

Success factors of Nordic manufacturing companies – Manufacturing for the future

- A multiple case study of the manufacturing industry

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Master's Thesis Technology Management - Nr 254/2013
ISSN 1651-0100
ISRN LUTVDG/TVTM--13/5254--/SE

Tryckeriet i E-huset, Lund 2013
Printed in Sweden

Abstract

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- Issue of Study:** To be a well performing company over time, profitability and growth are considered the key strategic value drivers. Swedish and Finnish manufacturing companies are using different strategies to handle this challenge and some are performing better than others. In a world of globalization it is essential for the companies to remain competitive.
- Purpose:** The purpose of this study is to identify strategies indicating why some companies within the manufacturing industry in Sweden and Finland are performing better than others.
- Method:** A multiple case study of a number of manufacturing Swedish and Finnish manufacturing companies has been made. The study has been conducted through four hypotheses, created from a theoretical framework. The gathered data that has been analyzed has been formed through qualitative interviews.
- Conclusion:** The conclusion of this study is that two strategies are more focused on in the better performing companies. These factors are; focus on profitability ahead of growth and focus on core competencies.
- Key words:** Strategy, Manufacturing Companies, Success Factors, Growth, Profitability, Manufacturing

Acknowledgements

This study is the outcome of the master's program Technology Management at Lund University, with support from Triathlon Consulting Group. We would hereby like to show our appreciation to all of you who have supported and inspired us during the work with this study.

We would like to thank our supervisors at Lund University; Håkan Jankensgård and Andreas Larsson for all your support, relevant feedback and inspiration. Thanks also to our supervisors at Triathlon Consulting Group; Fredrik Wadsten, Fredrik Samuelsson and Ken Leong for all discussions, ideas and inputs to this study.

A special thanks to all companies representatives participating in the survey, interviews and complementary questioning, for sharing your experiences and knowledge with us.

Finally, we would like to thank the employees at Triathlon Consulting Group who participated and helped us throughout this master's thesis.

Göteborg, May 2013

Anders Moldén & Christoffer Haraldsson

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1 Introduction

This section will provide the reader background information that will explain why the topic is of interest. This is followed by a part regarding the issues, where the creation of the purpose is described. The issue is followed by the purpose and the chapter ends with an explanation of relevant limitations.

1.1 Background

In the 1870s Sweden was one of the poorest countries in the world. 100 years later, in the 1970s, Sweden had transformed and was now one of the richest countries in the world. (Kokko, 2012) There have been many suggestions on how to explain the success of the Nordic countries. One of them, Ahlström (1992, 1993), is arguing that the reason for the innovation and entrepreneurship in Sweden was due to the great collaboration between the industry, the government and the technical institutions.

The manufacturing industry is the industry producing goods for use or sale (Abbott, 2002). Some of the Nordic manufacturing companies, e.g. SKF and Kone, have been running their business for over 100 years. These companies are growing and are becoming more profitable, year by year (Annual Report, 2012). No wonder there is an interest of what is the secret behind the Nordic manufacturing companies' great success over the years.

Even though some of the Nordic manufacturing companies are world leading within their industry, they are all constantly facing an even tougher competition. With an increasing level of globalization, the Nordic companies are not only competing with each other or the European companies, but with companies worldwide. While competing worldwide, every little change can make a huge impact on the competitive advantages. (Martinez, Bastl, Kingston, & Evans, 2009)

Some of the largest Nordic companies are in the manufacturing industry; in 2010 more than 15 % of the Swedish GDP and more than 19 % of the Finnish GDP came from the manufacturing industry. This is higher than the other Nordic countries Denmark and Norway; with 9 % respective 12 % of the GDPs coming from the manufacturing industry (The World Bank, 2012).

To perform high profitability and growth over time is both a challenge and the target for all companies (Koller, Goedhart, & Wessels, 1990). However, the strategies to accomplish these objectives differ between all Swedish and Finnish companies (Annual Reports, 2012). The profit over time also differs and even though there are innumerable growth strategies and profitability strategies available, there is no all-

round strategic solution to be applied by the top management for increased performance.

Recent quantitative studies have been conducted within the field, i.e. a study of small- and mid-sized, 10-250 employees, Swedish and Australian companies (Davidsson, Steffens, & Fitzsimmons, 2009). The study compared companies with high profitability and low growth; and companies with low profitability and high growth. However, this study has conducted qualitative strategic data through interviews from the largest Swedish and Finnish manufacturing companies.

1.2 Issues

The more developed Western world has historically mainly faced threats from the less developed countries in labor-intensive industries (Barney & Hesterly, 2008). Today the manufacturing companies in the Western world are facing tough competition, due to the expansion of low cost manufacturer from less developed countries, according to recent studies. This has resulted in decreased profitability and greater challenges to stay competitive. (Martinez, Bastl, Kingston, & Evans, 2009)

What is said to be the key to success has come and gone over the years. During 1950-1980 there was a strong diversity trend, where companies stretched out over many different product markets. The tendency is obvious when studying Table 1 below. (Rumelt, 1982)

Table 1: Changes in the Diversification Strategies of the Fortune 500, 1949-74. Source: (Rumelt, 1982)

	1949	1954	1959	1964	1969	1974
	%	%	%	%	%	%
Single-business companies	42,0	34,1	23,0	21,5	14,8	14,4
Vertically integrated companies	12,8	12,2	12,5	14,0	12,3	12,4
Dominant-business companies	15,4	17,4	18,4	18,4	12,8	10,2
Related-business companies	25,7	31,6	38,8	37,3	41,4	42,3
Unrelated-business companies	4,1	4,7	7,3	8,8	18,7	20,7
	100,0	100,0	100,0	100,0	100,0	100,0

Reasons behind this strong move towards diversifying were e.g. growth and risk. The company managers' power, status and financial benefits, were closely linked to the company's size, which resulted in a clear focus on growth (Marris, 1964). The companies also believed in the spreading of risk when depending on its businesses different cash flows, which intended to be uncorrelated (Brealey & Myers, 2009).

During the 1980s and 1990s this trend changed to the opposite and focusing on core and profitability became essential. This change was due to e.g. strong pressure from the financial markets and shareholders, who did not believe the management worked with the owners' best interest at heart (Week, Business, 2000). Criticism also

rose towards companies work with risk reduction through diversification. The shareholders could easily themselves diversify by owning different stocks, which also resulted in a lower transaction cost (Brealey & Myers, 2009).

It is obvious that trends and arguments regarding how companies should maximize the value have come and gone over the years and the debate seems to circle around growth and profitability. New competitors are constantly entering the market and financial crisis are changing the competitive landscape (Ahuja, 2011). But still, some of the Nordic manufacturing companies have been able to stay profitable and hold a grip as market leading for over 100 years (Annual Report, 2012). Considering that a majority of the bigger manufacturing companies in the Nordic region is from Sweden or Finland, it is appropriate to focus on these two countries (NASDAQ OMX, 2012). Previous studies have identified the benefits of focusing on profitability, based on a quantitative study on small companies (Davidsson, Steffens, & Fitzsimmons, 2009). However, the supply of studies investigating profitability and growth through a qualitative study on large manufacturing companies is sparse. It all comes down to the question of how they manage to stay competitive and deliver value, year after year.

What strategies that will contribute most to the profit are an ongoing topic within all organizations and especially at top management level (Ahuja, 2011). This study has been conducted to indicate what strategies that might contribute most to the profit within manufacturing companies in Sweden and Finland.

1.3 Purpose

The purpose of this study is to identify strategies indicating why some companies within the manufacturing industry in Sweden and Finland are performing better than others.

1.4 Company background

This study has been conducted in cooperation with Triathlon Consulting Group, a management consultancy firm mainly working within technology intensive industries with large to medium size companies. Triathlon offer consultancy services in four areas of practice; Product & Innovation, Sales & Aftermarket, Supply Chain and Finance & IT, which all includes strategy, operations and finance. Triathlon has about 40 employees and its headquarter is located in Gothenburg, Sweden. This study is within the area of Finance & IT.

1.5 Target Group

The target group of this study was Swedish and Finnish manufacturing companies. For CFOs in manufacturing companies the conclusion and this material can be used as guidance and basic data in decision-making.

1.6 Disposition

The study will follow with the methodological approach, which explains the decisions that have been made in this study. Thereafter follows relevant theories, which end up in the chosen theoretical framework. This framework was then used to create a number of hypotheses that should be tested. The progress then continued with the empirical findings, where the relevant companies were selected and the gathered data was treated. This follows an analysis with a wider discussion afterwards. At last, the purpose of the study is answered in the presentation of the conclusions.

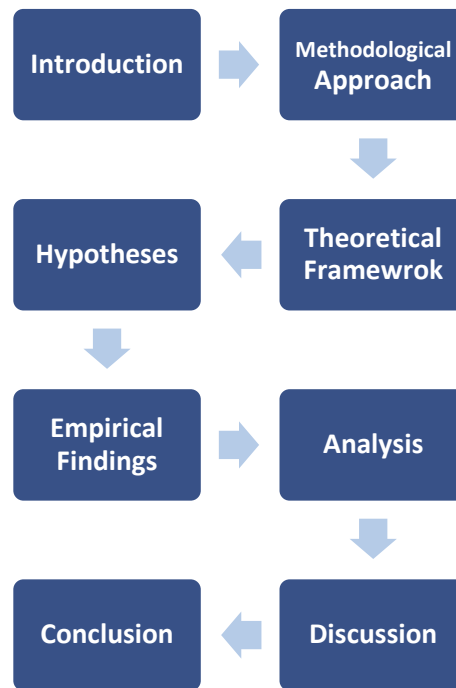


Figure 1 Disposition of the study

1.7 Limitations

The focus on this study has only been on Swedish and Finnish manufacturing companies, within the manufacturing industry. They are all listed on the Swedish and Finnish stock exchange, Large Cap and Mid Cap. A turnover criterion of at least 5 billion SEK annually has also been defined. A target number of ten companies were set, due to the time frame and to be able to get a relative deep understanding. For the same reason were only one or two representatives from each company interviewed, which also imply that the company representatives have had different positions within its company.

The survey was intended to be a complementary to the interviews and therefor a great sample was not aimed for.

The three overall value drivers are growth, profitability and WACC. Considering the scope of the study and that the fundamental principles of value creation is growth

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and profitability, a further explanation of the different components included in the WACC have not been discussed. (Koller, Goedhart, & Wessels, 1990).

To be able to compare the different companies, the fact that they are working in different sub-industries has not taken into consideration.

2 Methodological approach

This section describes the methodological approach of the study. Research strategy, the multiple case study and how it has been analyzed, are elaborated. The importance of the interviews is emphasized and the interviewees are presented. Each approach the authors have chosen are explained and motivated. The chapter ends with a discussion regarding reliability and viability of the study, from a critical perspective.

2.1 Research design

An important decision when setting up the methodological approach is to decide if the data will be gathered by a deductive or an inductive approach. The difference is that if choosing the deductive approach, the authors are, based on studied predetermined theories, creating hypotheses that they are testing when collecting empirical data. The disadvantage with the deductive approach is that the limitations of areas being studied can result in missing vital parts. The inductive approach however, is more explorative, where the authors are studying the reality and including theories they find relevant. When using this approach the amount of theories needed are difficult to decide and this approach is mostly used when authors have the ambition to present a new theory. (Jacobsen, 2002)

This study has mainly used the deductive approach, but with some element of an inductive approach as well. The reason is that the authors have wanted to decide what to look for through hypotheses, but at the same time be able to add and expand their theoretical framework, if discovering something of interest.

2.1.1 Qualitative and quantitative data

When deciding what kind of data to use, there are two different types to consider: quantitative or qualitative.

Quantitative data is characterized by being measurable, e.g. gathered by surveys, where the respondent has specific options to choose from. The result can be used to generate e.g. mathematical models (Bryman A. , 1997).

Qualitative data is, in contrary to quantitative data, often gathered by personal interviews, where the observer is taking an active role and the questions are broad and discussable. The data is attempted to result in a deeper understanding and is also non-measurable (Bryman A. , 1997).

To obtain a deep understanding of the possibly vital strategies within the industry the authors have used and analyzed both qualitative and quantitative data. The qualitative data has enabled the authors the deep understanding that has been necessary to fulfill the purpose of the study. The quantitative data has been useful to find patterns and draw conclusions. Given the time frame the authors decided to use both, even though focusing on i.e. quantitative data only could imply a greater sample. However, the authors decided it would be beneficial to include qualitative data, but still keeping in mind the fact that the statistical reliability of the answers could be uncertain (Jacobsen, 2002).

2.1.2 Case study

How to choose the appropriate and most relevant research strategy can be decided by examining three conditions; the form of the research question, the control the interviewers are able to have and whether the focus is on recent or historical events. Given the research question regards “how” and “why” issues, the case study has been widely used as the preferred research strategy. Two major elements of the case study are observation and interviews with people with knowledge about a specific organization and experiences from a certain event. Quantitative data been gathered as a complement to the case study, in an attempt to strengthen hypotheses and potential findings. An alternative could have been historical research as a research strategy. This would however probably been insufficient when it comes to late events, e.g. external changes in the world economy or internal changes, like new strategies. (Yin, 2003)

Significant for case studies are that theories are treated before the gathering of data is made (Yin, 2003). The reason is to create a hypothetical framework, where thoroughly explanations about why relevant events or thoughts have taken place, also called blueprint for the report (Sutton & Staw, 1995). This allowed the author to decide what data to collect and how to make analytical generalizations, which is the part where the gathered data is being compared with the relevant studies.

There are some common criticisms towards the use of case study as a research strategy. One criticism is that it is rarely following systematic procedures, where the users are, conscious or not, influencing the data and are able to choose whether or not to include some findings that are not suitable for the report. Further on, the research strategy has received criticism of not being suitable to generalizing findings to a greater population. However, in the case study’s defense, the goal is not to make statistical generalizations, instead it is to make analytical generalizations based on multiple sources of evidence. (Yin, 2003)

Even if the studied companies are manufacturing companies within the manufacturing industry, the variation of what products or services each company is

offering is still great. They are therefore vulnerable or profitable in different situations and for different reasons. With that in mind, the authors decided to create this report based on multiple case studies instead of a single case study. This made the study less vulnerable and the findings more likely to be generalized (Yin, 2003). The chosen numbers of cases for the authors to study has been determined by the use of three different 2x2 matrixes, where the companies that follow the same pattern have been studied. This process is further presented in Chapter 2.1.2.1 Case selection. The number of cases has also been dependent on the interest of the companies to participate in the study. If the interest from a specific company is low, the authors decided to exclude it from the study in order to assure the quality of the gathered data.

This report has therefor used the multi case study as the chosen research strategy, which has been the most important source of information gathering.

2.1.2.1 Case selection

Only Swedish and Finnish manufacturing companies within the manufacturing industry and listed on OMX Nordic Large and Medium Cap were included in the study. A detailed list of the companies is presented in Appendix III. The target was to evaluate and interview 8 - 10 of the relevant companies. Fewer than 10 could result in too limited data to analyze in order to make reasonable conclusions. Too great number of companies involved could result in lack of in-depth knowledge and understanding.

To be able to decide which 10 companies to include, three 2x2 matrixes were created, which are presented in Chapter 5.3 The Performance Matrix. In the first matrix, the companies were plotted based on their performance in regards of Return on Invested Capital (ROIC) and Growth. The second one was based on Return on Equity (ROE) and growth and the third was based on Return on Asset (ROA) and growth. The time span was for all three the last ten years. The use of three matrixes can be considered a sensitivity analysis, where a relationship between the companies was desirable, in order to prove and strengthen the chosen breakdown. The companies that did not follow the pattern where excluded from the study. This allowed the authors to distinguish a number of high performing companies as well as a number of low performing companies, no matter if the variables were ROIC, ROA or ROE. The reason for this was to enable an identification of what have been the success factors for the high performing companies within the manufacturing industry in Sweden and Finland.

2.2 Theoretical framework

A theoretical framework was created based on extensive theoretical research, which is being presented in Chapter 3.8 Theoretical Framework. The primary theories that have been used are theories centering on value drivers for a company. Focus has been on growth and profitability, as those are the fundamental principles of value creation of a company (Koller, Goedhart, & Wessels, 1990). This is being illustrated in Figure 2 Value Tree - Focus: Growth and Profitability below. Further used theories are explained in Chapter 3 Theoretical framework, where the complete theoretical framework of this study is being presented. As presented earlier in this chapter, this study has used a deductive approach, but has had features of an inductive approach, where the theoretical framework has been expandable.

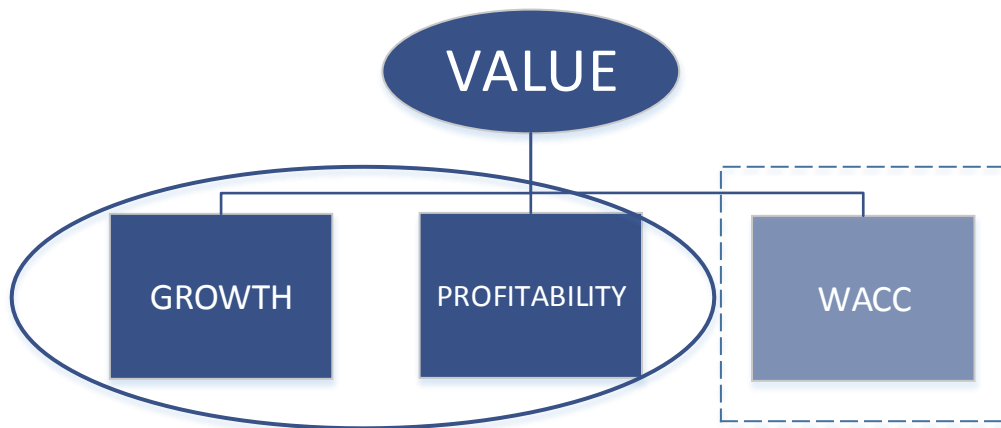


Figure 2 Value Tree - Focus: Growth and Profitability

2.3 Research process and method

The method for this study has been divided into three parts. The first part includes an explorative study, where relevant knowledge and background information have been collected, which involved data collection to some extent. The next step, the data collection, is where the interviews and the surveys have been conducted. In the final step the data has been analyzed and conclusions have been drawn.

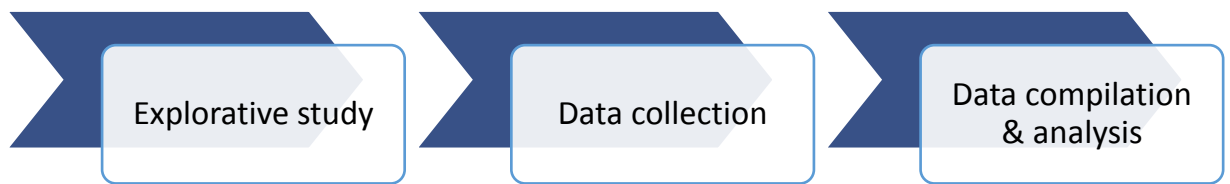


Figure 3 Research process

2.3.1 Explorative study

The first part of the study was an explorative study. The authors needed to understand the manufacturing industry in the Nordic region, its different players, its capabilities and its challenges. The knowledge was received by secondary data, i.e. literature and articles. As a complement, discussions with the members of ISEA Sweden have been held, in order to get a better understanding. ISEA, Industry Senior Advisors, is an organization consisting of a number of executives and experts in late stage of their careers (ISEA, 2013). To be able to create the theoretical framework, data gathering was necessary. Once the theoretical framework was created, the authors created a number of hypotheses that helped allowing the next part, the data collection, as focused as possible. The hypotheses are presented in Chapter 4 Elaboration of hypotheses. Further data collection was then necessary; in order to distinguish which company that would be suitable to include, which are described in Chapter 2.1.2.1 Case selection. With the use of the created hypotheses and the chosen companies, the authors intended to find reasons why some companies are performing better than others.

2.3.2 Data collection

The next step was the collection of data, gathered by interviews and surveys. The use of both interviews and surveys has made the study both qualitative and quantitative, as an attempt to get a result that reflects the reality as much as possible. The chosen companies are illustrated in Chapter 5.3.3.2 Target Companies.

The survey was inspired by the theoretical research that had been made. The responses from the survey were then analyzed together with the responses from the interviews. An analysis was also made of each company's cost pattern, based on a hypothesis that was created. The cost pattern describes how much each company has spent on e.g. R&D, sales etc., as a ratio of total costs. The intention was to identify variation on how each company spend their money and the data was collected from the companies' annual reports and financial databases.

The approach to get in contact with suitable interviewees was varying. In some cases, a first contact was established by encounter during career fairs, i.e. CHARM in Gothenburg. For others, the information desk at the headquarters was contacted or direct e-mails or phone calls to desirable company representatives were made. The authors also used Technology Management's alumni network, to reach a suitable interviewees fast.

2.3.2.1 Generation of survey questions

The generating of questions for the surveys was based on the findings from the literature studies and was further developed by brainstorming sessions. The survey, see Appendix II – Survey, was created for the gathering of quantitative data. The chosen sample consisted of Swedish and Finish companies, listed on Large Cap and Mid Cap within the manufacturing industry. The received result was, because of its quantitative nature, able to be compared and differences could be identified (Bryman & Bell, 2007).

When creating the questions, it was important for the authors to consider how the questions would be understood (Bryman & Bell, 2007). This was essential when the result should be able to be analyzed and compared. The authors therefor had to consider what kind of factors that could have impact on the result. Because of that, a decision that the survey should be structured was made. In other words, the survey was created to consist of predefined answers for the interviewee to choose from. (Halvorsen, 1992). According to Halvorsen (1992) there are a number of benefits with asking structured questions:

- The questions are more specific
- The time for the interviewee to respond is minimized
- The possibility to compare different interviewees' answers is increased

The chosen companies for the survey were sent a web-based survey after initial contact by phone or by e-mail. This first contact was made to increase the chance of receiving respond and to inform them about the background of the survey. The authors also offered to perform the survey by phone, efforts that would decrease

the risk of low respondent rate (Bryman & Bell, 2007). Only one person per company was intended to answer the survey, but to increase the chances of response, the survey in some cases was sent to two or more persons. The reason for using a web-based survey was that it is the most efficient in terms of time. The authors did not have to spend time on travelling to hand out surveys. It is also beneficial for the interviewee, who has time to look up information (Czaja & Balir, 2005). The aim was to reach company representatives with strategic insight in the whole organization on a high level. If the requested person could not be reached, the authors tried to get in contact with someone with similar responsibilities and insight of the operation. The prioritize was the same as for the interviews, which is being described in Chapter 2.3.2.4 Choice of representatives.

2.3.2.2 Generation of interview questions

Based on the created theoretical framework were a number of hypotheses created, which are further explained in Chapter 4 Elaboration of hypotheses. The interview questions were then created based on those hypotheses. To be able to get a better insight and a deeper understanding the authors had 10 interviews. The interviews served as qualitative data gathering, presented in Chapter 5.5.2 Interview Summaries and the interviews were held at each company's office or in some cases by phone.

Interviews can be held in different manners. One of them is called semi-structured and as the name indicates, the questions are asked in a more open manner. The interviewer does not want to put words in to the interviewee's mouth; instead the interviewee should explain it with its own words. These kinds of interviews often tend to be more relaxed, more of a dialog between two persons. On the contrary, these kinds of interviews tend to take longer time than e.g. a survey to perform. (Halvorsen, 1992)

The method of using semi-structured questions has, according to Halvorsen (1992), the following benefits:

- Misunderstanding and hidden facts might be discovered
- The risk of misleading the interviewee and therefore not revealing the correct information is reduced

An alternative to the semi-structured approach is the structured approach, which is more direct, asked in the same manner and often takes form as a survey (Halvorsen, 1992). The authors have, based on these benefits, decided to perform a survey in order to support the answers from the interviews and by that also obtain a qualitative result and a better understanding.

2.3.2.3 Improving questions

As soon as a draft of questions for the interviews and the surveys was finished the authors performed a pre-study with members of Manufacturing Senior Advisors, (ISEA) who helped to improve the questions further. The experience of the ISEA group members made the authors realize what was realistic to ask e.g. a CFO without making them spend time to search for information in company records. To assure the quality, the authors decided to perform a pre-study with a chosen company, Alfa Laval in Lund. The pre-study lasted for about one hour, which was a bit longer than the following interviews. The reason was to give the authors deeper and valuable knowledge of the industry and better understanding of how interviewees might respond to the questions. The goal was to give the authors the best possible background information and to be as prepared as possible before the following interviews.

2.3.2.4 Choice of representatives

The target was to evaluate and interview 10 to 12 companies. Given the scope of the report, the aim was to reach persons on as high positions and strategic insight as possible. Because persons on these positions have limited time to participate in surveys and interviews, the authors contacted a number of persons on different levels in each company, fully aware of that the strategic insight could differ. The main objective was to interview each company's group CFO. Next in line was a division CFO and third in line was a business controller or someone from investor relations.

In total the authors held 10 interviews, mostly in person at each companies headquarter, but in some cases over the phone. Company representatives that have been interviewed are presented In Table 2 below.

Table 2 Interviewed company representatives

Name	Position	Company
Karin Larsson	Investor Relations	Atlas Copco
Karin Wallström	Group Communication & IR Director	Gunnebo
Arne Hermansson	Managing Director, Finance Manager	Alfa Laval
Jens Richter	General Manager, Product Group PHE, Operations	Alfa Laval
Bo Junebrink	Business Controller, Business development & control	Scania
Klas Håkansson	Manager, Business Strategy & Product Portfolio Management	Saab
Jan Frykhammar	Executive Vice President, CFO	Ericsson
Tore Bertilsson	Executive Vice President, CFO	SKF
Andreas Burman	CFO, Sandvik Materials Technology	Sandvik
Lena Anglenius	Business Controller, Infrastructure division	Uponor

2.3.3 Data compilation & analysis

The first part, where the companies were divided in to high- and low performing areas (see Chapter 5.3 The Performance Matrix), was made by public data from annual reports and online databases. This secondary data did not need any further analysis and resulted in a distinction of which companies to contact for interviews, considering only high- or low performing companies were relevant for the study. As soon as the authors had compiled the interview material from each company representative, they sent the interviewee a summary to verify. This allowed the company representatives to clarify any potential issues and also made the gathered data for the analysis trustworthy.

To be able to analyze the theory combined with the data received by the interviews, a number of hypotheses were developed. These hypotheses, presented in Chapter 4 Elaboration of hypotheses, are based on the relevant theories that have been

studied. Each hypothesis has then been tested against the data collected from the survey and the interviews, as being illustrated in Figure 4 The Process below.

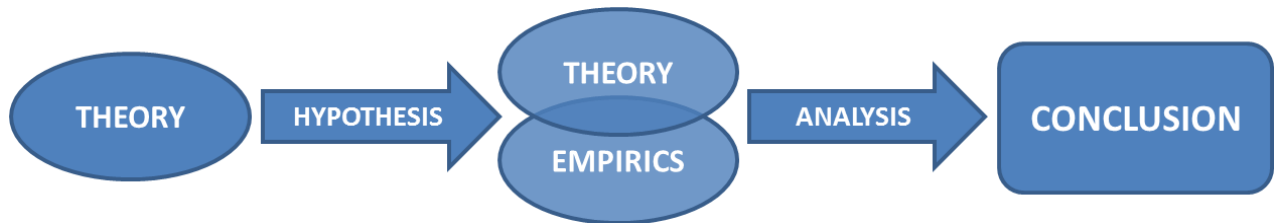


Figure 4 The Process of the Study

2.4 Creditability and quality criteria

To be able to draw conclusions from the interviews and surveys, the quality of the gathered empirical data needs to be secured. This is preferably done by evaluation of different quality criteria. Based on the design of this study, validity and reliability are the most relevant quality criteria for the authors to consider.

2.4.1 Validity

The validity as quality criteria, aims to determine if the chosen method is really measuring what it should measure (Jacobsen, 2002). What is important is that the result reflects the situation on a large scale, even though the number of companies involved is limited. Four important variations of validity are:

- Internal
- External
- Construct
- Content

Internal validity concerns how well the findings are aligned with the theoretical framework. In other words, internal validity discusses if a reasonable cause-effect relationship is reached (Scandura & Williams, 2000). Considering the scope of the study and the number of companies involved, an initial critical factor has been how to distinguish which companies that are high- or low performing. A second challenge was to create relevant hypotheses that should be tested during the interviews. To assure the relevance, the authors made a thorough research of prior studies within the field. Given the thoroughness, the internal validity is considered as relatively high.

External validity characterizes the possibility to generalize the findings to the whole, or another, population (Scandura & Williams, 2000). For the target companies there are great differences, e.g. in manufacturing process, capital requirement and what kind of product that is being offered (Samuelsson, 2013). However, the created hypotheses have been chosen with that in mind and they are therefore addressed to a high level of the companies where the actual product or service the company is offering is less important. Further on, the choice of multiple cases instead of a single case study supports the external validity even more (Yin, 2003). Because of that, the external validity is considered to be high for large and medium size manufacturing companies in Sweden and Finland because of their similarity, but likely less valid for foreign companies, especially within another industry.

Construct validity evaluates to what extent different methods used by the authors represent the initial ideas and theories (Scandura & Williams, 2000).

Content validity treats how well the measures are relevant and representative, and how exhaustive the research is. In other words, content validity concerns if all relevant aspects have been taken into consideration (Haynes, Richard, & Kubany, 1995). Considering the wide scope of the study and the limited time, it is impossible to cover every single possibility for the companies' success. But to make the research as exhaustive as possible, a great number of articles and studies have been reviewed, which imply that the content validity is relatively high.

2.4.2 Reliability

A result is reliable, i.e. trustworthy, if performing the same process over and over again and receiving the same result (Cepeda G., 2005). To what extent a result is reliable or not, depends on the beholder, but to make the study reliable, the authors considered the degree of reliability both in terms of internal and external factors (Bryman & Bell, 2007). Internal reliability depends on the number of observers and whether they agree or not. External factors of reliability are if the same result would be achieved if e.g. interviewing other representatives from chosen companies.

The internal reliability has been assured in greatest possible degree considering both authors has been present during all interviews. The answers have then been discussed to make sure that no one interpreted the responds from the different company representatives. To minimize the risk have the authors after each held interview discussed the answers thoroughly in order to avoid misunderstandings. The authors are, based on this, in the belief that the internal reliability is strong.

When considering the external reliability there is always risks that company representatives interpret the questions from the authors in different ways. This risk is difficult to eliminate completely. To minimize this risk of misunderstanding have

the authors after discussing and analyzing the answers sent the representative a short summary to accept or disapprove. Therefore it is likely that even the external reliability is strong.

2.5 Criticism of the sources

Given the time frame and that the authors wanted to reach a certain level of understanding, the constrained time frame did not allow any further interviews, which could have improved the gathered data. There is a risk that personal values and opinions are reflecting the answers, when having only one or in some cases two interviews per company. The companies are in different sub-industries, which could imply fluctuations of the responses. The authors have been aware of this issue but decided that with the purpose in mind, it would be better to perform a multiple case study instead of a single case study. Interviewing representatives exclusively on the same position in each company could have improved the study further, which however was difficult to achieve within the time period.

3 Theoretical framework

In this chapter relevant theories are presented with a focus on value, what it is and how it is being created. The two major parts of the value creation theory are profitability and growth, which are being presented thoroughly. Further relevant theories that are needed in order to reach the purpose of the study are e.g. flexibility, core competence and servitization. The chapter ends with an illustration of the theoretical framework of this study.

3.1 Value

“Price is what you pay. Value is what you get.” - Warren Buffet

The term *value* plays a great role in a market economy. Value is a performance measurement of companies and is commonly accepted because it serves all stakeholders, not only the shareholders. Another performance measurement is employer satisfaction, which could give indications of how the company is performing, but it would undoubtedly alone satisfy the shareholders. The shareholders are investing in companies with the hope and expectation that the value of the shares will increase to a price level where they have been compensated for the risk. (Koller, Goedhart, & Wessels, 1990)

Value is created when companies generate future cash flows from shareholders' invested capital to a greater rate of return than the cost of capital. The cost of capital, which is often referred to as Weighted Average Cost of Capital (WACC), is a rate the shareholders at least are expecting to receive when the company is using their capital. There is, in other words, an important connection between cash flow and cost of capital. (Koller, Goedhart, & Wessels, 1990)

If accepting that value is created when future cash flows exceeds the cost of capital, it is logical to try to identify what is behind cash flow, e.g. what drives cash flow. The two fundamental drivers are company margins and revenue growth. The relationship is illustrated in Figure 5 Value Creation Source:. (Koller, Goedhart, & Wessels, 1990)

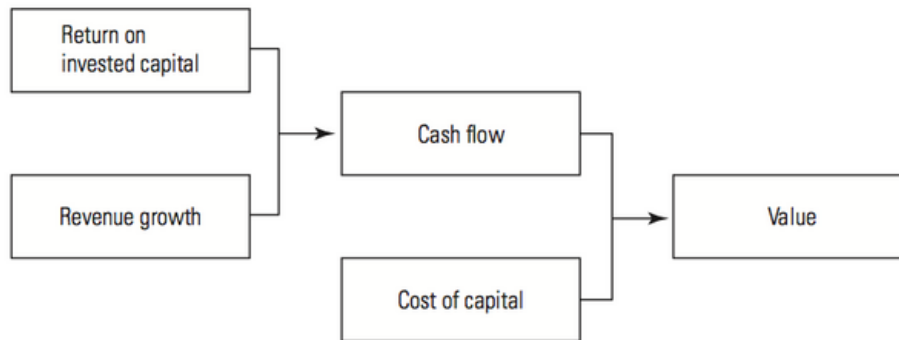


Figure 5 Value Creation Source: (Koller, Goedhart, & Wessels, 1990)

3.1.1 Value Drivers

There is no standard definition of value drivers and the drivers might differ between company to company, but the value drivers are supposed to refer to what creates value within a company. An innumerable numbers of business decisions are continuously taken by managers and staff at every level of a business. The sum of the outcomes of the decisions is the value that the company creates. To ensure that a company's strong growth and return on invested capital are sustainable, the company needs to ensure that all decisions made are consistent with its short-, medium- and long-term objectives, see Figure 6 Value Creation Tree . (Koller, Goedhart, & Wessels, 1990)

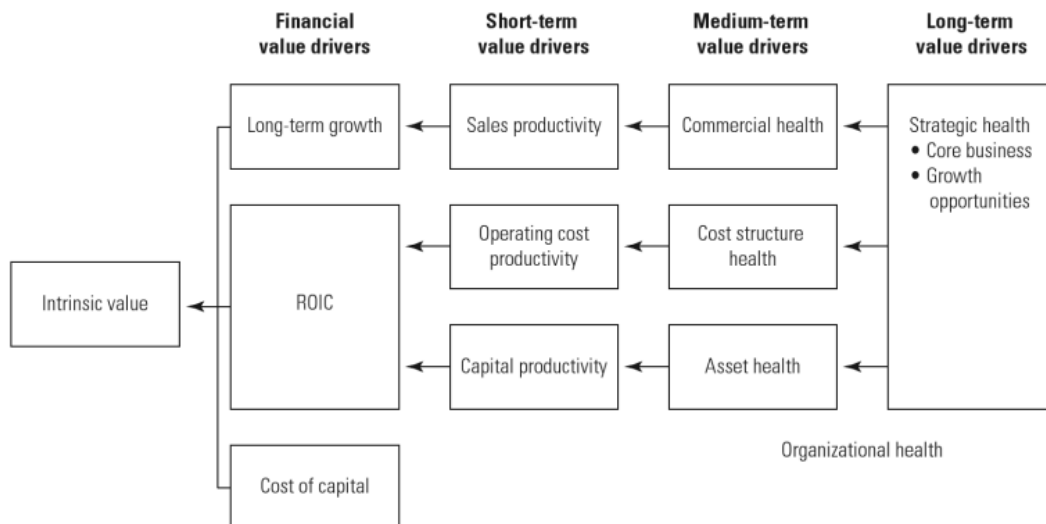


Figure 6 Value Creation Tree (Koller, Goedhart, & Wessels, 1990)

The short-term value drivers are normally the easiest to quantify and frequently monitor. Whether the current growth and return on invested capital can be sustained and will improve or decline over the short time, are indicated by these drivers. The short-term value driver can be segmented into; Sales productivity, Operating Cost Productivity and Capital Productivity. The effect of forces that are outside management's control needs to be separated; for example real estate executives should not be encourage for higher profit due to increased real estate prices. (Koller, Goedhart, & Wessels, 1990)

Whether a company can maintain and improve its growth and return on invested capital over the next one to five years are indicate by the medium-term value drivers. The medium-term metrics are typically measured over a longer time and may be harder to quantify than the short-term metrics. These are segmented into three categories; Commercial Health, Cost Structure Health and Asset Health. (Koller, Goedhart, & Wessels, 1990)

Long-term metrics indicate the ability to remain high return on investment and strong growth by identifying and exploiting new growth areas and return on invested capital. New technologies, changes in customer preferences, new ways of serving customers and other threats that could make the company's current business less profitable, must be periodically measured. Assessing the long-term health by quantitative metrics can be difficult and are typically qualitative milestones for instance progress in finding a partner for merging or acquisitions. The long-term health can be categorized into Core Business and Growth Opportunities. (Koller, Goedhart, & Wessels, 1990)

Organizational health, whether the company has the people, skills and culture to sustain and improve its performance, is also an important element of the corporate opportunities. Investigating the organizational health typically includes the capabilities of the company and its ability to keep the employees satisfied. It is also retaining the company's culture and the level of management skills. (Koller, Goedhart, & Wessels, 1990)

Understanding of the value drivers of the company might be of great importance when making decisions, and especially while making trade-off between long-term and short-term investments. Increased investments for long-term will decrease the short-term profit, but only focusing on short-term often leads to decreased profit for long-term. (Brealey & Myers, 2009)

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The “Simple Value Driver Tree: Manufacturing Companies”, see Figure 7, is made to link unique value drivers to financial metrics and shareholder value. The tree is broken down into value drivers developed for manufacturing companies. Depending on the company and industry, the value tree needs to be modified and developed to optimize the effect of using it. (Koller, Goedhart, & Wessels, 1990)

The value trees is one way of identifying and study the value drivers, another structure of value drivers is described by A. Rappaport (1998). According to A. Rappaport (1998) these seven factors drive shareholder value in the companies:

- Revenue Growth Rate
- Operating Margin
- Cash Tax Rate
- Incremental Capital Expenditure
- Investment in Working Capital
- Cost of Capital
- Competitive Advantage Period

These seven categories can be broken down into a number of key success factors and key performance indicators.

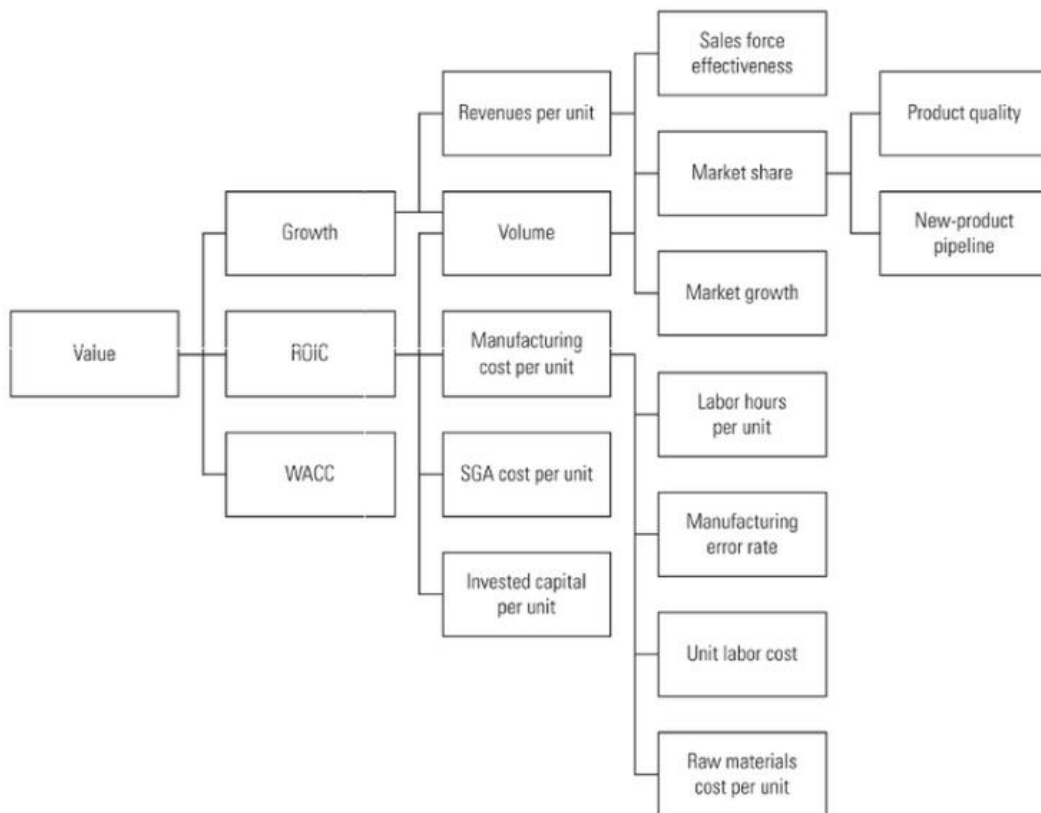


Figure 7 Simple Value Driver Tree: Manufacturing Companies (Koller, Goedhart, & Wessels, 1990)

3.2 Growth

A company needs long-term profitability in order to stay competitive over time. Long term profitability can be achieved by renewable of the company, introduction of new resources, and development of new products and markets (Ansoff, 1965). Penrose (1959) describes that increasing long term profit is equivalent with long term growth. According to Ansoff (1956) growth can be measure and identified in different ways, for example:

- Increased sales
- Increased market share
- Increased revenue
- Increased production

There is no standard method or indicator to identify growth; it is dependent of the business and how the growth is going to be analyzed. Some of the most common key performance indicators for growth are. (Nilsson, Isaksson, & Martikainen, 2002)

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- Number of employees
- Turnover
- Profit
- Equity

Ansoff (1965) developed a matrix; see Figure 8, to identify growth strategies focusing on the presents and potential markets and products. By using the matrix to explore new ways of growth, one of four strategies can be considered. (Ansoff, 1965)

- **Market Penetration**
Using present products in current markets. This strategy aims to increase the market share. This can be achieved for by lowering the price or increasing the marketing budget.
- **Market Development**
Using existing products to target new markets, geographically or demographically, to increase sales and thereby growth
- **Product Development**
Stay at the present markets, by further develop the products or launch new product categories.
- **Diversification**
Develop new products for new markets.

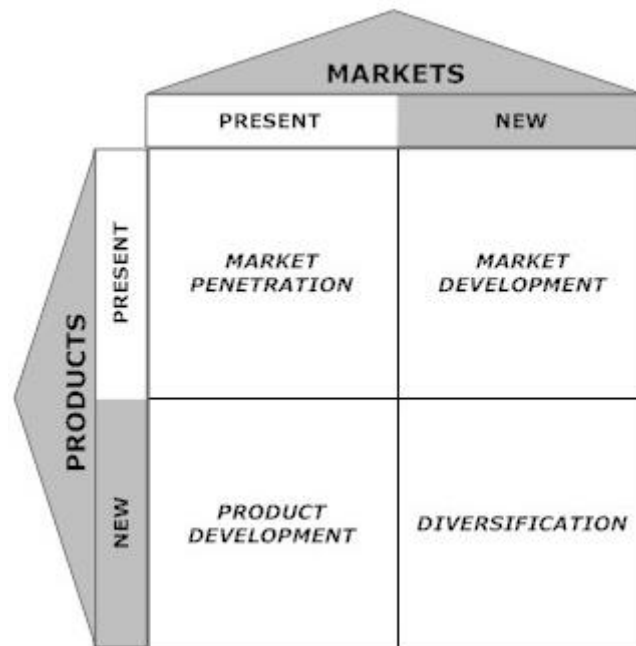


Figure 8. Ansoff's Growth Matrix

3.2.1 Organic Growth

Organic growth, also known as internal growth, is the process of a business where the company expands their business using existing resources within the company, not by mergers or acquisitions. Organic growth can also be achieved by using the company's competence and resources to develop and launch new business areas. (Coulter, 2009)

Two important elements while growing organic are **Focus** and **Flexibility**. When working with organic growth, the growth can appear unpredictable in large scale. In this situation the management needs to act quickly; be flexible and focus on the growth the gain all synergies that can be made. During the growth, a company normally adds competes into the business. This, in combination with a successful work climate that can be achieved during growth, increase the motivation of the employees. (Ahrens, 1992)

According to Penrose (1959) there are three factors that limit the organic growth potential:

1. Internal: The management is an important factor, which in worst case can limit the ability to grow.

2. External: The ability to grow is affected by the market growth and potentially as well as the demand of new products.
3. Risk: A company can never predict the future; neither market potential or competitors action. Thereby there will always be a risk while trying to expand.

Untapped resources or competences are realized within almost all companies. If an expansion can lead to efficient use of the untapped resources, it is a good incitement for organic growth. Combining existing resources and competence can contribute to new product segments, new production process and new organizational structure. To succeed with organic growth it is essential that the right competences are available within the company as well as in the recruitment processes. (Penrose, 1959)

Increased demand of the products is one of the key drivers for organic growth. A company can by focusing on sales and marketing open up opportunities for resource effectiveness through organic growth. When growth opportunities are created or appear, the management and employees are of great importance for the growth. The entrepreneurial leader is important to maximize the sustainable organic growth. Organic growth normally allows a slower and less risky growth than mergers and acquisitions. The growth is based inside the company, using the same business model as of today. The new employees are often employed and picked right away within the company, which is making the risk of culture differences lower. (Penrose, 1959)

3.2.2 Mergers & Acquisitions

An acquisition is the purchase of a company or business made by another company or organization. Normally such purchase concern 100 %, or nearly 100 %, of the assets of the acquired company. (DePamphilis, 2008)

A merger is normally made of two relatively equal companies, concerning size and resources, and is the consolidation of these two companies.

Companies' working with mergers and acquisitions do that for multiple reasons, for example to increase sales, expand the product portfolio, enter new markets or lower the costs by reaching economies of scale. Mergers and acquisitions are a quick way to grow, which could be important, especially when considering that growth is one of the performance indicators of a company that drives value.

There are however some downsides with mergers and acquisitions. Empirical studies have showed that up to one third of all mergers and acquisitions are unsuccessful,

where the purchasing company is destroying value due to value transfer from its own shareholders to the purchased company's (Koller, Goedhart, & Wessels, 1990).

When acquiring another company the goal often is to reach synergies. The concept is implying that when two companies are united, the value is greater than the sum of their both value as two separated companies. Many executives have stressed how difficult it is to reach the desired synergies. Reasons could e.g. be overpaying the selling company or lack of knowledge how or what synergies to capture. (Ficery, Herd, & Pursche, 2007)

3.3 Margins

“Look for companies with high profit margins.”

– W. Buffet

A company's margins on a specific market or in the whole industry are created when it for some reason is able to charge a higher price (price premium) or is able to produce its products at a lower cost. Obviously some companies are able to do both, which most likely results in higher margins. (Koller, Goedhart, & Wessels, 1990)

How well companies are able to obtain high margins or not can be described by different financial key ratios. Some of the common ones are Return on Invested Capital (ROIC), Return on Asset (ROA) and Return on Equity (ROE). The drivers behind the key financial ratios will be presented later in this chapter.

3.3.1 Return on Invested Capital - ROIC

As discussed above, the combination of revenue growth and return on invested capital (ROIC) that exceeds the capital cost, or in other words; margin, are core value drivers of a company.

The formula for calculating the ROIC for a company within a manufacturing industry is according to (Koller, Goedhart, & Wessels, 1990):

$$ROIC = \frac{Net\ Income - Dividends}{Invested\ Capital}$$

3.3.2 Return on Assets - ROA

The key performance indicator ROA shows how profitable a company is relative the company's total assets. ROA is calculated as *Net Income* over *Total Assets* (Crosson, Belverd E, & Marian, 2008);

$$ROA = \frac{Net\ Income}{Total\ Assets}$$

ROA measures how effective the company uses its resources, total assets and whether the assets are financed by debt or equity. While ROA do not observe the ratio between debt and equity, ROA is good measure when measuring and comparing companies between different years. The key performance indicator is useful for comparing companies in the same industry. However, the key performance indicator may vary widely from industry to industry. (Hansson, Arvidson, & Lindquist, 2006)

ROA is preferred because it is a useful way to evaluate the profitability and the effectiveness of a company, no matter how the money has been raised. In other words, ROA does not take the combination of debt and equity in to account. (Kristy & Diamond, 1983)

3.3.3 Return on Equity – ROE

ROE, Return on Equity, is mostly used when comparing the profitability of companies within the same industry. The financial key ratio is describing how much of the investors' capital that is generating profit. (Crosson, Belverd E, & Marian, 2008)

ROE is calculated:

$$ROE = \frac{Net\ Income}{Shareholder's\ Equity}$$

3.4 Competitive advantage

There are a number of ways a company can affect and try to improve its margins, which can be explained by competitive advantage. The reason why a company is able to charge a price premium, i.e. demanding a higher price than its competitors, differs between companies within the same industry. Companies can, and tries to, affect these sources of competitive advantages, some more successfully than others. Common reasons according to (Koller, Goedhart, & Wessels, 1990) are:

- **Innovating products**
The product itself can be difficult for the competitors to copy or secured by patents and in some cases, both.
- **High quality**
The product the company is offering is of superior quality and last longer.
- **Strong brand**
The company can charge a higher price because the customers believe, truly or not, that the product is better and/or of higher quality because it is made by the specific company.
- **Customer lock-in**

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When using the company's product it is difficult or unwanted for the customer to replace or buy add-ons from any competitor.

- **Rational price discipline**

In specific industries there could be a legitimate price floor that all players are following.

Cost efficiency can, according to (Koller, Goedhart, & Wessels, 1990), be reached based on the following reasons:

- **Innovative business method**

The business method is the company's arrangement of value chain, e.g. how a product is created from the supplier, to the company, and finally to the customer. This can be difficult for competitors to copy, especially if the interaction is based on personal relations.

- **Unique resources**

Having a unique resource that few or no competitors are able to get or copy can be a strong competitive advantage.

- **Economies of scale**

When the company's cost per unit can be decreased, due to the great number of produced units or share of the market.

- **Scalable product or process**

This could be a competitive advantage if the cost of adding or serving additional customers is low or almost none existing.

The possibilities for a company to succeed are not only up to the company itself; the structure of the industry plays a great role. This thought was early published by a Harvard economist Edward Mason (Ferguson & Ferguson, 1994), but has been further established by Michael Porter in his widely spread paper on how five forces are determining the competitiveness within an industry. The five forces are: (Porter M. , 1979)

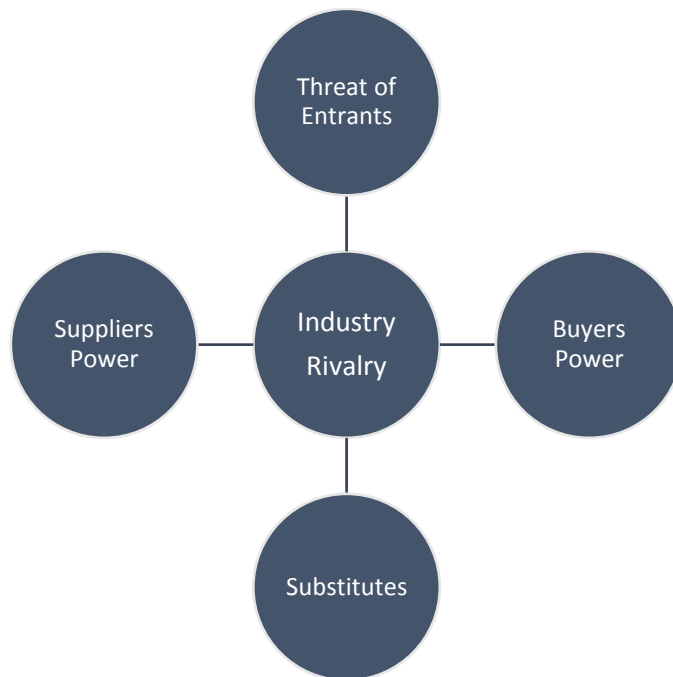


Figure 9 Five Forces Source: (Porter M. , 1979)

- **New entries**
If attending in a profitable industry there will always be threats of new entries, i.e. companies that believe they can grab a piece of the market share. This will gradually decrease the profitability for all the players in the industry. However, if there are high barriers to entry, i.e. high capital requirements, the threat will be reduced.
- **Substitutes**
Threats of substitutes involve products or services that meet a similar demand, but by other means, which should not be confused with competitors. For example, a competitor of a bus company is another bus company, operating on the same routes, while a substitute could be the car, a train company or an airline company. High switching costs, i.e. standardized products, will reduce this threat.
- **Buyer power**
This threat regards how strong bargaining power the buyers have, which tend to be strong in industries where the buyers have a lot of information. How price sensitive the buyers are is also playing a great role.
- **Supplier power**

Supplier power can be a great threat for a company, especially if there are few suppliers on the market or if substitutes are rare.

- **Degree of rivalry**

The intensity of competitive rivalry is often the strongest force and is dependent on e.g. if the market is growing, shrinking or stable, but also how much capital the players have invested. In other words, the degree of rivalry could be explained by how aggressively the different players are competing with each other.

It is important to remember that none of these situations are fixed; they are all subjects of constant change. A new entry or a change in governmental regulations could revolt the whole industry. But one of the most important and significant factors of change is most likely technology innovations, which can over a night change the rules of game within an industry when it comes to the competitive forces and what is and is not sources of competitive advantage. (Koller, Goedhart, & Wessels, 1990)

3.5 Core Competence

The management concept core competence is developed by (Prahalad & Hamel, 1990), partial base on the concept of competitive advantage by (Porter M. , 1979).

Described as the collective learning of the organization, core competencies are elaborating how to coordinate production skills and simultaneous integrate complex technologies. The concept is using dimensions of harmonizing technology streams, organization of work and the delivery of value. (Prahalad & Hamel, 1990)

Commitment to work across organizational boundaries and high level communication and commitment is essential parts of the concept. (Prahalad & Hamel, 1990)

To identify the core competencies there are three factors that need to be fulfilled (Prahalad & Hamel, 1990):

- Potential access to a wide variety of markets are provided by a core competence
- A significant contribution to the perceived customer value are enabled by a core competence
- It should be hard for competitors to imitate a core competence

During the 1990s managers and decision makers has increased their attention for the core competence management concept (Javidan, 1998). In the conclusion of an article written by (Javidan, 1998) the statement that any company would benefit

analyzing its resources, capabilities and competencies from a systematic and methodical perspective is made.

Generating sustainable competitive advantages should be the reason of working with core competences. That core competence generates competitive advantages and affect the organization have been found in studies. (Agha & Alrubaiee, 2012)

In the field of outsourcing most of the scholars hold the opinions that the core competencies and operations should be remained in-house (Quinn & Hilmer, 1994). Outsourcing the core competencies may reduce the company's innovations and critical technology as well as increase the risk of potential competitors. Therefore the management prefers to keep their core activities in-house and outsource other activities. (Arnold U. , 2000)

In a world moving from separate national economies to a networked global economy markets becomes more open, competitive with more demanding customers (Ahuja, 2011). To be competitive in all aspects are essential especially the product quality are an important factor for competition in the global market (Vandeven, 1986). A factor in many companies equal with their core competence (Prahalad & Hamel, 1990)

There are a lot of reports written and studies conducted about the importance of quality in relation to sales growth and costs (Prajogo & Sohal, 2006; de Vasconcellos E Sá & Hambrick, 1989; Roth & Miller, 2002). In term of quality and innovation a balance between differentiation strategy, total quality management practices and organizational performance are required to become a high profitable and growing company (Prajogo & Sohal, 2006).

3.6 Growth vs. Margins

Both growth and margins of a company contribute to its value. Companies prioritize growth and margins in different ways and thereby end up with different results. (Koller, Goedhart, & Wessels, 1990) According to (Holmstrom & Milgrom, 1991) this is a multitasking problem, where efforts on e.g. growth automatically implies that less efforts can be made on improving the company's margins due to limited time and other resources.

An example of the risks with growing without control is Enron Corporation. During the nineties Enron Corporation prioritized growth for many years and ended up as one of the world's largest energy companies. In the beginning of the next decade the goal changed to survive; and failed. (McLean & Elkind, 2003) The energy business has always been cyclical, but Enron planed that the size of the company would

secure the company from economic downturns. Enron's rise and fall might be an example of the danger of out-of-control growth. (Ramezani, Soenen, & Jung, 2002)

Even if growth contributes to the value of a company, all profitable companies do not expand their operations. This can be roughly explained, according to Daunfeldt & Bornhäll (2011), by one or more of the three following growth barriers:

1. Lack of growth ambition
2. Lack of competence or resources
3. Lack in the institutional framework

The first point, lack of growth ambition, is supported by a study made by Wiklund and Shepherd (2003). The study concludes that growth ambitions in companies of smaller size are related to the real growth of the company.

Sales and earnings growth and maximization over time are normally one of the demands from the investors to the managers. This demand is set out of the presumption that maximizes growth will maximize shareholders value. This is not necessary the only truth; Studies indicates that maximal growth does not maximize the company profitability and thereby neither the shareholder value. Moderate growth in sales or earnings on the other hand contributes to the highest return and value creation for the owners. (Ramezani, Soenen, & Jung, 2002)

Traditionally manufacturing skills are associated with positive economic outcomes. Not only are the manufacturing skills of importance for the positive economic outcomes, but also the executive leadership. The chance of good business requires effective coupling of executive leadership and manufacturing capabilities. The executive management is appointed to coordinate and synergize the manufacturing capabilities with those of other areas. (Roth & Miller, 2002)

In a study by Davidsson et al. (2009) growth are evaluated and compared to profitability, in order to evaluate whether growth are equal to business success or not. In the empirical analysis, small (10-49 employees) and mid-sized (50-250 employees) companies in Sweden and Australia were evaluated. The results of the study conclude initially that even though some theories support that company growth drives profitability, there are no empirical evidence in the study supporting a positive, general relationship, between growth and profitability. (Davidsson, Steffens, & Fitzsimmons, 2009)

Using the theoretical framework of resourced based view Davidsson et al. (2009) argue that achieving appropriate levels of profitability usually is the reason for the start of growth. The appropriate levels of profitability can be achieved by having built a resourced-based competitive advantage. The competitive advantage itself

and the final resources generated through the high profitability enable sound and sustainable growth for these companies. In contrary, when low profitability companies are focusing on growth, it often indicates lack of competitive advantages. The growth without any competitive advantage is more costly and will most likely be challenged by the competitors. There is a risk that the profitability is more likely to be decreased than increased. (Davidsson, Steffens, & Fitzsimmons, 2009)

Davidsson et al. (2009) have built and tested two hypotheses:

- **Hypothesis 1:** Firms that show high profitability at low growth are more likely to reach a state of high growth and high profitability in subsequent periods than are firms that first show high growth at low profitability.
- **Hypothesis 2:** Firms that show high growth at low profitability are more likely to reach a state of low growth and low profitability in subsequent periods than are firms that first show high profitability at low.

The sample companies were divided into a Growth-Profit matrix and their movements were identified over specified time periods (1-3 years).

Categorization Schema of Firms by Growth and Profitability

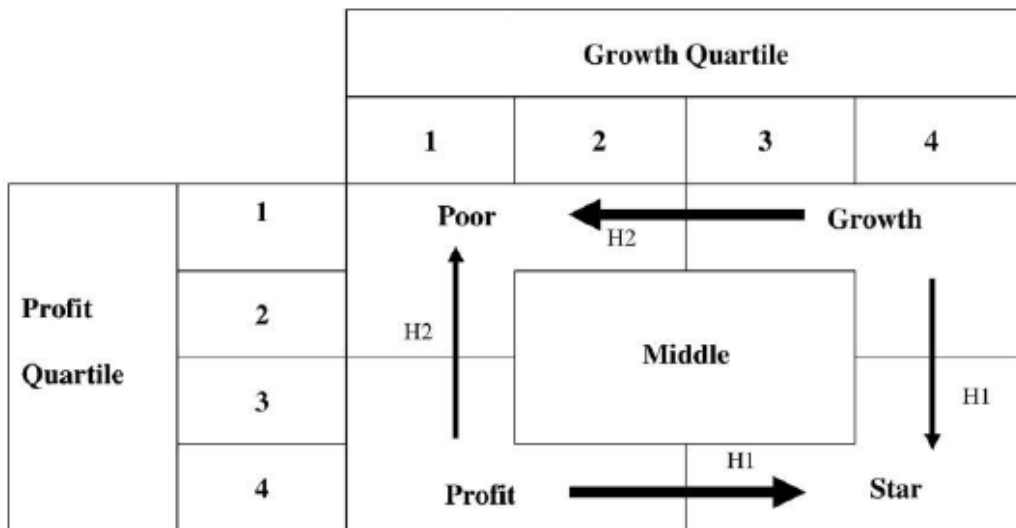


Figure 10 Categorization Schema of Firms by Growth and Profitability (Davidsson, Steffens, & Fitzsimmons, 2009)

16-33 percentages (depending on the studied time periods) of the companies categorized as *profitable* moved to the performance group *star*. Compare to the

companies categorized as *growing* only 10-12 percentage moved to the *star* categorization. Considering the *growth* companies; they were 2-3 times more likely to move to the *poor* category compared to the *profitable* companies. The tests were statistically significant and to analyze the results further the companies were categorized by size, industry and company age. After this categorization the results still are the same, also most of them statistically significant. The results recommend companies to strive for high profitability first and then growth. (Davidsson, Steffens, & Fitzsimmons, 2009)

Ramezani et al. (2002) evaluated the relationship between growth and profitability by searching for a growth rate that maximizes the profitability. The sample consisted of 2156 U.S. companies and was evaluated over a period of 11-years, 1990-2000. The investment industry demands management to maximize the revenue and thereby the growth over time. This action is based on the presumption that growth is associated with shareholder value creation, but the study indicates that maximizing growth does not maximize the profitability or the value for the shareholders. Instead, the companies delivering the highest rates of return and value creation for their owners are the companies with moderate growth in sales or earnings. (Ramezani, Soenen, & Jung, 2002)

That growth without profit cannot be sustained has been seen in recent crises (Ramezani, Soenen, & Jung, 2002). Managers need to make a fundamental shift in their growth strategies. The old strategies “growth now, profitability later” should be replaced by the strategy “profitable growth now” (Khanna & Palepu, 1999). The final conclusion is that growth should not be the objective in the strategic planning, but the outcome of a sound strategy. (Ramezani, Soenen, & Jung, 2002)

3.6.1 Flexibility

Having both an organization and a manufacturing system that is flexible is an important factor to be competitive at the market over time (Tech-Clarity Inc., 2012) (Kaiser, 2003). A flexible production system can be built with modular manufacturing solutions (Tech-Clarity Inc., 2012) or minimizing the manufacturing setup time (Kaiser, 2003). This can be achieved by continues improvements according to the work methods, the employees competence and manufacturing support functions (Kaiser, 2003). A flexible organization can be achieved by the use of staffing companies, which according to a study by Abraham (1988), is one of the most important methods to handle variations in demand. The use of flexible staffing is especially useful for companies with seasonal cyclical demand changes. This allows the companies to easier and faster adapt to market. It is also worth mentioning that using staffing company is beneficial when the supply of regular employees' labor is low, which could be the case during flourishing economy (Abraham, 1988).

Staffing companies are used for more reasons than changes in demand. A common use is to handle staff absence, but empirical studies have also shown that companies are using staffing companies in order to save on employee benefits (Houseman, 2001).

By analyzing the company's functional activities, Porter (1998) believes that the company can recognize their competitive advantages and should focus on these. Out-sourcing a part of the production enable more focus to the core competence and has been pointed out as a success factor in studies (Drickhammer, 2004).

3.7 Servitization

As response to the low cost competition from less developed countries has the manufacturing companies began to move up in the value chain; from focusing on manufacturing to offering the customers a product-service solution instead (Neely, 2008) (Wise & Baumgartner, 1999). This has given rise to a term called servitization, which is illustrated in Figure 11 Servitization, source: . The definition is: "The strategic innovation of an organization's capabilities and processes to shift from selling products to selling an integrated product and service offering that delivers value in use" (Vandermerwe & Rada, 1988). In other words, the companies are more and more focusing on its service offerings than its manufactured products.

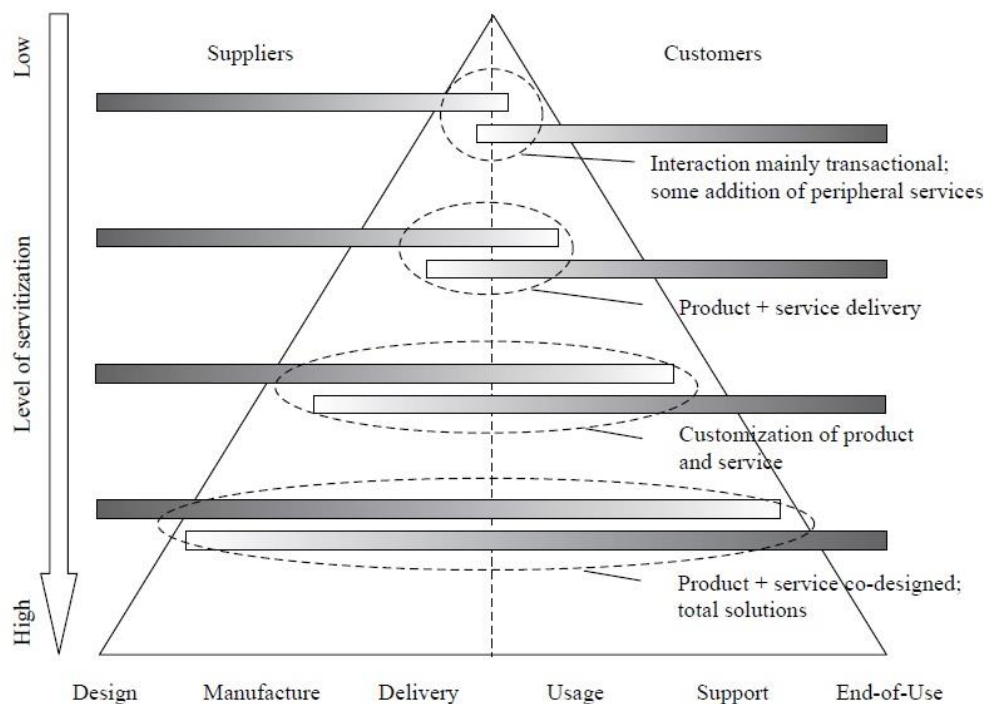


Figure 11 Servitization, source: (Vandermerwe & Rada, 1988)

3.8 Theoretical Framework

A review of the literature and earlier studies conducted within the field of strategy according to growth and profitability are the base of the theoretical framework, illustrated in Figure 12.

VALUE			
Authors	Topic	Authors	Topic
(Martinez, Bastl, Kingston, & Evans, 2009)	Service	(Ahuja, 2011)	Core Competence
(Koller, Goedhart, & Wessels, 1990)	Valuation	(Arnold U. , 2000)	Core Competence
(Damodaran, 2006)	Valuation	(Javidan, 1998)	Core Competence
(Miller & Modigliani, 1961)	Valuation	(Prahalad & Hamel, 1990)	Core Competence
(Rappaport, 1998)	Value Drivers	(Prajogo & Sohal, 2006)	Core Competence
(Brealey & Myers, 2009)	Value Drivers	(Quinn & Hilmer, 1994)	Core Competence
(Wise & Baumgartner, 1999)	Servitization	(Vandeven, 1986)	Core Competence
(Vandermerwe & Rada, 1988)	Servitization	(Agha & Alrubaiee, 2012)	Core Competence
(Neely, 2008)	Servitization	(Houseman, 2001)	Flexibility
		(Abraham, 1988)	Flexibility

GROWTH	
Authors	Topic
(Ansoff, 1965)	Growth
(Nilsson, Isaksson, & Martikainen, 2002)	Growth
(Penrose, 1959)	Growth
(Coulter, 2009)	Organic Growth
(Ahrens, 1992)	Organic Growth
(DePamphilis, 2008)	M&A
(Ficery, Herd, & Pursche, 2007)	M&A

GROWTH vs. PROFITABILITY
Authors
(Holmstrom & Milgrom, 1991)
(McLean & Elkind, 2003)
(Ramezani, Soenen, & Jung, 2002)
(Daunfeldt & Bornhäll, 2011)
(Roth & Miller, 2002)
(Davidsson, Steffens, & Fitzsimmons, 2009)
(Khanna & Palepu, 1999)

PROFITABILITY	
Authors	Topic
(Drickhammer, 2004)	Outsourcing
(Crosson, Belverd E, & Marian, 2008)	Financial Indicators
(Hansson, Arvidson, & Lindquist, 2006)	Financial Indicators
(Kristy & Diamond, 1983)	Financial Indicators
(Ferguson & Ferguson, 1994)	Competitive Advantage
(Porter M. E., 1998)	Competitive Advantage
(Tech-Clarity Inc., 2012)	Modular Manu.
(Kaiser, 2003)	Lead Time
(Prajogo & Sohal, 2006)	Quality
(de Vasconcellos E Sá & Hambrick, 1989)	Key Success Factors

Figure 12 Theoretical Framework

4 Elaboration of hypotheses

In this section the hypotheses that have been created are presented. The hypotheses were created based on the theoretical framework in the previous chapter and the outcome was four hypotheses concerning profitability and growth, core competence, flexible cost structure and cost spend. These hypotheses were later used together with the gathered data, in the analysis section.

To enable the comparability of the qualitative gathered data, a number of hypotheses were set up. The hypotheses have been created based on the theoretical framework (see Chapter 3.8 Theoretical Framework) and inspired by the value drivers (Koller, Goedhart, & Wessels, 1990) of a company.

Figure 13 Hypotheses Positioned in Value Tree is visualizing the created hypotheses.

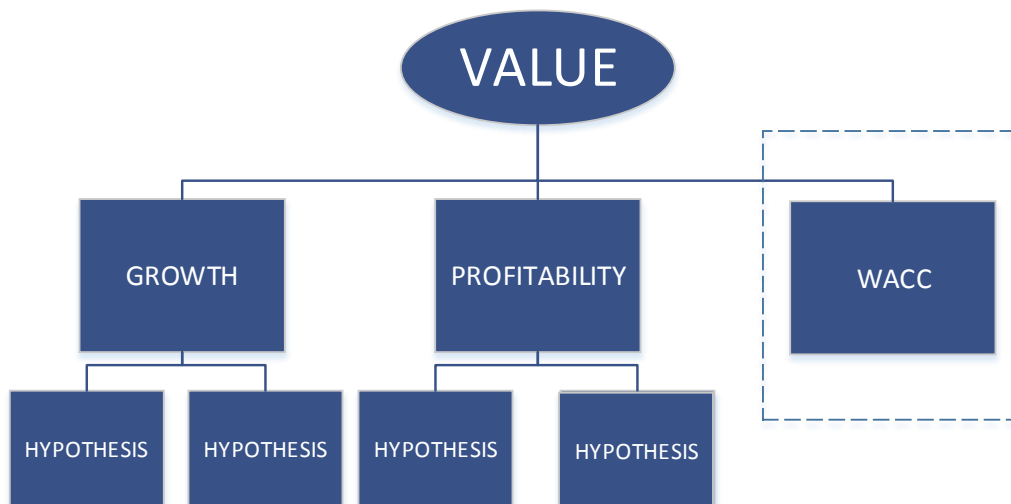


Figure 13 Hypotheses Positioned in Value Tree

4.1 Profit ahead of growth

Both profitability and growth of a company contributes to value creation (Koller, Goedhart, & Wessels, 1990), but even if fast growing companies are praised worldwide (Davidsson, Steffens, & Fitzsimmons, 2009), an intensive growth focus may limit the company's profitability focus due to limited resources (Holmstrom & Milgrom, 1991).

In the study by Davidsson et al. (2009), hypotheses implied that companies showing high profitability at low growth rate are more likely to reach a state of high growth and high profitability more often than firms that first show high growth and low profitability.

Studies have shown that many Western manufacturing companies have been facing decreased profit due to competition from low cost manufacturer during the last years (Martinez, Bastl, Kingston, & Evans, 2009). One way for Western manufacturer to face this challenge is to focus on servitization, according to Vandermerwe & Rada (1988). This, together with how each company's competitive advantage (Porter M. , 1979) is expressed, will be treated through the hypotheses below.

The applied theories (Davidsson, Steffens, & Fitzsimmons, 2009) has contributed to a hypothesis that will test whether primary focus on profitability at the Nordic manufacturing companies is a success factor to be a high performing company.

- a) Targeting profitability ahead of growth increases the probability to become and remain a high performing company**

4.2 Costs

Having a flexible organization and manufacturing process have been widely emphasized through previous studies (Tech-Clarity Inc., 2012) (Kaiser, 2003). It is described to be a key factor in order to stay competitive over time. Factors that have been mentioned are improved work methods, employee competence and manufacturing support functions (Kaiser, 2003). Together this will allow the companies to reach and perhaps improve economies of scale (Porter M. E., 1998). The use of staffing companies to obtain flexibility is also widely discussed in the theoretical chapter (Abraham, 1988). Therefore hypotheses circling around flexibility and cost structures have been developed, in order to find out if high performing companies are focusing more on these factors, or at least doing it more successfully. This has resulted in the creation of the following hypotheses:

- a) High performing companies are having a more flexible cost structure than the low performing companies**

- b) There is a deviation of how high- and low performing companies are spending their costs**

4.3 Core Competence

The separated national economies are now in the past and the networked global economy of today is resulting in a more competitive market (Ahuja, 2011).

To remain competitive in the market and maintain growth and profit, companies need core competencies. Competencies can potentially access to a wide variety of markets and contribute to the perceived customer value, which in some cases are hard to imitate (Prahalad & Hamel, 1990). Javidan (1998) describes that any company would benefit from analyzing its resources, capabilities and competencies from a systematic and methodical perspective.

When competing in an open international market, the competitiveness is important for all acting companies. Product quality is a factor that has been obtained importance in the global market place (Vandeven, 1986). Core competencies should be remained in-house to secure its potential innovative development and keep the competitors under control (Quinn & Hilmer, 1994). The decision makers therefore prefer to outsource the activities that are not their core competencies (Arnold U. , 2000)

To determine the importance of core competencies and in what way the studied companies strategically are planning their quality levels and outsourcing of activities that are non-core competence related, a hypothesis has been created. In the hypothesis core competences are compared between the high performing and low performing companies:

- a) **Focusing on core competence is essential in order to be able to grow, reach and remain the position as a high performing company**

4.4 Hypotheses summary

The hypotheses that have been created are illustrated in Figure 14. These hypotheses have been used when gathering the data in the following chapter.

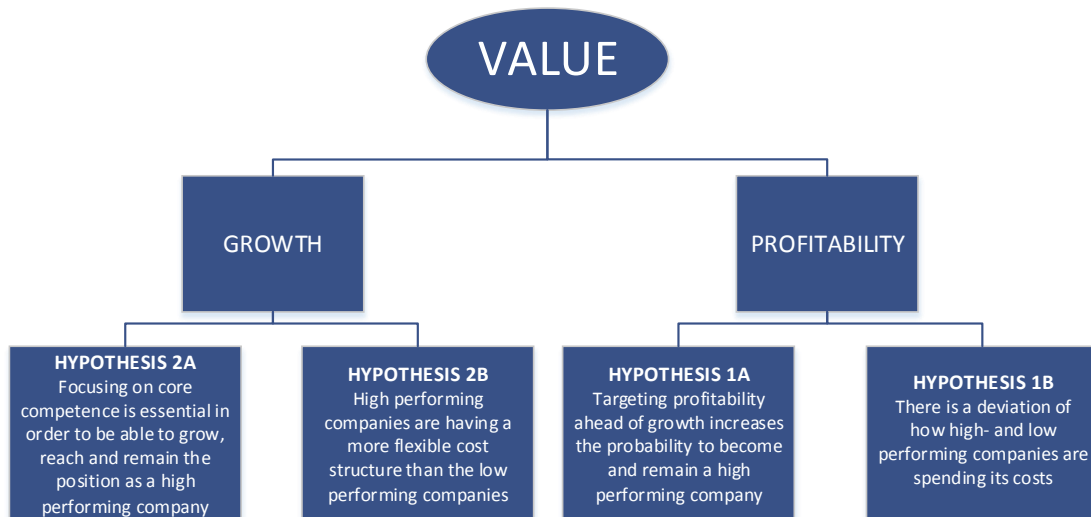


Figure 14 Hypotheses with focus on value

5 Empirical Findings

In this section the empirical findings are presented. The chapter begins with an explanation of the performance matrix that clarifies how the relevant companies for the study were selected and which where not. This is followed by a presentation of the gathered data, both from the survey but mostly from the performed interviews.

To limit and to visualize the scope of the study, a valuation tree based on theories from Koller et al. (1990) has been created. This is used to define what drives value within a manufacturing company. The Value Tree is modified and broken-down, combining the theory and the results from the pre-study. The factors investigated have been chosen from the relevant studies covering the major functions that drive value in the company.

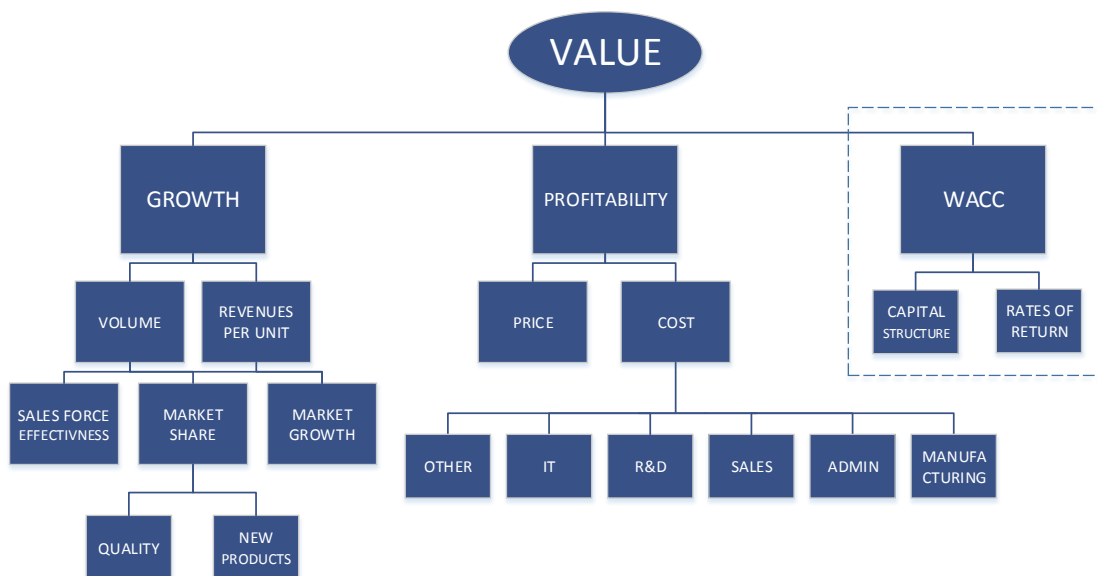


Figure 15 Value Tree for Manufacturing Firms

Only *Growth* and *Profitability* have been focused on, which is being explained in Chapter 1.7 Limitations.

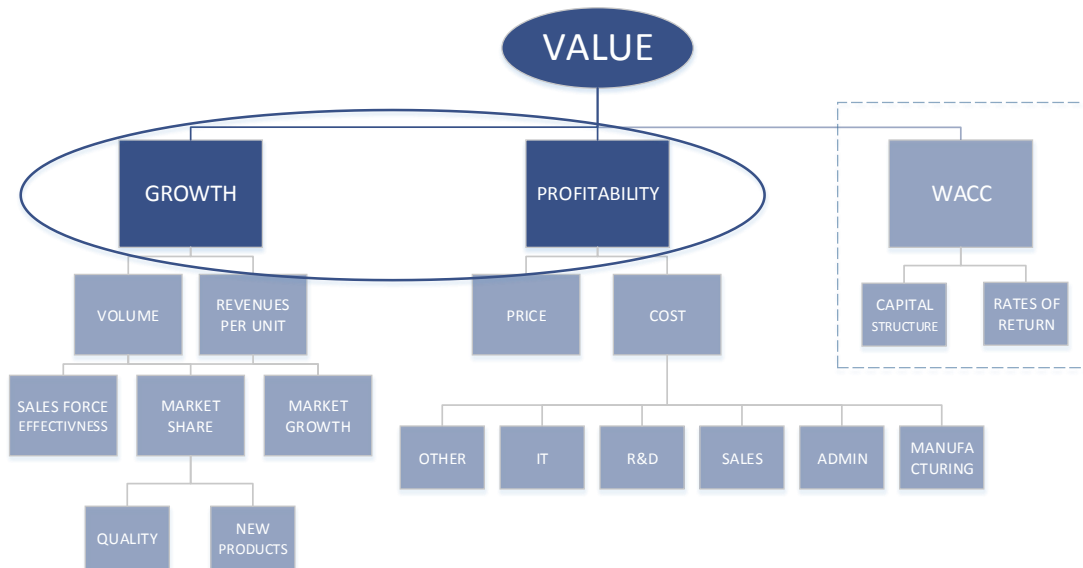


Figure 16 Value Tree - Profitability Growth

5.1 Group vs. subsidiary

This study consists of companies listed at the Swedish and Finnish Large Cap and Mid Cap stock exchange. The criterion to be listed at Mid Cap is a market value between 150 million Euro and 1 billion Euros. Listed companies with a market value exceeding 1 billion Euros are listed at Large Cap. (NASDAQ OMX, 2012)

Companies of the size at Mid Cap and Large Cap are normally segmented in to divisions or subsidiaries (Hedman, 1991). An example is Volvo AB that is segmented into a number of subsidiaries. Some of them are; Volvo Trucks AB, Volvo Construction Equipment NV, Volvo Buses AB and AB Volvo Penta (Volvo Group, 2012). These subsidiaries are with separate CEOs acting in different markets with different products.

Even though the companies are segmented this study are based on the Groups to find the success factors for the Groups in the industry.

5.2 Companies

Only manufacturing companies with a turnover exceeding 5 billion SEK at the Swedish and Finnish large and mid-cap stock exchanges have been studied. The

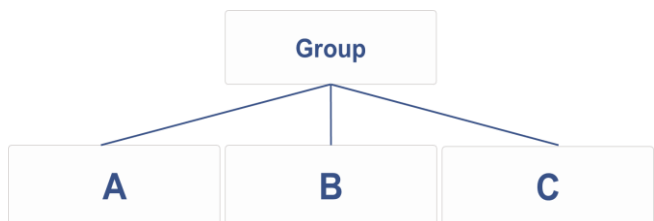


Figure 17 Illustration of a Group with divisions or subsidiaries

historical data has been gathered over a period of ten years. Companies with a shorter history than that have therefore not been analyzed. After using these criteria, a list of companies that should be included was created, which is presented in Appendix III – Company information.

5.3 The Performance Matrix

To be able to identify the strategies behind some companies' success within the manufacturing industry, the companies were divided into 4 categories in a matrix structure.

5.3.1 Performance Matrix Measures

Using scatter plots, with growth at the x-axis and different measures of profitability at the y-axis, the companies received individual positions in the Performance Matrix. Growth was measured in revenue growth and the profitability was measured in three ways; return on assets (ROA), return on invested capital (ROIC) and return on equity (ROE). ROA has been the main profitability measure whilst describing the return on all resources (Hansson, Arvidson, & Lindquist, 2006), (see 3.3.2 Return on Assets – ROA). The mentioned financial indicators were all emphasized in the theory chapter.

The study was made over a time period of 10 years; 2002-2011. The revenue growth was measured over the 10 years and the profitability indicators were an average over the same 10 years. The data were mainly gathered from the financial databases Retriever and DataStream, but also partly validated by the annual reports of the companies.

All studied companies have over the 10 years period performed profit; the average of the bottom line is profit. The categorization and the position of the included companies in this study were based on their performance relative to each other. In Figure 18 Matrix Position, the position of the analyzed matrix was plotted in a matrix where origin was no growth (growth equals 0) and no profitability (profit equals 0). The figure visualizes that only well performing companies were studied, but still some have performed better than others.

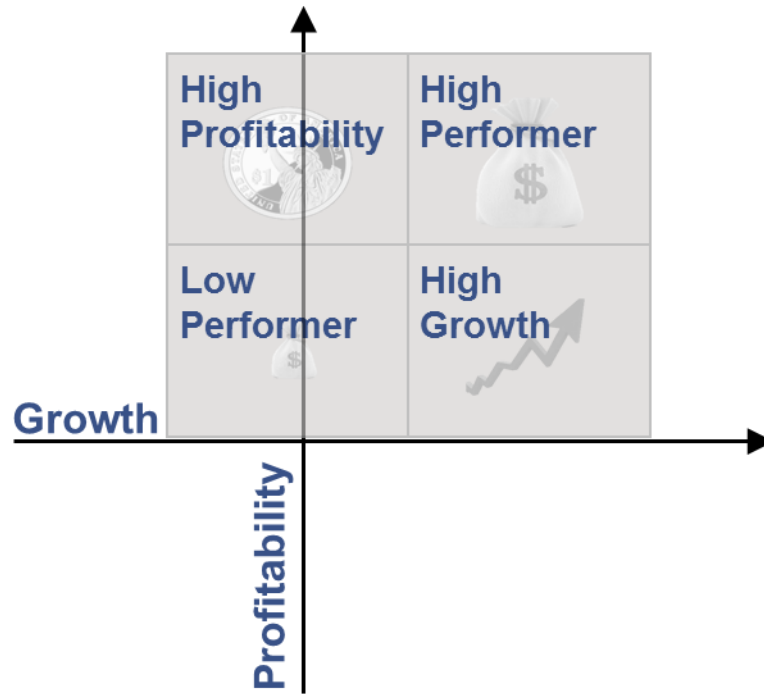


Figure 18 Matrix Position

5.3.2 Categories

The scatter plot was, by using the averages, transformed into a 2x2 matrix and categorized in high performer, low performer, high growth and high profitability, illustrated in Figure 19 The Performance Matrix.



Figure 19 The Performance Matrix

- *High Performer*
The companies that over the 10 years period perform better than average in revenue growth and profitability are categorized High Performers
- *High Profitability*
Companies performing good (better than average) profitability, but do not growth more than average are categorized High Profitability Companies
- *Low Performer*
Performing less profitability and growth than average categorized companies into the category Low Performers.
- *High Growth*
With a revenue growth larger than average, but profitability lower the average some of the companies are categorized High Growth Companies.

The company criteria were:

- Manufacturing, manufacturing companies
- Listed at the Swedish or Finnish Large- or Mid-Cap stock exchanges

Success factors of Nordic manufacturing companies – manufacturing for the future

- Turnover > 5 billion SEK
- A history of at least 10 years

5.3.3 Performance Matrix Results

The data represented in the scatter plot, Figure 20, are visualized by the company's name and a symbol showing the country where the company is listed. The lines visualize the average values of the plotted companies. In Figure 20 ROA is used as the profitability measure.

- ◆ Companies listed at the Swedish Stock Exchange
- Companies listed at the Finnish Stock Exchange

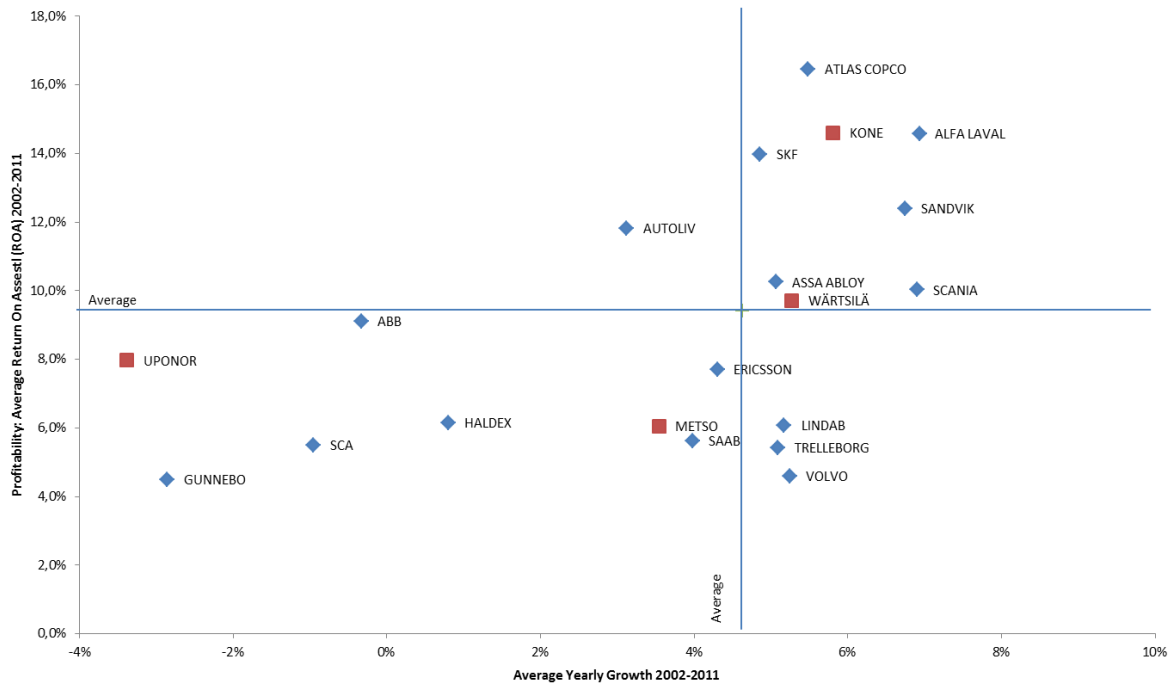


Figure 20 Performance Matrix, ROA

Out of the plotted companies 8 companies were categorized as High Performance and 8 companies were categorized Low Performance.

5.3.3.1 Sensitivity Analysis – Other key figures

To secure the categorization of High Performance and Low Performance, a sensitivity analysis was made using Return on Equity and Return on Invested Capital as alternatives to Return on Assets.

In the sensitivity analysis, the lines did not illustrate the average, but was placed to visualize the relative position in the scatter plot between the companies.

Return on Equity – ROE

Plotting ROE and Growth showed slightly different relations between the companies. The use of the lines visualizes that most companies could be categorized relatively to the same categories as when using ROA. The difference from using ROA was that Autoliv was categorized as a Low Performer (*ROA-based: High Profitability*) and that SCA was categorized as High Profitability (*ROA-based: Low Performer*). Therefore neither SCA nor Autoliv were studied.

- ◆ Companies listed at the Swedish Stock Exchange
- Companies listed at the Finnish Stock Exchange

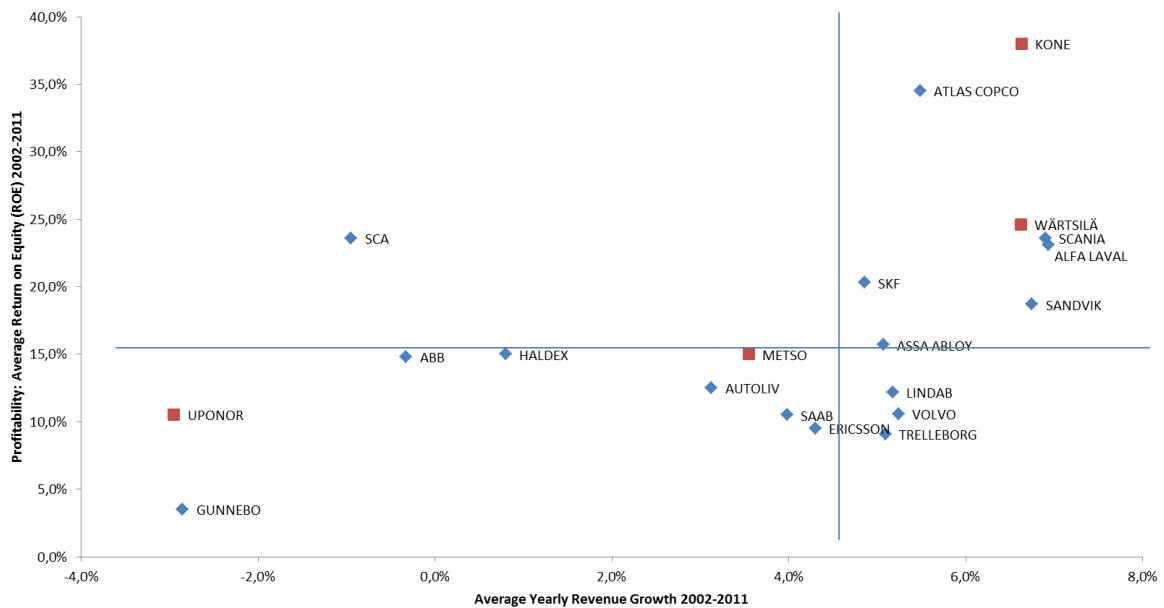


Figure 21 Growth-Profitability Matrix, ROE

Return on Invested Capital – ROIC

Plotting ROIC and Growth, showed slightly different relations between the companies comparing to ROA. The use of the lines visualized that most companies could be categorized relatively to the same categories as when using ROA. The difference from using ROA was that ABB became categorized as High Profitability (*ROA-based: Low Performer*), Lindab as High Performer (*ROA-based: Low Performer*) and Wärtsilä as High Growth (*ROA-based: High Performer*). Therefore none of these companies were be studied.

- ◆ Companies listed at the Swedish Stock Exchange
- Companies listed at the Finnish Stock Exchange

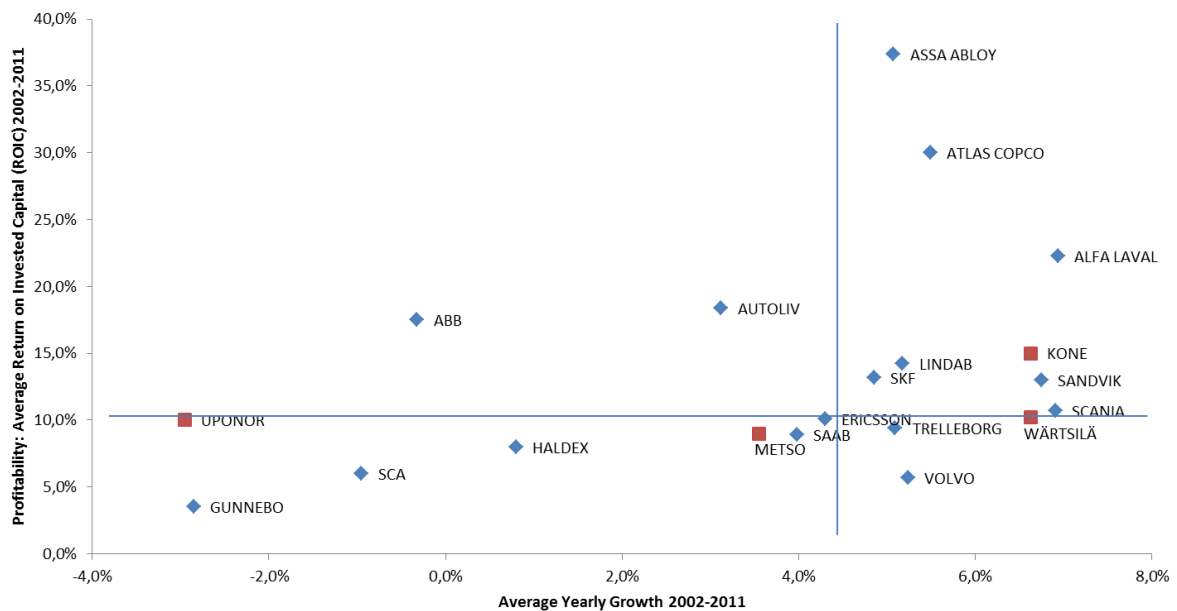


Figure 22 Growth-Profitability Matrix, ROIC

Out of the plotted companies there were only two companies positioned in High Profitability and three in High Growth. The majority of companies were placed in the categories High Performer and Low Performer.

5.3.3.2 Target Companies

The companies in brackets in Figure 23 Performance Matrix results appear in more than one quintile during the tests of ROA, ROE and ROIC, and appear thereby also in two or more categorizations in the matrix. These companies were therefore not studied; instead only the companies positioned as High Performer or Low Performer, in all three plots, were studied.

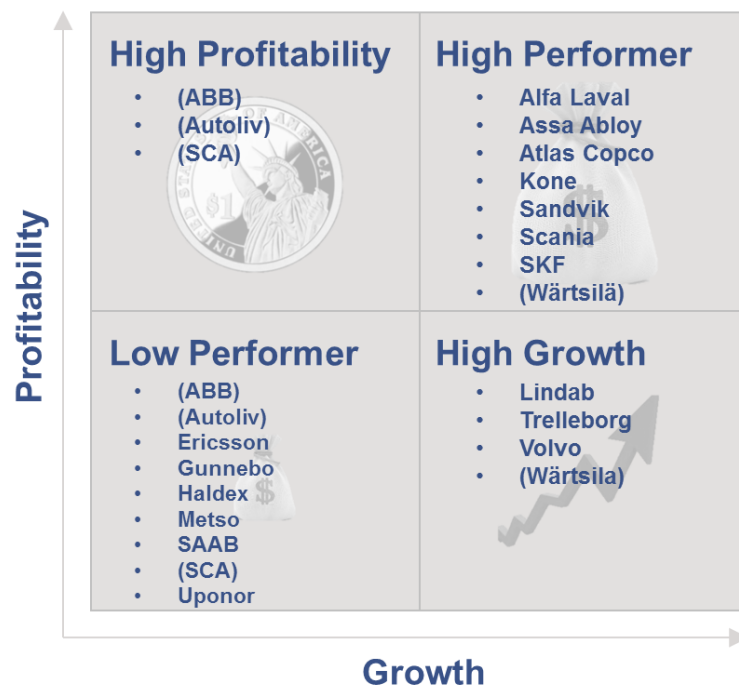


Figure 23 Performance Matrix results

The companies that have been targeted are, according to the Performing Matrix;

- ALFA LAVAL
- ASSA ABLOY
- ATLAS COPCO
- ERICSSON
- GUNNEBO
- HALDEX
- KONE
- METSO
- SAAB
- SANDVIK

- SCANIA
- SKF
- UPONOR

For further company information about each company, see Appendix III – Company information.

5.4 Cost pattern

The average costs over the past 10 years for each company have been collected from Datastream (Thomson Reuters, 2013), to be compared between the high performing and low performing categorizations. The total costs were divided in to four areas; COGS (Cost of sold goods), Sales, Admin and R&D. For the Finnish companies, the Sales and Admin costs were not specified, so the total will not be 100 %. The cost pattern is illustrated in Table 3.

Table 3 Cost Pattern Data

	COGS	Sales	Admin	R&D	High Perf
ABB	83,1%	6,6%	4,6%	5,8%	0
ALFA LAVAL	74,8%	15,7%	6,4%	3,0%	1
ASSA ABLOY	71,0%	19,2%	7,1%	2,7%	1
ATLAS COPCO	78,0%	12,4%	7,1%	2,5%	1
ERICSSON	67,2%	12,9%	1,9%	18,0%	0
GUNNEBO	72,6%	15,9%	11,5%	0,0%	0
KONE	81,6%	0,0%	0,0%	1,4%	1
METSO	59,7%	0,0%	0,0%	1,8%	0
SAAB	80,6%	8,0%	6,0%	5,4%	0
SANDVIK	76,5%	16,2%	5,5%	2,7%	1
SCANIA	83,5%	10,3%	1,6%	4,5%	1
SKF	83,3%	15,0%	0,9%	2,5%	1
UPONOR	54,4%	0,0%	0,0%	1,5%	0

5.5 Interviews and surveys

In Table 4 Empiric Sources - Companies included in the study are the companies involved in the study presented. The figure is explaining if the company has been involved through a survey, interview or both.

Table 4 Empiric Sources - Companies included in the study

	Interview	Survey
ALFA LAVAL	●	●
ASSA ABLOY		
ATLAS COPCO	●	●
ERICSSON	●	●
GUNNEBO	●	●
HALDEX		
KONE		
METSO		●
SAAB	●	●
SANDVIK	●	●
SCANIA	●	●
SKF	●	●
UPONOR	●	●

5.5.1 Survey

As a complement to the qualitative data gathered by interviews, a quantitative survey was sent out to a number of company representatives. The survey was formulated to allow the representatives to rank different factors against each other and to estimate how well their own company is performing against their closest competitors.

The first question asked which of growth and margins is the most important for the company. This question regards value, where two of the major sources of value creation derives from growth and ROIC (Koller, Goedhart, & Wessels, 1990).

The following questions of the survey were all created to cover the hypotheses discussed in the previous chapter. However, the questions were not formulated in the same way as the hypotheses, in order to not make it obvious what the authors were looking for.

Success factors of Nordic manufacturing companies – manufacturing for the future

The conducted survey is included in Appendix II – Survey and the results are divided into High Performing companies and Low Performing companies. The major findings are shown in Table 5 Findings - Survey.

The High Performing companies found flexibility when decrease in demand, ability to use staffing personnel and outsourced manufacturing more important than the Low Performing Companies. The Low Performing companies however, found Financial Strength and Early Adopt new Technology as more important than the High Performing companies.

Table 5 Findings - Survey

	Classified most important
Flexibility - Decrease in demand	High
Financial Strength	Low
Ability to use staffing personnel (contract staff)	High
Outsourced Manufacturing	High
Early Adopt New Technology	Low

5.5.2 Interview Summaries

Within this chapter the reader finds a summary of the gathered data, which is derived from the interviews held with each company representative, see Chapter 2.3.2.4 Choice of representatives, if not nothing else is presented.

5.5.2.1 Alfa Laval - (Hermansson, 2013) (Richter, 2013)

Profitability

Alfa Laval has a well-communicated cost focus within the whole organization, where all divisions have responsibilities for their result. All costs are visible in the organization and the manufacturing processes are broken down to the smallest

parts, which improves the overview within the organization. On the other hand, this is according to the representatives increasing the administration costs.

Traditionally, Alfa Laval has priced their products according to cost-based pricing, but is now working more with customer-value-based pricing. The sales force is working with evaluating the discounts to avoid unnecessary discount that do not increase the sales.

During the recent finance crisis Alfa Laval had low flexibility to handle the decrease in demand that faced the world market in 2008. From this situation, a lot of lessons were learned. Today Alfa Laval works more with flexible personnel solutions, such as staffing companies. Outsourcing is slightly used in the production. Instead mostly services and support functions in the company are outsourced.

During periods of high increased demand, it is difficult to engage all positions due to lack of competence of the job seeker, according the Alfa Laval representatives.

Growth

Every 3-5 years Alfa Laval's growth strategies are refined. Historically Alfa Laval has faced too low organic growth and is now working to improve and increase the organic growth.

The external growth target is set to 8 % annually, but Alfa Laval is working with another growth target internally: 12 %. This is to challenge themselves and all their employees to perform their best.

Alfa Laval is not working actively to enlarge their product portfolio with other product lines than they have today. The focus is to improve the present ones, and to be the first and best to deliver products according to new environmental regulations around the world. Therefore research and development is an important channel to growth.

Acquisition is an alternative when the representation at a specific market is too low and acquiring another company is a quick way in to the market and gaining market shares. If the product portfolio needs to be extended with a product related to Alfa Laval's core competence, an acquisition can be the solution to get all the required knowledge in short time.

Profitability vs. Growth

All kinds of acquisitions need to be profitable. Alfa Laval is not entering any markets or business where they cannot see profitability and high margins over time.

The strong cost-focus includes new markets and growth. For Alfa Laval profitability is crucial.

Other

Alfa Laval's history and image attracts competent and good personnel, one of the most important factors for the success of the company

For a long time Alfa Laval has worked with Lean and Six Sigma and are now working with their own production system ALPS, Alfa Laval Production System.

The production is to a high extent automated, but even so, high salary costs in Europe, makes it very important to keep up a high level of rationalization, to meet competition from Asia.

Alfa Laval is now working with using internet as a greater sales channel for business to business sales, which will lower the costs and simplify the order process for the customers.

5.5.2.2 Atlas Copco - (Larsson, 2013)

Profitability

"We are already producing the best products at the best quality at the lowest production cost possible".

Atlas Copco focuses on profitable growth. Growth is essential and given a reasonable profit level, the increase in margin is secondary. Atlas Copco is internally focusing on EVA (Economic Value Added) and that is also partly what the incentive program is based on. As long as the margins are covering the capital needed Atlas Copco is not worrying about the margins. Atlas Copco is not competing on price, but rather value selling and its size is almost twice the size of the second biggest player on the compressor market. Compressor techniques the biggest business areas, representing almost 40% of revenues in 2012. Its customers, often operating in manufacturing or mining industries, are also putting a high price on quality and reliability, considering the amount of money being lost for the customer if the production or the mine is stopped. To maintain its position on the market Atlas Copco centers on R&D and innovation within its core business. During the last years, Atlas Copco's service business has increased in importance and it is today 2-3 times more profitable than its equipment. It is also not as sensitive to the business cycle as the equipment is. Atlas Copco is, compared to many other similar companies, able to charge a good margin on its product and its services, where similar companies only makes money

on the services. This is due to a value proposition that offers the customer the best product for its needs, according to Atlas Copco.

The margin is owned by limiting the number of agents involved in the value chain and Atlas Copco are itself selling up to 80 % straight to the final customer.

Growth

As long as we do not have 100 % market share there is always room for growth.”

Atlas Copco has a growth target of 8 % per year over a cycle, which was exceeded 2012 (12 %). The growth consists of both acquisitions and of organic growth, both as attempts to expand the product portfolio with products or services closely linked to Atlas Copco’s core business and in able to expand within in a specific market. Atlas Copco is also, as many other companies with similar size, selling its products under different names in able to cover as many segments of the market as possible.

Profitability vs. Growth

Atlas Copco is talking about “profitable growth”, which is clear when not allowing some business divisions to acquire if not being profitable enough. Each unit must have a strong competitive core business before it is prepare to expand its business by acquisitions. Some business areas within Atlas Copco are not allowed to acquire competitors until they have proven to be profitable by themself. However, overall Atlas Copco is confident in its products and services superiority, and therefore growth is desirable to create as much value as possible.

Other

One of the greatest possibilities for Atlas Copco in the future is to expand its profitable services as much as possible. This is clearly a target area for Atlas Copco.

Atlas Copco is not distinctly afraid of any competitors emerging from e.g. Asia, considering it is difficult to create products or services of such high quality to such a low quality. Instead, the biggest threat is internal, that Atlas Copco becomes self-righteous and wasting money or not being innovative.

5.5.2.3 Ericsson - (Frykhammar, 2013)

Profitability

Ericsson’s customers are the telecom operators all over the world. Ericsson has a better opportunity to keep up their margins while targeting only the top two

telecom operators in each market, based on market share. This is because normally only the top two players are making a good profit.

Ericsson is working with three competitive assets; Technology Leadership, Service Leader and Global Scale. These assets enable Ericsson to cover a great part of the chain and therefore perform well and remain profitable over time.

Growth

Ericsson uses its Ericsson Strategic Forecast, ESF, for 5-7 year ahead, which is continuously improved and adapted according to the current market situation.

Ericsson is working with three parallel tracks of growth:

- Portfolio Momentum
(Focus on the part of the market that is growing the most right now)
- Market share gains
- Mergers & Acquisitions

Out of these three growth tracks, “Portfolio Management” has a prioritizing of about 80 % and organic growth is the superior way of growth for Ericsson. One reason for this is that as a world leading organization, Ericsson is not able to acquire interesting competitors because of competition regulations.

To keep growing Ericsson cannot only focus on increased market share, because with only a few players in the market, buying market share is an expensive way of growing. Instead Ericsson is widening its portfolio and still targeting the same customers.

Mergers and Acquisitions are normally performed in order to fill portfolio gaps by consolidating market positions or buying knowledge for new areas. Ericsson needs to grow with their customers; in other words, to come up with solutions that match their customers’ growth strategies.

Research and development is one of the largest costs areas at Ericsson and it is really important to be able to stay competitive in a constantly changing market.

Profitability vs. Growth

Ericsson is working with a long-term profitability focus. The business model is built on selling the base station for a low price and then having all rights to the hardware and software updates, as well as optimization programs during its lifetime, which normally is 10 to 20 years.

While selling a whole solution, including services, updates and optimization, the restricted equity can be decreased. The margins might be lowered, but if the total asset turnover is increased the company will be more profitable.

Other

In 2006 – 2007 a new Asian low price competitor, Huawei, entered the market. Huawei's entry at the market led to a price war that resulted in a price level drop at 50-60 % in the market. This led to major changes within Ericsson and a specified cost focus emerged. A lot of employees in Sweden had to leave their positions and many support and supply functions have been outsourced to low cost countries. Research and development however, has not been outsourced, thus this really is Ericsson core competence.

5.5.2.4 Gunnebo - (Wallström, 2013)

Profitability

Gunnebo has been performing the same EBIT target for about 10-12 years without ever reaching it. The company has, as being described below, grown for a long time without having consolidating each company and its goals and targets with the groups, which have resulted in lack of integration and that few synergies have been reached. Today Gunnebo is working hard on improving its profitability, for example through divestments not linked to its core business. Gunnebo is also focusing on decreasing its costs, mainly within purchasing, decreasing the number of employees and creating standardization. Significant for Gunnebo's production process is that it is local, mostly due to difficulties in transporting for example a heavy and large safe. This is decreasing the ability to put the production in low labor cost countries. A focus today is to move from being a product provider to becoming a service provider, which is more profitable.

Growth

Gunnebo has in the past been growing significant through mergers and acquisitions, but with lack of integration within the group. In 2005 was Gunnebo what can be described as a conglomerate of independent companies with their own company names. The organic growth as a share of the total growth was during many years nearly nonexistent. There was a lack of policies within in the group when it comes to profitability targets and what sort of companies that should be included within the group. During the recent years, Gunnebo has begun to work towards creating an aggregate Gunnebo group, where the same brand is used and with a great focus on creating an integrated group. Today Gunnebo is working on selling of a number of

subsidiaries not linked to Gunnebo's core, "security". Mergers and acquisitions is however relative common, mainly in an attempt to reach great geographical scope and speed.

Profitability vs. Growth

After prioritizing growth for a long time Gunnebo is now trying to focus on being more profitable. Gunnebo now wants to "grow profitable".

Other

"It is interesting how great role the macro economy is playing. We are where we are, due to a financial crisis in Sweden in the beginning of the 1990s."

The overall increasing demand on security worldwide, for example on cash, is something Gunnebo is following closely and is something Gunnebo sees great opportunities within. One of the major threats for Gunnebo is the financial climate, since Gunnebo and its customers are sensitive for macro trends.

5.5.2.5 Saab - (Håkansson, 2013)

Profitability

At Saab there is a great focus on the margins and its costs. Within the industry, Saab is facing high margins, there are a lot of competitors that are not offering premium products and services and therefore are facing lower margins compared to Saab. Services and the aftermarket is where the highest margins can be reached and is therefore prioritized.

In able to decrease the costs Saab is working on becoming more flexible, by for example outsourcing production and development to low cost countries. When the demand increases it is relatively easy to obtain competent employees through consultants, who also are easy to let go when, or if, the demand is decreasing in the future. This is important, because otherwise Saab might lose the client to a competitor. But when the demand decreases very drastic, for example when USA decided to leave Afghanistan, Saab cannot be that flexible and an incident like this is harming the profit significantly.

Growth

Organic growth is prioritized ahead of acquisitions. Some units, the ones with lower margins, are not allowed to acquire at all. Others, where the core business is strong, are having optimistic growth targets. In the past there have been a focus on expanding the product portfolio, but this is more or less considered to be well

covered today. Today, acquisitions are performed to gain market access in thrive of growing fast. Services are the area that is growing the most and where Saab sees the greatest potential.

Profitability vs. Growth

Profitability is priority number one, but it is difficult to grow while maintaining high margins. One of the most important factors for Saab's future, both in terms of growth and profitability, is the outcome of the JAS Gripen businesses. Considering that it is hard to predict where and military efforts will be needed in the future, it is difficult to have too strong growth focus.

Other

As mentioned above, Saab is sensitive to political changes when for example a country is leaving a war zone. These changes are difficult to predict and handle without losing profit. When USA is leaving Afghanistan, it is likely that Saab's competitors from USA will be more aggressive in trying to grow in other markets. The fact that Saab is present in an industry with so much political interests creates great challenges. But for the same reason is Saab having an advantage compared to some competitors, considering Sweden being a neutral country.

5.5.2.6 Sandvik - (Burman, 2013)

Profitability

Sandvik has recently made an organizational transformation (2011), which is called "One Sandvik". The target with the new strategy is to make Sandvik the number one player within its niche. To get there Sandvik wants to reach economies of scale through collaboration within the group. Some business units are having good margins and do not need to focus on improving their profitability. However, some units, like Material Technology, need to improve its margins and therefore that is priority number one.

Because wanting to reach economies of scale, a great focus is decreasing the costs. Different ways are to outsource, minimize waste, improving the logistic system and making the production as flexible as possible. Sandvik are also working on having a flexible work force, where the employees are saving their overtime hours they collect during high demand and then is being used when the demand decreases. This results in not having to fire competent employees during e.g. financial crisis.

In able to stay competitive Sandvik are focusing on being as close to its customers as possible and also to focus on R&D and innovation.

Growth

Both organic growth and M&A is common for Sandvik, but it is important that each unit keeps and maintains its core business. For those units that are facing lower margins growth is prioritized.

Profitability vs. Growth

As mentioned above, some units are more focusing on growing and some need to improve their margins first. For those units it is important to understand that they cannot only grow away from the problems, they first need to secure its core business, decrease the costs and by that improving the margins, then it is time to grow.

Other

The greatest threats for Sandvik are what its present or potential competitors might do. It is therefore important to be aware of the environment and adopt with speed. Asia is interesting, both in terms of threats but also in terms of opportunities.

5.5.2.7 Scania - (Junebrink, 2013)

Profitability

Margin is a main focus area for Scania. The target is to keep as much of the margin in the manufacturing process as possible, not at the retailer.

The different markets are, when it comes to product margins, highly various for Scania. Legal regulations are in a high degree affecting the profitability for Scania, because of its great market share in some markets.

Scania is a premium brand and are not competing with price; instead Scania is competing with a total customer solution. Asian low price competitors offer cheaper trucks, but have almost no aftermarket services at all. It is therefore still important for Scania to deliver trucks to these markets, and also a source of competitive advantage. Service is a really high margins business for Scania, its distributors and its retailers. The higher price of a Scania truck is compensated during its longer lifetime. The procurement cost is only a small part of the overall lifetime cost, including running costs as driver, fuel, spare parts and breakdowns.

During the past financial crisis Scania learned a lot. One of the main missions for Scania was the importance of keeping the competence within the company. When the demand decreased, Scania introduced SFA, Scania Flexible Arbetstid (Scania Flexible Work time), changing to four days' workweek for the employees and more flexible working hours. By the introduction of SFA, Scania did not need to discard any of its employees. The cost focus is total and permeates the entire organization.

In-house and outsourcing processes are varying over time. Local suppliers are important. Outsourcing of some parts were moved to Brazil, but needed to be relocated because of the long lead-time to the Swedish manufacturing plant.

In other regions, like India, local actions and manufacturing are necessary in able to stay competitive. The low cost competitors are getting better and better, and in the long run there might be necessary for Scania to go back to low cost outsourcing to stay competitive, even if the lead time will increase.

Growth

Scania is constantly entering new markets and segments and to be a sustainable competitor over time Scania needs to increase its volume. Some of the new markets and segments are associated with low margins, but this will pay off with aftersales services performed by Scania. "We have picked all low hanging fruits – now the rest is remaining..."

One of the latest segments for Scania is the mining industry. The trucks are sold with service packages to a higher margin than average. Lots of service and spare parts are required due to the hard work environment for the trucks and because of the off-locations; Scania needs to specialize solutions to fit the clients. The truck needs to be able to function all the time.

Even though the growth is important for Scania, the growth needs to be profitable. At least it needs to be profitable in the long run. There are no structural problems when it comes to growth. The company is still very centralized in Södertälje, Sweden, but the organization is visible and not hierarchic.

The former CEO, Leif Östling, avoided mergers and acquisitions with the motivation that it is more difficult to get a merged organization to work with the same shared targets over time. This statement has resulted in very few acquisitions the past 10 years and the production has only grown organically.

Profitability vs. Growth

The competition is constantly getting tougher, but Scania wants growth. Some of the growth is at low margin markets, but there is still a margin. All growth is made on markets where profitability is calculated even if the margins in some markets and segments are lower than today.

Other

The low cost countries are today producing trucks with a quality not comparable to the quality Scania is delivering, but the low cost producers are constantly improving their production system and quality and might within a few years be close competitors.

5.5.2.8 SKF - (Bertilsson, 2013)

Profitability

SKF has for many years been having most of the value chain in-house; from manufacturing the steel to selling the final products. The past 12-15 years, major organizational changes have been realized. Today SKF are working increasingly with outsourcing, focusing only on having its core business in-house. The reason, and the results, of core focus are to increase the profitability and the flexibility.

The outsourcing enables the fixed costs to transform to variable costs and the capital employed has decreased. Steel and different components are examples of parts being outsourced. All parts that do not affect the quality and performance of the products are outsourced.

Staffing companies are used to decrease the amount of fixed costs and also to contribute to the flexibility of the organization, where it is more convenient to handle increases in demand. According to the interviewee, the level of margins is important to be able to handle decreases in demand.

SKF has transformed from standardized products, with high focus on price and volume, to more advanced solutions, tailor-made for the client.

Growth

SKF are mainly focusing on organic growth and are only focusing on the products they are best at; reducing friction and thereby energy consumption. Historically, a few mid-sized (50-100 million euros) companies have been acquired each year.

Success factors of Nordic manufacturing companies – manufacturing for the future

The critical issue is to identify emerging markets and fast growing segments fast enough, like SKF has done in the Asian region.

SKF does almost never leave a market due to lack of growth, but if the profitability is decreasing, a segment can be prioritized lower. SKF are not at all competing in the lower price segments, such as vacuum cleaner bearings. Instead high focus is addressed to more demanding applications and customer industries, where the quality and performance requirement are highly important.

To meet the competition and demand from less developed countries, SKF have started up “mid-priced” manufacturing in low cost countries. Standard SKF bearing has a quality with a lifetime multiple what the low cost vehicles is having. Therefore the truck manufactures are not willing to pay a higher price for the quality products, it is not useful anyway.

The growth target of 8 % is the same target externally as is communicated internally. However, the internal target is set on all divisions and if all targets were consolidated, the sum would be greater than 8 %.

Profitability vs. Growth

At SKF there are no conflict between growth and profitability. With high margins it is easier to grow. But it is important to have control when growing; only focusing on a few areas or segments at a time.

One way to increase the profitability is to exclude the low margin segments. Just as the case with the vacuum cleaner, SKF are constantly working with eliminating low profit segments and finding new high margin segments to replace those with.

Increases in market share are supposed to derive from the products and its performance, not due to lower price levels than competitors.

Other

SKF recognizes great opportunities in developing new technologies and innovations. Even China and India are areas where SKF perceives opportunities within the following years.

External threats, such as financial downturns or world war, would of course affect SKF as well as all other companies. An advantage for SKF is that they are differentiated in different industries and probably could handle it better than others more niche companies.

5.5.2.9 Uponor - (Anglenius, 2013)

Profitability

Uponor is active in an industry with high pressure on prices. There are standardized products in the portfolio with low margin, but they still need to be a part of product portfolio to be able to sell the more unique, high margin products. When working with low margin products it is of high importance to work with volume and effective logistics.

While the products are relatively cheap, according to their size and ability to be shipped, there is no bigger competition from Asian low cost countries. Instead east European countries are competing with Uponor by lowering the prices. For them, the Nordic market is a bonus, where they can offer lower prices without harming their brand on their own Baltic market.

The more complex solutions and the higher quality level of some products, offer higher margins. Uponor are also offering customization of the products to be able to sell the perfect matching product to its customers.

The demand is higher during the summer, and to handle this, the personnel are accompanied with staffing companies during the peaks. During the periods with lower demand the production speed are lowered, but production are being active to store and prepare for the periods of higher demand.

Few parts of the processes are outsourced, normally only components in lower quantities where the setup cost for an own production line is higher than to outsource.

The products are normally manufactured close to the market and therefore it is possible for Uponor to keep the lead times short, 5-10 days, with even shorter lead times when products are in stock.

Growth

While working in the low margin segment, it is essential for Uponor to grow to ensure the profitability. The market is practically not growing at all, so to gain growth Uponor needs to actively work with both new markets entry as well as extend their product portfolio. During the past 5 years have a lot of products been added to the product portfolio in able to grow by entering new product segments. In 2012, 26 % of sold products were launched during the past 4 years. This is due to a strategic action earlier, where Uponor intended to sell off many parts of its company and therefor the level of research and new products were low.

Success factors of Nordic manufacturing companies – manufacturing for the future

Uponor are not buying market shares by lowering the price. Uponor is working in an industry with low margins and it is therefore hard to buy market shares by competing with the price levels.

To gain growth and economies of scale, Uponor is working to setup a joint-venture with another actor in the market. If there will be a joint-venture or not will be decided by the Finnish Market Court this spring.

Uponor is mainly focusing on organic growth and this has been the strategy for the past years.

Profitability vs. Growth

The strategies vary drastically in different market. While growing in Norway, the margins are set at a high level and market shares are increased due to the quality and customization. But if entering the Russian market, the prices will need to be lowered at an initial stage, according to the Uponor representative.

Other

Uponor has been retargeting their strategy, for example when it comes to the Infrastructure division; from earlier plans to utter the division, to instead venture and investing in research and development. The main divisions Building Solution and Infrastructure are not having any special synergies of the group more than according to administrations and support functions that the divisions are sharing.

6 Analysis

In the following chapter the gathered data, through both interviews and the survey, have been analyzed based on the four created hypotheses. Each hypothesis has been tested one by one and the chapter ends with a summary where tendencies of strengthen hypotheses were found in two out of the four hypotheses.

6.1 Analysis of data

The analysis of the gathered data consists of both the interviews and the survey responds. A detailed list of company representatives included in the interviews can be found in Chapter 2.3.2.4 Choice of representatives and a list of the companies that responded to the survey can be found in Chapter 5.5 Interviews and surveys.

6.1.1 Hypothesis 1a: Targeting profitability ahead of growth increases the probability to become and remain a high performing company

The theoretical framework implies that there is no general relationship between profitability and growth. Empirical studies are indicating that when a company first is focusing on profitability then growth, is more likely to reach both high profitability and high growth (Davidsson, Steffens, & Fitzsimmons, 2009). This could imply that the high performing companies in this study are, or have been, focusing on profitability as priority number one, which this hypothesis intends to test.

The high performing companies all emphasizes how they prefer profitable growth. Growth needs to be profitable, but the time span over when the growth needs to be profitable is varying, both from company to company, but also within each company. All the high performing companies agree that they do not want to enter a specific market if they cannot charge as high margins as they want. If exceptions occur, it is often under another brand, in order to protect the high quality image, according to e.g. the SKF representative. This is also aligned with what the theory claims to be a source of competitive advantage (Koller, Goedhart, & Wessels, 1990) and core competence (Prahalad & Hamel, 1990). The high performing company Scania stands out from the others. According to the interviewed representative, profitable growth is desirable and non-profitable markets are avoided, but as long as there is a margin it is better to grow small, than not grow at all. This could be favorable if considering that the competitors might capture market shares instead (Penrose, 1959).

Gunnebo is one of the companies that stand out from the rest in terms of growth. They have shown negative growth during the last 8 to 10 years (Gunnebo, 2012),

even though they have had a focus on growth during these years, according to representatives from Gunnebo. Due to organizational issues, Gunnebo was not able to benefit from its acquisitions and did not manage to reach synergies (Ficery, Herd, & Pursche, 2007) and high growth and profitability. This is in line with what Davidsson, Steffens, & Fitzsimmons (2009) argues, that a company needs to focus on profitability at first. Today Gunnebo are focusing on profitability and core, which is further elaborated in Chapter 6.1.3 Hypothesis 2a Core Competence.

There are two possibilities of growth; organic or by mergers and acquisitions, as mentioned in the theory chapter (Koller, Goedhart, & Wessels, 1990). Both the high- and low performing companies are all growing, both organic and through mergers and acquisitions, and the reasons are varying, e.g. aiming for increased; sales, market share, revenue and production (Ansoff, 1965). Both SKF and Alfa Laval, two high performing companies, are both stressing that organic growth is priority number one, which is less risky (Penrose, 1959). This view is however shared by some of the low performing companies, e.g. Ericsson. This can also be seen as a result of Ericsson's considerable high focus on R&D (see Appendix IV – Cost Pattern).

A company can work with its margins in many ways. The company can work with decreasing the costs, which the high performing company Alfa Laval claims to focus on. This can be made through e.g. minimizing the manufacturing setup time (Kaiser, 2003). The high performing company, SKF, is not focusing on decreasing the manufacturing costs, simply because it is already difficult for any competitor to produce at the same cost and at the same high quality. Instead SKF is constantly reviewing its product portfolio in order to eliminate or leave non profitable products or markets, which is another way of securing high margins. Ericsson on the other hand, a low performing company, is instead working with increasing the asset turnover, which together with low margins is resulting in higher profitability. Another low performing company, Gunnebo, has for many years struggled with organizational issues and is now working on reaching synergies (Ficery, Herd, & Pursche, 2007), in hopes of increasing its margins. Given this spread, there is no obvious relationship of how the different companies are working with organic growth or with mergers and acquisitions.

There is a mixed opinion among the companies regarding the tradeoff between profitability and growth. The representative from SKF do not see any conflict at all, as long as the margins are high it is easier to grow. It is likely that he refers to how high margins allow SKF to make a profit when expanding, even though the volume might be low. The representative from Saab however, stresses the challenge to maintain margins while expanding. Saab is also facing political barriers to grow, which might affect its ability to become a high performing company. The situation is

similar for Ericsson, who is facing barriers to growth, primarily through mergers and acquisitions, due to regulation of competition. Instead Ericsson is forced to focus on portfolio management, in order to increase sales (Ansoff, 1965).

A noticeable trend among the interviewed companies is how services have become a more and more important part of their businesses. This is in line with servitization, discussed by Vandermerwe & Rada (1998). Most of the interviewed companies are offering services, but it is more important for some of them. The representative from Scania emphasized the importance of services as a stable income during financial downturns, which also is a vital part of their business, the total customer solution. Scania shares this focus on the aftermarket with both the high performing company Atlas Copco, but also with the low performing company Ericsson. The latter is, according to the interview, not making any great profit on its sales of base station. Instead it is during the following 10-20 years that the profit comes from. The situation is similar for Atlas Copco, with the exception that they are selling with, a good profit on both the equipment and the following services, according to themselves. The services are also 2-3 times as profitable, so even if Atlas Copco does not need to be dependent on the services, the servitization is highly desirable. This is also efficient in terms of creating high switching costs for the customers, which is creating barriers for new entrants (Porter M. E., 1998). In other words, both high- and low performing companies are focusing on servitization, but perhaps some of them are making greater profits from it than others.

There are tendencies that the high performing companies are aware of the benefits of focusing on profitability first, growth second. Both Atlas Copco and Sandvik want to expand their business and grow, but all divisions are not allowed to acquire. The reason is simple, they are not profitable enough. As the representative from SKF said; "Growth should be made thanks to the excellence of the products, not by lowering the price". The divisions need to be profitable and well-functioned internally at first, then they are allowed to grow, which is completely in line with the theory if wanting both high profitability and high growth (Davidsson, Steffens, & Fitzsimmons, 2009). This focus differs from how e.g. the low performing company Gunnebo previously has been working and therefore there is a tendency towards that this hypothesis is strengthened.

6.1.2 Hypothesis 1b: There is a deviation of how high- and low performing companies are spending their costs

Both high- and low performing companies' cost pattern, i.e. what they spend their money on, have been analyzed over a period of ten years. A multiple linear regression has been conducted in order to identify any relationships or differences between the high- and low performing companies, which is presented in Appendix 80

IV – Cost Pattern. The linear regression resulted in no significant relationship between any factor and the high/low performing binary.

The linear regression has been calculated using MS Excel first with only the Swedish companies and then with both the Swedish and Finnish companies. The reason for this breakdown is the lack of information of the Finnish companies. Both analyses were resulting in low r-squares; 0,21 and 0,84. There are no trends found.

Ericsson is clearly distinguishing itself by spending almost a fifth of its total costs on R&D, while the high performing company Atlas Copco is only spending 1/40 of its total costs on R&D. If the reason is a stronger R&D focus than all the others or that major investments in R&D is common and necessary in Ericsson's sub-industry, is uncertain.

One of the divisions at Uponor, Infrastructure, had for a couple of years ago almost no spending on R&D at all, according to the interviewed representative. The reason was that the management team considered to divest the division and therefore did not want to spend unnecessary money on R&D. The fact that this strategy later was changed might have affected the division's ability to stay competitive, with lack of new products to offer its customers.

The use of the cost pattern is strictly dependent on how the companies report their costs. For example, Gunnebo is not reporting any R&D expenses as costs, according to the interviewed representative from Gunnebo. The R&D is a long-term investment for Gunnebo and thereby only considered a movement of the assets, not affecting the annual profit, only the balance sheet.

Taking into account that the companies have the opportunity to twist the reported amount of cost in each category and the fact that the linear regression showed no significant relationship, it is difficult to identify any deviation of how high- and low performing companies are spending their costs. In other words, hypothesis 1b: *deviation in cost spend*, cannot be strengthened.

6.1.3 Hypothesis 2a: Focusing on core competence is essential in order to be able to grow, reach and remain the position as a high performing company

The core competence theory implies that focusing on core competencies is the approach to reach and remain both growth and profitability (Prahalad & Hamel, 1990). Based on this theory, the hypothesis tested whether the high performing companies made more use of this theory than the low performing companies.

None of the studied companies, represented through the interviews, are working exclusively with their core competence. What has been found is a slight difference in

the approach to core competencies and when the companies started working with core competencies.

The studied companies are working with core competencies in different manners. The companies that strongly are focusing on its core competencies, according to the interviewees, are Alfa Laval, Sandvik, Scania and SKF. Alfa Laval are working with three product lines, developing these to remain best in class, but not aiming to enter other segments. Similarly, Sandvik is only performing few operations in-house and is outsourcing the others in the same strategy as Scania does. SKF was 15 years ago performing most of the operations in-house. However, during the past years SKF have transformed and are today almost exclusively doing their core operations, the operations that no competitor can do as good or at such low cost as themselves. The other operations are today out-sourced. Having high focus on core competence is according to (Prahalad & Hamel, 1990) the key to success. All studied companies are profitable over the time period. The core competences focus is there to develop and refine the competitive advantages (Prahalad & Hamel, 1990).

Atlas Copco, Ericsson, Saab and Uponor are not paying the same attention to their core competences as Alfa Laval, Sandvik, Scania and SKF do, according to the interviews. Ericsson is operating within the telecommunication industry, but diversifying their product portfolio to find new product segments any thereby grow. According to the interviewees; Atlas Copco, Saab and Uponor are not only focusing on their core competences, but also focusing on non-core operations; operations that are not difficult to imitate or do not add significant customer value (Prahalad & Hamel, 1990). For instance, Uponor are producing basic pipe-lines that can easily be copied and with really low profit. The reason is just to be active in the market and thereby increase their probability to sell their advanced product and gain growth.

Gunnebo has during decades had a growth strategy of acquisitions, ending up with a group company with a lot of diversified companies and subdivisions. Many of these are operating under different brands. The work gaining economies of scales by consolidating subdivisions and work with core competence started during the middle 2000s, years after SKF started their work with core competences.

The high performing companies are more likely to prioritize core competence than low performing companies. All high performing companies are highly focusing on core competences and working to refine their competitive advantages. The exception is Atlas Copco, working with core competencies but is highly diversified. Common for all studied companies is that the key drivers for competitive advantages were high quality and strong brands in combination with innovating products

(Vandeven, 1986). These are essential parts of a wealthy business (Koller, Goedhart, & Wessels, 1990).

The companies categorized as low performing, Ericsson, Gunnebo, Saab and Uponor, are not following the principle with core competence. The exception, Gunnebo, is since a few years trying to focus on core competence when performing major organizational changes. The other companies are diversifying their product portfolio, working with a wide product range and are active in many industries.

From the survey a trend was identified, where companies categorized as high performing companies rated *outsource manufacturing* as more important than the companies categorized as low performing. The low performing companies rated *early adopt new technology* higher than the high performing companies. According to (Prahalad & Hamel, 1990), it is essential to have a core competence and one way to build that is by early adopting new technology. This might be an indication that the high performing companies working with their core competences are more interested in outsourcing while the low performing companies are searching for a core competence by early adopting new technology and thereby be able to become high performing.

There is a tendency that the high performing companies increasingly are working with core competences and that the low performing firms instead are diversifying their product portfolios and thereby targeting growth. This tendency is also strengthened by the survey, where outsourced manufacturing is more important to the high performing companies.

6.1.4 Hypothesis 2b: High performing companies are having a more flexible cost structure than the low performing companies

The importance of having a flexible organizational structure has been stressed in the theoretical framework (Tech-Clarity Inc., 2012) (Kaiser, 2003). Some of the high performing companies, like Alfa Laval, emphasized how much it has learned from the recent financial crisis and how Alfa Laval is a lot more flexible today. Similar responds came from both SKF and Sandvik, which both had gone through great changes the last years, both strategically and organizationally. Even if the economic downturn harmed Alfa Laval and had a serious impact on its value creation those years, there could be some positive consequents. Representatives from Alfa Laval are indicating that Alfa Laval is likely to handle a future financial crisis better after this experience.

The use of staffing companies, in order to obtain flexibility (Abraham, 1988), has increased since the recent financial crisis for some of the companies, which allow them to more easy increase or decrease the work force. This is widely used by both

high and low performing companies. But both Sandvik and Scania, two high performing companies, are not promoting staffing companies. They are instead proudly talking about their use of “time banks”, which allow them to keep competent personnel within the organization during economic downturns, without losing too much money. According to the theory of Houseman (2001), some are companies using staffing companies in order to avoid spending on employee benefits. This could harm the organizational health, which according to the theory is a vital value driver (Koller, Goedhart, & Wessels, 1990). However, this has not been confirmed by any of the companies that are using staffing companies.

The recent financial crisis affected naturally the low performing companies as well, but there have also been other factors that have affected their performance and their view on having a flexible cost structure. The entrance of Huawei forced Ericsson to make great changes to be able to offer similar prices as Huawei. If linking this event to the theory, the threats of new entrants appeared to have been strong, perhaps because of good margins (Porter M. , 1979). Ericsson decreased the number of employees in Sweden and support services are now handled abroad, which makes it more flexible, according to representatives from the company. Saab is present in an industry where political interest has a great impact on the performance. The degree of rivalry could therefore vary a lot depending on who the buyer is (Porter M. , 1979). This is putting further pressure on Saab to be as flexible as possible. All low performing companies are working with staffing people and e.g. Ericsson’s and Saab’s use of external consultants is most likely increasing their flexibility. Alfa Laval is one of the high performing companies that have highlighted the difficulties to find competent personnel fast enough during increased demand. This is also what, according to the theory, could be a barrier of growth (Daunfeldt & Bornhäll, 2011). This is something none of the low performing companies considers an issue, not to mention because of the availability of staffing companies.

There is indication of a deviation, when studying the companies’ manufacturing processes. The high performing company Scania is focusing on modular manufacturing solutions, which according to Tech-Clarity Inc (2012) is an advantageous way of having a flexible manufacturing system. However, another high performing company, SKF, is more or less working in the opposite direction, towards less standardized products. The reason is that there are higher margins within that customized segment, according to the representative from SKF. This could however affect SKF’s flexibility due to greater set up time, which is said to be an important factor when obtaining a flexible cost structure (Kaiser, 2003). This creates a great pressure on the whole organization to be flexible; otherwise the high margins will disappear. This is the opposite of Scania, who wants to standardize its

manufacturing as much as possible, in order to decrease the costs, receive as high margins as possible and to be able to offer the customers spare parts quickly. The fact that Scania is working towards the opposite of SKF, which Scania is sharing this work method with the low performing company Gunnebo, makes it difficult to find any tendencies regarding differences between high and low performing companies.

It is common for the high performing companies to outsource manufacturing, in some cases to an extent that only the real core and most vital part is manufactured in-house, which is the case for both Atlas Copco and SKF. The reason could be that they both are possessing unique resources that is difficult for competitors to imitate (Koller, Goedhart, & Wessels, 1990). Atlas Copco also stresses how most of its business units are producing on order, which allow them to not having to lower its prices in order to win customers, in order to cover high fixed costs. This is making them more flexible, but also vulnerable and depend on their supplier. Atlas Copco is also selling up to 80 % straight to final customer with no agencies involved. By that sales structure Atlas Copco can secure high margins, but it could also imply that they are facing higher fixed costs to have their own sale force on every market, which might harm their flexibility. It is however likely that Atlas Copco is having a strong relationship to its customer, which according to Koller et al. (1990) a source of cost efficiency.





Both Gunnebo and Uponor have indicated that they do outsource some parts of the production, but rarely the main processes. The fact that Gunnebo believes it is difficult to outsource or have the production centralized could be an issue in terms of flexibility. Manufacturing plants are likely to bear fixed costs, which could imply less flexibility. When Uponor is manufacturing most of its products in-house there is a risk that the stock grows big, which of course is beneficial if the demand increases but on the other hand is capital-intensive. Gunnebo's work towards standardizations, both in terms of organization and product manufacturing is probably an attempt to gain cost efficiency by economies of scale (Koller, Goedhart, & Wessels, 1990).

Both the high- and low performing companies both have indicated that the ability to adapt the manufacturing if changes in demand occurs as the most important factor to achieve flexibility, according to the survey, which is presented in Appendix II – Survey. This factor is said to be more important than the use of staffing personnel, outsource manufacturing or working on improving manufacturing processes. However, when comparing what is most important, the high performing companies value flexibility during decrease in demand and the low performing companies are valuing financial strength.

The fact that it is difficult to determine variations of the view on flexible cost structure for the high- and low performing companies implies that the hypothesis cannot be verified. Potential reasons could be that the companies have different views of what having a flexible cost structure involves, or that the disparity in each companies business plays too great role.

6.2 Hypotheses Tested

Table 6 Hypotheses Tested

Hypothesis	Results
1a: Targeting profitability ahead of growth increases the probability to become and remain a high performing company	Tendency is found 
1b: There is a deviation of how high- and low performing companies are spending their costs	Not proven 
2a: Focusing on core competence is essential in order to be able to grow, reach and remain the position as a high performing company	Tendency is found 
2b: High performing companies are having a more flexible cost structure than the low performing companies	Not proven 

7 Discussion

This chapter consists of a broader discussion of the previous analysis chapter. The findings and the hypotheses are openly discussed and potential connections are discussed. The chapter ends with a discussion of the analysis in a wider perspective.

7.1 Hypothesis 1a: Profitability ahead of growth

As presented in the analysis, almost all companies are mentioning the term *profitable growth*. The importance is obvious, but the question is how rigorous are the companies working towards profitable growth and when is growth profitable enough? This is probably varying from company to company, but the term is possibly diluted. That profitable growth implies that growth needs to be profitable is obvious, but the term profitable could be ambiguous. Some companies could interpret that the margins need to be high enough; otherwise the growth is not profitable. On the other hand, a number of interviewed representatives have explained how some growth is due to reaching new markets, which could imply a lowered price and decreased margins.

When comparing the high performing companies, Scania seems to stand out from the rest when it comes to the margins. The margins are priority number one for almost all high performing companies, but there are tendencies that Scania wants to grow a bit more. The interviewed representative is also indicating that the volume needs to be increased in the future. The lower margins on sales can also be taken care of during the profitable after sales market. There is a possibility that Scania is in a place where they can look for options to grow aggressively, only for the reason that they are confident and profitable enough in their business. Perhaps they should be confident, considering they are one of the few companies operating in the manufacturing industry that managed to deliver a profit the years after the financial crisis (Scania, 2012).

Today, Gunnebo's strategies seem similar to many of the high performing companies'. It could therefore be difficult to identify why Gunnebo is a low performing company, if only studying the present. This is why it is of high importance to study the changes that have occur the last years for all companies. It is possible that Gunnebo began its organizational changes and work towards profitable growth instead of acquiring company after company without reaching synergy effects. SKF made great changes a couple of years ago and managed to increase its margin vastly, according to the interviewed representative from SKF.

Perhaps has Gunnebo just begun and if making the same matrixes in 10 years, perhaps Gunnebo is one of the high performing companies?

7.2 Hypothesis 1b: Deviation in cost spend

Even if the compared companies are sorted out to be the largest manufacturing companies in Swedish and Finnish industry there still is huge differences in the size of the companies; Ericsson turnover is more than forty times Gunnebo. This also affects the costs. The total costs for Ericsson are higher than the total costs for Gunnebo.

Investigating the costs might hide the reasons behind whether a cost is high or not. There is a major difference in a company spending a fixed large amount on R&D to become best in class compared with a company that needs to spend even more because of an ineffective R&D process; the same for all costs. Does high administration percentage indicate top performing administration or really low performing requiring a lot of money to keep running?

7.3 Hypothesis 2a: Core competence

In the analysis a tendency that high performing companies are more likely to implement the core competence concept was found. In a world characterized by increased globalization (Ahuja, 2011), where the Nordic companies faces competition from the low cost countries, it is important to find sustainable competitive advantages, an outcome from core competence focus.

Companies of this size are of course not only working with one or a few core competences, but significant variations in the sample are found. SKF, as a world leading bearing manufacturing, are working with a lot of services and equipment around the bearing. The major difference is that SKF are working with the core competences and outsourcing other operations contrary to Ericsson that are diversifying their product portfolio. Focusing on the core competence and trying to develop new core competences might be a good way to choose. This enable outsourced operations by low cost suppliers (but of course to the expected quality) and mainly performing the core competences in-house.

The difference between focus on *outsourced manufacturing* and *early adopt new technology* are most likely due to focus on a core competence. During the interviews, most of the representatives from the companies saw a relationship between focus on core competence and the ratio of outsourced operations. It is possible that the high performing companies are outsourcing other activates to be able to focus on their core competence, while the low performing are searching for a core competence in the new technology.

Together it is an interesting finding that explicit core competence focus is more common for the high performing companies, in combination with outsourcing higher ranked by the high performing and early adopts new technologies higher ranked by the low performing companies. The Core Competence approach has been discussed since early 1990s (Prahalad & Hamel, 1990), but some companies, for example Gunnebo, joined this approach year after the introduction; nowadays working with their core competencies, outsourcing and to increase economies of scale.

7.4 Hypothesis 2b: Flexible cost structure

It is challenging to find any obvious deviation when comparing the high and low performing companies. Many of the companies discussed how much they have learned from the recent financial crisis in terms of flexibility. When studying the financial crisis, from Alfa Laval's point of view, it might have resulted in harming some of its competitors more than Alfa Laval itself. If looking ahead, it is reasonable to say that there will be further economic downturns in the future, and there is the possibility that Alfa Laval now is better prepared.

The use of staffing companies is widely spread among the companies, both high- and low performing. But the question is; is it flexible enough? This is interesting because the benefits are easy to identify, e.g. more satisfied and motivated personnel and the companies are also maintaining competent personnel within the organization. The fact that Alfa Laval finds it difficult to find competent personnel when the demand is increasing is interesting. However, it is hard to say that this is a problem exclusively for the high performing companies, considering that few other companies mentioned this issue.

The fact that none of the companies wanted to confirm that the use of staffing companies is suitable if wanting to avoid employee benefits. This was not surprising because if that would be the case, it could seriously harm the company's reputation.

It is difficult to say what is preferable when it comes to how to set up a flexible manufacturing process and to use staffing companies or not. In the end, what is the best for each company is whole other topic and is probably individual and dependent on the sub-industry and each company's organizational culture.

The external environment and how it has affected the companies is mentioned in the analysis in the previous chapter. It is obvious that some of the companies have faced great challenges, for example Ericsson, Saab and Uponor. These three companies are all according to this study low performing companies and there is the possibility that they have been less fortunate than the high performing companies. But is it that easy, that the low performing companies are where they are due to lack of

luck? If so, there is a great chance that today's high performing companies in the future will face serious challenges in the future as well. In other words, the industry life cycle could play a great role. Another possibility is that the high performing companies have been better at preparing and facing the external challenges that constantly arises.

7.5 A wider perspective

The findings from the analysis and discussion raise a number of questions, where the obvious one is what to do with these findings. Tendencies have been found that profitability should be prioritized initially ahead of growth and that high performing companies are focusing on core competence. This could be interesting for company executives and advisors to keep in mind when growth targets are discussed. It could in some cases be uncertain in whose interest an ambitious and aggressive growth target is; the company's or i.e. the CEO's personal.

The other hypotheses, where no tendencies were found, deviation in cost spend and flexible cost structure, were perhaps not a surprise. The companies are manufacturing and selling widely different products, even though they are present in the manufacturing industry, and therefore the cost spend is likely to vary. When it comes to flexible cost structure, the outcome is probably no surprise. Few companies, no matter what industry, do not work towards a flexible cost structure. The differences is how prioritized it is. To be able to verify this hypothesis it would probably be necessary to quantify to what extent each company are working with flexible cost structure.

Finally it is worth considering that the interviewees in this study not all have the same position in each company. This could affect both their strategic insight but they could also be involved in different incentive systems, which could influence their responses.

8 Conclusions

In this section, the final chapter, the findings are presented and linked to the purpose of the study. The strategies have been analyzed through the empirical findings and the four hypotheses, which were created from the theoretical framework. The result was that two of four hypotheses were strengthened. The chapter ends with suggestions of further studies, e.g. include industry life cycle analysis.

8.1 Result

Out of the four built hypotheses, tendencies were found in two of them;

- Targeting profitability ahead of growth increases the probability to become and remain a high performing company
- Focusing on core competence is essential in order to be able to grow, reach and remain the position as a high performing company

Two of the hypotheses were not proven;

- There is a deviation of how high- and low performing companies are spending their costs
- High performing companies are having a more flexible cost structure than the low performing companies

Targeting profitability ahead of growth implies a relationship between the high performing companies. Certainly all companies are targeting profitability, but some prioritized the profitability noteworthy higher than growth, in contrary to companies that are targeting a high growth, even to low or no profit at all.

In this study a tendency was noticed that the companies working with their core competencies in a greater extent, more often are the high performing companies. With, over the past years, constantly rising globally competition in the market, the need of core competencies is essential. Some of the studied Swedish and Finnish companies are competing with low cost competitors by delivering high quality products, in some of the cases their core competence.

Measured in percentage units, the companies cost pattern are not proven as a relationship of the high performing or low performing companies. As seen in Theoretical framework, no tendencies were found. This analysis is obstructed by diverged accounting principles at the companies, the different sub-industries and the sizes of the companies.

Even though market conditions can quickly change at the global market, the hypothesis of the importance of flexible cost structure was not proven. The interest and work with flexible cost structure has increase since the financial crisis in 2008, where most of the studied companies faced rapid decreases in sales. Outsourcing and using staffing companies are used to increase the flexibility of the cost structure; beneficial both when decreases and increases in demand are topical. But even when the companies are more likely to work with flexible cost structure, there are no relations connected to high performing or low performing companies found in this study.

There are tendencies found that high performing Swedish and Finnish companies are targeting profitability ahead of growth more commonly than the low performing companies. As well are core competencies more focused on in the high performing companies than in the low performing companies.

The purpose of this study was to identify strategies indicating why some companies within the manufacturing industry in Sweden and Finland are performing better than others. According to this study, two strategies are focus on profitability ahead of growth and focus on core competencies.

8.2 Further studies

Given that this study was performed on a relatively small number of companies and company representatives, it could be of interest to in a future study include a greater number and perform a quantitative study. On the other hand, it could also be of interest to study a fewer sample of companies and instead interview several representatives from each company, to get an even deeper qualitative understanding.

The use of staffing companies or “time-banks” has been discussed in this study. To compare these two methods of flexibility were outside the scope of this study, but could be of interest to investigating further. Suitable for that purpose would be a case study of two participating companies, one using staffing companies and the other using “time-banks”.

It was noticeable how external factors have negatively affected some of the companies. It could therefore be of interest to study and include an empirical industry life cycle analysis on each company’s sub-industry, which could be inspired by the paper on empirical industry life cycle by Miller & Friesen (1984).

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10 Appendix I – Turnover and ROIC

10.1 Turnover – Swedish Companies

Company \ Year	Turnover (1000 SEK)									
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002
ABB	60 351 000	57 253 000	62 332 000	60 628 000	59 054 000	47 111 000	42 422 000	36 869 000	41 218 000	62 371 000
HALDEX	6 961 000	6 906 000	6 033 000	8 416 000	7 997 000	7 922 000	7 521 000	6 774 000	6 037 000	6 428 000
ERICSSON	228 199 000	205 992 000	209 559 000	211 907 000	196 746 000	189 658 000	156 707 000	136 907 000	119 279 000	149 746 000
AXIS	3 597 300	2 933 000	2 300 700	1 975 508	1 678 506	1 205 025	895 066	691 481	624 858	677 631
ALFA LAVAL	29 055 000	25 214 000	26 481 000	28 372 000	25 211 000	20 082 900	16 602 500	15 311 000	14 151 700	14 863 600
VOLVO	310 367 000	264 749 000	218 361 000	305 231 000	285 311 000	259 804 000	240 596 000	211 258 000	183 291 000	186 198 000
TRELLEBORG	29 485 000	27 512 000	27 408 000	31 670 000	31 214 000	27 437 000	24 548 000	23 273 000	18 296 000	17 942 000
ASSA ABLOY	41 829 000	36 826 000	34 975 000	34 930 000	33 578 000	31 145 000	27 838 000	25 707 000	24 260 000	25 515 800
ATLAS COPCO	81 502 000	70 080 000	64 022 000	74 431 000	63 647 000	50 634 000	52 975 000	48 817 000	44 842 000	47 773 000
SYSTEMAIR	4 052 800	3 526 500	3 258 400	3 417 200	3 144 400	2 694 000	2 348 200	1 915 000	1 732 915	1 694 680
FAGERHULT	3 049 300	2 520 000	2 446 100	2 785 500	2 540 700	2 173 900	1 764 900	1 389 000	1 411 700	1 483 600
SKF	67 076 000	61 556 000	56 687 000	63 929 000	58 879 000	54 155 000	49 845 000	45 131 000	41 744 000	42 430 000
GUNNEBO	5 257 700	5 983 600	6 812 100	6 949 500	7 107 300	6 823 300	6 499 400	6 112 000	6 989 300	7 022 900
SCANIA	92 203 000	82 671 000	67 051 000	94 115 000	88 839 000	70 738 000	66 894 000	57 657 000	51 425 000	47 285 000
HEXAGON*	2 218 700	14 494 000	11 950 000	14 564 000	14 760 000	13 527 000	10 132 000	8 318 000	7 128 000	7 022 000

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SANDVIK	94 438 000	82 834 000	72 019 000	93 361 000	86 843 000	72 688 000	63 727 000	54 994 000	49 101 000	49 137 000
SAAB	24 849 000	24 670 000	24 796 000	24 137 000	23 858 000	21 415 000	19 314 000	18 098 000	17 407 000	16 820 000
LINDAB	6 955 000	6 700 000	7 164 000	8 147 160	7 686 000	6 306 000	5 496 000	5 340 000	5 297 000	2 738 000
NOLATO	3 016 000	3 380 000	2 643 000	2 824 000	2 454 000	2 712 000	2 256 000	2 401 000	2 671 000	1 936 000
SCA	81 420 000	109 253 000	110 892 000	110 474 000	108 375 000	103 902 000	96 385 000	91 564 000	87 398 000	89 573 000
HUSQVARNA	30 366 000	32 242 000	34 079 000	32 346 000	33 308 000	29 416 000				
AUTOLIV	37 160 000	35 632 000	29 202 000	30 805 000	33 220 000	31 738 000	31 805 000	31 492 000	28 967 000	27 328 000

Table 7 Turnover Swedish Companies (Retriever, 2013)

*)Euro

10.2 Turnover – Finnish Companies

Company\Year	Turnover (1000 Euro)									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
KONE	2970100	2856000	2894500	3242200	3600800	4078900	4602800	4743700	4986600	5225200
KONECRANES	713600	664500	728000	970800	1482500	1749700	2102500	1671300	1546300	1896400
LEMMIKAINEN	1255770	1358961	1533459	1601731	1795900	2174117	2481758	1964442	1892498	2274127
METSO	4691000	4250000	3976000	4221000	4955000	6250000	6400000	5016000	5552000	6646000
OUTOTEC		364100	425600	555400	740400	1000100	1217900	877700	969600	1385600
PKC GROUP	134306	146048	177697	198789	228928	288649	311713	201814	316081	550208
PONSSE	133171	163488	190002	226095	238642	310053	293015	146705	262416	328191
UPONOR	1137200	1021000	1072800	1031400	1157000	1219300	949200	734100	749200	806400
VACON	97489	112299	128585	149928	186449	232187	293237	272036	338032	380883
VAISALA	196200	189200	180600	197900	220800	224100	242500	231800	253200	273600
WÄRTSILÄ	2519000	2357500	2478200	2638800	3189600	3763000	4612000	5260000	4553000	4209000

Table 8 Turnover – Finnish Companies (Thomson Reuters, 2013)

10.3 Average Annual Growth 10 years, Average ROA, ROE and ROIC 10 years

Company	Growth	ROE	ROIC	ROA
ABB	-0,3%	14,8%	17,5%	9,1%
ALFA LAVAL	6,9%	23,1%	22,3%	14,6%
ASSA ABLOY	5,1%	15,7%	37,4%	10,3%
ATLAS COPCO	5,5%	34,5%	30,0%	16,5%
AUTOLIV	3,1%	12,5%	18,4%	11,8%
ERICSSON	4,3%	9,5%	10,1%	7,7%
GUNNEBO	-2,9%	3,5%	3,5%	4,5%
HALDEX	0,8%	15,0%	8,0%	6,2%
KONE	6,6%	38,0%	15,0%	14,6%
LINDAB	5,2%	12,2%	14,2%	6,1%
METSO	3,5%	15,0%	9,0%	6,1%
SAAB	4,0%	10,5%	8,9%	5,6%
SANDVIK	6,8%	18,7%	13,0%	12,4%
SCA	-0,9%	23,6%	6,0%	5,5%
SCANIA	6,9%	23,6%	10,7%	10,0%
SKF	4,9%	20,3%	13,2%	14,0%
TRELLEBORG	5,1%	9,1%	9,4%	5,4%
UPONOR	-3,0%	10,5%	10,0%	8,0%
VOLVO	5,2%	10,6%	5,7%	4,6%
WÄRTSILÄ	6,6%	24,6%	10,2%	9,7%

Table 9 Key Ratio Source: (Thomson Reuters, 2013); (Retriever, 2013); Annual Reports (2012)

11 Appendix II – Survey

	Average		Diff
	Low	High	AVG
What is most important? (0=Margins; 1=Growth)			
Most important			
Flexibility – Increase in demand	2,75	2,83	-0,08
Flexibility – Decrease in demand	3,75	2,17	1,58
Fast Lead times	3,75	3,00	0,75
Global Footprint	2,50	3,33	-0,83
Financial Strength (liquidity)	1,75	3,67	-1,92
Flexibility - Most Important			
Ability to adapt the manufacturing if changes in demand	1,25	1,67	-0,42
Ability to use staffing personnel (contract staff)	2,75	3,33	-0,58
Outsourced Manufacturing	3,00	2,83	0,17
Constant improved manufacturing process	2,25	2,17	0,08
Best at			
Ability to adapt the manufacturing if changes in demand	1,50	2,00	-0,50
Ability to use staffing personnel (contract staff)	2,00	2,67	-0,67
Outsourced Manufacturing	3,75	2,17	1,58
Constant improved manufacturing process	2,00	3,00	-1,00
Best In Industry (0=No; 1=Yes)			
Ability to adapt the manufacturing if changes in demand	0,00	0,40	-0,40
Ability to use staffing personnel (contract staff)	0,33	0,80	-0,47
Outsourced Manufacturing	0,00	0,60	-0,60
Constant improved manufacturing process	0,33	0,40	-0,07
Lead Time - Most important			
Early Adopt New Technology	1,50	2,17	-0,67
Lead Time: Order to Manufacturing	2,50	2,17	0,33
Lead Time: Delivery Time	1,50	1,67	-0,17
Best at			
Early Adopt New Technology	1,75	2,00	-0,25
Lead Time: Order to Manufacturing	2,50	2,50	0,00
Lead Time: Delivery Time	1,50	1,50	0,00
Best In Industry (0=No; 1=Yes)			
Early Adopt New Technology	0,33	0,40	-0,07
Lead Time: Order to Manufacturing	0,33	0,40	-0,07
Lead Time: Delivery Time	0,33	0,40	-0,07
Global Presence - Most important			
Local R&D	2,50	2,17	0,33
Local Manufacturing	1,75	1,67	0,08
Manufacturing in low cost countries	1,75	2,17	-0,42

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Best at

Local R&D	2,25	1,67	0,58
Local Manufacturing	1,75	1,83	-0,08
Manufacturing in low cost countries	2,00	2,50	-0,50

Best In Industry (0=No; 1=Yes)

Local R&D	0,00	0,40	-0,40
Local Manufacturing	0,67	0,60	0,07
Manufacturing in low cost countries	0,33	0,00	0,33

Prio (0=Organic; 1= M&A)

0,25 0,00 0,25

Performance (0=Low; 1=High)

0,00 1,00 -1,00

12 Appendix III – Company information

12.1 ALFA LAVAL

Turnover 2012: 30 bSEK

Employees: 16 000

Alfa Laval, founded in 1883 in Sweden, is a producer of specialized in products and solutions heat transferring, separation and fluid handling. Common areas are food and water supply, energy, environmental protection and pharmaceuticals (Alfa Laval, 2012).

12.2 ASSA ABLOY

Turnover 2012: 47 bSEK

Employees: 43 000

Assa Abloy is the world's largest manufacturer of locks. Assa Abloy is the outcome of a merger 1994 between the Swedish Assa AB and the Finnish Abloy Oy (subsidiary of Wärtsilä) (Assa Abloy, 2012).

12.3 ATLAS COPCO

Turnover 2012: 90 bSEK

Employees:40 000

Atlas Copco, founded in 1873, is a Swedish developer and manufacturer of manufacturing tooling and equipment. Atlas Copco offers products and solutions for construction and mining, for example rock drills. Atlas Copco is also the world leading producer of air compressors (Atlas Copco, 2012).

12.4 ERICSSON

Turnover 2012: 228 bSEK

Employees: 110 000

Ericsson, founded in 1876, is focusing on telecommunications equipment. With a market share of 38 %, Ericsson is the world's largest. Ericsson provides telecommunications equipment, data communication systems, networks and its knowledge through consultancy (Ericsson, 2012).

12.5 GUNNEBO

Turnover 2012: €580 million

Employees: 6 000

Gunnebo AB was founded in 1995 and is specialized in security solutions. Gunnebo is offering products and solutions regarding electronic security, physical security, cash security and entrance control (Gunnebo, 2012).

12.6 HALDEX

Turnover 2012: 4 bSEK

Employees: 2 000

Haldex was founded in Sweden in 1887 and is operating in the commercial vehicle industry. Products are for example brake systems, pumps and technology to reduce emissions, hydraulic systems and all-wheel-drive systems (Haldex, 2012).

12.7 KONE

Turnover 2012: €4,9 billion

Employees: 34 000

Kone is manufacturing elevators and escalators and also provide maintenance and modernization solutions. The company is the fourth largest elevators manufacture in the world. The headquarter is located in Espoo, Finland, and the company was founded in 1910. (Kone, 2012)

12.8 METSO

Turnover 2011: €6,6 billion

Employees: 30 000

1999 Velmet and Rauma were merged ending up in Metso in 2012 based in more than 50 counties. Metso supplies the process industry, including mining, construction, pulp and paper, power, and oil and gas with technology and services solutions. (Metso, 2012)

12.9 SAAB

Turnover 2012: 24 bSEK

Employees: 14 000

Saab serves the global market with world-leading products, service and solutions mainly within high technology defense industry, civil security and aerial navigation. Saab is represented on every continent. (Saab, 2012)

12.10 SANDVIK

Turnover 2012: 94 bSEK

Employees: 49 000

Sandvik is a high technology manufacturing company in a leading global position in some of their divisions; Sandvik Mining, Sandvik Machining Solutions, Sandvik Materials Technology, Sandvik Construction and Sandvik Venture. (Sandvik, 2012)

12.11 SCANIA

Turnover 2012: 92 bSEK

Employees: 35 000

Scania is a world leading manufacturing of trucks, busses and manufacturing/ and marine engines. Scania also offers service programs and customized solutions for their customers. (Scania, 2012)

12.12 SKF

Turnover 2012: 64 bSEK

Employees: 43 000

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Founded in Gothenburg, SKF has since 1907 been a leading global technology provider with bearings as the main product in the portfolio. SKF's technology platforms are bearings and units, seals, mechatronics, services and lubrication systems. (SKF, 2012)

12.13 UPONOR

Turnover 2012: €1 billion

Employees: 3 000

Uponor is a global supplier of plumbing and indoor climate systems. In the north of Europe Uponor also offers infrastructure pipe systems. (Uponor, 2012)

13 Appendix IV – Cost Pattern

13.1 Linear Regression – All Companies

Regression Statistics	
Multiple R	0,454221235
R Square	0,206316931
Adjusted R Square	-0,111156297
Standard Error	0,544342122
Observations	15

ANOVA				
	df	SS	MS	Significance F
Regression	4	0,770249874	0,192562469	0,649871903
Residual	10	2,963083459	0,296308346	
Total	14	3,733333333		

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Intercept	-0,569728383	1,297135729	-0,43922033	0,669840759	-3,459926897	2,32047013	-3,459926897	2,32047013
COGS	1,508494336	1,769554656	0,852471175	0,413903268	-2,434319144	5,451307817	-2,434319144	5,451307817
Sales	1,950539533	2,924296543	0,667011537	0,519858148	-4,56519921	8,466278276	-4,56519921	8,466278276
Admin	-2,782121957	5,252809269	-0,52964458	0,607915673	-14,48611037	8,921866457	-14,48611037	8,921866457
R&D	-3,255073439	3,558127277	-0,914827713	0,381811778	-11,18307506	4,672928186	-11,18307506	4,672928186

13.2 Linear Regression - Swedish Companies

Regression Statistics	
Multiple R	0,915768849
R Square	0,838632584
Adjusted R Square	0,677265168
Standard Error	0,299413701
Observations	9

ANOVA					
	df	SS	MS	F	Significance F
Regression	4	1,863627965	0,465907	5,197038	0,069714
Residual	4	0,358594258	0,089649		
Total	8	2,222222222			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%Upper 95,0%	Lower 95,0%Upper 95,0%
Intercept	17,25208748	43,55088044	0,396136	0,712227	-103,665	138,1687
COGS	-16,2813366	43,50326845	-0,37426	0,727209	-137,066	104,5031
Sales	-7,09936477	42,52713587	-0,16694	0,875519	-125,174	110,9749
Admin	-35,4580052	45,61626811	-0,77731	0,480384	-162,109	91,19306
R&D	-26,3319913	44,44071958	-0,59252	0,585376	-149,719	97,05523

13.3 Companies sorted by COGS as percentage of total costs

	COGS	Sales	Admin	R&D	High Perf
UPONOR	54,4%	0,0%	0,0%	1,5%	0
METSO	59,7%	0,0%	0,0%	1,8%	0
ERICSSON	67,2%	12,9%	1,9%	18,0%	0
ASSA ABLOY	71,0%	19,2%	7,1%	2,7%	1
GUNNEBO	72,6%	15,9%	11,5%	0,0%	0
WÄRTSILÄ	73,2%	0,0%	0,0%	2,9%	1
ALFA LAVAL	74,8%	15,7%	6,4%	3,0%	1
SANDVIK	76,5%	16,2%	5,5%	2,7%	1
ATLAS COPCO	78,0%	12,4%	7,1%	2,5%	1
SAAB	80,6%	8,0%	6,0%	5,4%	0
KONE	81,6%	0,0%	0,0%	1,4%	1
ABB	83,1%	6,6%	4,6%	5,8%	0
SKF	83,3%	15,0%	0,9%	2,5%	1
SCANIA	83,5%	10,3%	1,6%	4,5%	1
SCA	84,0%	14,9%	0,0%	1,0%	0

Table 10 Source: (Thomson Reuters, 2013); (Retriever, 2013); Annual Reports (2012)

13.4 Companies sorted by Sales cost as percentage of total costs

	COGS	Sales	Admin	R&D	High Perf
UPONOR	54,4%	0,0%	0,0%	1,5%	0
METSO	59,7%	0,0%	0,0%	1,8%	0
WÄRTSILÄ	73,2%	0,0%	0,0%	2,9%	1
KONE	81,6%	0,0%	0,0%	1,4%	1
ABB	83,1%	6,6%	4,6%	5,8%	0
SAAB	80,6%	8,0%	6,0%	5,4%	0
SCANIA	83,5%	10,3%	1,6%	4,5%	1
ATLAS COPCO	78,0%	12,4%	7,1%	2,5%	1
ERICSSON	67,2%	12,9%	1,9%	18,0%	0
SCA	84,0%	14,9%	0,0%	1,0%	0
SKF	83,3%	15,0%	0,9%	2,5%	1
ALFA LAVAL	74,8%	15,7%	6,4%	3,0%	1
GUNNEBO	72,6%	15,9%	11,5%	0,0%	0
SANDVIK	76,5%	16,2%	5,5%	2,7%	1
ASSA ABLOY	71,0%	19,2%	7,1%	2,7%	1

Table 11 Source: (Thomson Reuters, 2013); (Retriever, 2013); Annual Reports (2012)

13.5 Companies sorted by Sales costs as percentage of total costs

	COGS	Sales	Admin	R&D	High Perf
UPONOR	54,4%	0,0%	0,0%	1,5%	0
METSO	59,7%	0,0%	0,0%	1,8%	0
WÄRTSILÄ	73,2%	0,0%	0,0%	2,9%	1
KONE	81,6%	0,0%	0,0%	1,4%	1
SCA	84,0%	14,9%	0,0%	1,0%	0
SKF	83,3%	15,0%	0,9%	2,5%	1
SCANIA	83,5%	10,3%	1,6%	4,5%	1
ERICSSON	67,2%	12,9%	1,9%	18,0%	0
ABB	83,1%	6,6%	4,6%	5,8%	0
SANDVIK	76,5%	16,2%	5,5%	2,7%	1
SAAB	80,6%	8,0%	6,0%	5,4%	0
ALFA LAVAL	74,8%	15,7%	6,4%	3,0%	1
ATLAS COPCO	78,0%	12,4%	7,1%	2,5%	1
ASSA ABLOY	71,0%	19,2%	7,1%	2,7%	1
GUNNEBO	72,6%	15,9%	11,5%	0,0%	0

Table 12 Source: (Thomson Reuters, 2013); (Retriever, 2013); Annual Reports (2012)

13.6 Companies sorted by R&D costs as percentage of total costs

	COGS	Sales	Admin	R&D	High Perf
UPONOR	54,4%	0,0%	0,0%	1,5%	0
METSO	59,7%	0,0%	0,0%	1,8%	0
WÄRTSILÄ	73,2%	0,0%	0,0%	2,9%	1
KONE	81,6%	0,0%	0,0%	1,4%	1
SCA	84,0%	14,9%	0,0%	1,0%	0
SKF	83,3%	15,0%	0,9%	2,5%	1
SCANIA	83,5%	10,3%	1,6%	4,5%	1
ERICSSON	67,2%	12,9%	1,9%	18,0%	0
ABB	83,1%	6,6%	4,6%	5,8%	0
SANDVIK	76,5%	16,2%	5,5%	2,7%	1
SAAB	80,6%	8,0%	6,0%	5,4%	0
ALFA LAVAL	74,8%	15,7%	6,4%	3,0%	1
ATLAS COPCO	78,0%	12,4%	7,1%	2,5%	1
ASSA ABLOY	71,0%	19,2%	7,1%	2,7%	1
GUNNEBO	72,6%	15,9%	11,5%	0,0%	0

Table 13 Source: (Thomson Reuters, 2013); (Retriever, 2013); Annual Reports (2012)

14 Appendix V – Interview Guide

The objective of the interview is to identify the way the company are working with growth and margins. How to stay competitive and achieve both high ROIC and growth over time?

Introduction

- Introduction of the students and the study
- Introduction of the interviewee

Margin

- How do the company work with margins and increasing them
 - Lower cost
 - Increase revenue
- Competition
- Flexibility
 - Outsourcing
 - Staffing Companies
- Lead time

Growth

- Optimal growth
 - Market Share
 - New markets
 - New products/segments
 - Organic / Mergers & Acquisitions
- Growth targets
- Cost of growth
- Flexibility

Growth versus Margin

- Prioritizing growth versus margins

Future

- Threats
- Opportunities