in doing so does not dismiss speech as empty words.

In this dissertation the focus is on the different rhetorical ways the MDs spoke of firm performance when they explained the different elements leading to success. The rhetorical approach to discourse analysis differs from other discursive approaches, according to Suddaby and Greenwood (2005:40), in that “its situational focus on persuasive text... [and by] assumptions of a direct and dynamic relationship between rhetorical structures of speech or argument and the cognition and action of actors” (as in Balogun et al. 2014:179). Green and Li (2011:1670) describe the role of rhetoric (in the formation of agency) in that:

...a key assumption and driving mechanism underlying rhetorical explanations is that actors pursue meaning because they must optimize and

manage their limited cognitive and attention resources in a problematic world [...] Moreover, actors optimize or manage their limited cognitive resources through persuasion, or the deployment of symbols, to construct and manipulate meaning.

The rhetorical approaches in management studies have been divided into classical and new (Sillince, Jarzabkowski & Shaw 2012; Suddaby & Greenwood 2005). Classical rhetoric is interested in the persuasion of the listener and the relationship between listener and speaker. Classical Aristotelian concepts, *ethos*, *pathos*, and *logos*, are used to explore persuasive methods. *Ethos* refers to the role or position of a speaker created in the speech. *Pathos* refers to the emotional side of the arguments, aspects which move people. *Logos* in turn refers to the logical explanation of the given issue, aiming to appeal to the rationality of the audience. These form the bedrocks of rhetoric persuasive argumentation in classic rhetoric studies.

Lately, studies have drawn from the new rhetoric theory (Perelman & Olbrechts-Tyteca 1971; Burke 1989). The role of the audience is important in these approaches. As the classical rhetoric theory focuses on the ability to convince specific audiences, the approaches drawing from the new rhetoric theory define the audience much more ambiguously, targeting the message at a universal audience instead (Sillince et al. 2012). The audience can be the speaker him/herself, as by using rhetorical devices one simultaneously constructs oneself (Sillince et al. 2012). The audience can be further elaborated as one the speaker constructs with his/her speech (Perelman & Olbrechts-Tyteca 1971). The MDs in the present study speak to such a constructed audience in their argumentations. The audience, however, can be universal (Perelman & Olbrechts-Tyteca 1971); the universal audience present in the new rhetoric can be described as follows:

Everyone constitutes the universal audience from what he knows of his fellow men, in such a way as to transcend the few oppositions he is aware of... each culture, has thus its own conception of the universal audience (Perelman and Olbrechts-Tyteca 1971:33).

In addition to identifying or constructing the audience, new rhetoric also investigates the premises of arguments (Perelman & Olbrechts-Tyteca 1971). Identifying the premise or starting point of an argument requires knowing the audience and forming a point where speaker and audience are in at least partial agreement. These premises can be both real (facts, truths, presumptions) and preferable (values, hierarchies, loci). By identifying these premises, it is possible to understand the direction and means toward which the argument leans. The last category of new rhetoric focus is described by Perelman and Olbrechts-

Tyteca (1971) as the technique of argumentation. For the sake of general analytical purposes, these techniques can be divided into the processes of *association* and processes of *dissociation* (Perelman & Olbrechts-Tyteca 1971:190). Association refers to the processes of uniting different elements by organizing and evaluating them. Dissociation refers to the processes of making distinctions between the elements, thus disuniting them from the whole.

The first phase involved the researcher reading the interviews to find similarities and forms of speech and identifying the most dominant discourses from the text. NVivo 10 was used to code the text. The analysis process was iterative, drawing from both the interview material and rhetoric theories and studies (Suddaby & Greenwood 2005). The first coding served to form the context in which the overall analysis was based. For instance, the interview material was explored from the perspective of different stakeholders, and different images were given to them from the MDs' talk. Different MDs' talk related to, for example, employees of the firm, was categorized as "employees as necessary evil", "employees instrumental to firm performance", and "employees as a source of competitive advantage". Other classifications were also done, such as approach toward external business environments (e.g., positive, waiting). The nature of the talk was also studied (e.g., concrete, abstract). The participants' different ways of speaking in the interviews and the classification of interview data also revealed a variety of relationships that the MDs constructed regarding performance. This created different positions for the MDs in the interview data (e.g., careful idealist, detail-oriented realist). The first phase of the analysis thus was first built on the explicit issues identified in the MDs' talk of performance, and secondly focused on framing the context of the MDs' performance-related speech.

The second phase of the rhetoric analysis was to identify the most common rhetorical practices present in the MDs' speech. Based on the previous classifications of the interview context and the holistic understanding of the interview data, five different rhetorical strategies emerged. The main focus in the analysis was not to identify the classic rhetorical means of persuasion (*ethos*, *pathos*, *logos*), despite their relevance to rhetorical studies. Instead, the focus was on the different rhetorical means found in MDs' responses regarding firm performance. Of particular interest were the different ways the MDs justified and legitimized their views on firm performance. Through reading, coding, and reflecting on the interviews, the five different ways of speaking about firm performance emerged. The rhetoric was spread throughout the interview material, meaning that rhetorical strategies could be present in any interview. The overall scope of this exploration was to focus on the rhetoric used at the

group level, not by the individual MDs. Some MDs used some rhetorical strategies more and some less.

### 3.3.4 Summary of research methods

Content analysis, cognitive mapping, and rhetorical analysis were used as research methods in this study to answer three sub-questions. Content analysis identified the themes present in the MDs' talk of performance. The analysis focused on the interview material from the 22 MDs as a whole. Cognitive mapping was used to capture individual MDs' causal logics regarding firm performance. The focus was on the relations between different performance elements present in the MDs' responses. Lastly, rhetorical analysis was used to examine the ways MDs talked about firm performance. The focus was on the rhetorical systems the MDs as a group used in their descriptions of firm performance. These three kinds of lenses provided unique but complementary ways of reading the empirical data.

**Table 5.** Comparison of content analysis, cognitive mapping, and rhetorical analysis results

	<b>Content analysis</b>	<b>Cognitive mapping</b>	<b>Rhetorical analysis</b>
<i>Focus</i>	Themes present in MD responses	Hierarchical order and relationships between the themes	Ways of speaking
<i>Questions posed to the data</i>	What elements are present in MD talk on firm performance?	What kind of causal relations between the performance elements are present in managing directors' cognitions?	How do MDs talk about firm performance?
<i>Unit of analysis</i>	MDs as a group	Individual MDs	MDs as a group

In summary, content analysis was first chosen to provide a general overview of the themes present in MD speech. This type of analysis was to provide structure to the overall mass of interview data, and enabled the identification of the most common themes present in the MDs' speech regarding performance. However, to study how the MDs structured their thoughts related to firm performance in greater depth, another research method was needed. Cognitive mapping was selected to map out the MDs' cognitions of performance. Using this method, the MDs' argumentation chains were visualized and cause-and-effect chains drawn to illustrate their individual understanding of what leads to firm success. The cognitive mapping method was necessary to map out individual MDs cognitions (or the researcher's construction of MD cognition). However, rhetorical discourse analysis was necessary to approach the MD cognitions from a more interpretative perspective. Rhetorical discourse analysis made it possible to identify the rhetorical practices within the group of MDs of the same industry. The use of all three analysis methods achieved a holistic understanding of the MDs' thoughts on firm performance. In the next section, the findings of the three research phases will be presented.

## 4 FINDINGS

This section presents the findings of the present study. First, the findings from the first step of the research (acquired through content analysis) are presented. Second, the findings from the second step of the research (acquired through the cognitive mapping method) will be described. Lastly, the findings acquired from the use of rhetorical analysis are reported.

### 4.1 Topics identified in MD responses

Content analysis was used to address the question, *What elements are present in MDs' talk on firm performance?* Results showed that the MDs used rather traditional themes to explain firm performance. When describing how to achieve high performance in the firms, the MDs referenced the following themes the most: customers, production, networks and partnership, competitors, technology, financial basis, and employees and competence. The themes used most frequently by the MDs were the same as those in management literature on firm performance. Next, the performance-related themes present in the MDs' responses will be explained in greater depth in the sections below.

**Table 6.** Concepts, sub-themes, and main themes in MD responses

Concepts	Sub-themes	Main themes
Long-term relationships, customer satisfaction, customer relationships, pool of customers, customer portfolio, customer needs, customership, customer boundaries, service, delivery speed, customer requirements, cooperation, customer groups, specialization, communication, partner, measures, order, credibility, customer management process, customer value, customer segment	Relations to customers Meaning of customers New customers Internationalization Quality and number of customers Dependence on customers	Customers
Effectiveness, quality, quality management, quality systems, ERP, LEAN, product development, product development manager, reliability, quality manager, production process, productivity, certified, standardized, ERP, production planning, volume, competence, resources	Smooth production process Highest quality products	Production
Suppliers, agents, local distributors, distribution channels, distribution time, networking, partnership ideas, distribution networks, reliable suppliers	Networking as a means to serve customers Efficient distribution Good and reliable suppliers	Networks and partnership
Far East, China, low quality, mass production, positioning, local competition, globalization, changing customer needs, tough competition, growth	Competitors as a well-defined group Competitors as an abstract threat No straight competition	Competitors
Automation, robotization, digitalization, faster production, technological advancement, reducing costs	Efficiency in production through automation Technological innovations	Technology
Banks, financial institutions, activity-based costing, cost accounting, liquidity, investments, risk	Profit of the firm Constant revenue Accounting measures	Financial basis
Competence, experience, long contracts, low turnover, motivation, health, work safety, staff, personnel, development, satisfied, craftsmanship, drive, training, commitment, attitude, ideas, investment, flexibility, development ideas, rules, human resources, costs, HR policy	Importance of specific position Differences between blue and white collar workers Long contracts	Employees and competence

#### 4.1.1 Customers

This theme was referenced most frequently by MDs when commenting on firm performance. The importance of customers was considered a self-evident fact. The MDs spoke of serving customers as well as possible, acknowledged the importance of customer satisfaction, and mentioned the strategic role of understanding customer needs. The MDs differed in how they spoke of customers and how they regarded the customer relationship and its importance.

Customers were described by the MDs as a **pushing and pulling** force that compelled the MDs to develop their companies. In general, the MDs reported that customer demands forced their firms to adapt to new requirements. Customers were commonly talked about as partners. This kind of talk recognized the benefits of customer-collaborative actions. Most MDs spoke of growth with their customers. They saw that their success was tightly tied to the satisfaction and happiness of their customers. For instance, one MD put it like this:

We have tried to help our customers to grow quite a lot. We have started one project, we have given as much effort to it as we can that the outcome would be successful, and through that we possibly get manufacturing [business], and through that, growth. Couple of times we have managed to get a grasp from products which have started from small, and as they have grown we have been able to grow also with the products. (MD2)

MDs reported that firm growth was achieved through success with customers.

Some interviews revealed different perspectives regarding customers. In more **sales oriented** accounts, the MDs focused on new customers or securing new deals with old customers. These accounts often highlighted the short-term benefits of the deals focusing on and highlighting the importance of the business deals made.

And we have to be able, this is very much technical sales, [meaning] that we, we do not sell consumer goods. At the moment, my task is to act as a door opener. I search for new potential customers. I work for it until we get the call for offers. After that I let these technical rascals to do the business. Then it is their job to convince the customer that these are the guys that we should play with. (MD8)

Some of the MDs wanted to keep the relationships between their firm and the customers more market based. Approaching from this perspective, one MD mentioned that his firm was a part of a bigger network of several companies, and

it would be challenging to operate within the network if customer relationships were not market based. In these kinds of situations, MDs described clearer firm boundaries and tough business environments. As the quote below illustrates, some MDs saw that the nature of their relationship with customers was mainly built on more market-based relationships, rather than a deeper partnership:

This is a very hectic industry. When the customer has needs, and in many cases, when the customer has a need, it is always instant, and the delivery speed is unquestioned competitive factor...If we cannot deliver, customer calls immediately to our competitors and ask if they can deliver it. And we must be able to react very fast, sometimes with only two-days' notice [to supply] large amounts [of products]. (MD4)

Firm growth was described by most participants as important, but the ways in which they believed customers influenced firm growth varied. The MD from the first excerpt also spoke of the importance of being close to the customer and being able to integrate the firm's business with customer business.

The **quality and number of customers** were deemed meaningful to firm performance by many participants. Customer nature was approached from different directions. Some MDs saw anyone with the resources to use the products or services provided by the MD's firm as a customer, whereas others expressed that customer relations should be chosen and built more carefully. Size, nationality, and quantity of customers were considered as defining factors.

Some MDs stated that it was crucial that the firm knows what kind of customers provided the best results. The role of people working at the firm–customer boundary was especially stressed. This line of thinking was clearly rooted in the idea of long-term relationships, which involve trust and can include the opening of business-related knowledge to other firms. From this perspective, customers were seen as partners whose growth was one of the main leading factors facilitating good firm performance. The boundaries between the customer and subcontractor companies thus became more blurred.

For instance, one MD explained his view on customers, representing the view where the right kinds of customers and the firm's relationship with and knowledge about them were considered meaningful for firm performance:

It's a constant process, because our customers are developing, business environment is developing, and the customers of our customers are developing, so it's constant pondering. But with the right people we understand, we know, we have to know the customers' goals, sometimes

better than the customers themselves, so we could offer a solution for them already when they have just started to notice it...we have to know how the customer's operating model suits our business. (MD13)

The MDs' interviews identified **big customer companies** as important to firm performance. The danger of losing large customers was recognized. Some MDs described their roles as small firms in the middle of a value system, and that large customer companies had the power to define the prices they were willing to pay for the firm's products; these prices are not easily negotiated. Often this kind of talk was related to firm development, such as the firm's development of its own products (in addition to acting as a contract manufacturer). When describing such ambitions in the value system, some MDs commented on the relatively small space in which they were able to operate. MDs who had but a few large customers were especially dependent on the role of the customer for their firm's performance.

**Internationalization** was also acknowledged as a significant determiner of firm performance. In some of the MDs' accounts the niche businesses the firms operated was highlighted, for which the majority of their customer companies are located abroad. International clients are crucial to the success of these companies, as the market in Finland is simply too small. However, some MDs expressed different perspectives on internationalization. Some of the comments reflected the view that internationalization was important, but too risky; in other cases, the MDs did not have the knowledge to make big international investments. Some of the MDs accounts reflected the view that their Finnish customers would not change much in the future either. With relationships with large customer companies lasting several years, some of the accounts considered the jump to new customers irrelevant or impossible. The large customer companies, however, often operated in different countries. As such, the MDs' thoughts on internationalization were two-sided; some considered it a matter of life and death, others viewed internationalization as simply a part of being a subcontractor or supplier for a larger firm, which did not require drastic efforts. For instance:

Yes. [Firm Y] is biggest and [firm Y] is definitely the biggest, and then there is...well, it is difficult to put anyone next to who would be playing in the same field. [Firm X] is another that we deliver quite a lot to, it is mainly what happens here in Europe; in Europe it is [firm X]. And then this [special product] side, it is a completely different business field [volume vices], the market is limited to Finland, they do not need them abroad, or

they have their own practices, they have military unions and this kind of stakeholders who set their own laws and regulations. (MD9)

#### 4.1.2 Production and the products

Production and products were reported by many MDs as cornerstones of firm performance. This kind of talk was common in the MDs explanations. It was commonly observed that quality products, good production facilities, and efficient production processes would lead to good performance.

Well, the main thing, or one of the main things, is the production planning and its correctness, because it is clear that time is our capacity, and that our lead times, that I mentioned, are optimal and guarantee in turn security of supply to our customers, so that would be one...one core issue. And of course every cost, be it raw material, work, operating costs, anything, it should then be competitive. (MD13)

The talk regarding products and production frequently referred to the savings achieved because of **smooth production processes**, as well as customers' appreciation for only the **highest quality products**. High-quality products were also mentioned as a source for competitive advantage. The production of high-quality products was referred to as an unquestionable necessity. Business environments and other factors influencing production costs were sometimes acknowledged as having guided production toward differentiation rather than mass production. However, there were MDs accounts that mentioned that they were standardizing production processes to reduce unit costs through automation and robotization.

**Quality of products** was often referred to in this kind of talk as being important to firm as well as different quality management systems and their related issues such as quality managers or other auditing measures aimed at guaranteeing good product and service quality..

There were accounts in which product orientation was considered as something from the "old world" that should be got rid of. These critical voices spoke about production in a negative way, contrasting it against new business approaches. The MDs recognized the prevalence of faith in products in their fields. Often, the contrasting comments compared the MDs' own ways of doing things against so-called old days, or compared competitors' strategies (which were rarely elaborated on) to the MD's own firm's processes.

And then in 2009–2010 we saw that the world economy is getting on its knees, so we started, while we had our balance sheet in good condition, we started to put efforts in the training of service. We have now something 3–4 years, let's say four years, we did strategic change to put machines, technology to the background and brought people to the forefront. Especially, we approached our customers from the perspective of what do the customers want, where do they want service. Today, all our sales that we do are solely service business, where we of course do products. (MD2)

The movement from product orientation toward service orientation was present in many MD interviews. However, the talk on products and services often overlapped.

#### 4.1.3 Partnership and networks

The theme of partnership also emerged from the data. This theme can be divided into three categories. First, there were comments that indicated the MDs thought the only possible way to perform in the current business environment is through **networking** with customers, suppliers, and sometimes competitors. The **partnership** theme was often mentioned when the MDs described their relation to customers or suppliers. Often the theme came up in a related context with the speech revolving around customer issues, thus relating it to the customer theme. Some of the MDs described their firm's position in the business environment as being in the middle of the network or as a part of the network, where they could simultaneously be the subcontractor for one customer and a customer to smaller subcontractors. The MDs described the advantages of being in the network as an asset, as each of the network members benefited.

When referring to any of these relationships, the MDs who spoke of partnership did so in a positive way. They highlighted trust among partners and mentioned a long-term focus. Some of the MDs also acknowledged already existing long-term relationships with their partner companies. This demonstrates that while partnerships can be long lasting, they can also occur in the market economy. One MD described the firm's relationship with its suppliers as follows:

We have a really raw material-related, or let's say, how would you put it, the raw material that we buy forms a lion's share of the end product's price. The added value is relatively low in our products. So you have to keep your head cool, you have to have a really reliable partner, let's say main suppliers, with whom the larger yearly contracts are made, and know that you will get quality material and in the agreed delivery time, it is important.

But then you have to keep your antennae up there and have negotiations, they can be domestic, European, from a more south, they can be Russians, they could reach all the way to the East, let's say China, Korea, so you will get your price level always right. (MD18)

The **position of the firm** in the network was something that many MDs brought up in their interviews. Their relations to other actors were sometimes dependent on this position. One MD stated the following:

We are quite dependent...Product suppliers are suppliers and so...well, they are partners also, but we are not networked much thus that 'okay, you do this, could you help us, we are a bit busy, you do this to us.' Not like that. It is talked about a lot, networking and everything, but in a way it is and in a way it is not. We have not consciously searched anyone like that. And we consciously do not consider always all of our competitors as competitors. We do help sometimes our competitors, even larger competitors. They can take our call for bid, if they are in a hurry. But they are again one step, one size larger, so we are just acting as a peak removal. (MD6)

The MDs also spoke about the **network as a means to better serve customers**. This second sub-theme focused on the benefits a partnership network would provide in terms of the services the firm could provide to its customers. The partnership theme was often connected to the customer theme. Comments in both themes highlighted the needs for integrated functions between the supplier and customer companies. The partnerships theme is, however, independent, encompassing the companies at the same level as well as other companies that act, for example, as suppliers. Customers also played a central role in this theme.

The tone of MD comments related to partnership and networks and their meaning to customers varied. Even though the majority of the comments were positive, there were some critical voices present. In some accounts, partnerships with other companies were discussed as a good possibility, but not as an actual way of being or a suitable way of working for the MD's firm. Some MDs explained that when understood too strictly, the network would only cause harm, as there would always be some competition for customers or disagreements such as over the profit a subcontractor receives from the contractor before the product arrives to the customer.

Yes, this networking has been kind of a curious thing for a long time, I have always spoken of this, we have always spoken about this, talked about subcontractor networks. Then it is, back in the days there was this thing,

when groups of similar companies wanted for instance take care of the industrial and commercial activity of the municipalities, and these [companies] wanted to combine similar craft shops to a network. So it was, you can say immediately, that it was doomed effort from the start, because, these companies are competitors with each other. Then, when someone runs out of money, then all the [network] principles are forgotten. Then you shoot everything that moves. The liquidity problem is that kind of [problem], that you have to take care of it, even if it means going into your neighbour's plot. (MD22)

We have [firm X], then [firm Y] is next, then [firm Z], and [firm W] ...These are the, let's say bigger development...or where there are the best chances for development, and at the same time these are simultaneously companies, which are very global companies, and for my opinion it has crumbled the partnership severely here in the cape of Finland, these matrix organizations, global matrix organizations. So in my opinion then, in 2005, and maybe then, the collaboration was at its best, so...that back then, you in a way knew who to play with, and back then there was this spirit [partnership] in its strongest, and after that this globalization has severely crumbled it...So not only that you have to compete with the cheap labour countries, but the decision making is so distributed...and that's why I also left from [firm X], because I was in the matrix, so that I had six bosses, or six directions to report on, and I was like a spider who is pulled from each of its six legs. (MD17)

#### 4.1.4 Competitors

The MDs' comments related to competitors can be divided into three categories: **competitors as abstract entities**, the **lack of competitors** in a very specific field, and **competitors as a well-defined group**. The accounts in the first category often handled the topic of how the competitive environment is changing in general, and addressed what kind of pressures it poses on firms. These remarks were usually followed by comments on competition from the Far East, such as countries that provide cheap labour. Often, these definitions were quite vague, with only a few MDs specifically mentioning pressures from Asia, especially China. Other MDs described their competitors simply as companies manufacturing cheap, mass-produced, low-quality products. Concerning the latter two categories (lack of competitors and competitors as a well-defined group), the discussions often revolved around how the MD's firm differed from its competitors. The MDs named the biggest actors in the business field, and

sometimes continued by positioning their firms in the market. One MD analytically stated:

So, if we think statistically what factors and why, and if I look at our competitors, we do not have competitors in Europe anymore. Why they have left and why they have had better opportunities? We have one competitor in the USA, and one original competitor in England, and now there is a third competitor coming up from China...We have different strategy compared to any of our competitors, I won't say it is the best, but is the best for us. Our main competitor, they have a different kind of strategy, and our strategy would not be suitable for them, because they are a big firm, and they work in different ways. (MD1)

Other MDs described the tough competition that their firms face and identified their competitors:

And the competition in this industry is fierce. There are three companies in Finland, which produces these chains, and these three companies also represent around 70 percent of the chain sales in other Scandinavian countries. So in these other Scandinavian countries there is no more chain industry, the companies in these countries have lost the competition, and either finished their business or merged into the existing Finnish companies. And we have been in the challenger position in the markets if you look at the market share; we are the smallest in the volume of these three chain factories. (MD10)

Global competition was often mentioned by the interviewed MDs. One MD analysed—quite realistically—how competition in the field is becoming even more global, and commented in a bit of a gloom tone:

But on the other hand, the bigger the customer is, we are eventually a subcontractor for our main customers, so it is, we are between a rock and a hard place, so...The competition is fierce and globalization hits harder and harder and we try to survive here in the small cape of Finland, so it is not easy in any way. (MD6)

These kinds of comments were common when the MDs spoke of their competition. The MDs saw that global competition has become a given and now demands that companies adjust and adapt their actions accordingly. Some of the MDs had already thought through this more carefully and provided solutions as to how to deal with global competition. Often these were tied to firm location,

product quality (i.e., better than that of the competitors), or certain niche areas that the MD saw as a way to differentiate from competitors.

The networked nature of the business field was mentioned by some of the MDs when they spoke about competitors. Some of the companies they considered competitors at least in some sense could also be their customers. Similarly, local distributors in foreign countries were sometimes also their competitors in other fields. The MDs presented different ways to solve these dilemmas. One MD stated that to maintain a good relationship with one such foreign distributor (who had been their distributor for over ten years), the firm had decided not to aggressively enter the market in which the distributor would have been competition. In addition, the distributor had good relationships in its local network of customers, allowing the MD's firm to conduct good business through them. This relationship provided reciprocal benefits to both actors.

#### 4.1.5 Technology

The development of technology was also deemed important by the interviewees. Most often, technology was approached from the perspective of **efficiency or automation**. The MDs saw that technology offered the possibility to save in production costs. In addition, **technological innovations** provided a better competitive position in the markets, and in some cases these innovations were seen as the only means for constant growth.

Automation was mentioned often when the MDs spoke of production development. Automation was described as a source of improved efficiency for the companies, even though there were also critical comments related to the limits of automation. One MD described the role of automation as follows:

Again, it is the effectiveness, when we come to the performance elements, which are relevant to us, that is...[Firm name] has put efforts heavily on the automation. And I, I believe in automation, the smaller the group that is required to the increased output, it is one of the means for effectiveness, to decrease salary costs. If we can automatically do or take advantage of automation, then all action is more effective. (MD17)

Production process development was closely related to automation in the MDs' comments. One MD described the connection as follows:

...and then again, this effective production, I mean we have a really production-oriented firm. Everything is based on the issue that our lead

times are relatively short and we can make our products with small costs per unit, so continuous investment in automation and investments in the machines and equipment [means a lot], so you need to be at the very top in these in our industry. In connection with this production, the product planning, meaning that new products and improvement to old products must happen constantly. And that they plan the products, thus that they can be technically easier, cheaper to produce. It is actually connected to in [effective production] in a very essential way. (MD18)

One MD saw that the automation of production was required if firms were to keep up with the competition:

So sometimes you think, that it would be nice, if this could be it, the firm could be what it is. So you wouldn't need to grow in the market, not expand through export, not do anything [drastic], but in a certain way this competition is so tough, that you have to go forward all the time, develop and increase the amount of automation, increase the productivity and effectivity. And the only way that could happen is to increase volume and amount of production. (MD16)

Different **technological innovations** were also mentioned. Often these were not related to the improvement of the production process, but rather as means to produce new kinds of products or product families or as a way to break into new service-oriented businesses. Some MDs commented on new machinery that enabled them to produce new kinds of products. Many saw these kinds of investments as risky and expensive. For instance, one of the MDs remarked that the new technology their firm had acquired was rather expensive, and in addition to the concrete investment in the technology, the firm needed to send their employees to Germany to learn how to use the new equipment. The MDs agreed that technology is important, but acknowledged that investing in technology is risky, expensive, and requires specialized skills and training.

#### 4.1.6 Financial base

Financial drivers emerged as an important determinant of firm success in the interviews. The **financial condition** was sometimes mentioned as a major driver of a firm, in other interviews was barely mentioned, and in others still was described as a prerequisite for the working firm. The way this theme was addressed can be divided in two ways: sometimes it was considered the most important thing to which MDs should pay attention, and sometimes it was an

almost a self-evident fact that should be taken care of, but did not require specific efforts

This theme consisted of comments on the financial issues the MDs saw important, such as the **profit of the firm** and **constant revenue** flow. Sometimes the MDs mentioned different kinds of measures, such as activity-based costing or customer follow-up systems. Their focus was most often on the operative functioning measures used by the firm. Some of the MDs identified the need for exact accounting systems, and swore on their names that they were the only reliable way to manage a business. Sometimes the theme was spoken of as a matter-of-fact; an issue of great importance that should be taken care of, but was not something through which the MDs actively lead.

**The financial base** was discussed in relation to performance measures, but other approaches were identified also. For instance, the talk revolved around the good relations with local financial institutions. One bigger theme was the long history of the firms and their solid financial bases, which helped the companies in negotiations with financial institutions (such as local banks). Older companies had acquired a certain amount of wealth and had established working relationships with the banks. Good financial bases were recognized for sheltering firms from risk caused by market fluctuations.

It...yes, it comes first, I mean of course in this subcontractor position [that we have] it comes from the issue, that you are a reliable supplier and in our case, we have had 52-year experience in the machine shop industry, with good financial standing, who has a very wide, wide spectrum of production, what we can offer for the customers. (MD12)

The increasing financial risks that some of the customer companies impose on smaller subcontractors also came forward in the recorded discussions. Some of the MDs observed that bigger customer companies deflected the risk of new ventures onto smaller companies. This was discussed in a rather negative way. However, the MDs acknowledged forming good relations with financial institutions as one way to bear such risk.

**Roles of the owners** was another big theme in the MDs' explanations. The MDs stated that they saw the patience of the owners as a valuable resource. They described the long histories of their companies, and the long-term performance expectations that it came with them.

Well, profitability is important, and if we think about the owners of the firm, who you have to think about, so as this is a family-owned firm, in the

family-owned firm the owners have perseverance, they think long-term performance, they want that the firm exists after 20, 30, 50 years. And they think that their children could have ownership [from the firm] so that the continuity is secured, it is important. (MD15)

Since that [acquisition] our yield has been positive, and what has been descriptive for this firm is that the profit we have made is practically invested back to the firm, for the development of the firm; the owners have not taken it out.” (MD16)

Well, basically in a certain way the stability of the personnel and this firm has always been one of our success factors. We are a privately owned firm; we have three owners who all work here. We have never looked for the lottery win or maximal profit, but long-term growth and this kind of action. When you can see six months forward, then we are already in a good situation. (MD2)

#### 4.1.7 Employees and competence

The MDs brought up firm employees in several ways. Many MDs took a **specific role** (e.g., product manager, sales manager) and explained how they had created a new role and appointed a new person for that role. Usually, the MDs continued to explain how this was beneficial to the firm and how the person in the new role had succeeded. Sometimes the MDs spoke of key talent or key employees who had been important to their firms. The MDs also referred to their employees separately as **white collar and blue collar workers**. Interviewees discussed developing their employees both at the office level (white collar) and in reference to blue collar workers.

Interviewer: Does the [training] plan go all the way to the individual employee?

MD: It is an individual plan. Of course, when we go all the way to our blue collars, in there it is of course more like operative development. I mean we know that, for instance planning, that we need to get more competence related to it, we do not necessarily say ‘that it is Ville who will train for this,’ but rather we think how we can make that group of people do and learn it. And I think that is the starting point, that we ask people what kind of competence they feel that they need in their jobs, and on the other hand we make this systematic...and even then of course all of it does not materialize, and then we throw it to the next year, and think how it goes then. (MD13)

The different ways the MDs brought up when speaking about employees all acknowledged their importance in achieving firm success, even though the production talk sometimes contradicted this. Some of the MDs spoke about the concept of a **competent workforce** and what made for competent employees. They often continued by describing long employment relationships with select employees. The longest contracts had lasted over 40 years according to the interviews. Both competence and craftsmanship were appreciated. One of the MDs explained the benefits of the older hands-on workers:

It was good for me, I searched why, and one of the main reasons was that the best planners are former boilermakers, welders, and machinists, former actual workers. Some have gone to school, studied to be technicians, engineers, but we have plenty of those who have not. One guy has never been in any school, one has gone through vocational school 40 years ago, last year we celebrated his 35-year career. And still working here, the kind of geezer, who has welded, trimmed, and assembled his whole life, doing the work. So when he plans that gadget, it is completely different compared to the one that, pardon me, the monkey, meaning engineer, who comes straight from the school who has played PlayStation all of his life. If you ask that guy to design a wheelbarrow, it's just not good...it is same here, old hands, former makers...or we have one designer who spends half the time designing, half the time in production. We call him Protoman, he designs all the protos [prototypes] and then goes and makes the first piece himself. He immediately notices [if] there is any difficulty, challenge, or fault, he marches back to his booth and changes the product in an instant. (MD7)

**Long contracts**, experience and employee commitment were described as beneficial by some of the MDs. Some added that due to some companies' unusual locations, recruitment of knowledgeable, competent employees is challenging.

Some of the MDs approached the topic of employees from quite a pragmatic perspective, commenting that employees are no doubt critical to the firm's performance, but dire financial situations can still result in layoffs. One MD asserted that he understands the negative effects layoffs can cause and how they are hard to accept from the employee perspective, but that he will keep layoffs as last measure option.

Not then, we had employee cooperation negotiations 2002, it concerned our whole consolidated corporation, and it, it is called Black August, and in my scale I call it Black Monday, I had to lay of ten persons, and five temporary contracts were ended, and when all of these layoffs happened in one Monday, so it was not the nicest work day when you left [the

office]...So I mentioned corporate culture, but still, I want to bring the cold reality also, that we say to our people that if we make this [kind of thing], that we have a nice retail dealer, I have worked with him five years and I do not want to kick him out. So which one do you choose, should we lose one worker [from the firm] or should we lose that partner? That we have collective responsibility of other employees' work places and on firm performance. And we have two ways to achieve this, to perform well, or to have reorganization, and, and if we reorganize, it means hard decisions, cut-offs, layoffs, temporary dismissals, it is not just the greed of the owners, [the reason is] that firm needs to grow. Every year inflation comes, every year we wait for the new negotiations related to income policy, every year raises increase, to stay [where we are], we have to move forward. And if you want to have progress, you have to run. And the way I see it, it is my job to make sure that these big lines are understood similarly here. (MD15)

Even though the MDs brought up employees, they rarely referenced them as the most important source of competitive advantage. The MDs spoke of employees through heroic stories of old craftsmen, but they rarely mentioned any practices or processes for leading and managing their workforce. Often the MDs stated how important their employees were, but only on few occasions did they describe how to manage competent employees.

#### 4.1.8 Missing themes in MD responses

Even though the themes present in the MDs' talk of performance followed traditional performance models, some elements were missing. One of the most important elements of many performance models, such as EFQM and MBNQA, is **leadership**, which was rarely mentioned in the MDs' explanations of firm performance. There were a few occasions when leadership was mentioned, but in relation to the interview material, it was marginal. For instance, one MD mentioned that:

If you look inside our firm, and one thing that you should pay particular attention, and behalf of which we have worked hard—and I am the wrong person to answer this question, or appraise this issue—is the leadership culture. Through this openness we have strived to improve our leadership. We have had quite a lot of training and education regarding how we could improve our leadership. Through that we have clarified the rules of leadership, I mean that we all, I as an MD, production manager, owners, we all have a homogenous way to lead people, to approach issues in a similar fashion. (MD2)

This excerpt mentions leadership as a tool to direct and guide a firm. The MD also referred to leadership as belonging to the upper echelon of the firm. This kind of discussion, however, very rarely appeared in the interviews. This is surprising, as leadership is commonly seen as the basis on which quality management models rely. This does not necessarily mean that the surveyed MDs did not consider leadership important. They could, for example, have viewed leadership as a self-evident part of the organization. However, the lack of references to leadership in the MDs' responses indicates that it was not considered among the most important managerial influencers on performance.

**People-related issues** were also not heavily present in the material. Even though employees were mentioned and their competence considered important, this was seldom described as a systematically led cause of good performance. There were some instances where elements such as corporate culture were visible in the MDs' thinking, but this again was marginal. There is a significant amount of established literature on the connection between human resource management and performance (see Guest 1994; 2011). However, the literature focuses mainly on large companies and might be one reason as to why this way of thinking has not gained a stronger foothold among MDs of SMEs. It was a surprise to notice that even though the MDs spoke highly of their employees, they rarely mentioned any systematic structure related to human resource management. Indeed, human resource management paradigm was not part of most MDs' performance cognitions. As knowledge has been suggested to be the most important resource for the firms and a source of competitive advantage (Grant 1996), this could be an interesting issue to research in future.

Another point missing from the interviews was the **role of the MD** itself. This issue was minimally present, as one MD, for example, explained how he "aimed to make himself useless," by giving more responsibility to other managers and employees. The MD's role was also mentioned by those reflecting on big events involving the whole management team (and owners or boards of directors in some cases). The MD might, for instance, mention a big investment decision in which he or she played a major role. Sometimes the MDs depicted themselves as sales directors, striking deals with customers. Of course, the entire body of interviews could be interpreted as the MDs framing their own positions. However, explicit comments related to the role of the MD in affecting firm performance were rare.

Some of the more recent management literature mentions **corporate social responsibility** as a performance indicator (see review by Aguinis & Glavas 2012). Another important concept is **sustainability**, especially now that saving

energy and circulation economies are emerging trends. These dimensions were only mentioned a few times in the interviews, though some MDs did speak of the development of the geographical area where their firms were located. This indicates that the MDs were aware that a well-performing cluster of companies in a given area benefits all the companies, rather than tightens competition. For example, one MD stated:

And then again, one thing about this network is, one aspect, that if we can deliver [our product] to a firm within a one km diameter, I say that we are strong against any of our competitors. But another thing is that if we manage to get this production, production of upgraded products growing and developing in this [geographical] area, I see that this whole town or area is developing...these producers are within 100 km reach. If this area is developing, there will be more jobs, more employment, more people will move here, and in the long run it increases our chances to recruit competent people. To get new people to move here, in this area, and to get people interested in this business, what we are doing. So, we are not doing just charity, but we strive to do it like that it would benefit the common good, but that also that we could get some crumbs from that good. (MD16)

This MD recognized that the development of the general area would also benefit the firm. This kind of awareness was quite rare, however, though some comments did relate to it. Often these comments came toward the end of the interviews, and none of the MDs mentioned that social responsibility would be systematically measured. One MD did identify environmental well-being as a global mega-trend, commenting:

...like we have this, very contemporary issue around the world, in a global scale, to save the environment. To find a genuinely right solution, so that we can show to our customers, that you are now using this much lesser amount of oil, and you can see it directly in your wallet. So the mission is bright and clear, so clear that even kids know that there are many ways to save nature. But to achieve this bright and clear mission in this traditional business, I don't make any difference between project oriented business or service business, but you have to find those right kinds of actions in every function, to identify small issues and say that we want to develop our firm toward that direction, and actually change the ways of work, and then the customers will notice that we are different compared to others. (MD19)

This dialogue demonstrates that the issue was not very clearly established in the management discourse. Even the quoted MD saw environmentalism purely as a

means to distinguish his firm from his competitors. In general, the MDs' examinations of performance revolved around very traditional ideas.

#### 4.1.9 Summary of the content analysis

The exploration of the different themes present in the MDs' responses produced a conceptual world that describes how the participants understand the performances of their respective firms. The identified themes were somewhat aligned with performance models recognized in the academic literature. The MDs in this study spoke of the themes familiar to them in business contexts, including customers, production, finance, networks, competitors, technology, and employees. These categorizations influence how the MDs construct their visions of the present actions and future performance of their firms.

The MDs brought up the most common elements of known performance models (i.e., the Balanced Scorecard) (Kaplan & Norton 1992). The most frequently referenced themes were customers and production. Networks and partnerships, competitors, technology, financial bases, and employees and competence were also identified, though less prominently. These themes reflect the areas of current performance models in general and can be seen as an expected outcome. Perhaps more interesting issue were the different ways the MDs spoke of the performance drivers. Some expressed more operative issues (e.g., sales), while others focused more on strategy (e.g., developing customer relationships toward partnership). These different views on what affects firm performance reveal that MDs are engaged with both short-term operative issues resulting in good performance, and in longer-term strategies that create *potential* for desired performance. The presence of both perspectives in the MDs' responses reflects the paradoxical nature of firm performance.

In this section, the themes related to firm performance in the MDs' explanations were identified and examined. The analysis determined the most common themes and created an overview of the concepts brought up in the interviews. While the analysis illuminated the issues most important to managers, it also created some new questions. This thematic analysis did not determine, for example, how the themes were organized in the MDs' thoughts. In order to investigate the relations and hierarchies of the performance elements in the MDs' thoughts, another level of analysis is needed. This will be accomplished using cognitive mapping (Huff 1991; Laukkanen 1994).

## 4.2 Exploring MD cognitions regarding performance

The next step in exploring the interviewed MDs' perceptions was to study their individual causal explanations of the relationships between the identified performance elements. Cognitive mapping was used to capture the cause-and-effect chains in the MDs' explanations of firm performance. To do this, each of the interviews were analysed separately, and based on this analysis a cognitive map was drawn from each of the MDs' interviews. In these cognitive maps, the elements and themes present in the interviews were visualized. Through this process, the MDs' causal argumentation chains of what leads to firm success were made visible.

The structure and content of the cognitive maps serve to reveal how each MD constructs firm performance, what items are seen as leading to good performance, and how these elements are organized in the cognitions of the MD from the perspective of causality. The drawn maps are not exact representations of the MDs' minds; rather, they are the outcome of an interpretative, constructive process of eliciting the subjects' thoughts related to a specific concept. In short, the cognitive maps are tools to help us understand the MDs' cognitions.

### 4.2.1 Cognitive maps

The MDs expressed multiple performance cognitions. The ways in which they framed the elements leading to performance and the relationships between these factors also differed, as did the natures of their cognitive maps. Some of the maps were "richer" and some "simpler," meaning that some maps had many concepts with rich connections between them, whereas some had a more modest number of concepts and relationships. Some of the maps were also more dispersed, whereas others were more coherent; some one-dimensional, others more "multi-headed", meaning some MDs exhibited straightforward views toward performance while others were more balanced, such as those who explained that customer relations and production are nearly equally important.

The MDs explained firm performance—simultaneously clarifying the phenomenon for themselves using speech as a tool—using fairly simplistic descriptions. The MDs typically mentioned several different kinds of issues related to firm performance. The hierarchy and the causal logic of these issues differed, however; issues that were deemed the most important in one MD's cognitive map could be given a less important role by another MD. As such, the cognitive maps served as constructions of the MDs' orientation toward performance.

Of the 22 interview-based cognitive maps, none were completely identical. To demonstrate the differences between them, five cognitive maps will be presented in the following sections. For research economic reasons in the present study, it was not possible to present all the maps in their graphical forms. However, descriptions of all of the maps may be found in the appendix. Even though the maps were different, common patterns were observed among them. These similarities and differences made it possible to group the maps.

#### *Principles behind the grouping of the cognitive maps*

Five groups were formed after careful analysis of the 22 maps. The groups were formed according to the central elements displayed on the maps, elements through which the MDs explained firm performance and what they considered the most important determiner of good performance. Most of the identified factors were relatively well-known from the management models present in existing academic and practitioner literature. Grouping was performed based on three principles. **The first principle** evaluated the direction of the MD's attention. A crude line was drawn to indicate whether the MDs spoke of external or internal performance influencers. More specifically, the focus was on the importance the MDs gave to different elements leading to performance. For example, if the MD stated that "customers are important" but could not elaborate further, instead explaining how customer satisfaction is acquired through "investments in the newest technology" and a "competent workforce using the machinery," providing a fairly in-depth analysis of how the combination of an educated workforce and modern production machinery leads to a well-performing firm, the MD's cognitive map would be grouped into the preliminary "internal performance" elements group. Grouping was not based on isolated parts of the interviews, but was the outcome of the mapping process of whole interviews. **The second principle** evaluated the supporting elements in the MDs' cognitive maps. Two MDs asserted that production costs should be minimized, but when asked to elaborate on how to achieve this goal, one MD recommended strict accounting measures and the other suggested the adoption of a new operating process to decrease costs over the long term as employees realize the new LEAN- oriented business logic. The two explanations were completely different, even though the goal was the same. Thus, the maps were again sorted within their groups to reflect the different ways MDs suggested good performance could be achieved. **The third principle** focused on the elements supporting the argument chains of the MDs. These items were located on the edges of the cognitive maps, though they were no less important. The entire maps were then evaluated and compared again against the interview transcripts.

Using these principles, five groups of cognitive maps were formed. These five groups represented different dominant beliefs based on how the MDs organized their thoughts and ideas as to how to achieve success in their firms. The groups were labelled as follows:

- **Production-oriented**
- **Customer-oriented**
- **Flexibility through networks-oriented**
- **Unique products-oriented**
- **Radically different**

The first four groups had some common elements among the cognitive maps. The last group consisted of the outlier thinkers, those whose maps were radically different.

**Table 7.** Different cognitions of the MDs

Group	Number of MDs in the group	Main causes for performance	Other important elements	Main causal relations between the elements
Production focus	5	Fine tuning of production leads to success; technology is important	Production, lead times, standardization, automation, efficiency	Constant improvement of production leads to performance
Flexibility through networks focus	5	The network provides flexibility and competitive advantage against larger companies	Suppliers, partners, customers	Identification and negotiation with suppliers and partnerships with network companies leads to performance
Customer focus	5	Customer focus leads to success	Large customers, long-term relationships, trust, growth	Joint development and the performance of main customers leads to performance
Unique product and sales focus	4	Belief in uniqueness of their products, sales are important	Quality, uniqueness, expertise, skills, niches	World-class products require world-class sales and distribution
Radically different focus	3	Different, e.g., firm culture leads to success	Strategy, culture, markets, implementation	Courage and belief to follow own path leads to performance

The five groups were distinct in thematic focus and its related elements, as well as in terms of the main connections between these elements. The identified elements and their causal relations are explored next.

#### Focus on production leads to performance

The MDs in this group talked about improving performance through effective production processes. The elements associated with production were the richest

in the MDs' cognitive maps in this group. The dominant causal explanations in this group were:

- Improvement of the production process leads to good performance
- Reliable management systems produce effectiveness (which leads to good performance)
- Good logistics and material flow ensure efficient production (which leads to good performance)

Five MDs formed the first group (MD6, MD8, MD9, MD17, and MD18). Their ages ranged between 32 and 53 years, and they worked in a variety of professional positions: founder (MD6, MD9), factory director in a different company (MD8, MD17), and different positions in the current firm (MD18). The firms represented by the MDs in this group had distinct features; some of the firms performed better (especially MD18's firm) while others had experienced negative growth in the last few years (MD8, MD17).

The most dominant relationship between the different performance elements within the group was between production effectiveness and performance. The MDs discussed in detail how production effectiveness would lead to increased performance in the firm, and identified management processes as the tool by which to achieve this outcome. In general, the MDs in this group described how improved production processes lead to more effective, efficient, and productive firms, which in turn increases financial performance. Management processes were described to include production control systems, quality management systems, and the streamlining of processes in every stage from receiving an order to shipping the ready product to the customer. The MDs could explain in detail the implementation of the new enterprise resource planning (ERP) system. Activity-based costing was mentioned, as was the need to optimize the degree of use of the machines on the shop floor.

The MDs in this group relied on tangible information for their explanations. The most dominant themes revolved around managing work and material processes. Typically, the MDs described the production process, its strengths, how it should be improved, and how the end product would find its way to customers. Common suggestions related to the smoothness of production, such as optimizing lead times and removing unnecessary bottlenecks. The MDs in this group often highlighted the need for optimization, stating that there should not be any break in the production process (such as breaks caused by missing components).

Several other performance indicators from the cognitions of this group were connected to production effectiveness. For example, the long-term experience of employees, their competence in using multiple machines, the degree of use of those machines, cost awareness, and work safety were all cited. These supporting elements were seen as important supporting factors for effective production.

The example below demonstrates this group's way of thinking regarding firm performance. The detailed explanation of one MD's cognitive map serves to illustrate the themes and relationships between the elements present in the MDs' perceptions in this group. The example cognitive map presented, therefore, represents the group as a whole.

MD 17 had been a factory director in several large companies before taking the position of an MD in his current firm two years ago. He now conducts a machine shop and component supplier firm of 68 employees. The firm has suffered from negative growth during recent years. The following text summarizes his cognition.

*The MD approached firm performance from the perspective of production efficiency and effectiveness. The performance measure used was the profit of the firm. The profit was actively followed, and the MD explained the practice of following the profit monthly. This was considered to lead to efficient production. The MD's view of performance was quite rational and numbers-based. As a side story, the MD explained how internalization leads performance, and that to achieve it, there should be an active search for market openings for a subcontractor. These plans were in progress at his firm but were not yet taken into action.*

*The MD identified three main areas to focus on to improve production efficiency. **First**, the MD saw that the degree of machinery use should be higher. There were system-wide differences in the levels of use among the machines, though the MD also explained that different machines were used differently by different employees. This caused variability in production output. The MD explained that this variability had negative effects on the efficiency of production. The MD also observed the need for "multi-drive" use of the machines, explaining that the implementation of this practice would increase efficiency. The MD recognized that employee competence was necessary, as different machines required different skills, and that the employees would need to have positive attitude to change their old ways of working. These combined elements would lead to more effective use of the machinery.*

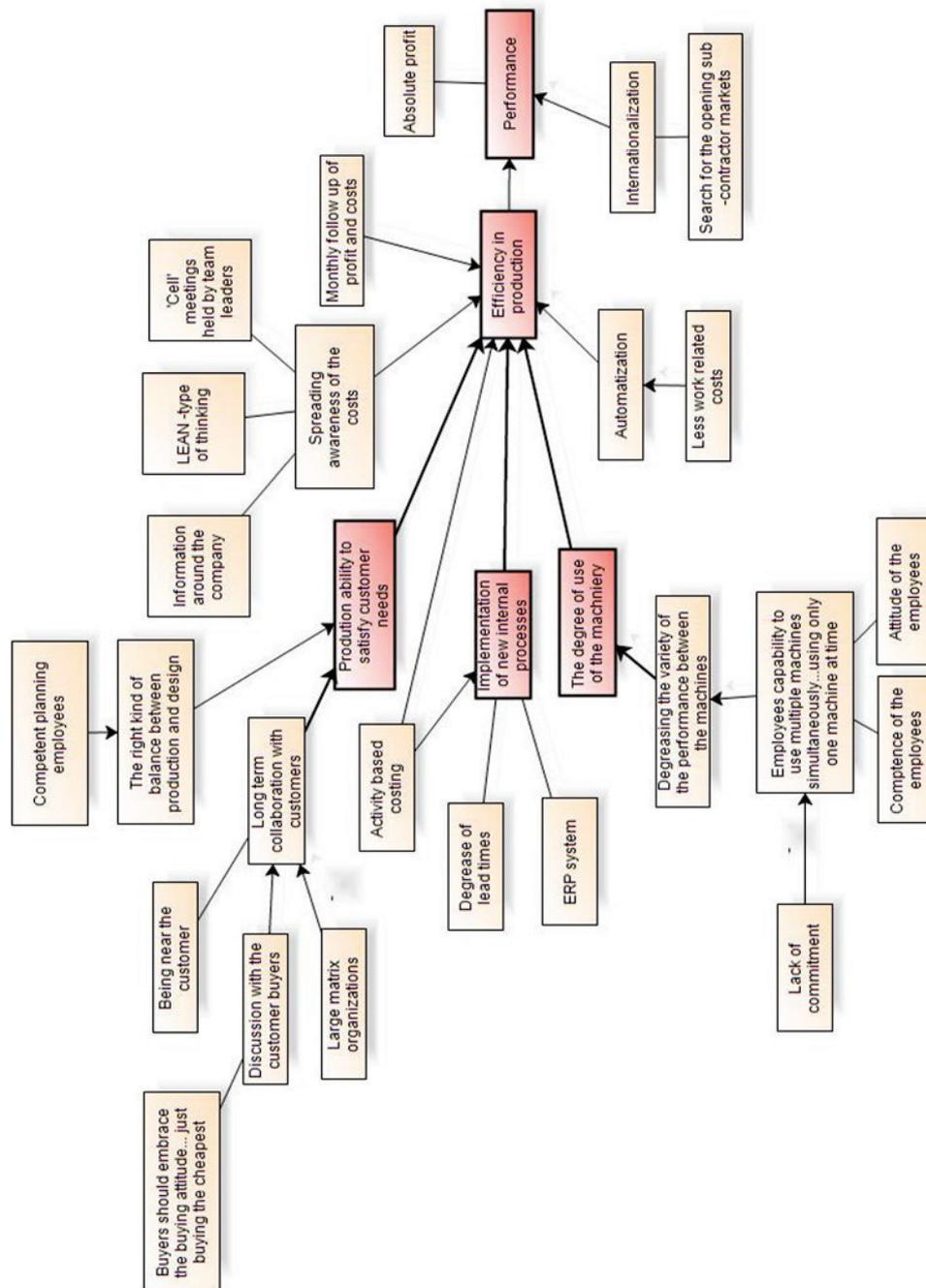
**Second**, the MD listed the implementation of new internal processes as another means to increase production efficiency. The MD described how he had brought several practices with him when he was hired at the current firm. He mentioned activity-based costing as a way to steer the firm in a more cost-effective direction. He also mentioned the recently implemented internal ERP system. The MD also highlighted the role of decreasing lead times as a way to reach more efficient production.

**Third**, the MD acknowledged his customers and noted the importance of meeting customer expectations, such as production volume. This MD had only a few major customers, so their orders formed the majority of the firm's turnover. As such, the MD felt that satisfying customer needs, especially the main customers, would lead to better performance. The long-term collaboration with customer companies was presented as the most important customer-related element as it ensured efficient and cost-effective production by detailing customer needs.

Knowledge of production and design were both considered important by the MD, as they allowed him to respond to customer needs. The MD considered sub-optimization a risk and highlighted the need for continuous conversation with buyers. Moreover, the fact that the customer's buyers appreciated quality over low price was deemed important. Large matrix organizations were seen as having a negative influence on customer relationships as the involved persons changed. Again, this enhanced the customer relationship and provided production stability, as all customer needs were known.

The MD also mentioned automation as a means to decrease costs. The MD recognized that knowledge of the costs of the firm was important, and this awareness of costs leads to effective production. In order to spread such awareness, the MD established different "cell" meetings in teams to encourage LEAN-type thinking. Moreover, information related to production costs and product profitability was widely available to all employees. Through cost awareness, the MD argued that employees would know more precisely the effect of their own work on firm performance.

In summary, operational excellence to this MD meant focusing on production processes, replacing manpower with automation and machines, and decreasing lead times in production. The topic of the prices of raw material was also mentioned.



**Figure 11.** MD17 cognitive map

### Focus on a flexible network leads to performance

The second group of MDs believed in the network system and emphasized that the firm's position within the network could greatly affect performance. They framed their understanding of firm performance as something that extends

beyond the firm's boundaries. They often referred to the members of the value chain in both vertical and horizontal directions, and spoke of the importance of customers, partner companies, and suppliers. The networks were also explicitly mentioned as a source of competitive advantage.

The dominant causalities in the cognitions of this group were:

- Flexibility is the main driver for a good performance
- The network of companies provides flexibility (which leads to good performance)
- The ability to answer customer demands without a delay leads to customer satisfaction (which leads to good performance)

Five MDs were grouped under this theme (MD5, MD11, MD12, MD20, and MD21). The MDs had all histories in their current firms, though the length of employment varied; MD5 was the successor of a family business, MD11 had a 40-year history in a family-owned firm, MD6 had held different positions in the current firm, and MD20 and MD21 had both industry experience and long histories in their current firms. The firms themselves had unique features and differed in size (from MD5's 18 to MD11's 125 employees). Two firms (MD11's and MD21's) had grown substantially over the past five years.

The most central causal relation within this group was that one can best answer customer needs through the flexibility that the network provides. The key causal factor leading to performance was the ability to answer customer needs quickly through efficient use of the business network.

The MDs described different causal factors by which to improve the flexibility of production within the network. Some networks were described as formal, others informal. The MDs saw the development of certain geographical areas as beneficial for their business, and described how local partners were preferable to international ones. Flexibility to meet changing customer needs was identified as important, and local partners allowed for even the smallest changes in customer orders to be fulfilled rapidly. Flexibility in production should then effect customer satisfaction, thus leading to desirable firm performance.

The belief behind these cause-and-effect relations was the idea that network performance benefited all members of the network. The MDs described their competitive fields and the moves they had taken to avoid direct competition with other companies in their business field, stating that the path to performance was not necessarily through fierce competition. For instance, one MD stated that he

had identified a source of direct competition in the network, discussed it with the competitor, and ultimately chose to refocus his own direction.

A causal element leading to network flexibility, and thus to customer satisfaction and increased financial performance, was that of relationships with the partner network. This entails good relations with suppliers and other partners. This was seen to lend more flexible service toward customers. Some MDs explained in detail their multiple roles in networks where companies could be competitors, customers, suppliers, and partners, simultaneously, with different cases determining the position of the MDs' companies.

The MDs mentioned four ways to create good network relationships. Credibility of the firm was considered an important building block to a good relationship. Keeping promises with the clients, done by maintaining the quality of products and delivering them within the agreed time, for example, was deemed an important part of building credibility. Fostering a good image in the network of the firm's trustworthiness and (financial) stability were also seen as drivers of good network relationships. There were also other causal relations that the MDs in this group considered important. The MDs also mentioned their roles as decision makers and representatives of the firms as influencers of good network relationships. In addition to the stakeholders in the business environment, the MDs mentioned the importance of other stakeholders, such as financial institutions.

The MDs in this group regarded customer relationships as special. The MDs mentioned few big customers, but viewed their business environment as dynamic; this was also reflected in practices adopted by large companies. The common theme present in this group's interviews was a rather reserved attitude toward large companies. Even though the MDs highlighted these relationships, they were frustrated because their contacts in large companies changed quite quickly, making it difficult to form deeper relationships with these large customers (a requirement of firm performance). Still, the MDs acknowledged and stressed the importance of large customers.

The MDs mentioned their internal processes, production, and products, but the most commonly discussed element was the causal belief that flexibility through the network facilitates the positive firm performance.

In the next example MD11's cognitive map is presented (see Figure 10). The MD previously had a long career (multiple decades) in the same family-owned firm, holding different positions throughout the years. Currently, he conducts a

manufacturer of sheet metal products, with successful firm growth over the last five years.

*The MD considered the network a major cause of the firm's performance. **First**, he mentioned credibility in the industry as one of the most important factors leading to success, which was achieved through his long history in the field. The MD explained that credibility within the network relieved the pressure of having only price as a competitive advantage, and it also helped in negotiations with other companies in the same business area. The MD stated that collaboration leads to performance more than aggressive competition with competitors in the field, such as when a competing firm simultaneously fills another role in the network.*

***Second**, in the MD's cognitive map the importance of good relationships with major customers is highlighted. The MD recognized that credibility in the geographical area was born through successful cooperation with large customers, taking risks within the network to serve customers in a better way, and nurturing reliable employees. MD's entrepreneurial attitude was one factor leading to the risk taking and further to good long term customer relationships.*

*To respond to changing and growing customer needs (and to fulfil international standards), the MD stated that the firm should adopt new management practices; specifically, quality auditing, management systems, and human resource development processes should be planned to suit the needs of larger firm. The MD recognized the importance of customer satisfaction. He also identified the risk of having only one large customer, stating that multiple customers are necessary for firm survival. Expanding in such a way would alleviate the impact of having only one major customer, but it is important not to neglect the old customer relationships during this process.*

***Third**, the MD spoke on behalf of the personal relationships. The relationships with different stakeholders were considered meaningful. The MD stated that if one is to be aware of institutional changes, one must have good relationships within the employing union. Relationships with other MDs, especially MD entrepreneurs, were deemed significant as well. Through these relationships, the business environment can be managed successfully. The MD stated that he had identified unnecessary competition with another SME firm, for example, and by rationalizing his actions engaged the competing firm to become part of their partner network. These kinds of arrangements benefit both parties. Even though the MD spoke a lot about relationships, he was a bit sceptical of the official partnership model of business.*

*The last element mentioned by this MD was that of employees and low hierarchy within the firm. The MD believed it was important to know the employees and understand the roles of shop-floor workers and the management competence concerning quality management auditing. The MD stated that his firm was well known within the geographic area, but in order to grow and open new (international) business areas, sales skills would be valuable.*

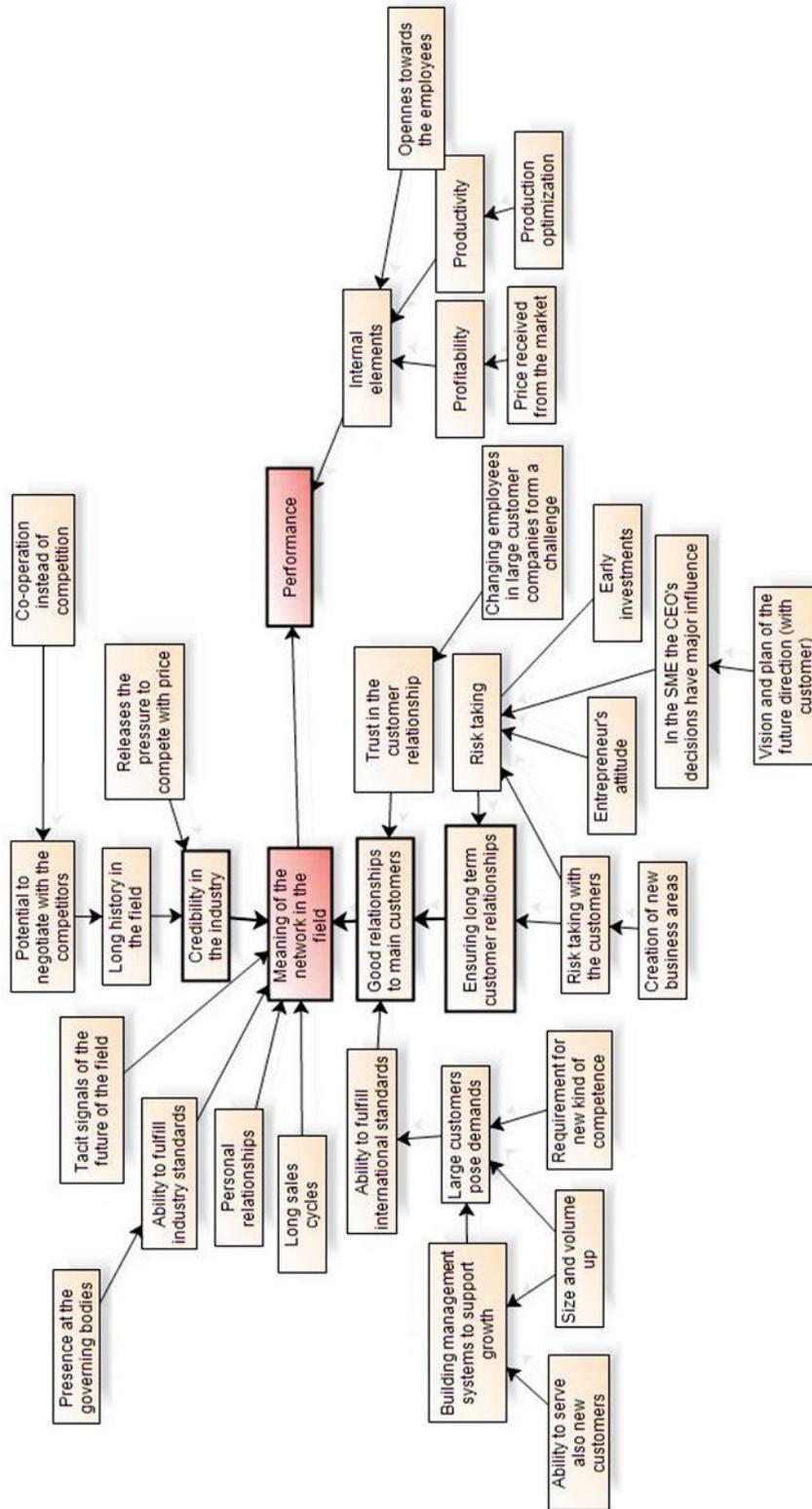


Figure 12. MD11 cognitive map

### Focus on customer relationships leads to performance

The central belief in this group was that good customer relationships lead to success and desirable firm performance. Frequently mentioned elements in the cognitions within this group revolved around ideas to support good customer relationships. The dominant perceptions concerning the relationships between the elements were:

- Identifying and responding to customer needs leads to growth
- A common partnership mind-set is a prerequisite for good customer relationship
- Growth is necessary for survival and for responding to customer needs

Five MDs formed this third group (MD2, MD3, MD7, MD13, and MD16). The MDs all had professional histories within the industry; MD2 had mostly worked in the current firm in different positions, while other MDs had experience in the field with other firms. MD3 had previously been MD of two smaller firms. The size and performance of the firms differed among the participants, with MD13's and MD16's firms the largest, employing roughly 170 employees each.

The central causal element identified in this group was that of customer relationships and their effect on firm performance, especially growth. One of the most common causal arguments in this group was that through good customer relationships it was possible to grow with the customers. The MDs saw that through good customer relationships, sometimes labelled as partnerships, it was possible to enter into new business in its very early stages. Well-performing customers also create new business for the firms.

Another causal relation leading to firm performance was that customers force firms to develop. The MDs mentioned the requirements customers imposed on the production volume for products or services that the MD's firm had to fulfil. Even though these customer demands were sometimes challenging, the MDs recognized that it was the customers who drove companies to develop, and the subsequent investments led to new capabilities and business opportunities. Deep relationships with customer companies were thus acknowledged as crucial for product development, and customer demands indeed for firm development in general. Often the MDs described how collaboration with customer companies had also made it possible for the MD's firm to respond to customer demands from other companies. This interaction required trust among all members in the relationship.

Other factors leading to high performance included focusing on the long-term performance of the firm. After setting future performance goals, the MDs emphasized the causal effect of fostering customer relationships and long-term performance. In addition, understanding the customer firms' production processes and adapting one's own production to suit them was mentioned by some MDs as another way to increase performance.

The MDs in the group often mentioned a cause-and-effect dynamic between present efforts toward customer relationships and potential future performance. The claim was that developing customer relationships allows the firm to reach its full potential. Deep customer relationships were described as a source of competitive advantage. The MDs identified that in order to have a good relationship, the right kind of customers should be defined. This requires identifying which of the firm's strengths might be used to select value-adding customers.

The MDs also spoke of the importance of efficient production as an instrument for offering a good and competitive service to customers. When discussing the internal elements of performance, a common cause-and-effect explanation within the group was one of hierarchical order; that performance was examined through partnerships with customers, and operational efficiency supported the pursuit of this goal. For example, the MD might cite the production processes of the firm as instrumental for firm performance, but the main driver for improving production in the first place was to serve customers better.

In summary, the MDs in this group stress that customer relationships influence the firm's ability to perform well the most, as do other external elements, such as partnerships with other companies. The MDs in this group explicitly stated that the performance of their respective firms was determined by three to four influencing factors. Even though the main focus was on external elements (i.e., meaningful customer relationships), the MDs also referenced internal performance elements such as productivity. Performance was determined to consist of balancing elements. The overall approach, however, was very much customer based. Causal relations were explicitly and carefully mentioned and tied together. One MD, for example, explained how good customer relationships and the co-development of products forced the firm to improve its productivity, but also afforded other opportunities as the customer companies provided new competencies and knowledge for production development.

The following cognitive map is that of MD16. This MD had a long history of technical sales and sales management in previous and current firms, before starting as an MD five years ago. The firm he currently leads is a producer of

aluminium profiles. The firm has performed well and has been growing in recent years.

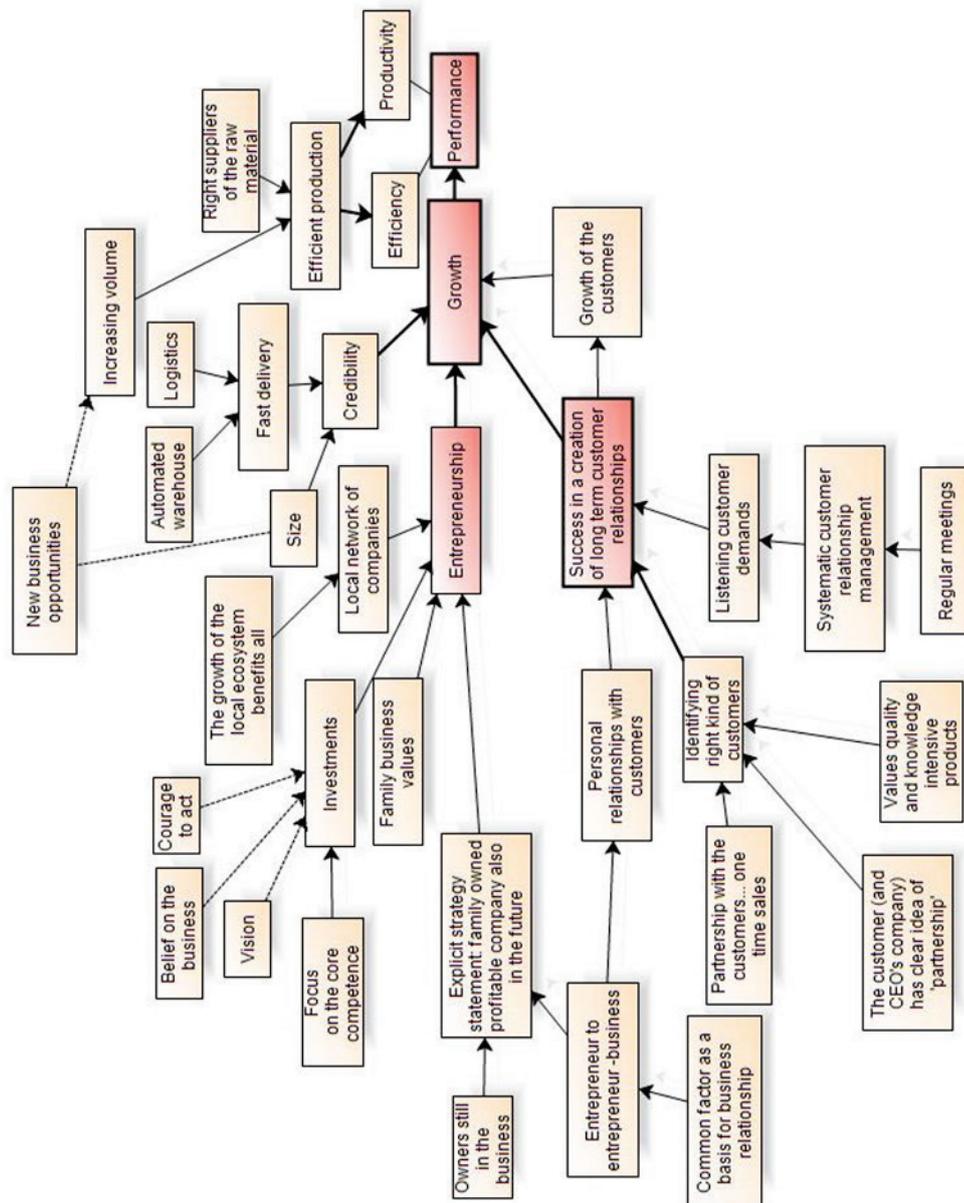
*The MD believed that positive firm performance requires constant growth, and that growth is created through good customer relationships. The MD's firm has grown with the customers in its history, and expects additional kinds of growth. This means that the growth has been a consequence of the increased volume and quality of the demands posed by the firm's main customers. The MD saw that it could also be fruitful to acquire growth through new customers. However, long and established customer relationships with current customers are the most important performance influencers.*

*The MD identified two main factors leading to growth of the firm. **First** is success in the creation of long customer relationships. The MD lists two ways to achieve success in customer relationships. First, was listening to customer demands. This was achieved through systematic customer relationship management and regular meetings with the customer. Second, identifying the right kind of customer was described as an important prerequisite of good customer relationships. The "right kind" were customers who valued quality products, had a similar partnership mind-set, and who were willing to form a longer partnership instead focusing on one-time sales. These relationships were achieved through a selection process created over the years. Current customers have similar partnership mind-sets to that of the firm. Deep relationships are also a consequence of the personal relationships within the customer companies.*

***Second**, in order to have satisfied customers, the MD recognized the need to grow with rising customer demands as the customer companies have grown, necessitating the entrepreneurial mind-set. This need to grow forced the firm to develop. Through this development, the firm received fresh opportunities to serve also new customers. This demonstrates that the firm has been very customer driven. The MD reported that at times, difficult decisions had to be made to react to customer needs. These decisions required courage, vision for the future business environment, and belief in the firm's own business model. These decisions have led to heavy investments and growth. Thus, in addition to customer relationships, an entrepreneurial mind-set was seen as a contributor to positive growth. In addition, the MD has tried to cultivate a family business identity in his firm. This family business identity is also evident in the way the owners take part in the operative management of the firm. The MD stated that this participation influences employee attitudes and creates an entrepreneurial culture. Moreover, it leads to commitment to the firm and reduces employee*

*turnover. This entrepreneurial mind-set was described as a prerequisite for customer-oriented behavior.*

*The **third** factor the MD named as a contributor to good performance was the role of a network. The network creates flexibility toward customers. The firm in this case has survived for a long time by focusing on the core competencies of the business. Supporting factors leading to firm performance include being an efficient supplier and being logistically smart. The network of the partner companies was not used that much, but the little it was used was very important for the customers. The MD saw it positive that there was a geographical cluster of similar companies in the same area. He reported this cluster to have direct and indirect positive effects on the firm, as new people move into the area and thereby increase the potential workforce.*



**Figure 13.** MD16 cognitive map

### Focus on unique products leads to performance

The MDs in this group described successful firm performance as dependent on unique, quality products. The common cause-and-effect chain expressed by this group was the importance of local distributors to firm performance and the need for operational excellence. Compared to the production-oriented group, these MDs focused more on the products themselves. They mention how the demands

from end customers could be met by the unusual capabilities of very specific products manufactured by the firms.

The main causal explanations among the MDs in this group focused on quality products and their distribution and sales. The dominant causal beliefs in this group were:

- Focus on special-quality products leads to good performance
- Having a special competence not possessed by competitors leads to quality products (which lead to performance)
- Active sales efforts and good ties with foreign distributors lead to good performance

The four MDs in this group (MD4, MD10, MD14, and MD22) regarded the uniqueness of their products as a primary factor in firm performance. MD22 had experience from different positions in the current firm, while other MDs had come to their current firms from others, where they had also held management positions. The length of employment in the MDs' current firm and role varied. The firm sizes ranged between 19 (MD4) and 68 (MD14) employees. MD10's and MD14's firms had experienced some challenges with performance in recent years, whereas MD4's and MD22's firms were performing well.

The dominant causal relations the MDs in this group saw were that their firms' specific experience and knowledge of producing unique products were a source of competitive advantage that led to good performance. The quality of the specific products was especially linked to firm performance. The MDs identified three main areas through which special products improved firm performance. First, the MDs described how it was important to find a niche within the markets. These niches were often based on a specialty or specific quality of the products, often something that required special competence. The MDs described in detail the nature of their products and explained how these products were better than those of their competitors. The MDs in this group mentioned their competitors more than the MDs in other groups and ranked themselves in the markets based on their unique products. The MDs explained that they stood apart from their competitors by not only working in a very special niche, but being the best in the world at it.

Second, local distributors in foreign countries were listed as important to firm performance, as they had knowledge of the local network of actors. Choosing the right kind of distributors was emphasized by three MDs, as the distributors

directly affected local sales. Sales channels were also deemed important. The requirement for distributors was that they would know the field, already have a foothold in the local markets, and act in at special field at least somewhat similar to that of the MD's firm.

The third factor that the MDs identified as leading to firm performance through quality products was that of sales follow-ups. The MDs recommended the use of accurate follow-up systems to record all the produced and sold products.

Other causal relations were also mentioned. MDs explained that the entry barriers to the market were quite high due to the need for a specialized competence. Two MDs in this group observed that they worked in fields with highly regulated products, which created even more entry barriers for newcomer companies.

In general, the MDs in this group described firm performance in very pragmatic and operational terms, placing their focus externally with the sales of their products. If the MDs spoke about their own roles, they described themselves as sales managers, further emphasizing the importance of sales in this group. I have chosen one MD's cognitive map to illustrate the cognitions of this group of MDs. The MD4's cognitive map has been chosen to illustrate the thought patterns of this group. This MD had only been in this position at his current firm for one year. Previously, he had been an MD in another SME. MD4's current firm is a provider of portable lighting solutions. The firm had performed well over the last five years and employs 19 employees.

*The main cause for the performance of the firm in the MD's cognitive map was the presence of very specialized products. The products were specialized and their production partially regulated. The industry itself was regulated by national and European-wide directives. In order to achieve success through the special products three main issues could be in the MD's cognitive map.*

**First**, *in order to produce these products, the firm required special competencies. In order to be in the forefront of the technological advancement required constant development and testing of the products. The MD listed technical competencies (to build the product) as well as being active in standardization and regulation bodies and different professional associations as means to answer to this need. Faith in technical advancement to build special products also led to concrete managerial decisions. To create products that meet continuously shifting standards, the firm invested in testing equipment. The MD explained that this equipment made it possible to test the products and*

*ensure they met all relevant standards immediately upon launch. It follows that the quality of the products was a self-evident requirement for success.*

**Second**, *the MD saw that the main element leading to good performance of the firm was the ability to be near the end customers (i.e., the customers who eventually use the products). The MD considered this important and challenging at the same time, as the firm used local distributors in different countries. The MD's cognitive map suggests these challenges can be overcome by selecting distributors with clear and specific profiles in line with the firm's strategy. These distributors played a big role in the MD's cognition. To have local distributors was important as they had access to local networks through which sales were executed. In addition, these local distributors provided maintenance services. Local distributors also minimized the risks for the MD's firm. The MD noted that it is important to have distributors, but also to make sure the parent firm and MD maintain contact with end customers. The MD recommended holding meetings where distributors, the firm's MD, and the end customers' representatives are all present. This enables a continued relationship between the parent firm and the end customers while still making use of local distributors.*

**Third**, *the MD explained that aggressive sales efforts were crucial for the firm performance. In order to reach these goals sales managers were constantly on the "field". Sales managers were responsible for being near and getting knowledge of the end customers (in addition of local distributors). Networking was considered important factor making the sales possible. The MD also stated that the MDs role is to be in the forefront of the sales; he explicitly stated that MDs focus should be on the markets (selling the product), instead of production.*

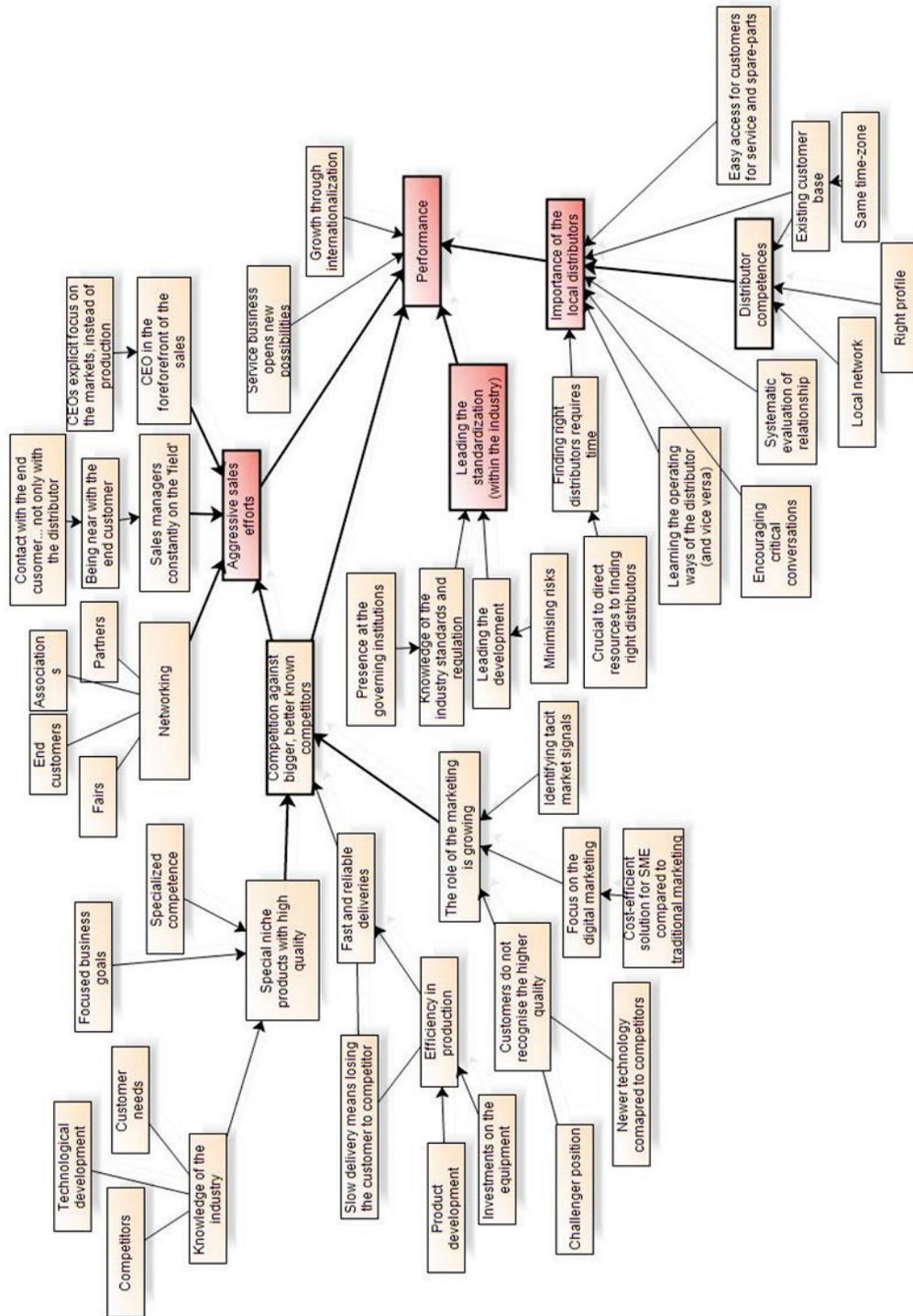


Figure 14. MD4 cognitive map

### MDs with alternative perceptions of performance

Three MDs approached the subject of firm performance from perspectives radically different from those of the other four groups. Similarly, they used very unique terms and language to explain their views. There was not one common factor among the cognitive maps of the MDs in this group. The only common element among these three maps was the level of abstraction and the nature of the concepts used to describe performance.

The MDs in this last group (MD1, MD15, and MD19) had professional backgrounds from research to sales. The firms they represented were all different in size. They had all performed rather well in recent years.

The MDs' cognitions in this group included more abstract issues, rather than concrete factors, in leading to firm performance. The cognitions related for example to the strategy, culture, or creation of new innovative business. MD15 expressed that choosing the right strategy and implementing it correctly was an important determiner of good performance, as were knowing the markets and capabilities of the firm. He spoke of the core competence and usefulness of technology and highlighted the role of employees in implementing strategy successfully. MD19 also spoke of employee motivation, but highlighted the need for firm renewal. He also spoke of the creation of new business innovations as having a positive effect on firm performance. MD1 described firm culture has a significant performance influencer.

MD1's cognitive map was chosen to illustrate the radical differences between the thinking of the MDs in this group compared to those of the other groups. MD1 was the most educated MD in the group, with a background in research. At the time of interviews, he was leading a successful provider of integrated calibration solutions with an employee body of 88 persons.

*Corporate culture forms the center of MD1's cognitive map as the most important element leading to positive firm performance. The MD mentioned other more traditional performance elements, but discussed them through the corporate culture perspective. The MD explained how corporate culture formed the basis for all other actions in the firm. When asked to elaborate on this view, the MD described employees beliefs as important elements in forming a firm's culture. The way the employees saw the firm was crucial; more precisely, the MD saw that employees should believe in the firm's ability to succeed. The MD explained that empowerment led to a more agentic view on the part of employees and thus facilitated positive beliefs. The MD also listed openness in the firm as an important factor, referring to both an open organizational climate*

*and practices that enhanced transparency. The MD stated that transparency in general, and particularly in business goals, helped production workers to focus their efforts and make decisions on the shop floor. Major financial figures (i.e., the firm's balance sheet) were made available to employees, which reduced speculation and gossip. This transparency also helped to justify the decisions made in the firm. When asked to elaborate more what openness meant, the MD offered that one of the most impactful daily practices related to openness was the use of clear language instead of corporate jargon.*

*The MD reported that the firm had a corporate culture of "hiring" instead of "changing" people. The average employee had worked at the firm for 12 years. The MD noted that finding committed employees who fit the team of colleagues required significant effort during recruitment. The MD gave a few examples of these practices, such as including the recruitee's colleagues in the recruiting process, as well as defining a criteria for recruiting that not only evaluated the candidate's skills and competencies, but also the ability to fit in with the current work team. The MD even mentioned that the firm had recognized the dangers of recruiting "clones." Those in the firm shared at least some part of the local culture, as most of the employees came from the same area. The 30-year history of the firm also provided a stable image as an employer.*

*The MD also spoke of the firm's strategy, a topic that did not come up explicitly in many of the interviews. The MD explained that the right strategy must be selected and implemented correctly to be successful. Good corporate culture facilitated strategy implementation. The MD mentioned that the firm had made the right decision in focusing on core competencies and staying on the same path. A skilled management board was described as part of a good strategy, with the MD stating that he tried to make himself "useless," meaning he wanted the employees and managers to make decisions themselves and stand behind those decisions.*

*The firm produced very knowledge-intensive products, so employee commitment to quality products was considered important. The MD saw that good culture leads to commitment to good quality. The MD stated that employee commitment was achieved by nurturing the employees to appreciate the firm and feel proud of firm products. The MD questioned the prevailing standard of quality assurance systems and stated that in his firm, quality assurance was part of every employee's job. The MD observed a common agreement to keep products above the quality standard in the firm.*

*The MD referred to an external network, saying that it provided necessary flexibility to the business. Even if suppliers in the Far East could provide better*

*prices, the flexibility of the local supplier network meant more and was considered more important. The MD spoke of his corporate culture and “softer” elements as leading to firm performance, but also stated clearly that all actions should lead to succesful business, and for that he had some cornerstones to be laid: first, to keep the firm profitable, and second, to recognize that profitability requires constant growth. The softer elements thus were built on the requirement that the “harder” measures were fulfilled.*

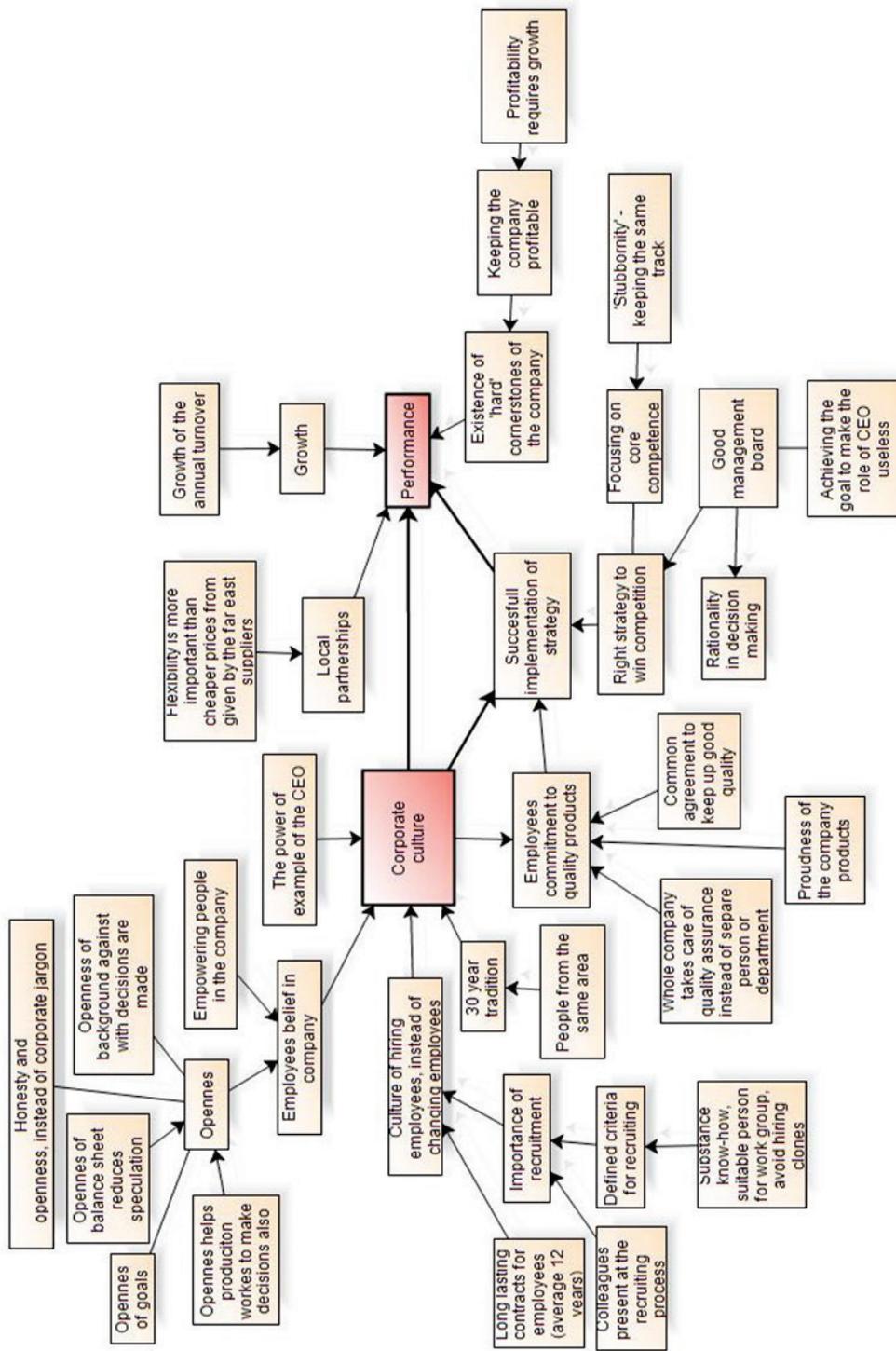


Figure 15. MD1 cognitive map

#### 4.2.2 Analysis and comparison of the groups

The exploration of the MDs' perceptions of firm performance resulted in five distinct groups of MDs. Even though the themes present in the MDs' speech were similar, the causal analysis of the MDs' cognitive maps revealed differences in the importance of and mutual connections between the different elements leading to firm performance. In this section I will present the similarities and differences between the cognitions on firm performance, reflect the cognitions to the most common performance models, and discuss the use of cognitive mapping as a tool to clarify MDs' cognitions.

##### *Differences and similarities in the MDs' cognitions on performance*

The main question that the literature on managerial cognition has sought an answer is whether the perceptions of the managers resemble or differ from each other (Hodgkinson 1997; 2002; Lyles & Schwenk 1992; Porac & Thomas 1990; Porac et al. 1989; Reger & Huff 1993; Reger & Palmer 1996). The empirical research has mostly focused on the competition within the industry (Daniels et al. 1994; 1995; 2002; Hodgkinson & Johnson 1994), instead of grasping a wider perspective on managerial realities, such as the various internal (e.g., capabilities) and external (e.g., suppliers, partners, customers) issues requiring attention. In this study the perspective was more comprehensive in nature, responding to the recent research suggestion in the field of managerial cognition to take more of a holistic perspective when studying managers' perceptions (Tyler & Gnywali 2009). The picture that the cognitive mapping draws on the SMEs' performance in a single business field is multitudinous.

The results suggest that the MDs form different causal and hierarchical cognitions on performance and give different value to different performance elements. The performance elements present in the MDs' perceptions differed in two main ways. **First, the MDs' cognitive maps had different contents in them.** These maps had different performance elements in them, creating different kinds of understanding on firm performance. The MD's cognition could lack the whole performance element, such as the employees of the firm, which could be present in another MD's cognition. The MDs were categorized within groups having similar cognitions. The most common performance themes were present in each of the groups. However, some of the MDs formed their own completely unique method of understanding firm performance, representing an entirely different way of perceiving. **Second, the structure of the maps differed.** This means that the performance elements in the MDs' cognitive maps were given different weights in the MDs' explanations. Moreover, the *relationships* between the MDs varied. A performance element that was

considered the most important by one group of MDs might be considered less important in another group of MDs. For instance, customers were considered by one group to be the most important element in firm performance, leading to the perception that customers were the legitimator for all the different actions in the firm. This could be contrasted to another group of MDs, who considered production the most important element leading to firm performance, leading to the perception that production was the legitimator for all the different actions in the firm. The hierarchical situation of the performance element was therefore important, as it defined the MDs' argumentation and logic behind the performance. One group of MDs represented the marginal, speaking, for instance, through the organizational culture and considering it as the most important performance element, subsuming all the other performance elements within it. This marginal view created again different logic for the actions in the organizations. In conclusion, the issue whether the MDs' perceptions consisted of certain performance elements and what hierarchical position those elements held in the cognitions of the MDs created different understandings and perceptions on firm performance.

The differences and similarities in cognitive maps in this study were also manifested in the degree of richness and the difference of the core element in the maps. In this study the richness of the perceptions was manifested in the ways in which the MDs formed clusters around different performance elements. It followed that the performance elements which were "richer" (linked with many nodes) in another MD's cognitive map were not necessarily as rich in another MD's cognitive map. The maps were therefore rich in different ways. For instance, the MDs in the group "focus on production leads to success" emphasized the elements related to internal elements of the firm and described in detail how production processes influenced the performance of the firm. In the cognitive maps, this was shown as a richness of nodes around production. In contrast, in the network group, the MDs described the role of a network in detail, but did not consider internal issues as important.

The differences between the MDs' cognitions have been noted previously. One explanation (cf. Schwenk 1984; Clarke & Mackaness 2001) is that the cognitions principally differ because managers take bounded views of problems (March & Simon 1958); search for and select information in various ways; and have differing cognitive styles (Allison & Hayes 1996; Hodgkinson & Clarke 2007). These explanations take a rather individual-oriented information-processing view. Taking a slightly different perspective, the MD's own background, in relation to education, career, and experiences in the companies, influence the issues the MD considers important. The MDs are agentic within their

environment, meaning that even though they are prone to the institutional forces, they can interpret their environment differently. This ensures the divergence between the MDs' perceptions.

It is likely that the individual characteristics of the firm are reflected in the MDs' explanations. Firms' positions in the business environment, different phases in firm lifecycles, the ownership structure, the niche in which they are operating, knowledge intensity, and other features may influence the MDs' cognitions on firm performance. Other forces that make the cognitions divergent are, for instance, the MDs' personal experiences: some MDs used their past experiences, as tools to take different positions toward new ideas or requirements from the customers. The MDs' cognitions regarding performance are also targets to forces that cause them to converge; by that I mean, for instance, the MDs' comments on requirements for the quality management systems demanded by the firm's larger customers or other actors in the business environment.

Porac et al. (1989; 2011) found that the MDs' perceptions on performance in an identical field are prone to convergence. In a similar fashion, as the business environment is uncertain and unpredictable, the MDs aim to simplify and make sense of it through adopting practices and cues from other members of their network. This includes, among others, customers, suppliers, and competitors. Through these different cues, the MDs come to define, for instance, the nature and quality of products and services; whether to produce standardized larger sets or smaller tailored sets; who the main customers and competitors are; and what the nature and meaning of newest technology or competent workforce are. These definitions again enhance certain perceptions of the firm's performance. The expectations of the large customers and the reflection against the competitive environment create an understanding of the firm's position in the field (e.g., producer of quality products and services, compared to those of cheap foreign competitors), which is more or less also enhanced by the national context. Furthermore, the formal requirements, such as quality standards and certificates, push the companies toward similarity. This is further enhanced by media, consultants, and academics, providing external confirmation for the MDs that they are doing the right thing (e.g., LEAN initiatives). Last, established positions in the business area and demanding investments required to enter the market may hinder the recognition of the need to renew the firm, until it is too late.

The study found differences and similarities among the MDs' perceptions. The analysis of cognitive maps suggests that the performance of the firm is understood differently among the MDs in the same business field. The exploration revealed five distinct groups of MDs, based on the emphasis and

causal explanations they gave to the performance elements in their arguments. Previous research has identified congruence in the mental models and the existence of the industry recipes (Spender 1989), and has further suggested that the perceptions of the managers are prone to the isomorphic forces presented by the markets (Porac et al. 1989). This study partly disagrees with the findings, suggesting that the perceptions of the MDs are not completely individual, yet also not shared among all of the MDs in the field. The MDs in this study worked in the same industry (manufacturing), however, which allows quite different operating strategies. The previous research suggests that the top executives' mental models are more divergent in the industries where the task environment is predominant compared to the institutional environment (Daniels et al. 2002; Tyler & Gnyawali 2009), meaning that in the industry where the pressures to differentiate from the competitors are higher, the divergence of the mental models also increases.

This study did not focus on the industry itself. However, it should be noted that some of the MDs were working with the products and services that were heavily regulated by the different institutions and their standards, whereas other MDs' products and services were free from the (institutional) regulations. The differing institutional regulations were, however, visible in some MDs' comments, such as different quality assurance systems and ISO 9001 standards, which were required for different reasons (mostly because customers expected those). These institutional pressures may have influenced the MDs' cognitions and geared them toward the similarity.

However, as Barr (1998) noticed in her study of six pharmaceutical companies and their top managers, the increased change in the environment (increased regulation) was variously interpreted by the managers, and only when the issue was interpreted as strategically important (having an effect on performance), strategic moves were conducted to adapt to changes. At least some of the MDs in this study seemed to consider the certificates and standards important; for instance, some described the quality assurance systems, or different certificates, as antecedents of customer performance. In addition, previous research has identified that diffusion of quality management and related management fads, such as Total Quality Management (TQM) practices, are adopted not only based on the expected performance effects or their legitimacy, but on the basis of their interpretation as a threat or as an opportunity (Kennedy & Fiss 2009).

#### *Reflection of the MDs' cognition with the performance models*

The MDs' cognitions reflected their subjective understanding of performance. Due to the idiographic research method, it is possible that not all of the elements were mentioned. On the other hand, it provided a unique view of the MDs'

subjective understanding of performance, stemming from the respondents themselves. These identified performance dimensions can be reflected against the performance models the literature produces.

The MDs' cognitive maps can be compared to against common management models. The common factor in the most often used performance models is the division of the elements into enabler and outcome elements. The enabler elements are seen as the elements that will provide (enable) the performance in the future, whereas outcome elements represent more the objects (outcomes) of the actions. The academic performance models start from the notion that performance is a multidimensional phenomenon and should be measured, managed, and approached from multiple directions simultaneously (e.g. Kaplan 2011). The MDs' cognitions partly reflect that assumption.

Compared to the performance models (BSC, EFQM), some issues can be raised Especially the quality models were explicitly mentioned in the MDs' explanations. However, the dimensions were not emphasized equally. The MDs in the product-oriented group, for instance, described the technical properties of their products in detail, as well as the sales of those products and their causal relation; but they rarely mentioned management systems.

Moreover, the MDs in the groups focused on customer relationships and networks cantered their attention on the external environment more intensively than other groups, arguing that performance was achieved through the collaboration with customers or networking with the suppliers, for instance. These dimensions are not present in most of the performance models, even though the customer perspective is in place in all of the models examined. However, the nature of customer outcomes is rarely defined as collaboration, but rather centres around customer satisfaction. Naturally, the models are often meant to be integrated into the companies' own processes and practices, and accordingly may have also partnership dimension integrated within them, even though it is not explicitly presented.

The MDs in the other two groups, with their focus on production and unique products, emphasized more the internal elements of the performance, although product-oriented MDs considered sales important. The MDs with the production focus believed especially in the power of quality products and saw that performance of the firm stemmed from good products and fine-tuned production processes. The creation of quality products was sometimes connected to the different quality awards and certificates, and quality was seen as the factor that leads to good long-term performance. This group reflected most the quality

management models and performance models stemming from the quality perspective.

The often-mentioned elements that are also present in the performance models included the working processes and different procedures and principles the companies strive to obey. These were sometimes connected to external elements, such as networking with the suppliers or subcontractors, but the goal was most often the production of quality goods. For instance, one of the arguments for using Finnish suppliers or subcontractors was the belief that the quality of foreign suppliers or subcontractors was just not good enough to suit the quality standards of the companies. Sometimes this was also justified by the more rational arguments, such as the benefits in price and speed of deliveries of the local suppliers.

The MDs with a product- and production-oriented focus emphasized also the elements leading to cost-efficient production. The maps did not typically reflect the multidimensionality in the different performance domains, such as in performance (e.g., Balanced Scorecard or quality awards) models. There was, however, balance on the leading and lagging indicators, or process and outcome elements. The MDs in both of these groups could explain quite accurately how the efforts put into the enabler elements lead to certain, quite well-specified outcomes.

Some common notions could be identified within the groups. The MDs in the production-oriented performance group acknowledged the individual performance and used concepts such as employee competence and motivation of the employees in their arguments. These were, however, seen as instrumental solutions for instance for gaining better and more effective production. Individual performance was thus tied heavily together with the operational efficiency in the firm. The MDs in the network-oriented group raised the issue of individual performance. Individual performance was alluded to via the comments related to quality of the products, and causality was seen as formed through the expertise and know-how of products to customer satisfaction on both quality and performance. The MDs in the unique-products group also followed this line of thinking, but mentioned the importance of the individual sales and customer representatives' performance as well. The MDs with the customer-oriented focus spoke of individual performance from a longer-term perspective, and concepts such as *engagement* and *commitment of employees* were tied to stability and long-term personal relationships with the customer companies' employees. In the radically different group, the comments on individual performance varied.

The performance conceptions encompassing more than the performance of the MD's firm were most notably present in the customer-oriented group. Performance was seen through the growth of the firm and network elements, which were seen to lead to partnership, trust, collaboration, and personal relationships. These concepts were also used by the MDs in other groups, but not nearly that often. For instance, the MDs in the unique-products group spoke of the performance of the network, but heavily geared their speech toward the performance of local distributors when speaking about the extra-organizational performance. In their causal explanations, performance of the firm was then influenced mostly, for instance, through the local distributors' increase of the market share of the local markets, or through the established customer base of the local distributors. The MDs in the network-oriented group spoke of the performance of the customers and saw that the premium the firm received from each of the sold products stayed the same and the growth of customers influenced the volume of products and services sold.

#### *Cognitive maps as tools for making sense of MDs' thinking on performance*

The presented cognitive maps and illustrations of variety of concepts and conceptualizations of performance and elements leading to it provide a window into the plurality of individual MDs' cognitions of performance. The cognitions were different and based on each MD's own personal background.

If we accept that the MDs' language and the cognitive maps offer a window into the MDs' thinking, then the plurality of the cognitive maps illustrates the fuzziness of the firm performance in a real-world setting, compared to that which academic models suggest. First, academic models draw a model in which performance consists of different dimensions, neatly related to each other. The analysis of the MDs' cognitive maps suggests that the relationships between the elements are sometimes clear in the MDs' minds, but they always lack some dimension of the performance. The cognitive maps therefore show that some of the relationships are considered more important than others. Furthermore, as the MDs always connect with the business environment from a certain angle, the structure (interpreted by the researcher) of the MDs' cognition becomes important. The issues and elements situated in the periphery of the cognitive map are not necessarily meaningful for the MD, or at least there are other issues that play a more important role for the performance in the MD's mind. The structure of MDs' cognitions on firm performance indicates whether the MD considers meaningful to firm performance the issues that the performance models themselves depict as significant. The structure of the MDs' cognitions indicates whether the elements related to performance are considered important

and become part of the management efforts. By using the language as a strategic tool (Vygotsky 1971), the MDs give meaning to some aspects of their environment, leaving the other aspects out. By naming abstract phenomena, the MDs take these issues (such as corporate culture) into account and create a possibility for them to become targets of the management efforts.

The cognitive mapping provided a tool to glimpse into the realities in which the individual MDs live in and make decisions. The cognitive maps drawn are not assumed to be static or long lasting, and there is no assumption that these structures actually exist inside the MD's head. On the contrary, these maps provided a textual and visual description of MDs' thoughts tied to a particular situation and time. However, the firm's performance is a familiar issue to the MDs. The MDs also should have a view of factors leading to performance. Therefore, the cognitive maps drawn can be assumed to reflect the MDs' cognitions more completely compared to the maps focusing on a less familiar subject. The meaning the MDs gave to different concepts reveals the assumptions concerning performance and the elements leading to it.

The maps were approached from a holistic perspective. This means that instead of focusing on only one part of the cognitive map, the whole map was taken under study. The holistic perspective was chosen as it provides a chance to study the map as it is and provides a glimpse into the values the MDs have related to performance.

Academics have sometimes drawn haphazard conclusions on the performance of the firm. Indeed, academics have tried to create a perfect formula for the well-performing firm (see Kirby 2005). This has proven to be a challenging task, as leading companies that were previously celebrated have often later been examples of failing companies. The institutionalization of performance models created by practitioners, consultants, and academics has been strong. When comparing the current cognitive maps against some of the most common performance models, it seems that they partly overlap. However, the reality hinders the adaptation of performance models as such; or at least all the dimensions of performance models are not present in the everyday thinking of the MDs.

The plurality of cognitive maps revealed that the performance models taught in business schools and endorsed by consultants are subject to a very messy and fuzzy reality in the real world. The MDs' cognitive maps indicate that the MDs lose at least part of the models and understand the performance of their firm in a more idiosyncratic fashion, creating their own context-specific, sometimes simplified, picture of reality.

The empirical research in previous chapters has provided insights on the themes MDs consider important, and on the structure and content of the cognitions the MDs hold. The approach taken has been rather concrete. The last empirical analysis section takes another perspective and approaches the MDs' explanations of performance rhetorically, providing a discursive view on the performance of the firm. In the next section, I will explore the different rhetorical practices the MDs used in their explanations of the causal relations of firm performance.

### 4.3 Managing directors' rhetoric on performance

The third phase in this study explores the rhetoric the managing directors use when explaining the paths leading to performance of the firm. In this section, the focus is on the different rhetorical practices the MDs use to justify their views on firm performance. This approach provides a window into the MDs' perceptions of firm performance. By identifying the prevailing rhetoric the MDs use, the MDs' thinking on firm performance is opened. The previous empirical chapters explored the different themes and ways the MDs perceived the relationships, causes, and effects of firm performance. The way the MDs speak about firm performance was, however, left unexplored in the previous chapters, which concentrated more on the actual themes and their relations with each other. Therefore, this section explores *how* MDs speak about firm performance.

#### 4.3.1 Managing directors' rhetoric on performance

The MDs used different kinds of rhetorical strategies in their talk of firm performance. Based on rhetorical discourse analysis, five rhetorical practices were identified from the MDs' talk on performance: (1) confirming dominant view; (2) contrasting own firm to others; (3) comparing and identifying turning points; (4) concretizing and rationalizing performance; and (5) mythicizing performance. In addition, three rhetorical tensions could be identified from the talk. These results are discussed next.

**Table 8.** The MDs' performance rhetoric

<b>Rhetoric</b>	<b><i>Confirming</i></b>	<b><i>Contrasting</i></b>	<b><i>Concretizing</i></b>	<b><i>Mythicizing</i></b>	<b><i>Comparing</i></b>
<b>Description</b>	Relying on the contemporary mainstream management ethos	Contrasting the firm's performance logic to others	Rationalizing and drawing from the tangible performance information	Referring to the well-known management myths, metaphors, or stories	Making distinctions to what was in the past and what is in the present
<b>Descriptive sentences</b>	"we have to grow," "according to our scorecards," "our quality management system shows...," "we just received a certificate"	"...we differ from our competitors," "...we differ from large companies," "...we differ from foreign companies"	"the success is measured by numbers," "below the bottom line there must be a plus sign," "reflecting to our costs," "we have grown 10% abroad"	"the rise and fall of Kodak," "we are like the people in the Paulig commercial," "have you heard that we participated to the design contest and beat them all"	"we used to be a product-oriented firm, now we are service oriented,"
<b>The techniques of justification</b>	Following the mainstream management discussion	Better understanding of the industry logic compared to competitors	Rationality and measurability	Creating a place for the firm among the success stories	Convincing that old ways of working were wrong, new ways right
<b>Adjectives describing the rhetoric</b>	Practice oriented, not-questioning, submissive	Questioning, criticizing, knowing	Rational, very proper, formal	Curious, forward looking, imaginary	Serious, determined

### Confirming dominant view

The first identified rhetoric was labelled as **confirming dominant view**. The rhetoric refers to the means MDs use to justify their different logics of actions affecting firm performance. The descriptive feature of this rhetoric was that MDs drew from the dominant view of managing a firm. Dominant view in this context means different institutionalized facts that the MDs considered as given; for instance, that the firm follows certain balanced scorecards or other management models or follows certain certificates or standards. The MDs then use these tools in their explanations of firm performance. The dominant view was reflected differently in the material; for instance, there were claims stating that customer orientation leads to success, but also that production efficiency leads to success.

Denominating issue was the use of the dominant view as the legitimating factor for their arguments. The dominant view thus refers to the MDs' way of speaking and further, reflects cognitions on performance.

This rhetoric was used a lot. Performance management models have gained an established position in the management field. Especially the large companies have adopted the formal management models, such as EFQM (EFQM web page), and the division of performance into different dimensions has been institutionalized as a norm. The large companies were often the customers for the SMEs, and the models used by the larger companies were reflected in the posed demands for the smaller partner companies. The institutionalized role of the management models was visible in the MDs' talk of performance.

We have built a quality management system, our customers have demanded it, and that has driven us to create it. Often people think about it in a too complicated way, in my view it is just the use of common sense, nothing else. But I have to say that in the quality matters some of our customers asks us about their reliability in delivery [for their customers], as they are not following it as closely. We have built the system more accurately, so they rely on our knowledge. In the last year our delivery reliability was around 98 percent. During this year one month has been worse, in other ways it has remained the same. MD20

When the customer opens the product package, he will see from the testing report that the product was in flawless condition when it left here, and there is confirmation of the suitability of the product in the challenging environment, which proves that it is suitable for [special use] and certified in Finland according to VTT standards, it has been inspected by VTT, and it follows ATEX-directive. This is the way how we distinguish ourselves from the cheap replicas or cheap products. The customer can be assured that the product is designed in a certain use, and is certificated. MD4

The MDs' rhetoric drew from the mainstream management literature. These institutionalized concepts and methods were present in the MDs' explanations. In the MDs' argumentations they leaned on the so-called established truths of management, such as the rather mechanistic explanations on internal firm processes and their meaning on firm performance, or the meaning of customers to firm performance. The MDs, for instance, mentioned their quality management system or strategic performance measurement and management system, when explaining the different sources of firm performance. The MDs also took underlying assumptions for granted, stating, for instance, that the growth of the firm is one of the prerequisites of the successful firm.

The rhetoric drawing from the dominant management literature used established management truths as a means for justification of argumentations. One of the most often used rhetorical practices followed the dominant ethos of contemporary performance management. For example, the expectation of continuous performance improvement was present in comments highlighting the need for growth and profitability. The legitimization of the dominant business ethos happened, for instance, by explaining that some boundary rules are given when considering firm performance. One MD described the need for growth as follows:

... there are certain things that I hold as a given, and it is the continuity of the business, and securing it, growth and making profit, these are the things that there is no room for compromise. MD1

The growth was one of the taken-for-granted elements tied to the performance of the firm. The dominant performance discourse in academic journals and practitioner magazines also has a long history of emphasizing growth (cf. Penrose 1959) that reinforces this view. The MDs often stated this as a given fact and were willing to confirm the need for growth. Some MDs approached this view through negation:

...you always hope that you would have your own product. In a way we now always respond to the customers' orders and create the product [according to customer specs]. We plan it by our self, and in a way that is our product, but in Finland the market has been so small. Because of that, we have had difficulties in achieving growth in our history, but now we have clearly taken new steps and we are aiming toward the growth [through creating own products]. MD5

The MD in the above instance takes the growth of the firm as something expected from the firm, but the firm has not been able to respond to the expectations. The MD explains how he has identified a gap between the present use of the firm resources and the future possibilities the markets offer. The MD confirms the need for constant growth as a source of performance by accepting that the firm has not been able to grow in the Finnish market and that it is something that is worth striving for. Growth is considered as taken for granted, a self-evident expectation.

The rhetoric justifying performance-related decisions reflects also the institutional environment. The MD in the account below highlights the high quality of their firm's products and relies on the certificate needed to act as a supplier on a large construction site. The MD underlines the efforts needed to get

this specific certificate and refers to the different demands the certificate sets to the firm. From the rhetoric perspective, the certificate—certainly something necessary and important to guarantee safety— also becomes a symbol for the justified decision. By mentioning the recognized certificate, the MD leans on the supporting institutional background.

Well, yes, we have this Pyroveritas certificate for the quality management systems and for these environment systems. In the auditing for this nuclear power plant processes they went even deeper, thus that they divided the issues in the increasingly smaller pieces, and they asked if we have ‘this, this, this, and this’ and that everything has to be in its place, documentation and everything, you have to find the fingerprints [source of the error] and find the root cause for the error, if something happens. MD9

The rhetoric confirming the dominant view is amplified through the institutional demands for the quality management systems. By relying on the standards and certificates in their explanations, the MDs come to emphasize their role. Another MD stated the following:

In the background there is a long experience [of the employees]. There are those kinds of persons who have produced the [product] their whole life. And I don’t know, of course there is one thing, the enterprise resource planning system and quality management system should be decent, thus that firm will be able to produce good quality. We do have ISO9001/2008, and it has passed certification again. Actually, at Monday we had this yearly auditing follow-up, Inspecta did it. Every third year it is more thorough auditing, which lasts at least two days. And years between there is this one day lasting follow-up auditing. And of course we try to build up our quality management system thus that our organization is aware of it and considers our quality criteria important. Or let’s say that because they are important for the customers, they are also important for us. MD10

In addition to institutional standards and certificates, the MDs also leaned on other established management tools, such as balanced scorecards and their different variants. However, the speech drawing on the Balanced Scorecard was relatively scarce compared to quality management speech. For instance,

In our firm we have defined our core processes, and one of them is the process for the customer management. And we have very clear goals for it, and on the other hand we have defined actions, and responsible person for it, the owner of the process. Also we have team and measures, which are aligned with our scorecard. MD13

One MD framed his explanation around the scorecard. The account reflects the multidimensional nature of performance, as the MD acknowledges that the different performance dimensions are always to some extent tied together:

Well, market share is one, and then employee satisfaction is also followed and measured... customer satisfaction is important measure, but it is reflected in the market share, and profitability... and internally we measure internal performance through a scorecard, in which the most important measures, after customer satisfactions, comes delivery reliability, and it again is linked to customer satisfaction. These are always linked to each other a bit. MD15

This rhetoric, by confirming the dominant view, becomes subsumed within the dominant business rhetoric by reproducing the assumptions of constant growth and increasing performance. These changes are responded to by relying on the prevailing performance models, certificates, and standards, which again justifies the MDs' actions.

The talk drawing from the dominant quality models was reflected in the MDs' speech. The MDs described how quality speech had been put into action in the firm. For instance, one MD in a quote below describes how they have resourced the quality management by creating a position of quality manager and defined both the tasks and responsibilities for the work role and the goals and measures for that role that support the quality management system. The very detailed description of quality management acts as the justification for the MDs' actions.

We have a part-time quality manager. Even though our organization is small, we only have, I think nine office workers. And one of us is quality manager alongside of his other duties, and he maintains quality management system and the quality management handbook related to it, and he also takes care if there are internal exceptions in relation to quality management system, he takes care that we make internal reclamations, and they are taken care just like the quality management system requires. And when it comes to external reclamations, he takes care that these are responded to thus that customers are satisfied. I would say that the use of these internal reclamations is important factor for the development of our production. MD10

We have a certified welding system, it is mandatory as we are doing this kinds of products that we are doing, the world out there expects that you have a certificate. We could not have been able to deliver these products without the certificate. We received the quality management certificate

accidentally, as the inspector for the welding system certificate stated that we have done so much for the welding certificate, that he could give conditional quality certificate for us. We just had to do some things, and one of the things is that 'quality training'. And now our product manager, who is also a quality manager, has organized quality training for our employees. MD8

The MDs' rhetorical justification here is the reliance on the management models prevalent in the industry, and the actions suggested by these models.

This rhetoric was factual and matter-of-fact in nature. It reflected both conscious management and planning and the MD's role as a leader who is in control of the firm. The rhetoric emphasized the idea that MDs should focus on the issues that are tangible and manageable and that this is best achieved by relying on the dominant performance management models.

#### Contrasting own firm to others

The second identified rhetoric the MDs used contrasted their firm to others, highlighting the uniqueness of the firm. For instance, the MDs categorized their firm as being an SME and contrasted their firm to larger multinational companies; or they categorized themselves as Finnish companies, contrasting themselves to foreign companies; or they categorized themselves as different compared to the competitors. In addition, the MDs made a distinction between the craftsmanship of the old, skilled employees and the new "Playstation generation", entrepreneurs and not-entrepreneurs, and between the geographical location of their own firm in contrast to others. The descriptive feature of this rhetoric was therefore the making of distinctions between different issues in the minds of the MDs.

The uniqueness of the firm was one dominant assumption that the MDs drew on in their speech. The overall nature of this rhetoric was quite positive and bold, suggesting that the firm would succeed in the present markets and also in the future due to its uniqueness compared to others. The uniqueness was highlighted in this rhetoric typically through contrasting the firm to competitors, who were seen in a negative way, often as large, rigid, old-fashioned, and unable to comply with and fulfil the customers' needs. By drawing distinctions between other companies, the MDs positioned their firm within the competitive field, highlighting the benefits of their firm compared to others.

The rhetoric of contrasting was thus based on distinction making and dividing of the competitive field into smaller elements. For instance, one MD stated the following in a discussion on competitors:

Interviewer: Why it is that your competitors have not followed you? Or do you see that they have followed you?

MD7: I don't know if you mean engineering offices or foundries?

Interviewer: Well, who do you consider to be your competitors?

MD7: The thing is, it is difficult to find similar [firm], firm which would have both in a symbiosis, with a common goal to reduce lead time. It is difficult to find [that kind of firm].

The rhetoric in the above case highlighted the belief in the uniqueness of the firm. MDs contrasted their own firm to the competitors. This kind of talk was relatively common in the MDs' accounts. In the quote above, the MD suggests that the firm performance is a consequence of the uniqueness of the firm (compared to others). This was often seen as an outcome of the long history of the firm.

When we decided, that we need to increase the automation and robotization of our production, our strategy was to produce more [products] with fewer people. We aimed to increase our profitability. And then we started to automatize things that had not been automatized before in the world. It was really, really difficult, and when it is difficult to do, there lies the profit. MD14

The MDs' belief in their own firm's specialty was also present in some of the accounts that formed the comparison with "other" companies providing cheap, low-quality products compared to *our* firm, which competes with premium-quality products and service. Often this discourse depicted *us* as the small, authentic, and domestic firm, compared to *them* as a large, faceless, foreign firm.

In the following account, multiple different activity systems of which the MD is part are visible (Giddens 1984; Whittington 1992). The MDs drew, for example, from the national, economical, and communal dimensions when describing the differences of their companies to the global competitors.

Now these machine and device manufacturers have gone on the path that they do not appreciate the quality criteria, they only focus on the price, their only criterion is that it lasts through the warranty period. The

consequence is that the quality producers like us, have lost really mega degree manufacturers. They have turned their attention to China. They buy Chinese chains, which flex and break, and they don't care if it flexes and breaks after two years of buying it. MD10

The MD in the above account compares foreign products to their domestic counterparts. The global competition was visible in the MD's rhetoric. The simplified distinction present in the MDs' accounts reflecting the global competition made a comparison of *our* quality products to *their* low-quality, mass-produced product. There is an inherent assumption that the Finnish domestic companies possess capabilities lacking in the companies of the Far East.

MD7: We have to run ahead of Chinese, make things smarter, much cheaper, and much wiser ways... I mean, before we sold here pieces of metal, then we sold total solutions, then we had partnerships, every decade this changes this thing. At the moment we sell savings [through the use of better products] for the customers [...]

Interviewer: Why is [the sales argument] based on the quality of your product and not the price?

MD7: Because the price...when the price comes down, then we are done. I mean if it is just the price of the product, then they will buy it from China.

The comparisons and contrasts occurred against national competitors as well. The tone of this rhetoric was of knowing, meaning that it reflected some kinds of decisions or categorizations of the nearest environment, and there was often some kind of plan for the present and future actions that this rhetoric reflected. For instance, one MD explained how they have tried to jump out from the traditional practice of optimizing the price by stating that in their firm he had recognized the threat of optimization and what he called "ruining the markets." To answer that challenge, they had emphasized the renewal of the product the MDs' firm was selling. By offering a completely new product the MD wished they could jump out from the "dangerous optimization competition" and get a head start against their competitors. In the next quote, the MD explains this and refers to the optimization game and new solutions.

I have been in this business almost 20 years, in the laser business and other sheet metal business. I was over 12 years in the previous firms and in there I took care of the production and sometimes, almost predominantly I worked at the sales, I was a sales manager and during that time I travelled

around Finland. A bit also in Europe, and got to know different companies, and I counted that I had had access to 600 companies. In there you could see different ways how you can do things, and how you could do things wiser. ...traditionally when you go to visit customers they ask 'how much does this cost?' and then you end up being in a fierce price competition. The one who counts wrong or promises do it for the cheapest price gets the customer. Well, I took a different approach, I said give me the blueprints and I will draw it again, meaning that I designed the product again, the price of it dropped 20%, significantly. And customers were happy, and they gave me more blueprints, 'could you check out also this', and then it just spiralled upwards... MD7

The rhetorical practice of contrasting is used thus to elaborate the MDs' arguments. The performance of the firm is spoken of in comparison to other national and especially global competitors. The nature of rhetoric is very confident in the domestic companies' ability to fight global competitors with products requiring certain competences. Critical readers could find the uniform categorization of global competitors potentially dangerous and one-dimensional.

The MDs using the rhetorical practice of contrasting aim to persuade the listeners (and themselves) to see that their way of doing business is different (and better) compared to others. The practice underlines the uniqueness of the MDs' firm and different elements comprising it. The comparison and identification of a firm's identity against other companies also creates pressure to act accordingly.

### Comparing to past actions

The third identified rhetoric was comparing the firm to its past situation. By comparing to past actions I refer to the ways of speaking of performance that highlighted some special occasion, event, or turning point in the MDs' understanding of performance. These accounts show powerfully how the MDs construct a new way of viewing performance. The way this rhetoric was used suggests that the MDs saw a need to compare historical ways of seeing performance with contemporary ways.

The following MD account illustrates the change in the management paradigms:

Back in 2009-2010 we saw that world economy is dipping, and at that point, when we had our balance sheet in a good condition, we started to focus on the service training. We have now 3-4 years [done it], let's say four years ago we did strategic change, we put machines and technology to the

background and brought people in front. Particularly we approached our customers from the perspective of what do they want, in what issues they want service. This day all of our sales that we are doing, it is service sales, where we of course make products. MD2

The MD uses this rhetoric to construct a new way to conceptualize performance, referring to the service business instead of product business. This kind of revelation or way of seeing the business in completely new ways was one raised by a few of MDs. Another illustrative example of this rhetoric is given by an MD who describes another big change in the course of the firm's history:

When I entered this firm we were in the mill business. Based on the analysis we did back then, we were the market leader in Finland. But back then our export numbers were close to zero, we were an almost entirely domestic firm. And now when the domestic markets are saturated, it is not that easy to increase your market share. But then, our nearest export areas, there is no domestic production, but Finnish producers satisfy 70 percent of the demand. We saw that there is a chance for us to increase our sales and market share, and at least our export numbers cannot be smaller, as the starting number was clear zero. And so we went there aggressively, and now we have doubled our sales in Sweden twice. We aim to double it again at least one more time before we will be happy. MD10

The MD in the above account constructs a completely new purpose for the firm. The MD reflects on the firm's history as a market leader in the domestic mill industry and explains the growing need for the change from being an industry leader in a domestic market to being an international export firm. The MD continues to explain the future plans to export to the multiple other countries also, continuing the internationalization story. These kinds of rhetorical practices highlighting some meaningful event in the firm's history are important, as they provide an understanding of how the MDs reflect on their firm's performance. By stating that the firm was once a leader in the domestic market, but still needed or wanted to head abroad, underlines the meaning of internationalization for firm performance. By contrasting the present actions to historical events, the present actions receive completely different legitimation.

### Concretizing and rationalizing performance

The fourth rhetoric the MDs used when speaking of firm performance was the concretizing and rationalizing of the abstract and multidimensional phenomenon of performance. The rhetoric emphasizes the need for measurable definitions of

performance. This is done through focusing on the concrete, visible elements of firm performance and by explaining different ways that performance is measured. Through this concretization and rationalization, the fuzzy issue of firm performance is forced into the more easily understood, tangible form. For instance, an MD explained the following at the end of the interview when asked if there is something he would like to add:

Well, I think the principle “you get what you measure,” is one, which we haven’t discussed yet. I guess activity-based costing is close to my heart, I think it is measurement, to know the hour based costs, and to get them to stay low, or at least their growth rate slower than average cost level [in the industry]. MD17

The MD’s having repeated the rather common management phrase “you get what you measure” is a rather good representation of this rhetoric.

In general, by using this rhetoric the performance was talked through production, customer, employee, or financial metrics, accordingly concretizing the performance as something tangible and measurable. The MDs using this rhetoric justified their thinking on firm performance by referring to concrete and measurable information.

Often the rhetoric emphasized the present actions of the firm and reflected the present focus on the MDs’ speech. The MDs’ speech revolved around operative issues related to performance. This rhetoric was manifested in their way of speaking about concrete, mundane daily tasks of the MD. The performance of the firm was spoken through the concrete expressions related to the daily operations, and the MDs concretized the concept of performance as consisting of measurable outcomes and actions. The performance of the firm was concretized in this MD’s account as follows:

Yes, in overall all the financial measures there is, and what you can find from the balance sheet, I would say that every row counts and are followed. In our case we have monthly reports that we follow, and we compare them to the previous year’s numbers. So we can see that we have these kinds of costs and these kinds of profits and we can go back many years. We can compare if some numbers that influence our turnover change drastically, or let’s say if the percentage they form for our turnover changes, we notice it relatively fast. We also follow of course the broader yearly basic financial measures. MD18

Furthermore, in this rhetoric, the boundaries against which the MD analyses the firm performance are very concrete and close. The timeframe is more often the day-to-day survival of the firm, instead of long-term planning and strategy. The rhetoric used reflects the MD's need to focus on the present issues, such as daily cash flow, current production status, the customer, and partnership indicators.

The rhetoric in the MDs' speech reflected control. The nature of the talk suggested that only through measurable actions is it possible to lead a firm toward success. The way firm performance was concretized to the objective numbers reflected the need for managing the firm through control. The undertone in the rhetoric was the ultimate performance expectation posed for the MDs.

The rhetoric constructed a world where the main task for the MD was to focus on the mundane, everyday aspects of performance. The everyday operations of the firm were reflected in the MDs' comments, for instance, measuring the success in customer relationships or assuring that revenues flow in the firm. Performance was framed as something measurable and concrete, instead of expected or potential. The objects of this rhetoric were accordingly concrete, everyday operations instead of more abstract performance elements, such as strategy or culture. The MDs drawing from this rhetoric justified their actions and arguments to a universal audience through making performance visible, concrete, and verifiable.

### Mythicizing performance

The fifth rhetoric was labelled as mythicizing, as the MDs also used more descriptive and artistic ways in their speech. The MDs used various examples, stories, management myths, or known influential persons to elaborate the meaning of their explanations. As the previous rhetoric justified the performance statements through, for instance, concretizing and rationalizing the performance, this rhetoric formed a completely opposite way of justifying performance claims. Through different kinds of abstract illustrations the MDs tried to make sense of the performance. Often these were told in the form of stories, or there were references to popular management myths. Performance was illustrated as something abstract, intangible, and often situated in the potential future. For instance, the MDs spoke of cultivating customer relationships, strategizing in general, or building potential for firm employees to grow and develop by using different kinds of illustrations. That kind of speech was, however, marginal in the MDs' comments.

I have read how the corporate culture is defined, and I would say that it is 100% true, why [firm name] is successful, and I would agree. Especially when it comes implementing [the strategy], the corporate culture matters, our people are enthusiastic and uncompromising. It reminds me of the Paulig coffee commercial, there was this boat craft man, and uncompromised professionalism, that kind of people we have in here. MD1

In the rhetoric the performance and the actions leading to it were described through metaphors and stories. These kinds of abstract definitions of firm performance rose above the everyday management of concrete managerial issues, such as implementing and developing processes or following different accounting measures. The performance is seen from a more abstract perspective, compared to the daily organizational actions. For instance, in the above account the corporate culture is explained through a reference to a popular Finnish commercial. By using these kinds of mundane stories the MD in the account makes sense of the complex concept of corporate culture. The MD continues his account and uses the metaphor of vectors pointing in the same direction to illustrate his thinking:

I don't speak about myself, I speak about the others, we are proud of what we are doing here. You just need to ensure that the vectors will point in the same direction, that people will understand it, to understand strategy, not by using corporate jargon but real words. That we aim to achieve these goals, and based on this background do your daily decisions. MD1

The account illustrates the MD's aspiration to get the people to understand the goals of the firm and target their efforts toward the same direction. This kind of rhetoric was used as the MDs aimed to give a higher meaning to the actions taken in the organization; for instance, to make the point that performance is achieved through collaborative efforts. Performance is something more than concrete performance measures; in this MD's account it refers to daily decisions that are based on the clear goals and background information in the organization, and which hopefully lead to the actions that head toward the same direction.

The rhetoric concentrated on the performance of the future and the performance potential of the firm. Therefore, the means to justify elements leading to good performance differed from the rhetoric focusing on, for instance, the concrete, present-day performance issues. The way of speaking was different compared to previous rhetoric, in which the objects of the rhetoric were more concrete and mundane elements leading to performance. In this rhetoric, the MDs painted a picture of future performance, and in some accounts abstract issues such as organizational culture or strategy were also present. The main theme, however,

was around cultivating future performance. The rhetoric favoured performance, which was described as something intangible and immeasurable. The MDs spoke of the ways to create opportunities to blossom in the future, such as through collaborating with partner networks or ensuring the development of the firm. The tone of the comments was positive and forward looking.

The rhetoric draws from the different management myths and creates stories of successful companies and their MDs. For instance, one MD, in his account, reflected on the rather familiar business case of the Kodak firm<sup>9</sup>

MD15: Well, because...If you don't have the right kind of strategy, then you do the wrong things...or the decisions are wrong and the firm will not succeed. There are examples from history, if you think globally, there are different cases that you can find. You maybe know this better, but it just came to my mind that Kodak, who developed digital camera in the 70s, then decided to ditch that project because they did not want to compromise the sales of their [photographic] film, and today they do not sell film, but neither are there Kodak digital cameras.

Interviewer: Well, yes...

MD15: Strategic decision back then.

Interviewer: So how, how do you see what elements this right strategy consists of?

MD15: Well, it starts from the market knowledge, you have to know the market, what is there and then how you market yourself, who are your customers, who are your competitors, what are the key success factors of your competitors, why they survive in the market. And then you have to understand where the markets are heading, like in that Kodak example. To understand the market and then start to think what are your success factors in here, and when they are clear, start to gain own competitive advantage in the market. To know what it is, and if there isn't any, then you have to develop it.

The MD explains his stance on firm performance through the case of camera manufacturer Kodak. Using the familiar Kodak story adds legitimacy to the MD's argument. In the previous account the MD also tries to emphasize his own role by suggesting that "You maybe know this better, but it just came to my mind that

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<sup>9</sup> See, for instance, Harvard Business Review article. Available online [3.1.2016]: <https://hbr.org/2012/01/kodak-and-the-brutal-difficult>

Kodak...” thus creating the uniform premises for the both MD as a rhetor and researcher as a listener. It is also one example of how the stories are diffused from the academic literature (drawing, of course from the reality) to the practitioner reality. The MD, taking Kodak as an example, creates an analogy for Kodak and other companies, which have not recognized the changes in the technological and market environment. By using the example, the MD highlights the need to know the business environment. The stories, or theoretical propositions and explanatory schemes (Berger & Luckman 1966), are a powerful way to legitimize statements and actions.

The MDs sometimes told micro-stories within the interview. By using these stories, the MDs legitimized their statements and arguments. One such micro-story is told by the MD who explains why trust in customer relationships is meaningful for firm performance, and the story simultaneously illustrates the everyday management of the firm.

#### 4.3.2 Tensions, paradoxes, and peculiarities

The identified rhetorical practices were complementary, but on the other hand, also conflicting. A number of different rhetorical practices differed between the MDs' explanations. One MD could draw more from the rationalizing and concretizing rhetoric, whereas another could use more mythicizing rhetoric. The firm performance is ambiguous, and there are plural competing goals within the MDs' minds, which compete in the arenas of language. Berger and Luckmann (1966) argue that similar typifications of reality give rise to agreement about the nature of reality and further lead to institutionalized action. Accordingly, the similar typifications of performance manifested in the MDs' rhetoric can be seen as means to construct similar reality. However, as performance is complex, multidimensional, and prone to different interpretations, this universal conception of performance can be challenged. Moreover, the MDs' agency ensures that the understanding of the firm performance is never completely similar across the MDs.

Different constructions of firm performance and their manifestation in the MDs' rhetoric lead to divergence in the conception of performance. Even though the common denominator for performance can be found in the growth and profitability of the firm, the way in which MDs position themselves, and the means they use to describe performance lead to different conceptualizations of performance. The conflicting views can be seen, for instance, in the clash of mainstream rhetoric and in the MDs contrasting their own actions to those featured in others' rhetoric. For instance, the speech on the considered fact of

quality management auditing is approached differently. The mainstream rhetoric welcomes it as something that has to be done, whereas the contrasting rhetoric questions the need for and benefits of such audits. Even though auditing is seen as a mandatory practice, the more critical MDs state that instead of building a quality management system, they have built a management system that takes care of the quality issues or that the whole firm is one big quality assurance department. The MDs are not just subsuming their firms to the institutionalized practices, but are presenting agentic behavior and at counteracting rhetoric.

This leads to the notion that these five different rhetorical devices illustrated tensions in the MDs' speech. Previous research (Dameron & Torset 2014) has identified different kinds of strategists' subjectivities formed through various tensions found in their talk. In a similar fashion, these tensions reflect the different MDs' positions as an MD of the SME in the manufacturing industry in Finland.

The rhetorical strategies revealed the different methods the MDs used to justify their logic for firm performance. The rhetorical strategies found in the MDs' speech reflected the different constructed audiences toward which the MDs aim their speech and toward which the MDs also position themselves. This led to the identification of paradoxes and peculiarities creating tensions in the MDs' rhetoric. The MDs are subject to multiple paradoxical tensions. I will next present three of the most dominant tensions present in the MDs' rhetoric.

### *Realism versus idealism*

The first tension in the MDs' speech was formed around the opposing poles of realism and idealism. This is a tension tied to the MDs' worldview. Firm performance creates inherent tension between expected future outcomes and current, actual outcomes. This was also reflected in the MDs' speech. The tone of the comments varied; on one hand, the MDs spoke of expected future success, cultivating potential, and believing in the future, while on the other they spoke of firm performance as something tangible, mundane, and related to daily matters. The nature of the performance speech was simultaneously visionary and forward looking and also focused and short-sighted.

The way the MDs saw the world was visible, for instance, in their comments, where they explained quite boldly how they had succeeded among the competition or were going to be the best producer of certain products in the world. The aim of being the best in their niche was a sentiment often present in the MDs' speech. The belief in the success possibilities was strongly present in the MDs' talk. In the more realistic comments, the MDs could mention that it is

their duty as an MD to lead the firm toward success. In these accounts the tone was rather descriptive, explaining that the MD's role is in keeping the firm up and running, and the owners happy, as otherwise the MD will be the ex-MD.

The MDs' stance toward the world thus revealed the paradoxical nature of the MD's role: on one hand, being an MD and looking toward the future, but on the other hand, realizing that the performance expectations were always present. This was noted by the MDs, who also mentioned that performance expectations aimed at the long term created space for the development of the firm.

The MDs' talk reveals an inherent paradox in the MDs' world: whether to focus on present activities and the maintenance of the current situation or to focus on the future and embrace changes in the environment. There is a built-in paradox in the question of how to approach changes in the environment. The search for stability, control, and the achievement of predetermined goals was present in the MDs' speech. However, in addition, and partially in contrast, there was speech revolving around turbulence, creativity, and focus on the process, which eventually would lead to certain, as yet undefined goals. These contradicting realities formed the first tension present in the MDs' speech.

#### *Tension between the expected orientations to different goals*

The second identified tension was found in the MDs' focus on intangible or tangible assets in the firm. The tension presented itself through the MDs' talk simultaneously related to the meaning of intangible assets, such as competence and knowledge of the employees, and the lack of knowledge on how to manage these issues. The talk reflected the hopes, wishes, and expectations of the MDs, but lacked any concrete suggestions or descriptions of how these assets would be systematically applied. Instead, the talk was more detailed and descriptive when more tangible issues, such as production and the processes leading to improved performance, were discussed.

The tension between the talk of the importance of intangible assets and the lack of talk related to actual management efforts aimed toward utilizing those may reflect assumptions of and expectations about the MDs' position as being oriented to more tangible aspects of their business that can be identified, controlled, and managed. It seems that the nature of MDs' institutional environment does not encourage focusing on the people-related management issues. Instead, it favours focusing on the concrete, manageable issues. Even though performance models state that all of these issues are important and complementary, that was not visible in the MDs' rhetoric.

*Tension between the deterministic and voluntarist position*

The third identified tension was that reflecting the MDs' positioning against the business environment. All of the MDs were heads of their firm, and accordingly, the comments reflected the MD perspective of the firm, meaning that there is inherent expectation that the MD should believe in the firm she/he is leading. However, there were still different approaches toward the environment, varying from a rather deterministic positioning to more voluntaristic, agentic positioning (Burrell & Morgan 1979). The talk reflecting the deterministic view took the environment rather for granted and saw the business realities as dominant facts and boundaries within which the firm had to operate. The talk reflecting stronger agency approached the business environment in a more active fashion, reflecting a preference for influencing the environment.

The tension stems from the different pressures generated by the MDs' environments. The ways in which the MDs experienced these pressures were reflected in the MDs' talk and were visible in both the deterministic and agentic comments. The MDs' actions are restrained by the different stakeholders, such as customers, owners, and employees, who sometimes make conflicting demands on the MD, but the MDs are also aware that they should create the freedom for themselves to act proactively and to influence the surrounding environment.

The MDs' in their deterministic talk set boundaries on what they could do, and how much freedom they had when dealing with customers, for instance ("our customers know how much we pay for our subcontractors and decide how much we can earn"), or their competitors ("the customers are no longer interested in quality products, and buy from our competitors"). In the more voluntaristic talk, the MDs created a more proactive picture of their environment and described their position in a less-restricted fashion, with reference to the board of directors, for instance ("our board of directors have long-term performance expectations"), or customers ("by cultivating our partnerships we will grow").

These different aspects of the MDs' speech formed different pictures of the MDs' work; on the other hand as an operative executioner of the plans or strategies, or alternatively, as a creator of future performance with innumerable possibilities for action. The latter talk was therefore more idealistic and forward looking, and the rhetorical reins bounding the MD's actions as a leader of the firm far looser.

#### 4.3.3 The managing directors' performance-related rhetoric

The main rationale behind the rhetorical approach to MDs' talk on performance was the curiosity around the question of *how* the MDs speak about performance, in addition of *what* topics they speak about and how the topics are organized. The belief guiding the research toward that direction was that an understanding of the kind of world the MDs reflect in their rhetoric leads to a more comprehensive understanding of management thought.

In his early rhetoric-based approach, Alvesson (1993) critically studied the ambiguous concept of the **knowledge-intensive** firm and rhetoric of professionals within it. In his study the ambiguity of the work seems to lead to multiple categorizations of the competence needed in the knowledge-intensive firm, which sometimes proved to be completely different from knowledge related (e.g., independence or creativity in an advertising agency). The firm performance that the MDs explain is also an ambiguous concept. It follows that the MDs' rhetoric related to firm performance was plural. On one hand, the rhetoric reflected the mainstream reality of the MDs, emphasizing management tools and models present in the managerial literature. The speech also revolved around measurable performance elements, reflecting the need for control and management. However, there was another dimension in the MDs' rhetoric, drawing from the more abstract realm of concepts and frameworks, and describing firm performance as a potential and elaborating this through stories and myths. Sometimes these myths were generated through the creation of a new identity or way of doing business and contrasted it to past behavior (Berger & Luckmann 1966 use the term **alternation**). Performance was rhetorically constructed in many ways.

In Alvesson (1993), the rhetoric of top management is contrasted with the rhetoric of the workers in the knowledge-intensive firm. Here, it would be logical to build tension between the owners or the board of directors and the MD. It is true that in the MDs' rhetoric they reflect the demands posed by the board of directors (for instance, referring to the so-called fact that the ultimate outcome of the firm is profitability and growth). However, it seems that the motivating forces and the domains that fuel the MDs' search for justification of their explanations are more complex than the simple relationship between the owners and the MD.

The MDs' rhetoric on firm performance reflected and constructed the world they are living in. This study has identified five different rhetorical practices MDs use. These rhetorical practices included different techniques the MDs employ to justify their statements. The new rhetoric approaches underscore the meaning of the universal audience to whom the speaker is directing his words (Perelman &

Olbrechts-Tyteca 1971; Burke 1989). Here, the audience is not just a researcher in the interview context, but also some anticipated universal listener the MD aims to persuade. In addition, by framing different universal audiences, the MDs come to justify their decisions for themselves using different rhetorical logics. Furthermore, it can be seen that by explaining certain specific paths to performance, the MDs come to justify these paths to themselves (cf. Vygotsky 1974).

In addition to framing the explanations to a certain audience, the MDs simultaneously speak from a certain position. The relationship between the MD rhetoric and performance is interesting from the perspective of the different roles the MDs create for themselves. Management literature, approaching management from the rhetoric perspective, has recognized the meaning of certain roles or professions. The roles can be approached from the more functionalist perspective, assuming the prevalence of the social structures defining the behavior in a certain position, or they can emphasize the agency (Giddens 1984) more, giving the actors more freedom to function in a particular position.

In this study it seems that the MDs in their rhetoric construct different positions for themselves and, moreover different relations toward firm performance. The rhetoric emphasizing mainstream management tools and models, or relying on measures and metrics, constructs an impression of an MD whose task is to ensure the performance of the firm through these logical and rational means. The relation to firm performance is based on the expectation that the MD acts like a captain of a ship, as a just manager who makes tough and correct decisions in a complex environment, defined and delimited by the use of management technologies, such as balanced scorecards or quality management systems. Alternatively, the rhetoric emphasizing stories and management myths constructs the MD as a knowledgeable person, wise in navigating the sphere of the managerial realm and its twists and turns. The relation to performance here is distant compared to the everyday measures of performance. Last, the rhetoric underscoring the turning points of the firm or reflecting the performance against that of competitors builds a position of a visionary, radical doer, who recognizes the flaws in the business environment and the logic of other companies or previous working habits, and is leading the firm now toward the brave, new future. The rhetoric the MDs use is therefore not without meaning and cause, as it still defines the MD's relationship with firm performance.

There is a possibility that the form of rhetoric used also creates a figurative mental iron cage, forcing the MD into a certain role or position with regard to the

firm's performance, where the alternative approaches to understanding firm performance become difficult to grasp.

Yes, it becomes even more important [to keep the firm successful]; and of course the pressure, I would say positive pressure, to keep the firm [successfully] running and development of the firm, and responsibility to stakeholders, employees and others, they all grow the more years the firm has in its history. MD 13

The solution [to combine profitability and low price for customers] is to choose right strategy. And in strategy there is this cold Porterian cost-efficiency. And to achieve that in practice we need operational excellence, meaning operational simplicity. MD 20

The way performance is understood by the MD and the rhetoric used influences the MD's framing of his/her position as an MD and the vision that comprises the firm's performance. In addition, by assuming certain rhetoric the MD also sends signals to the management team and other employees in the firm that influence the orientation of the business environment and how it is grasped at the lower levels of the firm. By translating the rhetoric into action, the MD can create external signs (Vygotsky 1978) that are used to carry out this vision of the firm. For instance, the rhetoric relying on measures and the importance of accounting costs is transferred to employees by creating practices in the firm that support this rhetoric. The rhetoric and discourse itself can be seen as symbolic action (Heracleous & Marshak 2004). Accordingly, these practices become communicative devices that carry meaning and act as an interface between the MD's rhetoric and employee practice.

The role of the MD is in flux. The rhetoric the MD uses reflects the different directions MDs are expected to be able to navigate to serve the firm's interests. In addition to the MD being the head of the firm, the MD's talk also reflects her/his role as a more operative manager who executes the wishes of different stakeholders. In summary, MDs construct different, often conflicting roles or positions for themselves to ensure firm performance advances.

One of the reasons for the plural positions that the MDs construct in their rhetoric is the different audiences the MDs must face. Employees, customers, external partners, owners, financial institutions, and the wider social environment form the MDs' horizon for the performance rhetoric. Indeed, the plurality of the stakeholders was visible in the MDs' statements. The picture elicited of the MD was in many ways paradoxical and complex.

The realities the MDs convey in their rhetoric are fuzzy, complex, and ambiguous. The fuzziness is seen in the different dimensions the MDs use in their speech, drawing from the external firm environment and reflecting the diverse network of actors in there, and on the other hand, describing the internal processes of the firm reflecting the internal reality of the firm. Also the MDs construct their reality in different time perspectives, drawing from the past, present, and future in their explanations. The scope of descriptions ranges widely, from addressing the value system of the suppliers, to partners and customers, and to product-related details (or details related, for instance, to customers, depending on the MD). The rhetorically drawn canvas of firm performance is therefore full of macro phenomena, clustered together with an enormous amount of fine details the MD must be aware of.

As a conclusion, the analysis revealed five distinct rhetorical practices, reflecting the ways MDs picture the phenomenon of performance. These practices were labelled as confirming, contrasting, comparing, concretizing and rationalizing, and mythicizing. These different practices offer a window on the ways MDs conceptualize performance and moreover provide greater understanding of the nature of MDs' speech within a similar industry. By understanding different rhetorical practices, one can understand the way MDs construct their view on firm performance better.

## 5 DISCUSSION AND CONCLUSIONS

The topic of this study is the cognitions of MDs on firm performance. This section evaluates the contribution of this research to the academic community and to the wider practitioner audience.

### 5.1 The research results in brief

The group researched comprised 22 MDs from SMEs. The main research goal for this study was to understand the managing directors' cognitions on firm performance.

Firm performance is one of the recurring themes in the management literature. In addition to a plethora of research streams searching for the factors leading to good firm performance, there is a quite established literature focusing on the measurement and management of firm performance. Three groups of performance management models were identified in this study. The first one stems from the management accounting literature, the Balanced Scorecard (BSC) being the most prominent tool in this group. The second group stems from the quality management literature, of which the European Foundation of Quality Management and Malcolm Balridge Quality Award models are the best known. The last encompasses theoretical management models, of which Burke and Litwin's (1992) classic model is an example. In general, the performance literature has identified the dynamics of the business environment and the need to move from a static to a more dynamic approach to performance.

Performance models present in the academic management literature seem to have moved from performance measurement toward constant improvement (EFQM, MBNQA) and from exact performance measurement to more dynamic performance and strategic management systems (BSC). The results presented in this dissertation suggest that themes present in performance management models and present in the academic literature have also diffused into MDs' talk.

The performance literature and chosen performance models explored in this study paint a picture of firm performance that is quite normative, drawing a quite simple and logical world for their audience. The models suggest rather linear and mechanistic approaches to firm performance, assuming a quite stable and clear view on the relationships between the elements leading to performance. These performance models offer a tool to simplify the complex reality, and they are also

applied in practice to some extent. In this study the models present in the performance literature were reflected upon and compared to the MDs' cognitions on firm performance.

Three different research methods were used in this study to explore the managing directors' cognitions (see Table 5). Content analysis identified seven different themes present in the MDs' talk on firm performance. The identification of the most common themes used provided a framework for the MDs' performance landscape. The cognitive mapping method was used to study how the individual MDs form causal understanding of the elements leading to performance. Through this exploration cognitive maps were drawn and grouped under five different labels, depending on the MDs' perceptions on performance. Last, rhetorical analysis was used to study the rhetorical practices in the MDs' talk. Five different rhetorical practices were identified.

**Table 9.** Main results in the empirical analysis

<b>Research phase</b>	<b>Main results</b>
<b><i>Phase 1:</i></b> <b><i>Content analysis of the themes</i></b>	Seven performance themes present in the MDs' talk <ul style="list-style-type: none"> <li>• <i>Customers</i></li> <li>• <i>Production and products</i></li> <li>• <i>Partnerships and networks</i></li> <li>• <i>Competitors</i></li> <li>• <i>Technology</i></li> <li>• <i>Financial basis</i></li> <li>• <i>Employees and competence</i></li> </ul>
<b><i>Phase 2:</i></b> <b><i>Cognitive mapping</i></b>	Five groups of MDs with different orientation to performance <ul style="list-style-type: none"> <li>• <i>Production-oriented cognitions</i></li> <li>• <i>Network-oriented cognitions</i></li> <li>• <i>Customer-oriented cognitions</i></li> <li>• <i>Unique products cognitions</i></li> <li>• <i>Radically different cognitions</i></li> </ul>
<b><i>Phase 3:</i></b> <b><i>Rhetorical analysis</i></b>	Five rhetorical practices the MDs used <ul style="list-style-type: none"> <li>• <i>Confirming dominant view</i></li> <li>• <i>Contrasting own firm to others</i></li> <li>• <i>Comparing to past actions</i></li> <li>• <i>Concretizing and rationalizing performance</i></li> <li>• <i>Mythicizing performance</i></li> </ul>

## 5.2 Reflecting the main findings

The research goal for this study was to understand the cognitions of MDs concerning the firm performance. In the empirical part of the study three different research approaches were used to gain understanding on the managing directors' cognitions on firm performance. As a conclusion it seems that the performance of the firm is an ambiguous concept. It can be understood in a different fashion. The findings in this study suggest that the way MDs frame firm performance leads to different kinds of performance cognitions. The MDs are independent in their formation of suitable beliefs for their firm. However, they are part of their social environment and the language within it. Thus, the formation of the MDs' cognitions is a consequence of the dialectic between the MD's mind and his/her social environment, reflecting performance of the firm in the past, present, and future. The findings based on the results of these methods are explored next. With the help of the three sub-questions, I aim to answer to the set research goal to understand the firm performance from MDs' subjective perspectives.

### ***What elements are present in the managing directors' talk on firm performance?***

**Content analysis** was used to capture the MDs' perceptions of firm performance. The results revealed the most often used themes in MDs' explanations relating to the performance of the firm. **The main findings** based on the content analysis were that the performance themes present in the managing directors' speech were quite traditional, focusing on the established themes in the management literature. The emerging themes present in the literature such as human resource management or sustainability were not part of the MDs' repertoire in their explanations. Rather, the speech focused on the more traditional aspects of the performance, reflecting the more stable industry. Entry barriers, regulation, long employee and customer relationships, focus on the productivity, quality, and personal relationships reflect this stability.

The identified themes stem from the MDs' explanations. Managerial cognition research suggests that the language used indicates the direction of attention in the MDs' communication (Ocasio 1997; Huff 2013). The previous research focusing on managerial cognition and especially on the MDs has often used letters to shareholders as proxies for MDs' attention (e.g., Kaplan 2008; Eggers & Kaplan 2009). This study took a more straightforward, qualitative, hands-on approach and used the MD interviews as material for the exploration of managerial cognition, avoiding the challenges posed by the use of proxies, such

as the opportunity to use communication specialists or the tendency to provide an overly optimistic picture of the firm.

Highlighting the performance themes found in the MDs' speech illuminates where the attention of MDs is directed, and further, the world in which the MDs make business decisions. The findings in this study suggest that the MDs' understanding of firm performance rests on the rather traditional elements leading to firm performance. I found seven themes the MDs used in their speech on firm performance. The MDs typically focused on the customers and production, but also on the partnerships and networks, competitors, technology, the financial basis of the firm, and employees and competence. These elements encompass both internal and external elements of the firm and represent material, social, and cultural aspects of the firm. Performance themes found in the MDs' speech can be interpreted as a form of the environment of decision (Barnard 1938), a concept used by Ocasio (1997) when describing the factors influencing managerial decisions.

Themes present in the MDs' explanations are important, as they form the tools that the MDs use for decision making and interpreting the business environment. There were some **missing elements** from the MDs' cognitions on performance. Human resource management (HRM) did not play a big role in the MDs' perceptions on the performance of the firm. There is a rather well-established literature connecting HRM and performance of the firm (cf. Guest 2011). HRM and related practices such as resourcing, recruiting, competence management, performance management, practices enhancing work well-being, rewarding, and the flexible use of workforce were not typically mentioned as sources for good performance. This is surprising, especially as the MDs often mentioned that their goal is to produce high-quality products and services, which typically requires employee competence, an engaged workforce, innovation, and good leadership. When HRM-related elements were mentioned, they were typically considered as self-evident facts and were not given strategic role. The one particularly relevant issue present in this study was the missing causal link between the appreciation for employee competence and the lack of systematic management practices and emphasis on leadership at all levels of the firm. The need and appreciation for the knowledge, competence, and innovation exists, but the findings suggest that often the MDs took their existence for granted. According the sample of MDs in this study, the results indicate that there is need for more HR-oriented knowledge in the SMEs in the technology sector in Finland.

There was one missing theme that has been given considerable weight in the performance discourse and literature: leadership. The mainstream performance

models rest on the assumption that firm performance is built on good leadership. Leadership was however one of the hidden themes in the MDs' interviews. The MDs described for instance how customer relationships should be handled, or how the improvement of production would lead to success, but the MDs' interviews were largely devoid of talk related to leadership. There were few occasions when the MDs described how leadership would lead to performance, for instance when describing how the MD had striven to align the ways to lead the firm in the same direction with the board of directors, MD, and top managers within the firm. Some MDs could explain how they tried to encourage the employees to make individual decisions by giving an example. Such explanations were however rare.

The absence of significant discussion of leadership in the MDs' talk and the simultaneous expectation that leadership happens on the shop floor, imply that the MDs implicitly appreciate good leadership and expect that to happen in their companies but are not good at identifying it. First, the MDs in this sample were not very good at identifying their own symbolic and actual roles as a leader of the firm. The actual role as an MD was more often mentioned, often encompassed with comments related to managerial practices. The symbolic role of the leader was, however, largely missing from the MDs' explanations. Secondly, the MDs did not explicitly mention leadership as a source for success. There were comments that stated that the shop floor should work well, and there were certain expectations of the leadership for the supervisors on the shop floor. However, the MDs typically could not form causal arguments from the expected leadership to actual practices in the firm. The MDs did not talk about systematized management of leadership behavior or different practices leading from the strategic resourcing toward leadership to leadership-related employee performance outcomes and further to firm outcomes.

One element that also could be highlighted, which got relatively little attention, was the role of the board of directors in the MDs' cognitions. The working relationship between the MD and board of directors is important: the board of directors' contribution to firm performance is acknowledged in the traditional management literature (Zahra & Pearce 1989). The MDs' commented the role of the board (representing the owners), especially when discussing about timeframe of the performance expectations. This was considered to be longer term oriented, compared to larger companies. In addition, the MDs' comments on the role of board of directors to firm performance reflected various management arrangements. For instance, the MD could comment that the member of the board of directors was also working in the firm and was a member of the top-management team. This amplifies the complex image of the MD's position.

The approach adopted in this study focused on the MD's cognitions on firm performance, accordingly focusing on a more holistic understanding. Managerial cognition research has traditionally focused on the top managers' attention to some specific issue present in the business environment, such as competitors or change in the technologies or markets (Kaplan 2011). The findings on the content of the MDs' cognitions on performance are therefore important. Previous literature (Argyris 1992) suggests active reflection related to the business environment. The MDs' talk reflected traditional business environments, and the MDs have legitimate reasons to consider the themes mentioned to be important. For instance, the role of the past performance legitimizing the themes should be acknowledged. An analysis of whether the focus should be on the more emerging topics related to firm performance was not possible within the confines of this study. However, active reflection on the possible changes within the competitive environment could help the MDs to acquire different conceptualizations on firm performance.

***What kind of causal relations between the performance elements are present in managing directors' cognitions?***

**Cognitive mapping** was used to capture the individual MD's cognitions on firm performance. Results suggested that the managing directors could be divided into five distinct groups, based on the issues they considered the most important, and on the causal relations between the performance elements. **The main findings** based on cognitive mapping were that the managing directors' cognitions on the firm performance differed. Not all performance elements were present in the all of the MDs' explanations. If some performance element, for instance organizational culture, does not feature in the MDs' perception of performance, there is probably no conscious management efforts geared toward it. The MDs connect with the environment only through the issues that they consider meaningful.

Although there were also similar issues in the MDs' explanations about factors leading to the performance of the firm, the importance of these issues varied. Previous research suggests that only those issues managers consider strategically important influence the actions taken in the firm. Thus, although the MDs are part of their social environment, and are targets of the forces that cause institutionalization of thinking, they still individually interpret the business environment (and the following actions) based on their own perceptions of the performance of the firm. The location of a certain element within the cognitive map of the MD is therefore important; the more central the element is, more likely there will be actions if there are changes that threaten that element.

The different groups were labelled *customer-oriented*, *network oriented*, *production oriented*, *unique product oriented*, and *radically different*. The findings suggest that the elements in the MDs' cognitions on firm performance are at least partly similar, but the causal order of the elements differ, based on the MDs' beliefs. The findings show that the MDs consider different aspects of environment (both external and internal) important. As the previous research suggests that the top managers' understanding of the business environment and the locus of attention influences the actions done to answer the changes in the technologies or markets (cf. Tripsas & Gavetti 2000), these different logics or causal beliefs may have consequences for the future actions of the companies. More specifically, the MDs' cognitions on firm performance influence the way that changes in the environment are considered strategically important and which changes are prioritized. The findings in this study indicate that the MDs give different weights to the elements leading to performance and see their business environment through different cognitive lenses. Although the topic is beyond the scope of this study, the previous literature indicates that MDs also adapt to changes in the business environment in different ways.

The findings in this study suggest that the MDs in question held partly similar understandings of the causal elements influencing the performance of the firm, but more fine-grained causal analysis of the elements indicates that differences also exist among the MDs' cognitions on performance. There is mixed evidence on whether the managers' cognitions diverge or converge (Hodgkinson 1997; Daniels et al. 2002; Nadkarni & Narayanan 2007b) within the same industry. The findings in this study indicate that the middle-level explanation would be the most suitable. For instance, Reger and Huff (1993), in explaining their cognitive perspective on strategic groups, suggest that managers within the same industry form cognitive groups based on their understanding of the competitive environment. The MDs are not completely autonomous in their thinking, but neither do they follow industry recipes blindly.

Even though the MDs' cognitions on the performance of the firm were partly different, there were similarities. Previous research has identified **isomorphism** in the managerial actions (DiMaggio & Powell 1986). Approached from that perspective, **coercive isomorphism** can partly explain the similarities in the beliefs of the MDs. The MDs spoke of the pressures presented by the larger customer companies for the adoption of different quality management systems. These quality management systems may influence the MDs' cognitions on performance by posing demands and requirements for the companies' everyday operation. The MDs also sometimes mentioned the regulated business area, and regulations and certificates required to operate in a demanding environment,

which also created pressures on the behavior of the firm. The more informal way how coercive isomorphism presented itself was that through the expectations stemming from the society, the expectations about how the MD was expected to lead sometimes quite mature companies and keep the relationships with different stakeholders alive.

**Mimetic isomorphism**, on the other hand, was visible in the MDs' explanations, as the findings in this study show that the MDs themselves are the source of best practice in the field, for instance when a manager moves from a larger firm to an SME to become the MD and brings the practices with them. In addition, one can say that despite the sometimes seemingly stable competitive field, the uncertainty in the markets makes the MDs rely on the mainstream conceptualizations of the field. These cultural tools through which the performance of the firm is interpreted (such as BSC) influence the MDs' cognitions of performance. It is easier to adopt the practices used by the leading firms in the field than to create new practices. The findings indicate that the MDs' cognitions are also partly influenced by **normative isomorphism**, for instance through a similar educational history, as the selection process for the MDs' position has favoured those MDs with backgrounds in engineering. The media, consultants, and academics are also sources of the professionalization of the MDs' position, posing expectations of the role of the MD of an SME.

*The MDs are agentic actors*, meaning that they interpret the business environment based on their own personal experiences of the causal factors between the performance elements, despite the isomorphic forces. The causal relations between the different elements are important because if the MD does not consider the meaning of a certain element important, or does not see how it would lead to the firm's success, it is unlikely to influence the decision or actions taken by the firm. Thus, even though society conducts institutionalized discussions on HRM, sustainability, digitization, or robotics or other emerging themes touted as the potential bedrock of future commercial performance, if MDs do not see a clear causal relation with success, such themes are unlikely to be internalized as part of an MD's cognitions on performance.

Managing directors face the requirement of constant improvement and increased demands for performance, according to empirical material in this study. The results in this study imply that managers do not actively reflect their thinking on firm performance. Instead, they follow their own experiences, and on the other hand they follow current market trends, competitors, and especially needs raised by customers. The current research has identified five different groups of MDs with different ways of thinking. The different dominant logics of the MDs suggest

that the business environment can be understood in a different fashion. The MD's role traditionally requires adhering to decisions made. However, comparing their own assumptions to those of other MDs in the field and accordingly reviewing the assumed causal chains leading to firm performance can be productive. The cognitive mapping method allows practicing managers to consider their argumentation chains and make their implicit assumptions visible. The cognitive mapping method can also be used in reflecting upon the assumptions of the other members of the top management team in order to create common understanding around the issue of firm performance.

To conclude, in addition to the content of the MDs' cognitions, the structure of the MDs' cognition is important. The causal relations between the elements define the importance of the given elements. The causal ambiguity of how the performance of the firm is created leaves room for interpretation on the part of the individual MDs. The decisions and actions made based on the MD's interpretations are therefore likely to be different. For instance, the MDs track their firm's performance through different performance indicators. The performance indicators and other information channels that are used also alter the existing perception of the firm's performance. However, the MDs are also part of the social environment and its isomorphic forces, a factor that introduces a degree of similarity among MDs' cognitions.

### ***How do managing directors talk about firm performance?***

**Rhetorical analysis** was the third approach used to capture how the MDs perceive firm performance. As a result, five different rhetorical practices and different tensions in the ways the MDs talk were identified. *The main finding* based on the rhetorical analysis is that the MDs justify their perceptions on firm performance by relying on different aspects of business environment in their explanations. These different aspects reflect, on the one hand, measurable and controllable business environment, and on the other hand rhetoric focusing on the more intangible issues, such as myths and stories. Thus, the rhetorical analysis also *revealed tensions* between the different dimensions of performance.

The five rhetorical practices the MDs use (confirming, comparing, contrasting, concretizing, and mythicizing) influence the MDs' views on firm performance. Through these different rhetorical practices, the MDs justify their understanding of firm performance for themselves and to the wider constructed universal audience. These rhetorical practices can be considered as a means through which the MDs persuade the *abstract audience* and simultaneously themselves of the legitimacy of their way of seeing elements leading to performance. They also reflect expectations posed for the MD: these rhetorical practices reflect the

institutionalized, legitimate ways how the MD can justify his/her claims related to firm performance.

The rhetorical practices identified reflected different kinds of **constructed audiences** to whom the MDs targeted their explanations. The justifying factors were accordingly different depending on the audience. The rhetorical practice focusing on specific issues in a firm's performance and rhetorical practice focusing on the myths assume different kind of legitimating factors, first relying on present justifiable actions and second relying more on the potential in the future. Moreover, by using these rhetorical practices the MDs also draw different positions for themselves. Depending on the different rhetorical practices, the MDs come to define different roles for themselves as an MD in a firm.

Classic rhetorical theory suggests that individuals use language to persuade their listeners. The new rhetorical theory also notes the constructive nature of the rhetoric, also taking into account constraints the used rhetoric creates for the cognitive and attentive acts. The justifications used can be seen have an influence similar to MDs' thinking; the way of speaking also influences how the world is seen. These practices facilitate the institutionalization of management thinking (DiMaggio & Powell 1986).

The use of different rhetorical practices was dispersed in the MDs' explanations, meaning that one MD could use two or more practices in his/her talk. Thus in the MDs' explanations on firm performance there were **different audiences and positions**. The managing directors' cognitions on firm performance can be seen as reinforced by the used rhetorical practices. As different practices become more institutionalized in the MDs' field, they become more legitimate factors to justify the decision made based on the different perceptions on firm performance. Academics, business schools, media, and consultancies also reinforce these institutional practices. However, as there are different practices available, the MDs are agentic in the way that they can consciously or unconsciously choose the practices they are using. The MDs are simultaneously creating the rhetorical practices that they use, but are also targets of the institutional forces.

Reflecting the findings on the previous classic studies (Quinn 1989; Mintzberg 1980), which have described managerial roles in a quite specific fashion, the roles or positions discussed here are found in the in the MDs' speech. They also reflect the MDs' cognitions of the performance of the firm. Thus, these roles drawn for the MDs are more symbolic and interpretative, rather than being outcomes of explicit actions. The way the MDs depict the performance of the firm reveals also their own relations to the firm. The effectiveness and legitimacy of these different roles are further contested in the speech and actions of the MDs. Even though the

relationships the MDs draw toward the different performance elements in their talk and the roles formed based on these relationships are formed in the minds of the MDs, rather than being based on formal definitions, they are meaningful. Different constructed roles guide the MDs' attention. Moreover, identification with a certain role legitimizes different beliefs.

There was a tension between the way the MDs talked about the business environment and what kind of role they gave for themselves. The role of the MD in a firm itself creates expectations for the MD to be the leader of the firm. However, the way the MD responded to the expectations was depicted differently in the MD's talk. In addition, the changes in the markets and technologies and for instance in the customers' needs were seen in a more or less deterministic fashion. The MDs' rhetoric was also rather realistic, sometimes almost cynical. In contrast, there was talk that focused on the future, emphasized the possibilities, and was more idealistic and positive in nature. This kind of talk for instance, positions the MD under the board of directors, but conveys a more active, self-sufficient role for the MD. For instance, the MD could comment on the future orientation of the board of directors and the freedom to take a more active role and focus on future performance. These two ways of speaking conveyed different kinds of leadership positions for the MD, even though the leadership as a theme itself was not explicitly always present in the material.

The MDs are in a dialectical relationship with their social environment. The MDs make sense of the business environment and their firm's capabilities through the cognitive frameworks, based on their imagined history and anticipated future. These cognitions are reflected in and constructed by the current language in the MDs' social environment. The performance rhetoric within the industry is in constant flux, defining real problems and real solutions for MDs (Knights & Morgan 1991). There is always a risk that the business environment becomes taken for granted and understood through certain labels (Alvesson 1992) and its complexity becomes reduced to one dimension (Chouliaraki & Fairclough 2010).

### ***Understanding managing directors' cognitions on firm performance***

The one *concluding finding* in this study is that in order to understand the firm's performance better the focus should be on its top managers' cognitions. By understanding the firm's performance from the top managers' subjective perspective it is possible to create more idiosyncratic understanding of this multifaceted subject.

It seems that the managing directors form their cognitions on firm performance in their environment, where there are two opposing forces: one forcing the

cognitions toward similarity and another forcing the cognitions toward differentiation. The congruence between the MDs' cognition on performance seems to be a part of the socialization of certain professions, business environments, and industries. The language and speech, concepts used, and models followed influence the MDs' cognitions. Academics, consultants, and other practitioners provide language through which the MDs make sense of the business environment. This social environment is, however, constantly on the move, and there are competing ways how to make sense of the business. Through the constant dialectic with their environment, the MDs internalize their views on elements leading to firm performance. However, as the paths leading to good performance are often causally ambiguous and fuzzy, there is room for individual interpretation. The beliefs on the causal relations between the elements leading to good performance are filtered through the MDs' different cognitions. Further, there is a need to have a certain congruence between the MD's subjective understanding of the elements leading to firm performance and the objective outcomes. The past performance of their own firm and the performance of competing companies act as legitimating factors for the MDs' cognitions. As a consequence, there are different institutionalized sub-worlds which all provide legitimate explanations on the most important causal relations leading to firm performance. Different rhetorical practices used to justify the MDs' beliefs reflect these worlds.

A question then rises: what does it mean to approach firm performance from the managing directors' subjective perspectives? The performance models presented in this study and used in practice are ideal models, which present performance as a holistic, balanced phenomenon. The research focused on the causal relations between the performance elements has been dominated by functionalist research. When approached from the managing directors' subjective perspective, these relations can be seen in a new light. Based on the findings in this study the MDs' cognitions on firm performance reveal different approaches toward firm performance. There is a multitude of ways to construct firm performance.

The cognitions on firm performance reflected the MDs' constructions of past and future firm performance. The performance models presented in this study assume a linear time perspective. By focusing in the present on some performance elements, in the future performance will follow. In the MDs' explanations they focused on different temporal dimensions. The MDs drew from the past, explaining that the firm used to act in a certain way back then, but was now acting differently, connecting their current behavior to the past. They could also describe how they had developed a certain managerial practice in the past (e.g., cost accounting) and relied on that practice now in the present. Sometimes

the MDs talked about the history of the firm, its owners, and previous management before their time. The MDs also described present firm performance. They explained in detail their products, production processes, or customer management systems. The focus was in the present, often on operative issues. The MDs also focused on the future. The future goals and expectations were described and evaluated. MDs could describe how they needed to get new international customers, or they could describe how they needed their own products (in addition to acting as a subcontractor) in the future.

In the MDs' cognitions on firm performance some causal chains were more linear than others. Performance models divide the firm performance into processes and outcomes. The findings in this study show that this division is not that clear in the MDs' cognitions. The multitude of ways to understand firm performance reflects these differences. The firm performance could be tangible and well-defined (e.g., profit, volume of production), or it could be more ambiguously defined (e.g., value for owners, value for customers). These were reflected differently in the MDs' cognitions; the goals that the MDs mentioned could be clear (e.g., market share up 10%) and paths leading there detailed (e.g., hiring a sales manager), or the goals could be more ambiguously defined (e.g., growth with the customer) and paths more broadly defined (e.g., cultivation of good customer relationship).

The multifaceted nature of the firm performance issue was reflected in the MDs' cognitions on the internal and business environment. The assumptions related to the environment have influence on the actions taken (Daft & Weick 1984). On the other hand, the MDs explained how they had built different kinds of systems that would provide information for decision making, for instance accurate cost accounting measures, customer management measures, or production information. The assumption reflected the idea that through the analysis of the environment better decisions could be made. On the other hand, the firm performance was seen as something that could be achieved through investments in the future. For instance, focus on the firm culture, customer relations, or partnerships reflected this. The assumption reflected the more proactive view that through the focus on these investments the business environment would change.

### 5.3 The contribution of this study

The contribution of this study can be classified into theoretical, practical, and methodological aspects. Next, I will discuss the contribution and findings of this study.

#### 5.3.1 Theoretical contribution

The theoretical contribution of this study lies in the research area of managerial cognition. First, with this study I wish to participate in the discussion about whether the MDs' cognitions converge or diverge (Porac et al. 1989, Porac et al. 2011; Daniels et al. 2002; Nadkarni & Narayanan 2007). The results in this study suggest that the MDs are part of the same social world and use similar language when describing firm performance. At the same time, the MDs are independent actors, with separate backgrounds and experiences, which have influenced on their cognitions on firm performance. The business environment is approached through this formed individual cognitive framework. Thus the external business environment and changes in the markets and technologies are given different meanings in the MDs' cognitions. Similarly, the firm's internal capabilities are positioned differently in the MDs' cognitions. The findings in this study suggest that the MDs' cognitions on firm performance are all individual, which however can be divided into five different groups based on the causal relationships between the performance elements.

Second, the study contributes to the managerial cognition literature by shedding light on the content and structure of the MDs' cognitions on firm performance (Kiss & Barr 2015; Nadkarni & Barr 2008). The findings in this study suggest that the MDs in the manufacturing sector in Finland use rather traditional themes when describing and explaining the causes of the firm's performance. These themes are shared across the field. The content of the MDs' cognitions on firm performance had some similar elements among the MDs, although the richness of the cognitions differed. Similarly, the relations between these elements differed in the MDs' cognitions.

Third, research focusing on firm performance has traditionally been objective, analytic, and prescriptive, sometimes offering ideal models and generalizations (e.g., the BSC by Kaplan & Norton 1992; Kaplan 2010). This study contributes to the performance literature by complementing the previous research by offering a view toward performance that is based on the MDs' subjective understanding of firm performance. This subjective understanding of firm performance stems from the MDs themselves, accordingly shedding light on the different

idiosyncratic ways to understand SME performance within manufacturing industry.

### 5.3.2 Methodological contributions

This study has two methodological contributions for the managerial cognition literature. First, this study contributes to the literature through its original research design. Managerial cognition literature has often focused on the managers in different organizational levels and compared the cognitions among functional, organizational, or hierarchical levels (e.g., Kaplan 2007). The explicit focus has however not often been on the managing directors in particular. This study focuses particularly on MDs' cognitions on firm performance. The previous research in the field of managerial cognition that has focused on the MDs in particular has often used more structured approaches, such as letters to shareholders as indicators for the managerial cognitions (Nadkarni & Barr 2008). This study used open-ended interviews and MDs' explanations of cause-and-effect chains to explore the MDs' cognitions on firm performance. This idiographic research method provided rich material, stemming from the respondents themselves. Through this rich material the findings in this study provide a way to understand the MDs' world through the language they use.

The second methodological contribution of this study is that this study uses a multi-method approach to study managerial cognitions on firm performance. Three complementary research methods were used to study MDs' cognitions, instead of relying on one method only. The multi-method approach provided complementary views on the MDs' cognitions. The variety of research approaches used sheds light on the limitations attached to each method. More precisely, different kinds of research methods provide answers to different kinds of research questions. This epistemological meta-understanding of the limitations of each research method used to study managerial cognition highlights the boundaries that each of the research methods inherently have.

### 5.3.3 Practical contribution

The next contribution of this study is a practical contribution. The findings in this study suggest that there exist different beliefs, which rely on different kinds of knowledge bases. The findings suggest that instead of focusing on the development of the firm, the practitioners should focus on the development of the thinking of their top-level managers.

Management education in business schools could benefit from understanding these logics. Moreover, it could help top-level managers to make their thinking visible. In order to prevent one-dimensional thinking, different logics leading to firm performance and the rhetoric used to justify the logics could be made visible. One of the most important findings is that if the top management does not see the cause-and-effect chain of certain elements leading to success, those elements hardly will be considered as success factors. It also creates pressures for the business schools to fulfil their own role as providers and creators of knowledge.

There are multiple stakeholders contributing to the conception of firm performance (Crilly & Sloan 2012). Knight and Morgan (1992) list academics, consultants, managing practitioners, and management students as the parties who simultaneously are targets of the management ethos and reproduce it in their own contexts. Based on the findings in this study, it seems that these stakeholders would benefit from understanding the complexity of the performance from the MDs' perspective. First, to understand firm performance requires understanding the existence of multiple different logics through which the firm performance can be acquired. In the light of this, one-size-fits-all-type solutions simplify the world notably. Second, the MDs' role seems to require the understanding and capability to move between different paradoxical mental positions, focusing on both internal and external environment, present and future, and tight control and future potential simultaneously.

This study should encourage academics to reflect and understand their own role as carriers and disseminators of knowledge. Academics play a key role in acting as bridge builders between the practitioners and the academic research. The practitioner audience searches and demands for new management fashions (Kieser 1997) and performance models, and especially their simplified forms provide these kinds of models. The diffusion of the knowledge is good, but the direction of the knowledge flow could go also more from the practitioner reality toward the academic community. Thus my suggestion is to encourage more collaborative research with the practitioners. Van Aken (2004) suggests taking steps toward a design science direction, to take a more active role as a researcher. From the perspective of this research, the cognitive mapping method could be used in a more active fashion. This would mean taking a more interventionist approach to research, to actively reflect and challenge the MDs' thinking and assumptions.

The current research has some implications for management consultants. The management models act as tools but simplify the MDs' world quite extensively. The realization of the incompleteness of the MDs' causal understanding of firm

performance may aid in focusing MDs' attention on the causal connections within the MDs' thinking instead of focusing solely on the ideal models on performance. Cognitive mapping as a tool provides a way to elicit the thinking of the different organizational members and can provide a tool to create common understanding, for instance within the management board.

## 5.4 Evaluation and limitations

In this section I aim to reflect on the research done and evaluate its limitations. The nature of this research was interpretative. The evaluation of this study and the justification of knowledge that it produced should therefore be based on the criteria for interpretative approaches rather than approaches adopting more realistic ontological and epistemological position (Sandberg 2005). The approach taken emphasizes the constructive nature of language. There are differing views among the qualitative researchers about what kind of criteria should be used to evaluate qualitative research. Following the suggestion presented by Eriksson and Kovalainen (2008: 294), when doing the research leaning toward relativist ontology and subjectivist epistemology, the traditional measures such as validity, reliability, and generalizability should be replaced by more suitable criteria for evaluation. One of the parallel concepts with validity and reliability is the concept of trustworthiness presented by Lincoln & Guba (1985). Trustworthiness can be described through four dimensions (Eriksson & Kovalainen 2008: 294): credibility, transferability, dependability, and confirmability.

*Credibility* can be evaluated through the suitability of material and the presented claims, the researcher's familiarity with the topic, and relative replicability, meaning that on the basis of the research material other researchers can make relatively similar interpretations or agree with the interpretations made by the researcher. I have striven to enhance the credibility of my research by focusing on a particular group of managing directors, fitting research methods to the posed questions, and by also gathering knowledge of the researched topic from multiple secondary sources. The academic audience will ultimately agree or disagree with the interpretations made within this dissertation.

*Transferability* means that conducted research should be in line with the previous research tradition. This does not mean that the research should be replicated, or be a replication of older studies, but rather that there is a certain research tradition in which the results of the research are considered. The idea is to establish a connection between the previous research and the current research. I have striven to ensure the transferability by positioning my research both

theoretically in the research area found in the intersection of literature focusing on managerial cognition, performance, and the MD's role, and methodologically as a multi-method study, and in each of the empirical chapters more carefully as content analysis, idiographic cognitive mapping, and rhetorical analysis.

*Dependability* refers to the openness of the research process and the careful documentation of the decisions made. Through the openness it is possible for fellow researchers to follow the logic and decisions made in the process. I have striven to be open and detailed in my description of the research methods and therefore aimed to ensure the dependability of the research. I have also included a reflective section at the end of the dissertation to highlight the role of the researcher in the dissertation.

*Confirmability* refers to the idea that the findings can be easily be understood by the reader. There should be a clear link between the empirical material, findings, and interpretations made by the researchers. Confirmability therefore aims to ensure that the findings are an outcome of interpretation of the data, instead of mere imagination of the researcher. Throughout this dissertation I have aimed to use rather understandable and clear language. I have striven to be clear when presenting the findings in this dissertation, and I have aimed to make the causal chain visible when it has been possible. For analytical purposes I have presented the research process in different phases in a detailed way. However, in order to avoid the oversimplification of the research process description I have also highlighted the fuzziness of qualitative research and its hermeneutic nature.

## 5.5 Reflection on multi-method approach

This dissertation encompassed three different research methods, each providing ***its own added value on the research***. This section reflects the use of different methods and examines the pros and cons of using diverse research methods. The *raison d'être* for three different research methods was that they provided complementary data from the researched topic. Each method used provided a window to the phenomenon from a unique perspective.

The research process that has led to the now ready outcomes has not been straightforward and linear. Rather, the process has been messy, trial-and-error based, and encrusted with different analysis frameworks and perspectives. At the start, my goal was to use the method of cognitive mapping as a primary analysis framework, but the way to conduct and report the findings was unclear, even though I had some ideas from the previous literature on the presentation of cognitive mapping studies. As the research process matured, the need for the

more general and interpretive approach became evident. The need arose from the data, but simultaneously I felt the need to take another perspective to the data in hand. The rhetorical discourse analysis provided a tool to approach the data. The content analysis, on the other hand, was a natural choice to provide clarity and structure for the messy interview data. As the research process went on, the emphasis on different methods gained clarity.

Using different research methods within one monographic study has its benefits, but it also brings challenges with it. The monographic form of the dissertation provides a distinct form of academic writing, and it provides many more degrees of freedom compared to an article-based dissertation. For instance, the space and number of words are not similarly limited. It also provides an opportunity to try new approaches and to shake older conventions. There are however also risks involved, especially when embedding three methods in the same dissertation. As the nature of qualitative research is often hermeneutic, it forces the researcher to go back and forth in his/her research and to adjust the study accordingly. For instance, what is interesting in the interview data may sometimes change due to the respondents' different answers compared to what was anticipated and even more as the researcher approaches the data wearing different theoretical and methodological lenses.

Content analysis is one of the basic tools when conducting qualitative research. In my research process the content analysis provided a method to categorize the large interview data in different themes. It was important to identify the themes present in the performance speech because it provided a way for me as a researcher to make sense of the MDs' world. Naturally, as is the case in content analysis, different categorizations could have been possible. Content analysis, however, provided a tangible tool for research and formed the bedrock for further analyses. Through the content analysis I searched for an answer to the question "what themes are present in the MDs' performance?" and further "which themes are the most prevalent in the MDs' talk on performance?" The process of doing thematic analysis was not straightforward. As I approached the data without a clear frame for analysis, different thematic categorizations started to emerge. This required structuration and restructuration of the thematic order, or node tree in the NVivo computer program.

Cognitive mapping provided complementary data for the content analysis by structuring the themes elicited through content analysis in hierarchical order. Cognitive mapping is not a technique itself; instead, it is an umbrella term for many techniques that visualize the individual's understanding of a particular problem or issue (Ashmad & Ali 2001). Benefits of cognitive mapping can be

divided into two categories: the technique itself and the use of the results obtained (Ashmad & Ali 2001). As a technique, the maps provide structured thought through symbolic representation, graphical rather than linear layout, and a tool to handle a large amount of qualitative data. Results presented as graphical illustrations of the interviewee's thinking are also usable, for instance to provide common understanding around a certain issue in the organization. Moreover, Laukkanen (1994) states that cognitive mapping (or cause or causal mapping) is not critically sensitive to underlying theoretical assumptions and can therefore be used in a wide variety of research domains.

The themes differed between the MDs' cognitive maps, and the coding process was interpretative in nature. The first defining decision related to cognitive mapping concerned the nature of data collection. Idiographic research methods provide a greater degree of freedom for the respondent and are more open in nature. Nomothetic research methods, on the other hand, provide more accurate data because the interviews are more structured and sometimes the respondents' answers are limited to predefined answer categories. In this case idiographic method was chosen because it provided a more open and emergent way to collect data.

There has been discussion on the meaning of the underlying assumptions in the cognitive mapping (see Daniels 2002; Hodgkinson 1997), and therefore it is important to make clear the researcher's own assumptions. The cognitions have been approached from idiographic (e.g., Daniels 1995) and nomothetic (e.g., Hodgkinson 1997) research approaches. Researchers relying on the idiographic research methods use open ended questions to elicit cognitive maps of the managers. Researchers adopting the nomothetic research approach, on the other hand, use more structured methods to gather information about the managers' cognitive maps. In this study the idiographic method was used to construct managerial mental models (Daniels 1994; 1995; 2002).

In comparison to the nomothetic approach, the questions are open ended instead of forcing respondents to choose from certain predetermined elements. The nomothetic approach makes the comparison of the maps easier, but simultaneously some information is lost. The idiographic approach provides richer information, but the comparison of the maps is more difficult. However, comparison of the idiographic maps is possible (Eden & Ackerman 1998). The underlying idea behind the idiographic approach is (Eden & Ackerman 1998: 194):

*The ability to elicit, or attend to, idiographic data from respondents is important, so that full recognition is given to the idiosyncratic ways in which each of the research subjects views their world.*

The comparison of the cognitive maps was challenging at first, as the data provided by the idiographic research method provided a cognitive map, stemming from each respondent's unique perspective. It was, however, possible to compare different cognitive maps. The comparison of cognitive maps shed light on the issue of how different elements were present in the MDs' cognitions and, on the other hand, how the MDs used different abstraction-level concepts to describe firm performance. The most important part of information was, however, the relationships between the different performance elements in the MDs' cognitions because they connected the elements hierarchically together.

The analysis of MDs' rhetoric completed my exploration of the MDs' cognitions on firm performance. Both content analysis and cognitive mapping explored the themes present in the MD cognitions. They provided pieces of information on *what* are the elements present in the MDs' cognitions and *how* they are hierarchically structured in their mental models. Rhetorical analysis complemented that by asking the question "how do the MDs speak about firm performance?" Different discourses present in the MDs' world influence how they depict the performance of the firm. My use of rhetorical analysis assumed that the MDs themselves are both active creators of certain discourses and simultaneously influenced by the social discourses around them.

In a way the research process has characteristics of polymorphic (Alvesson & Gabriel 2013) research by challenging the traditional form of monograph and using novel approaches to the research of firm performance. Three different methods provided windows into the MDs' cognitions. To use three different methods within one study is not unproblematic. The underlying ontological and epistemological assumptions in the research methods may be seen as contradictory, and combining these problematic. For instance, Burrell and Morgan (1979) state that the combination of different sociological paradigms poses a challenge for a researcher because they see that the underlying assumptions related to paradigms are deeply rooted in the researcher's understanding of the world.

Taking this into account, I continued in my chosen path. There are three major reasons justifying the use of the three different research approaches inside a single dissertation:

*The complementarity of research methods.* The justification for using different research methods rests on the view that all of these different methods provided different views toward the research topic, firm performance. The need for a complementary use of multiple research methods rose from the pragmatic need to understand the firm performance from a holistic perspective. I see that the use of multiple research methods instead of focusing on only one approach is justified because the purpose of this dissertation, stemming from the curiosity toward pragmatic understanding of the phenomenon, was to understand the MD's cognition. This required the approach of using different research methods.

*The methodological renewal in the management research.* The use of multiple research methods within one dissertation or study is relatively scarce, even though there is an emergent trend in the number of multi-method-oriented management studies. There is also an issue of renewing the management research tradition by conducting research that is relatively far from the traditional form of dissertations. The richness in the ways of conducting studies opens up a space for novel ways of thinking within management studies.

*Emphasizing the epistemological differences.* The variety of research methods provides different tools with which to approach firm performance. Through these different methods different kinds of knowledge are acquired. This also highlights the epistemological question on the use of different research methods and the nature of gained knowledge through the different methods.

My stance toward the research was rather pragmatic, stemming from the curiosity to understand managerial thinking better. Applying different research methods fostered a more holistic understanding of the phenomenon.

## 5.6 Future research suggestions

The results in this study suggest that firm performance approached from the subjective perspective of practitioners paints an image of a fuzzy phenomenon. In this study the focus was on the MDs' interviews and their explanations on the causes leading to firm performance. This study did not focus on the objective performance of the firms, nor did it classify the MDs based on their firms' material characteristics, such as the well performing, average performing, or poorly performing companies. This could be one research avenue in the future. Another option, partially tied to the previous suggestion, is that future research could also focus on the perceptions of the MDs of the companies whose objective growth has been rapid (i.e., continuous growth of turnover in successive years) compared to the MDs of the companies whose growth has been more modest.

Managerial cognition research has lately been interested in exploring the connection between the organizational and managerial effects, such as managerial cognition, capabilities, and incentives (Kaplan 2009). One future research avenue for SME research could also be the exploration of organizational characteristics and managerial cognition. In this research the lack of causal logic between the systematic practices tied to employee competence, innovation, and renewal of knowledge suggest that there is a need stemming from the field to study more deeply the processes leading to successful management of human resources. The need for agile ways to manage human resources in the SMEs has been identified. The research could focus on the relatively under-studied areas, such as the state of HRM in SMEs, and the ways that the practices and processes are reflected in the MD's and top management team's cognitions.

There are multiple research approaches focusing on managerial cognition. Future studies could focus even more closely on the link between MD cognition and subsequent action. Following the research tradition in the field of management studies (Mintzberg 1980; Quinn 1988), the managerial work could be explored through a more qualitative fashion, and for instance the shadowing of the MDs could be used to capture the link between the MDs' cognition and action.

Further, the MDs communicate their goals and intentions to other members in the firm (Juuti 2001). The used rhetoric reflects the managers' cognitions on firm performance. The way how the MDs communicate their intentions to other managers and employees has at least two separate functions. First, it is a mean to communicate the goals and future direction the firm is striving towards for. Second, it is symbolic, meaning that the issues that are communicated receive attention. The common understanding within the firm is created around the issues that are the topics of the everyday conversations. Therefore, issues that the MDs' raise in their talk are important, as they provide cues for other managers and employees on the importance of various issues regarding the MD's cognition on performance of the firm. The rhetoric that the MD dominantly uses thus provides an input for the managers' and employees' interpretations of expected actions. The future research could focus on the rhetoric the MDs' use in their management efforts within the firm as a tool to lead their firms towards high performance.

Last, one interesting question is the relationship between the MDs' cognitions and the business strategy. In this dissertation the focus was on the MD's performance cognitions, not the firm's strategies. It could be a fruitful research avenue in the future to study how the different operating strategies and performance cognitions converge.

## 6 EPILOGUE

The research journey has been long and I hope that I have managed to capture some reflections from this journey in the pages of this dissertation. In closing, I wish to reflect upon the research process and my experiences during that time. The dissertation process is paradoxical in nature. The realization that there is a lack of balance between the efforts the writer of the dissertation gives and the outcome the dissertation eventually has on the academic and practitioner world may feel pressing. However, I hope that my dissertation will be counted in the canon of academic literature. In addition, I see that the choices I have made, starting from choosing the topic and an approach toward it, themselves mould (even if the influence is humble) the academic management discussion in a certain direction and are hopefully also reflected in practice.

The research process of which this dissertation is the outcome has not been linear in nature. One of the reasons might be that the topic of my dissertation is located at the intersection of two vast research areas, which each have different and sometimes competing schools of thought, different approaches, and sometimes even different underlying assumptions. Both performance research and managerial cognition research are broad areas, encompassing a variety of research approaches. My first task was to find the most relevant literature, which would help me to understand and learn about management thinking about performance from both of these areas.

The performance research and discussion within it is something that cuts through different management disciplines. Different management research areas suggest different ways to reach performance. It was therefore relatively difficult at first to identify performance models that could be used to understand MDs' views of firm performance. Moreover, the nature of the research on firm performance seemed to be rather quantitative in nature, focusing mainly on the outcomes or measurement of firm performance. Because my approach was to explore the academic field of firm performance and find a way to understand firm performance, this perspective seemed to lack some dimensions. In the course of searching for models to describe firm performance that are suitable for SMEs in the manufacturing industry, I sometimes ended up reading an article for enhancing production processes or, on the another end of the spectrum, on the relations between the performance and HRM. The performance research seemed to be, at least for me, an area cutting through every management discipline.

The performance models that finally found their ways into this dissertation were somewhat systemic. The literature indicated that these models would examine the management's or MDs' perspectives on the issues. The Balanced Scorecard especially is depicted as one of the most established management models that are also used in practice. For me the first challenge was to get excited about the quality management-related performance models. They provided a rather good way to understand the firm performance, they seem to have a well-established academic research base, and they are embraced by practitioners in large corporations and to some extent also in smaller companies. At least the group of MDs that took part in this research was quite familiar with the quality management models and at least to some extent used language similar to that used in quality-oriented performance models. The challenge for me was to jump into this world, as I intuitively connected these different quality management models to the Total Quality Management (TQM) management approach, which has sometimes been labelled as one of the management fads or fashions. My justification and logic behind the decision to inevitably enclose these models for this dissertation was quite pragmatic. First, I argued to myself that, even though the management fads in general were something that should be discussed and the companies should be aware of their nature, the tools and approaches the fads suggest are not necessarily inefficient or wrong. Rather, they should be approached and implemented in a more context savvy way, understanding what they can offer and what the limitations of those offerings are. Second, I then continued to make a distinction between the ideas behind the quality management models and management fads derived from those models. Third, the pragmatist in me saw that the quality management models offered tools to understand the world where the MDs of the Finnish SMEs in the manufacturing industry lived. After all, they still mould the field of practice by posing demands on the companies. They also seem to be a part of the MDs' world in the manufacturing industry.

Managerial cognition was another topic in the literature that I needed to grasp and develop an understanding of. The managerial cognition literature is spread into a variety of approaches, each focusing on the different aspects. I created the understanding around the topic by focusing on the bedrock of the literature focusing on the formation of the mind within the social environment, such as writings of Berger and Luckmann (1966) and Vygotsky (1978; 1986). Moreover, I became familiar with the social cognition literature (Fiske & Taylor 1986; Bandura 1986). From the management literature I identified the managerial and organizational cognition research stream. However, it turned out to be widely spread over a variety of management disciplines, and the approaches varied. I also felt that there was emphasis on the information processing view of the

human mind in the articles, instead of a more constructive orientation. Through the adoption of discourse and rhetoric-based literature, I felt that this shortcoming could be overcome. Instead of cancelling each other out, I felt that through a multi-method approach these different approaches could be combined, each approach providing its own gains in the picture of understanding the MDs' views of firm performance, within one monographic dissertation.

One could claim that my approach is located at the edges of scientific inquiry. I did not choose a certain narrow research gap that would have its own established authorities, truths, and scientific areas (journals). Rather, I approached the performance of the firm from the perspective of an active questioner and curious explorer. The desire to understand the MDs' thinking on firm performance was the main driver for this research. This kind of approach poses requirements and it also challenges the researcher. Inevitably, the researcher plays a major role not only by interpreting the MDs' thinking, but also by choosing the most relevant theories and theoretical frameworks to understand that thinking.

I considered my role as a researcher to act as a medium between scientific knowledge and practitioner experience. Because I adopted this role, my subjective understanding of both of these areas was needed to construct this final outcome. The research outcomes are therefore undeniably subjective in nature. This however does not mean that the requirement for scientific evaluation would not hold. I have striven to address the meaningfulness of this research above. I see that in a world where information is increasingly available, there is a growing need also for research based on a more subjective analysis, which again is contested within the scientific community.

The role of research is to generate knowledge that aids society somehow to advance and go further. In our research discipline it is the companies and organizations that are beneficiaries of the research. We as researchers produce knowledge in a more or less collaborative way with the practicing managers. In addition to that, I hope that my dissertation has provided something new for the academic and business worlds, and I hope that I have learned something in the course of this research. I consider learning more as a mind-set or a way to approach curiously the world than as a necessary evil that has to be accomplished in order to survive in this world. Looking back and reflecting upon the learning process in this dissertation, one of the most influential things for me has been gaining an understanding of the social process in relation to the formation of individual thinking. To understand the role of a social environment is crucial for the development of thinking. However, individuals are able to choose their nearest social environment through their actions. From the learning perspective

this means throwing yourself into the situations and among the people you think will share your drive to learn.

To step down the ladder with a rather more specific reflection on the learning process, I feel that my theoretical understanding of management studies has grown considerably. Moreover, the multi-method research has provided a rather variable skillset of different research methods and tools to study managerial life. However, the most important lesson from the different methods is the boundedness of the knowledge they provide; choosing a research method inevitably creates certain epistemological boundaries. The plurality of methods facilitates the understanding of issues from different views. The different approaches provide different windows through which firm performance can be explored.

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## Appendices

### Appendix 1. Description of the cases

#### **MD1**

The cognitive map of MD1 was well structured and coherent. The MD saw that firm performance requires growth, which was seen as growth of the annual turnover. The MD divided the performance into hard and soft elements. In the interview the MD spoke mostly of the soft elements, but also mentioned hard elements, stating that there exist certain cornerstones which have to be in shape, such as the profitability of the firm, which in the long run requires growth. The soft elements, however, took most of the time in the interview. The MD spoke mostly of the corporate culture and its meaning for firm performance. The MD saw that good corporate culture led to the successful implementation of firm strategy. In the cognitive map strategy was one of the big themes. The MD saw that through the right kind of strategy it was possible to win over the competition. The right strategy meant focusing on core competences and following consistently the chosen path. In order to have a good strategy, the management board and its competences played a large role. The MD mentioned especially rationality in decision making.

There were plenty of elements that the MD saw that led to good corporate culture. The MD spoke of the importance of the employees and low turnover. The MD mentioned a 30-year history, the firm's image, and the importance of the local employees. The MD stated that they have a culture of hiring employees, instead of laying off employees. The importance of recruitment was mentioned, and certain criteria were defined for it, such as know-how and competencies, suitability for the team, and the understanding of the risks of hiring "clones." The MD mentioned that the average contract was 12 years in their firm and that the employees in the unit whose supervisor was recruiting were part of the recruiting process.

The employees' commitment to the quality of their products was seen as crucial, and the MD saw that the employees should be proud of the firm's products. The MD stated that the whole firm is dedicated to the quality of the products, not just one separate quality manager or unit. The employees' belief in the firm was considered important. This could be achieved according to the MD through openness and giving responsibilities to the employees. Openness was seen as the

openness of the firm's goals and communication. Openness meant openness also regarding the financial situation of the firm. This and other elements that described the firm environment helped to draw a background against which decisions were made. Openness was seen as a means to reduce speculation. The role of the MD was mentioned, especially the power of the example of the MD. The MD also mentioned his role on the management board, stating that he aimed to "make himself redundant," meaning that he expected the other board members to be active decision makers also.

## **MD2**

The performance was considered in relation to stability of the firm and stability of the firm's employees. The goal of the firm was to strive toward long-term growth, instead of short-term profits. This was manifested in the fact that the three owners also worked in the firm. The ideology of the firm was based on continuous growth, which was considered essential for the success of the firm and was also used as the metric for performance. The growth should be such that it was manageable and suited the firm's needs. The hard measure for performance was the firm's profit. The realities of business require profitable action. The last measure for firm performance was the satisfaction and commitment of the employees. Low turnover was considered important.

The growth of the firm was delivered through the growth with the customers. The growth also provided opportunities to get new customers. The main goal of the firm toward customers was to help them to grow. Through the growth of the customers the volume of the firm's own products was also increased. The focus on customers was based on strategic decisions. In the MD's mind the focus on the growth of the customers was based on a deliberate strategic change, which was a consequence of the analysis of the business environment. As the business environment and especially the economic situation were identified as uncertain, the focus of the firm turned to the service business. The courage to make a strategic decision was important and derived from the last important decision in the beginning of the millennium, when the firm invested heavily in high-tech equipment, accordingly jumping from being a "craft shop" firm to being a high-tech firm.

Another cluster of elements leading to performance was grouped around the management culture of the firm. As the focus of the firm has changed toward the service business, it requires a new mind-set from the employees also. This is a long process, but at the end also the people in the production should think of customers.

The employees were considered important for firm performance, and the MD saw that firm should also develop employees. Through interaction and listening to employees the well-being of employees is created. This also improves the employees' understanding of their own roles and goals in the firm and clarifies the financial reality. This is acquired through good information flow inside the firm. In addition, the MD, product manager, and team leaders should aim in the same direction. From supervisors it requires active intervention to counter negative behavior. This creates good attitudes and makes long-term employee contracts possible, which create stability.

### **MD3**

The MD viewed the performance of the firm mainly from the customer perspective. The most important element was the creation of customer relationships and keeping them alive. The MD explicitly states that the firm aims to create long-term customer relationships instead of focusing on one-time sales opportunities. This requires trust in the relationship with the customers and understanding from both participants in the relationship that constant profit flow can be achieved through collaboration. Keeping up a trustworthy relationship requires the right people dealing with the customers. In a way this kind of competence is embedded in key people in the firm.

Customers were also thought to be demanding. On the other hand, customers were identified as being very cost savvy and known to be buying products from abroad. The solution of the problem was to focus on the total costs perspective and being cheaper than competitors from that perspective, instead of the price of the part. In addition to customers being cost savvy, they also expected products of a certain quality. This could be delivered through on-time deliveries and honesty in customer relationships. In addition, flexibility of the firm and the ability to modify the products in a fast schedule were considered important. This was especially important in order to serve international customers. Again, the purpose was to create long-term customer relationships.

Even though the customer was the main element in the MD's cognitive map, the rationality and efficiency of the firm were also present as elements leading to a well-performing firm. In order to be efficient, the MD saw that the firm needed to be a part of a product development phase of the customers from an early phase. This made it possible to create new ways to produce cost-efficient products. Additionally, collaboration with the suppliers from early on in a product development process was seen as a way to save costs. All levels penetrating issues related to efficiency required the SME spirit instead of a "this is not my job"

attitude. In order to be efficient, the MD saw that even in the production line the people need to think about what they are doing.

#### **MD4**

The main element leading to good performance of the firm is the ability to be near to the end customers. This is important and challenging at the same time because the firm uses local distributors in different countries. In the MD's cognitive map these challenges can be overcome by selecting distributors that have a clear and specific profile that fits the firm's strategy. To have local distributors is important because they have local networks through which sales are done. Maintenance service is also provided through local distributors. Local distributors also minimize the risks for the MD's firm. The MD saw that it is important not only to have distributors but also to make sure that the parent firm and MD maintain contact with the end customers. Thus, the MD is encouraging distributors to have meetings where the MD, the distributor, and the end customer's representative are present. This facilitates the relationship between the parent firm and the end customers.

Another cluster in the MD's cognitive map was formed around the very specialized products the firm is producing. The products are specialized, and parts of the production of the products are regulated. The products are special, and the industry itself is regulated by national and European-wide directives. In order to produce these products, special competence is needed. Special competence not only means technical competence to build the product but also being active in the standardization and regulation instances and different professional associations. In order to be able to create products that fulfil the continuously developing standards, the firm has invested in testing equipment. Through this equipment it is possible to test the products and ensure that they fulfil the standards immediately when they are launched. It follows that quality of products is a self-evident requirement for success.

#### **MD5**

The cognitive map of the MD in the case firm 5 was quite fragmented. The MD saw that the flexibility of the firm is important. In order to respond to customer needs the MD saw that the ability to be flexible is important. The MD saw that the main element which leads to flexibility of the firm is the flexibility of its key employees. However, the MD was not very specific how this could be achieved, other than mentioning the motivation of employees and good working conditions.

The MD saw that long customer relationships were important because the time consumed with new customers is much longer compared to the old ones, and employees have to spend their time in “unpaid work” instead of working actively. Moderate revenue expectations, patience, and a long-term perspective were also tied to the long customer relationships. Even though the customers were important, the MD mentioned that the firm is sometimes at the mercy of the customers, and developing its own products would help the firm to grow and balance the fluctuations in orders.

### **MD6**

The central elements in MD6’s cognitive map were the smoothness of the production and production processes. Performance was seen through effectiveness. The MD stated that of course the ultimate performance can be measured through money.

At the centre of the MD’s cognitive map were the production and its effectiveness. Simplification of the processes was seen as important. The MD saw that the firm will succeed if they can serve their own production, meaning that the internal processes should be honed to excellence. The MD stated that it was crucial that there would not be futile time in the production. The MD saw that the focus should be on certain parts and raw materials so that the lack of a certain machine part would not cause a bottleneck in production. To answer this, process management plays an essential role. The MD mentioned management of the raw material process and production process. Through the focus on these processes the lead times will become shorter, delivery times for the customers will become shorter, and the price will be more competitive. In order for this to happen, different measures should be used, for instance activity-based costing and focus on the ERP systems, which would include the warehouse, sales, production, and quality measures.

The MD mentioned the strategy of the firm has been to deliver stable growth. The MD mentioned that the firm had few large customers, and this also had an effect on the nature of the decisions made in the firm. The MD mentioned that the size of the firm itself was meaningful because its big enough size made it possible to form reliable partnerships with the customers. The MD saw that the size gave credibility to the firm in the eyes of the customers.

In the MD’s cognitive map flexibility was important and meant addressing the customer’s needs in a fast and flexible way, and focusing on serving the large customers, which were often seen as rigid, in a flexible way.

Employees were mentioned and featured in the MD's cognitive map, especially the motivation of the employees. The MD described some challenges they had had before, but saw that employees were important. There was, however, more general talk about the need for motivated employees and some solutions, such as summer parties, but otherwise the cluster around employees was rather fragmented.

### **MD7**

The cognitive map of MD7 was simple and coherent. The performance of the customers was seen as the most important element leading to the performance of the firm. The MD stated that performance of the customers made the performance of the MD's firm also possible. The MD also mentioned that they were willing to help their customers to succeed. One factor leading to this was the different kinds of funding possibilities the MD offered to the customers. In addition, good products were necessary for good performance, and the MD highlighted multiple times the uniqueness of the methods of work and the superiority of their own products compared to the competitors.

Firm structure and processes played a significant role in achieving good performance. The firm was unusual in the industry in having the planning and production departments under the same roof. This meant not only flexibility to answer customer needs but also a potential to offer innovative solutions to customer problems. The MD described his firm's role as a customer problem solver. A focus on production facilitated innovation, which could not be achieved through focusing solely on the planning. The MD also stated that the firm's pricing model, which was not based on hourly costs, forced them to be effective. The MD described quite a lot of different products the firm had made and their innovative value for the customer. He stated that brainstorming sessions, knowledge transfer from previous projects, a solution library, and 60 years of experience brought the competence to solve customer problems. The MD especially highlighted technological competence, even though the MD mentioned that their machines were not necessarily the newest available in the markets.

The driver for performance in the MD's cognitive map was continuous development. This meant continuous technological innovation to offer new kinds of solutions to the customers. On the other hand, it meant continuous product development and, for instance, reduction of material costs. Successful recruiting and employees' proactive mind-set were considered important. The MD explicitly mentioned the older employees with long histories in the firm and highlighted the craftsmanship and skills that they had, which were difficult to acquire from the markets.

**MD8**

The cognitive map consists of clusters around the product and production. The MD considers it important that the firm focuses on standardized products, which helps to keep the corporate structure small and releases resources for product development and design. The MD sees that they have only a couple of customers that have employed the firm in late years. The sales efforts are thought to be unnecessary because the current customers buy everything they can, and there are no new customers in sight. The established market base also frees resources to other functions in the firm. The product quality and reliability in delivery are considered competitive factors, and the MD observes that these factors give advantage to the firm in competition with companies from Far Eastern "cheap-labour countries." The MD sees that their products fulfil the highest quality standards. The price of the raw material is also considered important. The price of the raw material changes over time, and good financial balance creates opportunities to buy raw material in advance, when the prices are lower. Thus, also the timing of buying raw material is considered important.

The MD also mentions the employees as the source of competitive advantage. This MD saw retaining staff over the long term as a goal of the firm. The firm's staff turnover has been quite low, and this is something that the MD is striving to improve further. To do so the MD mentions paying slightly higher salaries than the industry average and creating challenging jobs. There are some development opportunities for the employees in the firm; however, they are not implemented systematically.

**MD9**

The central elements in this cognitive map revolved around the firm's competence and a competent workforce. The MD saw that in their field of business the competition with Far Eastern manufacturers in regard to volume was an idea doomed before its birth, and therefore the competition should be based on the competence of the firm. The MD stated that they should have the undisputed lead on the competence level in the industry. This was possible through the firm's own planning division, which was also quite heavily resourced (10 planners). The MD stated that planning is the core of their business. The MD saw that without the own planning unit the firm could be only subcontractor for other companies. This would increase the risk. The MD stated that they produce products that require certain competence. In the cognitive map the MD had identified the niche for their products (big pieces instead of small ones). The network of other companies helped to answer the customer request. The business network was based on business-based relationships, although some of the

partners had been familiar for a long time. The MD also mentioned the geography and the benefit of having multilingual employees.

Another important factor in the MD's mind-set was the organization. The MD considered it slightly important that the structure of the firm would support mutual respect among the different divisions. In addition, the management system, which included the new production system and quality management, was considered important, even though the MD wanted to avoid unnecessary bureaucracy. The MD had also created a new product manager position that was responsible for quality management and made different production phases and costs visible.

The third factor was the role of the MD himself. He spoke of the new kind of management and different procedures that he had brought with him from the previous workplace. These included strategic thinking and a developmental mind-set. He also brought some procedures, such as conducting follow-up after accidents in the workplaces. The MD considered it important and spoke about the attitude and the well-being of the employees.

The driver for the performance was the growth of the firm in different dimensions. The growth of the major customer (which posed demands on the firm to grow), the growth in the number of customers, the growth in new products, and the growth in the number of sales were all visible in the cognitive map.

### **MD10**

The cognitive map of the MD in case firm 10 revolved around two big clusters. The first cluster focused on the quality of products. The MD stated that the quality of their products was much better compared to the competitors in the field. The MD explained carefully and with detail how the quality of their products is achieved through several factors. The first was that they had a very specific quality tolerance. By this the MD meant that their products are more durable than those of competitors due to the firm's high standards. This is possible because of their specific, unique way (in the industry) of manufacturing the products. The competence to make the product in a unique way is possible because of the unique competences of employees who have worked with similar but different products before. The scope of the product that the employees used to work with was much smaller and required an eye for detail compared to the current product. However, the attitude and mind-set of the employees is still the same. Moreover, the MD saw that the production process itself was based on the quality of the product. The prevailing standard in the industry is to produce

similar products with the price in mind, whereas in the MD's mind the firm's process targeted the highest possible quality of product. Last, also the raw materials for the product were acquired from Western Europe, instead of from the Far East. The MD saw that this also had an effect on the product quality.

The second cluster of elements in the MD's cognitive map was around the sales, more specifically the aggressive sales efforts to international customers. The MD saw that Finnish markets were saturated, and therefore the only option was to export products abroad. The MD saw that agent companies were a way to export products. Finding the right kind of agents was considered especially important. The right kind of agencies were thought to be ones with similar interests to the firm, and the MD felt that the agent companies had to see that it is possible to sell the product and see how it could benefit them. In order to win customer trust, the agents should be near to the end customer and offer the firm's services and products actively. Gaining the trust of the customer was seen as crucial.

The MD also mentioned the quality management system, how it is important that also the partners should have it (due to the evaluation by authorities), and how it affects the reliability of the firm. The MD also spoke of automation and robotization as means to decrease costs and increase profitability. At the end of the interview the MD mentioned that the markets are changing, and due to the tough competition customer buyers are not necessarily interested in the long-term quality, durability, and savings, but instead focus on short-term solutions and cheap prices. This has affected the firm performance a bit in recent years.

### **MD11**

MD11 described the performance of the firm from different angles. He highlighted the long history of the firm and mentioned that credibility within the industry is one of the most important factors that have an effect on the firm's performance. The MD saw that credibility in the geographical area was created through successful cooperation with large customers, risk taking within the network in order to serve customers in a better way, and reliable employees. The risks taken are the MD's responsibility, and the entrepreneurial attitude of the MD is one of the requirements for good performance.

The MD spoke in support of personal relationships, highlighting relationships with different stakeholders. The MD saw that in order to understand institutional changes, good relationships with the different institutions (such as employer union) were important. In addition, personal relationships with other MDs, and especially entrepreneur MDs were considered important, because they helped manage the business environment. The MD stated that, for instance, they had

identified unnecessary competition with other SME firms and rationalized their actions so that the firm is now part of their partner network. These kinds of arrangements benefit both parties of the relationship. Even though the MD spoke a lot about relationships, he was somewhat sceptical of the official partnership model of business.

One big element in the cognitive map of the MD was the need to renew the firm. In order to answer differing and growing customer needs, the firm should adapt new kinds of management practices: quality auditing, management systems, and human resource development processes should be the kinds of practices suitable for a larger firm.

The MD considered customer satisfaction important. However, the MD had identified the risk of having only one large customer and stated that it would be crucial to have multiple customers in order to survive. This would diminish the meaning of one major customer. The MD, however, stated that the customers are important and also that the old customer relationships should be taken care of.

The last element was the employees and the low level of hierarchy in the firm. The MD saw that it was important to know the employees. In addition, the know-how of the shop-floor workers and management's competence related to quality management auditing were considered important. Finally, the MD stated that the firm was well-known within the geographic area, but in order to grow and open new (international) business areas sales skills were valuable.

### **MD12**

The performance was seen as consisting of balanced business units that support each other. When one business unit is not doing well, others patch the opening. Another important factor was that firm should have its own products, even though its main function is to serve customers from a supplier role. Having its own products gives freedom to the firm and decreases the firm's dependence on customers.

In addition, being a reliable supplier was considered as an important success factor. The MD saw that the long history of the firm made it possible to provide a wide variety of products for the customers. The financial balance and liquidity are necessities because the customers are not financing the projects. In order to provide tailored service for the customers, the competence level of the employees is crucial. The MD states that the key talent plays a big role in successful operation. Especially important is the role of production and the people who

manage the production. Competence is needed, for example, in estimation of the required time consumed in different projects.

The MD highlights the role of the firm's relationships with financial institutions and states that their firm's performance is partially tied also to these relationships. The firm is old and has a lot of property and long relationships; therefore, financing is not a problem.

The network plays a big role in the MD's cognitive map. He states that the firm has a double role in their network; they are part of the network, but also a "driver" for the network. The firm is therefore both the supplier in the network and also the main customer for the network. Because the firm provides total solutions, the network partners are necessary to fulfil customer demands.

### **MD13**

The cognitive map of the MD was well structured. The MD divided the most central elements leading to firm success into three different divisions. The first and most important one was the focus on the customers. The second one was the efficient production of the chosen products. The third one was the meaning of the employees to firm performance.

The most important element in the focus on customers is the understanding of the customer and his needs. The MD highlighted the importance of knowing the customers' needs almost even before the customers know what they need. Knowing the business environment the customer works in helps in forecasting future customer needs. Moreover, knowing the core competence of one's own firm helps the firm to maintain its focus and aids choosing the right kind of customers. The knowledge of the firm's own strengths helps to eliminate customers that do not fit in a firm profile. The MD and the whole firm have long lasting relationships with current customers. The profitability of each customer relationship is followed systematically, and accordingly the value of customership is monitored. It helps identifying the key customers. Last, the MD stated that the firm has grown with the customers as the customers have become bigger and required more and better components.

The second important factor in the MD's cognitive map was the employee contribution to success. Recruiting the right kind of employees which fit the firm culture was considered important. This was done through head-hunter services sometimes, but the MD preferred references from someone he knew. The MD saw that competency mapping and development of the key talent in the firm was critical, and the development plan of the key employees was written in a yearly

plan. The “blue collar” development was more closely related to development of the operations. However, the MD saw that it was important to have the right kind of attitude at all levels to fit the firm and fulfil the customers’ needs. He stated that supervisors have a responsibility to be “sensitive” to what is happening at the ground floor and to take action, if needed.

The third important factor in the MD’s cognitive map is the efficiency of production. The MD states that even though customers and employees producing the product are the most important factors, it does not matter if the production of the firm’s products is not organized cost efficiently. Planning well done makes optimization of production processes possible. The processes are actively followed, and they have different metrics, for example the reliability of on-time deliveries.

#### **MD14**

Sales, marketing, and customers were the main topics in the cognitive map of the MD in the case firm 14. The MD mentioned that he made a deliberate change of strategy when he took over the firm. He mentioned rethinking the price of the product and active search for new customers. He sees that right pricing and sales efforts are roads to success. The right price means the maximum price the markets are willing to pay for the products that the firm is producing. Sales efforts are required in order to fulfil one of the firm’s goals, to be the world’s best in their niche. This requires active export to international customers.

In order to be successful in pricing and selling products to customers, the MD stated that the production process should be optimized. This means increased robotics and automation. By increasing the level of automation the number of products made is increased; on the other hand, the number of personnel needed is decreased. This was seen to lead to increased profitability.

Local partners were considered important. The MD saw that partners located in the same geographic area were important. The network of trusted partners is important because sometimes the potential customers can ask for products that the MD’s firm is not producing, but some of the partners in network are. Thus, the MD can sell the job for customers, even though the partner firm actually produces it. The suppliers for the firm, however, are international.

Employees were mentioned, but mainly as instrumental factors that lead to good sales outcomes. The MD mentioned that employees were important but could not specify how. The MD actually stated that he is not very good at employee issues,

and even if employees are important for the performance of the firm, they probably are the topic for another interview.

### **MD15**

The MD's cognitive map could be divided into three important clusters. The MD saw that strategy was the main source of a strongly performing firm. He spoke of the right strategy and the need to find it. In order to have right strategy two dimensions must be fulfilled: market knowledge and identification and development of the firm's own core competences. Market knowledge consisted of knowing the customers and competitors inside the industry. The MD stated that Finnish customers were not enough; the customers must be from abroad also. Thus, internationalization was seen as a prerequisite for performance. In general, knowledge of the key success factors inside the industry was considered important, as was some kind of vision related to the future development of the industry. These all led to good strategy. However, these were not enough by themselves. Having market knowledge makes it possible to match the internal competences to market needs. Competitive price, fast delivery, and quality products were mentioned as competitive factors.

The MD saw that technological competence was critical. In order for technological competence to lead to performance, it required identification of need, making relevant decisions, understanding what is happening, and sharing resources according to decision. Technological competence requires also the competence of the employees. This can be acquired through careful recruiting and by developing employees. The employees also created value for the firm in general. This required motivated and satisfied employees. In order this to happen, the firm participated in the Great Place to Work competition annually. In addition, the MD believed that employees should know the strategic goals of the firm, and accordingly the information flow was considered important. Moreover, the goals should be clear. Trust in the management was also considered an important element.

The general element behind all of the clusters was the explicit focus on diversification. The firm was a market leader in its own area, and in order to stay as a top supplier in Europe, the focus should be on the firm's core competences and developing them, for example by investing in top-tier technology

### **MD16**

The MD's cognitive map revolves around four clusters. The performance of the firm requires constant growth. The firm has grown with the customers in its

history, but also other kind of growth is expected. However, long customer relationships are seen as important factors for performance. These relationships are achieved through the selection process that has happened during the years. Current customers have a similar partnership mind-set as the MD's firm. The deep relationships are a consequence also of personal relationships inside the customer companies.

In order to have satisfied customers, there has been need to grow as the customer demands have risen as the customer companies have grown. This need to grow has forced the firm to develop its capabilities. Through this development the firm has had opportunities to serve new customers. Accordingly, the firm has been very customer driven. The MD states that in order to react to customer needs there has been need to make difficult decisions. Making these decisions required courage, a vision of the future business environment, and a belief in the firm's own business model. These decisions have led to heavy investments and growth of the firm.

Another stream of thought about elements leading to performance is the need for an entrepreneurial mind-set from every employee. The MD has tried to cultivate the family business identity within the firm. The family business identity is shown also in the way owners of the firm also take part in the operative management of the firm. This has an influence on the attitudes of the employees and creates an entrepreneurial culture. Moreover, it leads to commitment to the firm and decreases employee turnover.

The third factor the MD speaks of is the role of a network. The firm has survived long by focusing on the core competence of the business. This includes being an efficient supplier and being logistically smart. The network of the partner companies is not used that much, but the little it is used is important for the customer. Moreover, the MD saw it as positive that there is a geographical cluster of similar companies in the same area. This was thought to have a positive effect on the local area directly and indirectly on the firm as new people move into the area and accordingly become potential workforce.

### **MD17**

Costs were the most significant element in the cognitive map of this MD. The MD saw that the efficiency of the firm led to improved performance. First, efficiency was thought to be acquired through automation. Automation could be improved through new machinery, which would decrease the need for manpower. Second, employee awareness of costs led to efficiency. The MD saw that by making costs visible the employees would understand how costs are formed in the firm more

clearly. In order for this to happen, the MD had organized training for the management board. He aimed to organize training also for lower-level employees. The development of employees was therefore thought to be important.

The MD also stated that activity-based costing would lead to better cost awareness. He stated that different work units in the shop floor had their own places in the activity-based costing system. The office workers were work units by themselves.

### **MD18**

This MD's cognitive map is twofold. The MD states that the firm works in a production-oriented industry and therefore the most important elements leading to good firm performance are related to cutting costs, negotiating cheap raw material prices, and constantly improving products. In the cognitive map these can be seen as the "hard" elements of firm performance. However, the MD also speaks a lot of good management and leadership, flexibility with the employees, trusting employees, and giving responsibilities to employees, and even describes the relationship between the customers and the firm as a relationship between persons. Thus, in the cognitive map these can be seen as the "soft" elements leading to firm performance.

The first element in the MD's cognitive map is the production-oriented firm. This means that the firm strives to have low unit costs and short lead times. Being the forerunner in the industry requires an increase in the level of automation. This requires investments in new machinery and equipment. In order to be the forerunner it is mandatory to continuously develop new products. Thus product planning is required. This means creating technically advantageous products and simultaneously developing new ways to produce products, accordingly decreasing the unit costs in production.

In addition to production, sales and purchasing were considered essential. The sales were divided into business customers and consumer customers. Both were influenced by the good image of the firm. The sales team was responsible for the right kind of pricing, as there were continuously newcomer challengers coming into the markets. The current strategy was to trust in the quality and image of the firm's own products and let competitors offer maybe cheaper prices. The sales team's focus should be on keeping the old customers. The firm has a fairly established customer base, and the MD saw that losing customers would immediately show up in the profitability of the firm. Thus the sales efforts were mainly aimed toward old customers, and there were not aggressive sales efforts

to new customers. The purchasing operation was considered important also, as the nature of the products the firm made was such that raw material formed a great part of the product price. It was important that the supplier of raw material was trusted, and the firm had one main source and some additional sources which provided raw material to the firm. The MD saw that it was important to make long yearly contracts with reasonable prices with the trusted suppliers. The characteristics of a good supplier were reliability, quality of the product, exact delivery times, and reasonable price.

The third big cluster in the cognitive map was the management and leadership of the firm. The MD saw that flexibility of the employees was crucial for the firm performance because there are big seasonal fluctuations in the workload and orders. This could be achieved through the leadership taking a “human approach,” as the MD explained. The MD saw that this was possible through low levels of hierarchy and also the MD’s visibility on the shop floor. Good management also led to low staff turnover, which was considered good because the know-how stays in the firm that way. The low turnover also was a consequence of the firm’s good local image, which in turn led to the ease of recruiting. The MD stated that there was a system of rewards that was considered fair. The salaries were paid on time, there was fair overtime compensation which was above the legal minimum, and all the permanent employees were eligible for the yearly bonus system. The MD supported the training and education of the employees. There were also different well-being activities organized, which were voluntary. The MD saw that the level of participation in these activities also told something about the culture of the firm. In addition of the other workers, the MD specially mentioned his top management team and key persons, whom he could trust and allocate responsibilities to.

The last element of the MD’s cognitive map was the cost control or the follow-up of the costs. The MD described the firm’s cost control with the term “Ostrobothnian tightness.” He explained that efficient billing, purchasing with the right price, and having facilities which were good enough and functional, not excessive, were also required to keep the costs in control.

### **MD19**

The MD’s cognitive map was well structured. The MD divided the firm into the three different business areas, which all required different kinds of performance measurement. The expectations were also different in different areas. The profitability in traditional business area was the most important followed measure. The changes within this business area were seen as incremental. Service business was the newest area, which complimented the traditional business with

different projects. Customer satisfaction, and especially costs, speed, and quality related to it were the most important measures.

The new business area formed another cluster of elements in the MD's cognitive map. The uncertainty of success in the new markets required different performance measures, and the MD saw that following the product development process step-by-step was an important source of performance information. The MD's cognitive map clearly showed the balance between the stable older business area and innovative new business area. The MD mentioned the need to get people motivated not only in the older business area but also simultaneously to develop new and innovative business and this areas employees. Constant improvement was a requirement posed, however, to all business areas.

Customers and the credibility of the brand were considered important. This was seen as important for the recruitment of new key employees, in order to develop new business areas. The human aspect of developing companies was identified, as was the need to keep employees motivated in an environment of constant change.

The MD highlighted the importance of knowledge of the markets. The MD stated that they were responding to the megatrends in the global business environment, and this required clear vision and direction of development. The important factor for the firm's performance was to succeed in the product development process, to turn it into profitable business. The products the MD's firm was producing were high-tech and special products now, but were expected to be possible volume products in the future. Thus, anticipating this change was important.

Partnerships were also mentioned, as was the outsourcing of the non-core competences. Partnerships required risk taking but also could create cost efficiency.

## **MD20**

In the MD's cognitive map there were multiple sources of good performance, flexibility being one of the central elements. The MD listed profitability and credibility as the main elements that comprise performance. In addition, quality and reliable delivery were important, and price was also mentioned. Another basic element that creates the basis for firm performance was stakeholders. Thus relationships with insurance companies, banks, and to a certain extent with municipal authorities assume importance. These stakeholders were considered important because the MD saw that they were sometimes the sources from whom the new (international) customers gathered their knowledge of the firm. In

general, the MD saw that honesty in all actions was important, and keeping promises was as important. The reciprocal trust in relationships was also considered crucial.

To achieve performance, the firm should serve its customers. Flexibility was considered important, and this was achieved not only through the capability to produce smaller sets of products to customers compared to the competitors but also through the network of partner companies. The justification for the use of a partnership network was continuous, long-term performance, which was sometimes achieved at the cost of short-term performance. The network also provided service to the customers because the MD saw that even if the firm could not respond to customer needs it was better that some other firm in the network served the customers, than the customer need being unmet.

The MD considered the employees also as a source of flexibility. There was flexibility in the working hours of the employees, and MD considered this important. The MD mentioned the motivation of the employees as an important factor and saw that through the flexible workforce the customers could be served better. The MD considered the health insurance offered to employees an important benefit for both the firm and the employees. In addition, different kinds of employee activities were mentioned, but the MD stated that the employees organized those by themselves.

### **MD21**

MD21 defined the firm performance through profit. The MD stated that the performance is achieved by buying cheap raw material, having efficient production processes, and receiving the best price from the markets. The MD saw that the price of raw material influences the firm performance and that having the right kind of supplier and enough of them leads to performance. The supplier network was therefore considered important. The MD saw that similarly as his firm was a subcontractor to a larger firm, which forced it to compete against other subcontractors, the suppliers should also compete against each other in order to provide the right price from the markets.

There were many elements in the MD's cognitive map clustered around financial performance. In the cognitive map the profitability of the products was considered important. The MD stated that it was possible and important to calculate the profitability of each product. The raw material formed the majority of the price of the product, but the efficiency and the sales price also influenced the final outcome. Thus, the right kind of pricing was considered important. In

order to know the right price, the minimum production price should be known, and the price of raw material and possible price of subcontractor work paid.

Other elements in the MD's cognitive map were the focus on the core competence, the identification of customer need, and the meaning of good management, taking both leadership and management into account. This meant having the right kind of motivated employees in right kind of places.

## **MD22**

The MD stated that the firm works in a field that is quite highly regulated, meaning that the companies wishing to entry in the markets should fulfil the demanding quality requirements. To acquire certificates is difficult, meaning that there is not that big a threat of new entrants in the field.

The cognitive map of the MD revolved around good customer relationships and detailed follow-up of the costs. Cost accounting was the bedrock for performance. The profit of the different products is followed in a detailed fashion. The MD lists turnover, profit, share of the total sales, and the profit share of the total profit of each of the products, which he follows. The profit and sales numbers of the individual products are considered as indicators of the market preferences. By following these numbers, the firm can renew its product portfolio, and it can be used for scenario planning for the future.

One performance element is international customers. Due to the saturated markets and the cycles of the industry, the international customers are an important means to balance the changes in national demand. Local distributors are important, and the selection of the right kind of distributor is crucial. The right kind of distributor has an already existing customer base in the country and a profile that suits the MD's firm. Other means to answer the changes on the demand were the subcontractor networks and the use of subcontractors.

The MD mentioned automation and machines, but saw that the firm's business cannot be fully automated. This is also an element differentiating the firm from the (larger) competitors. The MD stated that this requires competent employees. Low employee turnover was considered important, and the good work environment was considered as one reason for it.

## Appendix 2. Grouping of the MDs' cognitive maps

Group	MD	Locus of strategic thinking	Performance criteria	1. level themes	2. level themes	3. level themes
<b>Product on- oriented belief</b>	MD6	Process oriented firm, employees are seen important, but through "instrumental" lens	<b>Ultimate:</b> Revenue <b>Instrumental:</b> Effectiveness	Processes in material and production should flow seamlessly Employees are backbone of success	Motivation of employees Flexibility toward customers	Monetary rewards Few big Finnish customers
	MD8	Focus on production of special standardized products	<b>Ultimate:</b> Quality <b>Instrumental:</b> Competence	Standardized products (S) Competent employees (CE) Constant cashflow (CC) One major customer (OMC)	S: CE: Good salaries, low turnover CC: centralization of the raw material acquisition, timing of raw material acquisition	Good finance base creates opportunities to buy bigger and cheaper series in right time in advance, Stabilization of market fluctuations by focusing on standard products and producing some in advance
	MD9	New MD and ownership structure brought new ideas. Through the growth sales figures and volume up	<b>Ultimate:-</b> <b>Instrumental:</b> Competence Differentiation	Hunger for growth Sales Management system	Providing industry leader -level sub-components New customers Quality management	Work safety MD knowledge from previous large firm
	MD18	Balanced view on the factors leading performance. Production the most important	<b>Ultimate:-</b> <b>Instrumental:</b> cost effectiveness	Production (P) Good management (M) Sales and purchasing (S&P)	<b>P:</b> product planning short lead times (SLT) <b>M:</b> HR related practices (HR) <b>S&amp;P:</b> right suppliers (S)	<b>P:</b> low unit cost, technically advantageous new products <b>HR:</b> flexibility of employees, low turnover, image <b>S:</b> raw material price
	MD17	Efficient production	<b>Ultimate:</b> Profit <b>Instrumental:-</b>	Efficiency in production (E)	<b>E:</b> The degree of use of machinery (DUM), Production ability (PA), Collaboration with customers (CC), Internal processes (IP), Cost awareness (CA)	<b>DUM:</b> controlling variety of outputs, employee's capability to use multiple machines, attitudes of employees <b>PA:</b> long-term collaboration, being near with the customers, balance between design and production, discussion with the customers <b>IP:</b> activity-based costing, decrease of lead times, ERP system <b>CA:</b> meetings, LEAN – type of thinking
<b>Customer- oriented belief</b>	MD2	Stability  Moderate growth expectations  Growth with the	<b>Ultimate:</b> Growth Profit <b>Instrumental:</b> Stability	Growth with the customers (GC)  Focus on the service	<b>GC:</b> dynamic networking (DN), explicit focus on the existing customers	<b>DN:</b> creation of own network, direct communication with customer and network members, <b>ES:</b> investments in

	customers	Long-term growth	business (FSB) Stability (S)	(EF), ensuring service (ES), flexible production (FP) <b>FSB:</b> focus on the core competences (FCC), explicit management decision (ED), focus change (FC) <b>S:</b> chemistry between the employees (in addition of competence) (C), Long work contracts (LWC), Internal development (ID)	technology, focus on the being best in the niche <b>FP:</b> suitable machinery, competences and motivation of the employees <b>FCC:</b> transformation from the craft firm to high-tech firm <b>FC:</b> transformation of mental models of the employees <b>C:</b> good management culture, information flow, HR practices <b>LWC:</b> shareholder orientation <b>ID:</b> Lean, growing own employees, clear goals for team leaders
MD3	Customer comes first	<b>Ultimate:</b> - <b>Instrumental:</b> Collaboration	Customer satisfaction Cost efficiency	Long-term partner relationships	SME spirit required from the employees
MD7	Striving forward through innovation. Fighting against larger companies by using flexibility and innovative ideas.	<b>Ultimate:</b> - <b>Instrumental:</b> customer performance	Performance of the customers Structures and processes	Brainstorming process for knowledge transfer and innovation Organization of the work Continuous development	Fast solutions Focus on production Continuous development Reduction on material costs
MD13	Right customers  Competent personnel  Customer cooperation	<b>Ultimate:</b> Firm's continuity Return to the capital  <b>Instrumental:</b> Competitive pricing Lead times Delivery accuracy	Right customers (RC)  Competent personnel (CP)  Organizational operation (OP)	<b>RC:</b> customer knowledge (CN), customer-specific profitability (CPP), technical fit with customer needs (TF) <b>CP:</b> right people (RP), motivation (m) development (D) <b>OO:</b> Key positions (KP), measurement and control (MC), communication, production planning	<b>CN:</b> products, processes, goals, anticipation, delivery chain, customer meetings, continuous process <b>CPP:</b> customer-specific business plan, customer as a profit centre <b>RP:</b> right profile, strategy driven, recruitment practices <b>M:</b> supervisor's situational sensitivity <b>D:</b> strategy driven, development plan, developmental/performance appraisal discussion <b>KP:</b> organizational processes <b>MC:</b> organizational processes
MD16	Constant growth, right kind of customers	<b>Ultimate:</b> growth <b>Instrumental:</b> -	Partnership mind-set, deep partnership	Growth with the help of customers, expanding	Vision for the future, entrepreneurial mind-set, belief in own business model, family

				relations, selection of right customers	customer base, courage to make decisions, focus on the core competence	business identity, network of the companies within the same geographical area
<b>Unique product-s- oriented belief</b>	MD4	Business in regulated area. Market leader in own niche.	<b>Ultimate:- Instrument al:-</b>	Leading the standardization Focus on the specialized products in niche market Being near to the end customer	Participating committees which create standards Active sales organization Specialized product competence	Local distributors Creating awareness through digital marketing Launch of the service and training business
	MD10	Challenger firm in the industry striving toward better profitability through aggressive internationalization. Focus on the product quality, but the markets have turned to appreciate short-term savings and price instead of quality	<b>Ultimate: profitability Instrument al:-</b>	Quality products Experience of the employees Change of strategic direction toward export	Better manufacturing process Product and quality management processes Right international sales agents	Longer durability of the products Co-development with the customers
	MD14	Sales, marketing, and active search for customers for the products	<b>Ultimate: profitability Instrument al: pricing</b>	Right pricing of the product, sales efforts	Cutting costs, efficiency of production,	Automation, robotization, more efficient machinery, local partners
	MD22	Producer of the special products, high entry barriers in the market	<b>Ultimate: Profit Sales numbers Instrument al: -</b>	Management accounting, follow-up of the profit of individual products, local distributors	Strict and detailed management accounting processes, scenario planning	Right distributor profile, certificates, fulfilling quality requirements, partly tailor made products, low employee turnover
<b>Network-orient ed belief</b>	MD5	Small supplier striving upwards in value chain, toward own products	<b>Ultimate: - Instrument al: -</b>	Long customer relationships	Moderate revenue expectations Flexibility toward customers	Long-term perspective
	MD11	MD of the firm with a drive to renew itself. Reliable business partner with long history, now aiming to head for abroad.	<b>Ultimate:- Instrument al:-</b>	Entrepreneurial attitude Credibility of the firm Long customer relationships	Risk taking when needed MD's and management board's decisions Drive to develop firm Identifying risk of having one big customer and searching for new possibilities	Firm renewal Co-creation of new businesses with customers Openness toward employees Long-term perspective
	MD12	Balanced	<b>Ultimate: -</b>	Flexibility,	Good	Competence level of the

		performance between different business units  Active role in the supplier network	<b>Instrumental:</b> Balance between growth and profitability	The variety of special products, Stable firm	financial base, Tailor made solutions to customers, network management	key employees, other factors ensuring the flexibility (liquidity), project management
	MD20	Producer of small sets instead of big large ones	<b>Ultimate:</b> Profitability <b>Instrumental:</b> credibility Cost efficiency	Flexibility, quality, reliability as a supplier, ability to produce small sets of products, aim for long-term performance	Right price for the products, external stakeholders creating stability, network	Flexibility through employees,
	MD21	Buy cheap – produce efficiently – receive best price from market - ideology	<b>Ultimate:</b> Profit <b>Instrumental:</b> -	Good supplier network, profitability of the products	The price of the raw material, the competition against other suppliers	Pricing of the products, knowledge of the production
<b>Radically different belief</b>	MD1	Growth of the firm requires good corporate culture	<b>Ultimate:</b> Growth <b>Instrumental:</b> -	Corporate culture, profitability, growth	Strategy, long history of firm, firm image, recruitment, long employee contracts, openness	Implementation of strategy, good workplace for employees, clear goals, communication, empowerment of employees
	MD15	Right strategy and its good implementation leads to success	<b>Ultimate:</b> Profitability <b>Instrumental:</b> -	Right strategy, implementation of strategy	Market knowledge, development of core competences, knowledge of the customers, knowledge of the strategic goals,	International customers, competence of employees, motivation, openness and information flow, trust in management, investments to technology
	MD19	Innovative technologies to new markets	<b>Ultimate:</b> Profitability <b>Instrumental:</b> -	Creation of a new business area, balancing it with old ones Constant improvement	Turning product development efforts into profitable business	Sustaining and developing a good image in new (and old) markets

## Appendix 3. Background information of the firms

MD	Emil · 2011	Turnover 2011 (1000 EUR)	Average EBIT % 2005 - 2011	Growth 2005 - 2011 %	Overall description of the firm
MD1	88	16.794	17.6	73.1	A provider of integrated calibration solutions
MD2	29	2.886	3.22	-8.5	Contract manufacturer, electronics
MD3	A new firm after a fusio n of three previ ously inde pend ent firms	A total solution provider for mechanical industry	n/a	n/a	A new firm after a fusion of three previously independent firms
MD4	19	3.878	16.2	69.3	A provider of portable lightning solutions
MD5	18	2.615	5.4	-6.7	A manufacturer for sheet metal tools
MD6	83	9.035	2.6	92.8	A subcontractor for automation services
MD7	22	3.593	5.4	7.6	A Manufacturer of stainless steel structures
MD8	77	19.591	5.4	-27.3	A supplier of track applications and undercarriages
MD9	61	16.067	22.68	26.2	A manufacturer of steel structures
MD10	37	4.363	-1.5	20	A manufacturer of conveyor chains
MD11	125	21.673	14.5	143.1	A manufacturer of sheet metal products
MD12	40	4.791	2.6	-28.8	A machine shop focused on machine building
MD13	173	20.239	1.4	2.5	A foundry and machine shop for deliveries of small and medium-sized components
MD14	68	17.318	2.3	-37.4	A machine shop for heavy components and sub-assemblies
MD15	194	31.950	4.2	35.6	A producer of metal components and demanding sub-assemblies
MD16	169	53.044	6.3	29.8	A producer of aluminium profiles
MD17	68	13.411	2.33	-37.4	A machine shop and component supplier
MD18	67	17.173	20.24	92.8	A manufacturer of metal products
MD19	67	13.624	0.1	115.9	A supplier of cooling plants and industrial heat pumps
MD20	58	11.657	9.44	80.3	A machine shop specialized in sub-contracting
MD21	41	13.913	8.88	127.1	A manufacturer of sheet metal products and fabricated metal products
MD22	29	5.482	4.9	36.8	A manufacturer of special products for building industry and lightweight steel structures

## Appendix 4. General information of the MDs interviewed

MD	Gender	Age	Education	Experience	Years in the MD position
MD1	Male	58	PhD. (Engineering)	-	
MD2	Male			Different positions in current firm, latest Production manager	9
MD3	Male	45	Bachelor of Science (Engineering)	Marketing manager, MD in two smaller firms	2
MD4	Male	43	Sales technician, MBA, international trade	MD in another firm	1
MD5	Male	-	Master of Science (Engineering)	Family business, successor of the founder	1
MD6	Male	-	Electrician	Supervisor in another firm; history in the field of industrial automation; founder of the current firm	18
MD7	Male	-	-	Production manager and sales manager in other firm; 20 years' experience in the industry	4
MD8	Male	53	Master of Science (Engineering)	Long history in different positions in different firm in a different industry; latest position factory director	5
MD9	Male	47	Bachelor of Science (Engineering)	20-year experience in the industry; one of the founders of current firm	15
MD10	Male	59	Bachelor of Science (Engineering), MBA	MD in two other firms	3
MD11	Male	54	Bachelor of Science (engineering)	Almost 40-year experience in the same firm (family owned)	
MD12	Male	-	Bachelor of science (Engineering)	Different positions in current firm; planning, sales and marketing	6
MD13	Female	50	Master of Science (Marketing)	International career in B-to-C business; member of the focal firm's board; chairman of the board since 2003 (member of the owner family)	1
MD14	Male	46	Master of Science (Engineering)	Production planning, management and quality expert positions in previous firms	4
MD15	Male	-	Master of Science (Engineering)	Sales manager in other firm; export director abroad; business area director	8
MD16	Male	55	Master of Science (Construction engineering)	Technical sales and sales management in other firms; marketing manager in the focal firm	5
MD17	Male	-	-	Factory director in a two different large firms	2
MD18	Male	32	Master of Science (econ. & bus. admin)	Experience from the current firm in different positions	4
MD19	Male	42	Master of Science (Engineering)	Project manager in the current firm	7
MD20	Male	-	Vocational (engineering), Different courses during career in large company	Over 20 years in technology industry, founder of the current firm	19
MD21	Male	31	Vocational (Engineering)	Experience from the current firm in different positions	5
MD22	Male	63	Bachelor of Science (Engineering)	Assembly manager, business unit director, managing director in current firm	17