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“TO LOOK BEYOND THE FIFTY SIGNS”
-
**A CASE STUDY ABOUT OUTSOURCING IN
MANUFACTURING SMEs**

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Abstract

This thesis serves to examine how manufacturing SMEs consider outsourcing. Furthermore, we aim to identify the main characteristics and patterns for these types of companies that can explain their rationale in such a decision. The chosen method for this thesis is abduction and selected research approach is multiple case studies. Seven case studies have been conducted at EAB AB, Esbe AB, Hörle Automatic AB, Pelly Industri AB, SGV Industrier AB, Swede-Wheel AB and Wulkan AB. Our findings have illustrated that although traditional outsourcing theory provides a good platform for explaining the rationale behind outsourcing decisions in SMEs, we have identified additional considerations that SMEs, operating as 2, 3 or 4-tier suppliers towards OEM-corporations, make. This thesis has derived four tentative explanations for the discrepancies between traditional outsourcing theories and outsourcing in SMEs in the OEM-industry, which could be considered as a small contribution to existing theories. The identified factors are; (1) Ownership, (2) Size of the company, (3) Product characteristics, (4) The position in the value chain.

Key Words: Outsourcing, Rationale, Sourcing, SME, OEM-corporation

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1. INTRODUCTION

In this chapter we will give a brief introduction to our study as well as present the background and problem description that lies behind the purpose with the thesis. We will then move on to address the purpose and the scope of this thesis. Finally, we will present the structure of the thesis.

This Master Thesis is part of our Masters in Business Administration (MSc) at Stockholm School of Economics (SSE) and is based upon a strong personal interest in strategic and international questions. We both consider outsourcing to be a fascinating topic and hope to have gained as much knowledge and expertise within the research field as possible. In order to illustrate our interest in the topic and how we derived at the purpose of the study we will initially provide the reader with some background information within the area.

1.1 Empirical background

In today's business environment, a lot of companies are facing increasing pressure from many stakeholders and are driven to carry out some activities in-house and to get other necessary capabilities from suppliers through outsourcing agreements. The debate whether this is good or not for companies is continuously ongoing and has intensified the last couple of years due to increased unemployment in the western world. The major reasons behind this development are a couple of strong underlying driving forces in the business environment that have caused increased competition.

New competition brings about new business models. Recent technological shifts have changed the competition in certain industries, creating new challenges and market dynamics. The major driving forces behind this development are globalization and rapid development of Information and Communication Technology (ICT) (Howells et al., 2003). Globalization, rapid growth in emerging markets and diminishing trade obstacles has opened up for new competition from countries in Eastern Europe and Asia for instance. The development of ICT has facilitated easy communication and information exchange, faster transportation, and lower transportation costs that also contribute to a global market place with intensified international competition. These driving forces have contributed to decreasing cycle times, increasing technical complexity as well as increased market uncertainties. Moreover, these factors serve as catalysts for increased competition and firms to acquire external sources of knowledge (ibid).

Lennart Schön, professor in Economic history at Lund University, stated in an interview in *Affärsvärlden* (No. 19, 2004) that the increased educational level in low-cost countries (LCCs) has also contributed to this development. He is of the opinion that the main

reason for the relocation by large Swedish companies is that they face difficulties to sustain the level of their value creation once the techniques are out in the open.

As a consequence, the Swedish industry is today facing one of its greatest challenges in modern times. The pressure to leverage this increased global competition and implement adequate measures in order to sustain ones competitiveness and reap the benefits from the effects of globalization is very much present. If Swedish companies fall short in these accomplishments, there is a great risk that Sweden, in terms of competitiveness, will fall behind other countries in the near future and consequently have difficulties to attract new investments. Hence, there is currently pressure on Swedish companies to increase their efficiency and lower their costs in order to be competitive in the global arena and to avoid being out-competed which would have negative consequences on both the shareholders of the companies as well as for whole the society as such (IVA: 2, 2005). As a consequence of the increased requirements in efficiency enhancements and on lower cost structures, many companies have restructured their businesses that are mainly concerned with labour intensive production, in terms of outsourcing and/or relocation to low-cost countries (LCCs). A result of the recent trend of relocation and outsourcing, and thus the close down of production plants in Sweden, have lead to the loss of approximately 90 000 jobs between 2001 and 2004 for instance (Affärsvärlden, No. 19, 2004). In the survey done by Affärsvärlden, the 165 largest factories in Sweden, employing some 180 000 people, were analyzed with the conclusion that $\frac{1}{4}$ of the factories were facing serious threats of closure. These findings pointed toward a cross-industrial problem and that is mainly due to relocation to LCCs, rationalizations and consolidation of production. Subcontractors to the automotive-, diary and defence segments were said to be the most affected segment by this development (ibid).

These types of stories have been reported in the mass media very frequently lately. Accordingly, union organizations are following the development with conflicting feelings as the globalization poses a threat to the general employment in the Sweden due to factors like outsourcing, but at the same time create new opportunities for increased export for Swedish companies.

1.1.1 Outsourcing - Not a new phenomenon

In contrast to the portfolio diversification strategies that characterized the sixties and the seventies, where companies seek to grow through risk diversification and thus tried to diversify them selves in several different markets, the major trend during the nineties was downsizing and focusing on core competences (Prahalad; Hamel, 1990). Many companies drew the conclusion that it was impossible to stay competitive in several different areas and therefore began to focus their resources in order to become “world leader” in one or two specific areas. One way of doing this was to start to outsource supporting activities in order to put all the effort into primary and more strategic important activities. As a result,

resources that used to be tied in non-core activities released, thus giving the companies opportunities to further invest in their primary businesses.

The occurrence of manufacturing companies who are relocating and/or outsourcing in order to bring down production cost is not, however, a new trend in the society. Rather, it has always occurred with more or less intensity in different industries. The factor that makes the current wave of relocating so serious is that it takes place in every industry sector. Earlier, waves of relocation and outsourcing have more affected certain segments in Sweden, as for example the shoe-, textile- and shipbuilding industry, with the consequences that large parts of these manufacturing industries disappeared from Sweden. But as the outsourcing and relocation affects all industry segments today, the current development is much more serious for Sweden in general (IVA: 2, 2005).

The main reason that makes the LCCs so competitive concerning labour intensive production is of course their relatively low labour rates. Production companies in LCCs are most of the time operating with a strategy including large labour forces on behalf of production machinery and automation. The positive aspects with such a production strategy are that this system becomes highly flexible and involves limited investment costs. Lower efficiency that follows by having high labour force instead of machinery is not a serious problem, since this can be compensated by an increased labour force at low costs (ibid).

1.2 Problem description

In September 2004, the Confederation of Swedish Enterprise (Svenskt Näringsliv, 2004) conducted a survey among 1000 randomly selected Swedish citizens concerning their thoughts about the reasons behind the relocation of Swedish companies overseas as well as the companies' corporate responsibility. Notably is that 54% of those asked claimed that companies that move their production overseas display a lack of responsibility towards the Swedish society but only 43% is willing to actually pay more for durable goods because it is made in Sweden. Hence, the companies face a dilemma. If the consumers would show similar solidarity as they expect from the companies, Swedish companies might be able to retain their higher prices and cover the higher production costs that are related to production in Sweden.

However, since the Swedish market is very small and the export is of high importance, the companies face an even greater challenge than persuading the Swedish consumers; to convince millions of consumers around the world to accept higher prices because of a Swedish production strategy. The alternative would be to lower the cost structure in order to enable lower and more competitive prices. The confederation of Swedish Enterprise concludes that the consumer is more interested in prices than where the product is actually manufactured, which as a consequence sets the scene for the global competition. The

companies must either follow the globalization trend or accept red figures in their annual reports.

Sweden's growth and welfare is today directly dependent upon the manufacturing industry's competitiveness and success since it counts for more than 50% of the country's export. 700 000 people are currently working within the manufacturing sector and about 1.4 million other Swedes are indirectly dependent on this industry, through the service sector (IVA: 1, 2005).

Since Sweden is a relatively small market, the trade with other countries is crucial for the economy. Notably is the fact that the manufacturing industry stands for approximately 25% of Sweden's total GDP (IVA: 2, 2005). Therefore, as large Swedish manufacturing companies relocate businesses overseas to capture new markets as well as reap the benefits of lower cost structure in low-cost countries, many domestic suppliers further down the value chain are highly affected. Hence, when large companies (i.e. OEM-corporations) relocate their operations offshore, many subcontractors are often facing two drastic choices; either to move with the customer or close down their businesses. Moreover, it is starting to become more and more common that subcontractors have to be present on a global basis if they want to take part in tender offerings at larger, multinational companies since these companies are looking for a single subcontractor to supply them globally. This is further contributing to the tough position for the small subcontractors in Sweden (IVA: 2, 2005).

Considering this predicament for many subcontractors within the manufacturing industry coupled with the fact that outsourcing among OEM-corporations has become a major trend the recent years and therefore are considered as an essential part of many companies overall strategy today, we are interested in whether or not explicit outsourcing strategies exist within Swedish manufacturing *Small and Medium sized Enterprises* (SMEs). Further, we found it interesting to investigate how such strategies differ with size of the company, i.e. if the strategies found in multinational companies (MNCs) as well as Original Equipment Manufacturer (OEM) corporations, highlighted in the theory, can be applicable on SMEs as well.

We are of the opinion that enhanced understanding concerning how Swedish SMEs in the manufacturing sector view the competition from LCCs and relocation and downsizing of the Swedish industry is highly interesting both for us as students and other stakeholders in the area (the government, consultants etc.). It is especially interesting to investigate how SMEs are considering the threats and opportunities that are associated with outsourcing and what actions they intend to take in order to strengthen their competitiveness and survive in the global market place.

1.3 Purpose

The purpose with this thesis is to examine how manufacturing SMEs consider outsourcing. Furthermore, we aim to identify the main factors and characteristics of these types of companies that can explain their rationale in such a decision.

1.4 The scope of the thesis

The time dimension and the actual phenomenon being studied, forces us to make some specific limitations in this paper.

This master thesis will focus on how SMEs with original production located in Sweden consider outsourcing. By the European Union's definition (The European Commission, 2005), an SME is defined as an independent company with fewer than 250 employees and either an annual turnover not exceeding €50 million or a balance sheet not exceeding €27 million (ibid). The reason why we have made a distinction in terms of size of the company is that we believed that this factor is to a high extent affecting and determining different companies' outsourcing strategies.

We have chosen to only include manufacturing companies due to the fact that these companies have historically been more affected by the LCCs than service providers. Products (goods), in contrast to services, are tangible and can be transported, stored and consumed after the production. This thesis will hence not address the issue of business process outsourcing, e.g. HR-, IT- and payroll processes.

Our case study will also only include companies in the Gnosjö region in south of Sweden. We chose to concentrate on companies in this region not only due to the region's high density of manufacturing SMEs, but also due to the unique spirit and tradition of entrepreneurship that characterizes the region. The region is however rather unique in Sweden due to its specific characteristics. One can therefore argue whether or not this has had an impact on the generalizability of the study.

Another limitation in our paper is that we decided to only interview the Managing Directors of our study objects, i.e. only one source of information was tapped for each company.

Finally, the theory that has served as a backbone to this research has more or less only concerned the outsourcing dilemma, leaving other interesting aspects and theories, concerning for example decision processes, resourced-based and market-based views and corporate governance out of the main discussion in this thesis.

1.5 Structure

In the figure at the end of this section (Figure 1.5) we have illustrated how we have structured this thesis. We have already started to set the scene for the topic of this paper as such, in this introduction chapter (1). In the next chapter (2), we will address the current theory in this specific problem area, which will logically serve as a base for our theoretical framework that will be presented in the chapter that follows (3). Armed with a solid theoretical ground, we will then present our choice of research methodology (4). The reason why we have chosen to put the methodology chapter after our presentation of current theories and our theoretical framework is solely because these sections have influenced how we in the end choose to conduct our research. A case-by-case presentation of our empirical findings (5) will be the next link in this thesis and based on these empirical findings, we will then carry out our cross-case analysis (6) which will serve as the starting point for our synthesis (7).

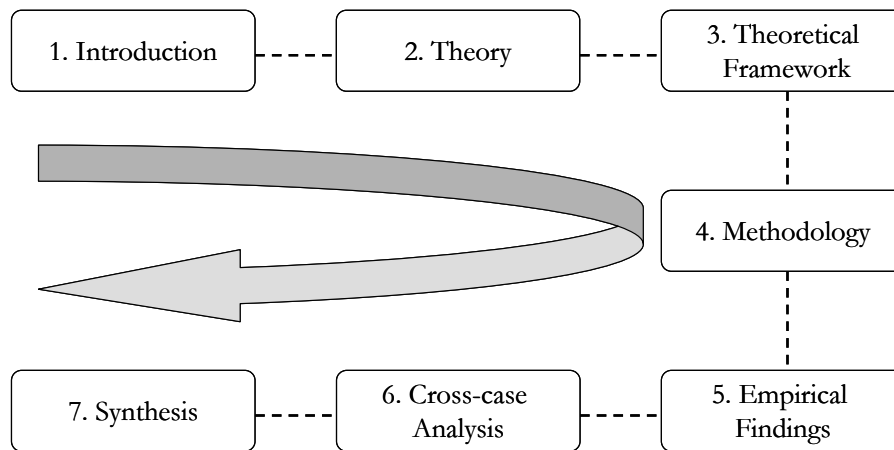


Figure 1. The structure of the thesis. The figure shows how we have chosen to present our thesis (authors' model).

2. THEORETICAL FRAMEWORK

In this chapter, the theoretical framework for this study will be presented which will consist of a thorough exposition of outsourcing theories.

2.1 The choice of theory

This important choice for a master thesis concerns what kind of theory to use in order to make the thesis relevant. The choice of outsourcing theory as the theoretical framework in this theses is mainly due to the fact that the phenomenon we are studying is closely linked to outsourcing in terms of logic. Thus, current outsourcing theory becomes the natural choice when determining what theories in the field of operations management to use.

2.2 The theories of outsourcing

In today's business environment, companies experience constant pressure to increase efficiency. Companies have been, or are being, restructured, downsized and reengineered in a persistent effort to achieve an outstanding efficiency, effectiveness and increased productivity (Insinga and Werle, 2000). Many new ideas, trends and phenomenon are mentioned in the general discourse that can be used in order to facilitate this effort. Terms like "sourcing", "make-or-buy", "outsourcing", "insourcing", "strategic sourcing" are a few examples of these ideas. This is particularly true in the light of current managerial trends that advocate focusing on core competence and outsourcing other activities in order to achieve and maintain competitiveness in a supply chain environment (Sislian and Satir, 2000). However, these terms are often used by scholars, consultants and business leaders with a rather ambiguous distinction between them. In order to clarify the confusion of ideas we will first define the different terms before we introduce the theory.

2.2.1 Discussion of concept definitions

As the concepts and definitions are rather vague among researchers and practitioners we have decided to make simple and clear distinctions between the terms in order to facilitate an understanding for the reader of this paper.

In terms of *outsourcing*, it seems to be consensus among researchers as well as practitioners what it actually mean. Bengtsson et al. make the following simple definition and this is the one we intend to follow and use in this paper (2005, p.11):

“Outsourcing exist when a company turn to a supplier to perform an activity that earlier was performed by the company”.

Hence, we see *insourcing* in accordance with other authors (e.g. Berndtzen and Larsson, 2005) as the opposite to outsourcing: *insourcing exist when a company brings in an activity to carry out that was earlier performed by a supplier*. Nonetheless, insourcing will not be covered and examined in this thesis.

Looking at *sourcing* and *make-or-buy* one will find different interpretations, usage and definitions among various scholars. Welch and Nayak (1992) for instance, argue that “...sourcing decisions – commonly known as make-or-buy-decisions...” In other words, they view these two terms as the same and use them as support when deciding which “source” of capabilities to use in production, i.e. *make* it yourself – or *buy* it from someone else. As opposed to this definition, Sislian and Satir (2000) make the following distinction; sourcing applies to activities currently carried out in-house. Make/buy decisions, on the other hand applies to those activities associated with a new product to be delivered in the future.

However, in this thesis we will not make any distinction between activities that are currently performed in-house and activities that are associated with new products to be delivered in the future. This is not only for simplicity but also because of the vague link between the two in terms of what is new and what is not, in an environment with fast changes in technologies, incremental improvements, short product cycles and so forth. Accordingly, we will in this thesis use the same meaning for both *make-or-buy* and *sourcing*:

Fundamentally, the make-or-buy and sourcing relates to the issue whether to make use of other firms (third-party) production facilities rather than using current production facilities that can be found in-house or making new capital investments in manufacturing facilities for producing new products.

In terms of *strategic sourcing*, we see this as an expression on a higher level that not only look at the activity as such but also incorporates a strategic dimension into the discussion. Thus, we view strategic sourcing as the strategic support tool of determining what source to use for production. In other words, a framework that works as a guide in the make-or buy decision process. These frameworks are presented by several scholars in order to serve as a basis from strategically viewpoint on what to buy and what to make/outsourcing or insource (see Insinga and Werle, 2000; Quinn and Hilmer, 1994; Sislian and Satir, 2000; Venkatesan, 1992; Welch and Nayak, 1992).

2.2.2 The make-or-buy (sourcing) logic

Strategic manufacturing outsourcing, which the literature points out as strategically important (Ehie, 2001; Insinga and Werle, 2000; Quinn, 1994; Venkatesan, 1992) refers to the process of determining which of the numerous manufacturing activities should be

given to a third-party provider. Venkatesan (1992), for instance, state that a sourcing decision should be based upon the following simple principles: (1) Focus on those components that are critical to the product and that the firm is distinctive in producing. (2) A company should outsource components where suppliers have a distinct comparative competitive advantage. This could be leveraged from economies of scale, stronger performance incentives, a better cost structure etc. Finally (3), the author states that the use of outsourcing as a means of generating employee commitment to improving manufacturing performance.

Venkatesan (1992) also points out the fact that the make-or-buy decision is not a one time decision or a one shot deal. Instead, it is of great importance to realize that it is an ongoing process and that inertial forces in large corporations tend to distort the resource distribution over time. Unless managers consistently re-examine and challenge current sourcing decisions within the company, they can find themselves over-investing in commodity components and/or activities. In other words, not focus their resources on the critical elements that form the company's competitive advantage. Also, as Ehie (2001, p.31) put it, "to realize the full potential of outsourcing, companies would have to ensure that there is a strategic fit between the company and the supplier, and that the supplier has the requisite expertise the company seeks".

2.2.2.1 Strategic Sourcing Models

In order to fully understand the make-or-buy-logic several different frameworks has been developed and proposed for analysing manufacturing outsourcing decisions (Insinga, 2000; Venkatesan, 1992; Welch and Nayak, 1992). In general, one could conclude that these frameworks and models are based on the idea that companies should focus their recourses on those activities that give a sustainable and distinguishing competitive advantage. Activities that do not provide this distinctive and unique competitive advantage could be called non-critical. The literature argues that these non-critical activities for the success and survival of the firms could be outsourced to a third party that has necessary critical capabilities needed to perform the activity better than the company could have done themselves (Ehie, 2001; Venkatesan, 1992).

This is also in line with Quinn and Hilmer (1994), who are proposing two different strategic approaches that could help companies, when successfully combined, to leverage their skills far beyond other strategies. These strategies are;

- Concentrating the company's resources on a set of "core competences" where it can "achieve definable prominence and provide unique value for customers."
- Strategically outsource other, non-core, activities, i.e. activities for which the firm neither have a strategic need – nor specific capabilities.

The various frameworks states that these non-core activities can range between commodity-like products to products that require more advanced and special capabilities (Ehie, 2001). Due to the various frameworks and different and blur definitions of what core competence really is, the models tend to be slightly different, however, with the same or very similar message or objective. Quinn and Hilmer (1994, p.47) conclude the following:

“From a strategic outsourcing view point, however, core competences are the activities that offer long-term competitive advantage and thus must be rigidly controlled and protected. Peripheral activities are those not critical to the company’s competitive edge”.

The authors continue to argue that there are two different factors that affect this kind of make-or-buy (outsourcing) decision: (1) First, the potential of achieving *competitive advantage* in regards to the specific activity. (2) Second, the degree of *strategic vulnerability* (business risk) that could occur from a market failure if the activity was outsourced. Competitive advantage in this context can be described as the position taken by the company in the marketplace and its ability to maintain that position relatively to its competitors. In general, activities or processes within the company that provide little or no competitive advantage and low or no supplier vulnerability should be outsourced according to Quinn and Hilmer (ibid). Other authors have in a similar manner presented elaborated and comparable frameworks for these kinds of decisions. Welch and Nayak (1992) for instance, have introduced a model where they address the importance of not only focusing on unit cost and instead look at long-term strategic issues.

Also, as Quinn (2000) highlights, companies should not think of products as core competencies. Instead, *skills* should be considered as competencies. Additionally, executives should think in terms of “specific skills” the company must have in order to create and develop distinctive value for their customers (Quinn and Hilmer, 1994). Nevertheless, as several authors’ points out (Alexander and Young, 1996; Insinga and Werle, 2000; Quinn and Hilmer, 1994; etc.), too often companies look at outsourcing with a too short term focus. That is, looking at outsourcing as means to reduce costs in the short-run. Conversely, through a long-term perspective and through the usage of strategic sourcing, companies can leverage their key capabilities (competencies) distinctively. Also, they will be able to lower their long-term investments (Quinn and Hilmer, 1994).

Finally, when talking about strategic sourcing, it is notably that recent voices has been raised regarding what kind of processes to remain in-house and what to outsource. Gottfredson et al. (2005) discuss how it is no longer a company’s ownership of their capabilities that are of importance, but rather its ability to control and make the most of critical capabilities, regardless if they are inherent on the company’s balance sheet or not. The authors also suggest that the question today is not whether to outsource a capability or activity but rather *how* to source every single activity in the value chain. This new perspective, or “discipline”, is according to these authors “capability sourcing”.

2.3 Rationale behind outsourcing

When examining the theory about outsourcing in general and about outsourcing and outsourcing in particular, one realizes that although the theory might differ in detail regarding definitions, language, terms and approaches, the main picture and the ideas are the same. We have identified the following five key aspects and/or benefits that would explain the rationale behind an outsourcing decision: *Cost reduction*, *Opportunity to focus on core competence*, *Gaining expertise*, *Increased flexibility* and *Reducing capital investment requirements*.

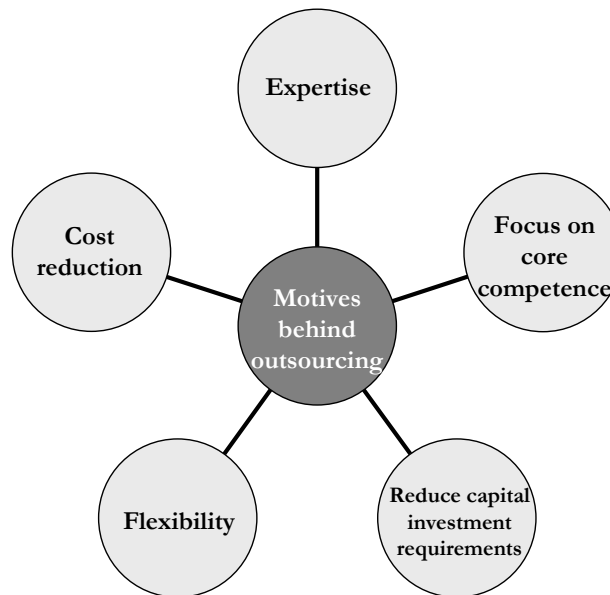


Figure 2. Key rationale behind outsourcing. The figure illustrates the most important motives behind an outsourcing decision (authors' model).

2.3.1 Cost reduction

Reducing the cost is one of the most significant motives for outsourcing. Many authors even claim it is the most important factor that tends to dominate when making a make-or-buy assessment. The cost reduction for the outsourcing company is derived from leveraging supplier's enhanced knowledge, better production capabilities and economies of scale, which allow the supplier to operate and perform to a lower cost. Quinn and Hilmer (1994) state that to the extent that knowledge about a certain activity is more important than knowledge about the end product itself, specialized suppliers can often produce the same activity to the same or even to a higher value with a lower cost than almost any integrated company. They continue to say that due to higher complexity, more specialization and new technological advantages, some suppliers can perform many such activities with higher value added, than fully integrated companies can.

2.3.2 Opportunity to focus on core competence

As Quinn and Hilmer (ibid) points out, one of the great gains of outsourcing is the decrease in executive time for managing peripheral activities – free time for the top management to focus more on the core of its business and thus on the activities that are important to the company's success. By only giving attention to processes and activities that matter for the company's comparable advantage, time is set free which is important for the survival and competitiveness of the company. The authors conclude that outsourcing activities that are not critical to the company's competitiveness will enable the management to focusing resources on high-value added activities. As a result, the company will become more focused and more competitive in the market place.

2.3.3 Expertise

Another main motive behind outsourcing is expertise – or the acquiring knowledge. This can for example be gaining access to innovation and inventions from suppliers. Also, as Quinn and Hilmer (ibid) points out, in some particular industry niches, other companies might have grown to a size and superiority which have enabled them to developed economies of scale and scope as well as generated knowledge far superior than the outsourcing company.

Another aspect of this motive is the fact that many companies are looking into outsourcing in order to leverage other best-in-class suppliers in terms of product quality and image of its operations (ibid).

2.3.4 Flexibility

There is a constant trade off between operational flexibility and control. The more a company outsource to a third part, the more time, resources, money and capabilities the company will release and thereby become more flexible. However, the more a company outsource the less control it has over its activities. Moreover, the loss of control can often lead to some serious risks for the company (see 2.4.1). Quinn and Hilmer (ibid) does on the other hand also state that one of the main purposes with outsourcing is to have the *supplier* assume classes of investment risks, such as variations in demand resulting in enhanced flexibility for the outsourcing company.

Another factor that contribute to increased flexibility is the fact that a company that outsource an activity will potentially allow themselves to convert fixed costs into variable costs which will provide enhanced (financial) flexibility in an economic downturn (Ehie, 2001; Welch and Nayak, 1992; Quinn and Hilmer, 1994).

2.3.5 Reducing capital investment requirements

As Welch and Nayak (1992) and Ehie (2001) mention, *reducing capital investment requirements* is one of the main potential advantages that companies are looking for when considering outsourcing. Also, companies strive to strengthen their competitiveness by achieving a higher return on assets through less bound capital. They are basically increasing their ability to adjust quickly to fast changes in the environment through less commitment to in-house resources, i.e. “do more with less” (Insinga and Werle, 2000). Moreover, investing in commodity parts that are not a source of competitive advantage could be seen as over investing and results from incorrect assessments of comparative advantages and economies of scale. This particular rationale also proved to be one of the key motives among Swedish manufacturing companies in a study conducted by Bengtsson et al. (2005) concerning outsourced production.

2.4 Rationale against outsourcing

Despite the existence of many motives and possible benefits from outsourcing strategies, one should always bare in mind that outsourcing decisions made on an operational level can easily lead to dependencies that create unforeseen strategic vulnerabilities (Insinga and Werle, 2000). Accordingly, several attempts have been made in order to uncover these pitfalls (Alexander and Young, 1996; Beasley et al., 2004; Insinga and Werle, 2000).

2.4.1 Pitfalls & Strategic risks

An obvious pitfall is to have a too optimistic picture of outsourcing in terms of cost savings. In these kinds of outsourcing agreements, it is not uncommon that transaction costs are underestimated and consequently lead to the absence of wanted and estimated cost savings. Another obvious pitfall is the complexity of handling and monitoring too many outsourcing agreements and subcontractors. If one ends up with a large number of subcontractors, which are more costly to manage than in-house operations, and at the same time experiences deteriorated quality due external production, the company has made inefficient sourcing decisions.

In the literature there are particularly a few “pitfalls” or “strategic risks” that are highlighted across various sources (Alexander and Young, 1996; Beasley et al., 2004; Quinn and Hilmer, 1994). These major concerns are the following: (1) The loss of critical knowledge and skills within the company and the loss of knowledge generation and development; (2) loss of cross-functional skills, and (3) loss of control (Quinn and Hilmer, 1994).

- The loss of critical knowledge and skills within the company and the loss of knowledge generation and development: Even though a company has taught the supplier how to build and develop a particular component and/or activity

according to required quality standards, they might face a situation where the result are not in line with the service level agreement (SLA). By then, the outsourcing company might have lost knowledge and skill to re-enter production. Further, this scenario could imply that the company is not capable of preventing the supplier of assisting competitions or entering downstream markets on their own, thanks to the acquired knowledge from the outsourcing company.

Also, by outsourcing an activity to a supplier, the company will loose some of its strategic flexibility in terms of the ability to introducing new innovations, design and models when wanted, rather than when the supplier feels like and permit a change.

- The loss of cross-functional skills: The interactions between different people in different functional activities are often seen as an important part of developing skills, new insights and critical knowledge. If the company decides to outsource a certain activity, the company might face problems occurring from the elimination of this interface and interaction between this activity and other activities and functions. As a result of having outsourced knowledge at different locations may make close cross-functional teamwork more difficult and thus the ability to develop and create cross-functional expertise and innovation across different activities and functions within the company (ibid).
- The loss of control: As mentioned above, there is always a trade off between flexibility and control. If the supplier's priorities do not match the buyer's (the outsourcing company) severe problems can occur. One possible threat is the fact that suppliers might attempt to bypass the buyer directly in the marketplace as soon as they have build up appropriate skills and expertise (ibid). Another risk associated with the loss of control is related to the possibility of losing skills involved in the activities the company have outsourced. Hence becoming overly dependent on the provider and not able to keep and maintain necessary skills and knowledge in-house. This could also create an internal backlash from employees who fear outsourcing as well as loose general responsiveness from internal units. Finally, the company might loose control over timing and quality of outputs resulting in concerns in terms of the ability to effectively balance both short-term (cost) and long-term (value-added) goals.

2.4.2 Other associated risks to consider

Beasley et al. (2004) also highlight the importance of analyzing the entire *enterprise risk* involved in outsourcing. This is because ineffectively managed outsourcing may increase the risks substantially. *Strategic & market risks, financial risks, operational risks, legal risks and reputation risks* are only a few of all the risks that the authors views as crucial for the make-or-buy decision. When outsourcing for example involves external partner interaction with

customers or vital business partners, any breach in product delivery or maintenance will directly have a negative impact on the company's strategic goals. Moreover, bringing an external partner into a company's core business will also inherently increase the risks involved. Not achieving core operational objectives is also a risk that is constantly present when using a third part for the production. As delays and back orders will make customers frustrated, this could threaten the company's market position. Potential hidden cost as for example cost involved in vendor due diligence and factory audits, travel costs and cost of monitoring contract performance might be significant and is very important to assess beforehand. Finally, human capital risks involving the demoralization of in-house survivors of outsourcing as well as the threat to the company's reputation are also substantial risks that need to be addressed in the make-or-buy decision (ibid).

3. RESEARCH FRAMEWORK

In the previous chapter, we discussed the theories that will serve as a base for our research as well as summarized the main rationale for outsourcing. We now continue with the development of a research framework that will guide us through the research. First, we will discuss the current theory and its general applicability on our study where we will highlight both strength and weaknesses. The chapter ends with an illustration of our research model including our research questions.

As concluded in the last chapter, we can in the current outsourcing theory identify a pattern of possible benefits or main rationale behind outsourcing (i.e. *cost reduction, opportunity to focus on core competence, gaining expertise, flexibility and reducing capital investment requirements*). These five rationales behind outsourcing should be seen as a summary of several different ideas and use of terminology that, however, point in the same direction and are intended to reap the same or similar benefits. Another common ground across the theoretical field is the consensus around the fact that in today's business climate, every company should identify its core competency in order to assess what kind of capabilities and activities that are critical to their competitive advantage and their competitiveness. The theory suggests furthermore that all companies need to pay continuous attention to outsourcing strategies as well as evaluate non-core activities using the make-or-buy logic.

Having studied the current theory in this particular field we have distinguished some interesting observations. Notably is the fact that conventional outsourcing theory discusses the phenomena from a rather "high-level perspective". With a "high-level perspective", we mean that the current theory takes its starting point as well as draws its conclusion based upon studies made at very large corporations. In fact, the majority of the studies has been made using Fortune 500 corporations and other MNCs with several thousands employees. To only mention a few, Quinn and Hilmer (1994) are exemplifying with companies like Nike, Apple, Sony, Mitsubishi, Matsushita, Yamaha, Motorola, 3M, Intel and Ford for instance. Venkatesan (1992) are referring to John Deere and Navistar International while Ehie (2001) used Dupont, Dell Corporation and IBM when discussing outsourcing. Another example of this fact is Alexander and Young (1996) that are illustrating their arguments in the field with IBM and BP.

In addition, these large corporations tend to be Original Equipment Manufacturing (OEM) companies or similar firms that can be found in the late phase of the value chain. In other words, present conventional outsourcing theory seems to have a tendency to explain the phenomenon (outsourcing) using a particular empirical environment.

In the light of these interpretations and the possible skewed empirical environment the literature presents, one can wonder if these theories are applicable in other empirical

environments and situations. Would the same logic and theoretical rationale be applicable for smaller (in this context SMEs) companies further down in the value chain?

Looking at the empirical background in the research area, we also identify some findings that support our hypothesis that OEM-corporations are overrepresented in the general discourse (IVA: 2, 2005; DI, 9 May 2005; Affärsvärlden, 2004).

Through these interpretations we have developed an understanding for the phenomena as such, but we still believe that there are many things to explore and understand considering the identified “shortage” in the theory. Accordingly, we will use this theoretical understanding in order to develop a research model that aims to enhance the understanding concerning the rationale behind outsourcing for companies that operate as suppliers further down in the value chain.

3.1 Research model

In order to create guidance for our research we conducted a research model that aimed to capture our ideas and interpretations of the theories that we have assimilated during our studies in this field. The research model should also be seen as a natural extension of the theories and discussion previously presented as well as a summary of our theoretical framework.

Furthermore, the purpose with the research model presented below is to facilitate an appropriate tool for narrowing our attention to the most relevant issues concerning outsourcing rationale in a new empirical environment. SMEs will be examined in order to explore if present theories alone can explain the motives and behaviours of these companies and thereby identify possible discrepancies between the general outsourcing rationale (large OEM-corporations) and the rationale for “smaller” companies (SMEs) operating further down the value chain.

At the outset above, we displayed the main rationale behind outsourcing (see section 2.3). Given that the purpose of the thesis *is to examine how SMEs consider outsourcing* in comparison with our theoretical framework, we have constructed the following research model that should function as a basis for our analysis and synthesis later on in this thesis to facilitate for us to answer our research questions.

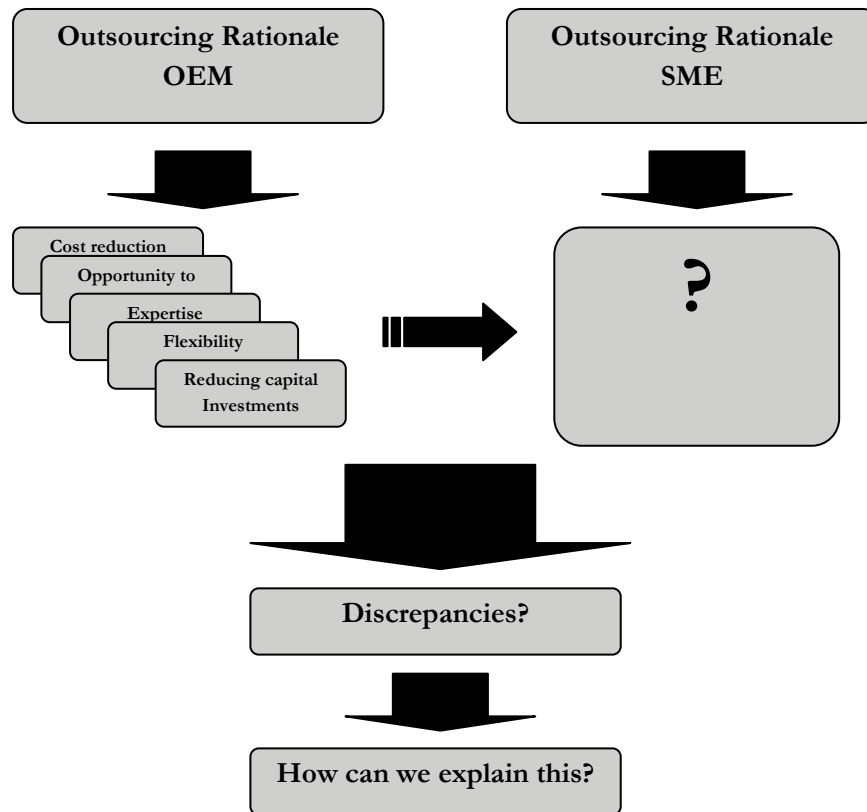


Figure 3. Research model. This figure illustrates our research model (author's model)

3.2 Research questions

Research Question 1:

To what extent do traditional outsourcing theories explain the rationale for SMEs in outsourcing decisions?

Research Question 2:

If discrepancies exist, what other rationale, not mentioned in traditional outsourcing theories, influence SMEs in outsourcing decisions?

Research Question 3:

How can we explain potential discrepancies in rationale between traditional outsourcing theories and our empirical findings?

4. METHODOLOGY

In this chapter we set the scene in this chapter by describing the research approach chosen and discuss why we think this approach is superior to other possible ways of conducting the research. We will continue by discussing the research methodology and underline pros and cons of conducting a multiply case study. Next, we will describe how the work process with selecting suitable companies for the case studies proceeded and why these particular companies were selected in front of other possible study objects. How data was collected as well as the data reduction process will then be described and highlighted. Finally, we will address the validity and reliability of our research..

4.1 Research approach

In order to find the methodology best suited for our research an extensive examination of relevant literature was conducted. Through this, we found a model developed by Wiederheim-Paul and Eriksson (2001, p. 220) which highly correlates with the purpose of our research.

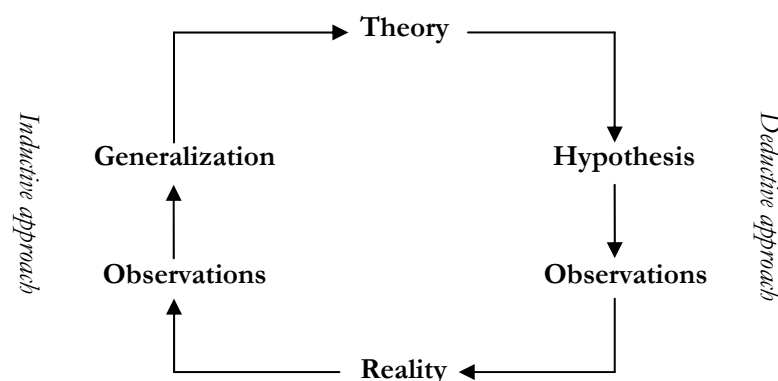


Figure 4. Wiederheim-Paul's and Eriksson's framework "Inductive and deductive approach" (2001, p. 220).

We concluded that neither an inductive nor a deductive approach would be optimal for our research. The inductive approach takes its starting point in reality, whereby the researcher tries to connect his or her findings to existing theories in the given problem area, in order to either accept or reject them (Alvesson and Sköldberg, 1994). Our main purpose with this research is not to try to reject given theory concerning outsourcing or to find evidence that back these theories up. Instead, we are more interested in increasing the knowledge concerning outsourcing rationale in manufacturing SMEs and try to establish cause-and-effect patterns that can explain behaviours as well as correlation between real

life and theory. Deduction, where the researcher tries to find evidence for a given theory in the reality (ibid), did not seem like an optimal alternative for us either. The purpose of this thesis is to conduct explorative research in hopes to come up with new generalizations concerning the given topic, i.e. rationale concerning outsourcing in SMEs.

Our chosen approach can instead be characterized by what Alvesson & Sköldbberg (ibid) refer to as “abduction”, a combination of an inductive and deductive approach which reap benefits of both. An abductive approach takes its reference-point from the empirical studies and findings, supported at the same time by theory in order to explain patterns, gain deeper understanding of the empirical findings and, if possible, lead to new insights and knowledge about the inquiry (ibid). To more specifically relate this to our research, it deserves to be noted that our work with this thesis began with an extensive search through books, articles and business press on the topic of outsourcing in general. We tried to align the literature on the subject with the current debate in the Swedish society and were through this process able to identify the minor gap in the current theory described earlier, i.e. that present theory on outsourcing mainly concerned larger, OEM-companies. We managed to distinguish a list of rationale that the current outsourcing theory was stressing as the most important aspects in the make-or-buy decision process in larger, MNCs. This is how our purpose of this thesis came to life, i.e. to investigate whether existing theories could be said to be true for SMEs as well. After having conducted the different interviews with our study objects, we returned to our theory in order to explain and analyze the empirical findings and investigate whether or not we could generalize these findings on a higher level. By using both theory and empirical findings, we conducted our analysis and finally arrived at the general conclusions concerning SMEs that are presented in the end of this thesis.

4.2 Research Design

In this section we will discuss and argue for the used methodology and how we designed our case study. Furthermore, we will describe the company characteristics that guided us in our sampling and argue for why we selected these specific parameters. Finally, the choice of study objects and a more thoroughly explanation of how the selection process progressed will be presented.

4.2.1 Research methodology

Since the purpose with this paper is to enhance the understanding concerning a specific issue or phenomenon, the study is of an explorative nature, in which we are trying to enhance our present knowledge about the specific inquiry.

According to Meredith (1998), the case study is an appropriate approach when trying to understand a phenomenon. This approach is more process or means oriented and assists

the researcher in the understanding of why certain characteristics or effects occur, or do not occur. He argues for the benefit of being able to study the phenomena in its natural setting and thereby observing actual practice, allowing the question of *why*, rather than just *what* and *how*, to be answered. In other words, the natural emphasis on the case study is on understanding (ibid).

This is also in accordance with Voss et al. (2002), who argue that case research is one of the most powerful methods when conducting research in operations management in order to develop new theory. The fact that this approach is, as a result of the close relationship between the researcher and the object being studied, unconstrained by the strict limits of questionnaires and models which characterize more quantitative/rational research methods is one of its main benefits. Additionally, case studies often lead to new and creative insights at the same time as they have high validity with practitioners. The aim of this thesis is, as discussed earlier, to try to close the minor gap in the current theory concerning outsourcing decisions in SMEs by investigating how key decision makers in these organizations reason in practice. This should then also ensure validity with other practitioners in the same situation.

Furthermore, the fact that case research not only enriches theory but also the case researchers themselves (ibid) further contributed to our choice to conduct case studies. Personally benefiting and learning from this research is one of the main reasons of our study. Additionally, Voss et al (2002) also state that most of the research conducted in operations management is based on rationalist research methods, e.g. statistical survey analysis and mathematical modelling, and that the explanation of these findings and construct of theory in the end have to be based on qualitative understanding, which also argues for our choice of conducting case studies (ibid).

However, according to theory there are also some disadvantages with the case study method. In essence, we have experienced some difficulties related to the requirements of the actual situation in terms of cost, time and access hurdles. To conduct eight different interviews (including a pilot case) at eight different locations and in an unfamiliar environment has been time consuming. The initial plan was to arrange all the appointments with the companies during the same week, but due to urgent matters that needed to be addressed by managers in the sample, resulting in interviews being re-scheduled to a second interview week. The access problem was also rather evident in our research process as many potential study objects rejected the invitation to be part of our research. The need for multiple methods and entities for the data collection in order to get triangulation has also been time consuming. Information about the companies in the sample has been collected through interviews, databases and daily business press.

Furthermore, as Meredith points out (1998), it is important to be aware that understanding is not without bias and cultural infect. To overcome potential problems with our own

opinions concerning outsourcing influencing our findings, we have conducted and followed our interview guide as strict as possible.

4.2.2 Designing the case study

According to the definition by Yin (1994), a case study is an empirical investigation that explores a contemporary phenomenon within its real-life context particularly when the border between phenomenon and context are not clearly evident or when they are too complex for other types of research strategies, e.g. surveys or experiments (ibid). Accordingly, we made the choice to conduct a case study with the main focus on identifying patterns and possible discrepancies in the result.

Our first obstacle was to decide on the ideal number of cases in order to assure that the study would lead to new insight within the research field. Different researchers argue for their specific approach. Voss et al (2002) for instance are of the opinion that the fewer case studies, the greater opportunity for depth of observation. Also, according to Meredith (1998, p. 451), “the single case is particularly appropriate for completely new, exploratory investigations.” But at the same time, single case studies have limitations. First of all, it limits the generalizability of the conclusions or theory being developed for the particular case. Other limits include the risk of misjudging a single case and the exaggeration of available data. Most of these risks can be avoided by using multiple cases where data and events can be compared across cases in order to augment external validity and guard against observer bias. But simultaneously, this approach has restrictions such as potentially reducing the depth of the study due to constrained resources including time, access to the companies and the given attention to the specific cases (Voss et al., 2002). Nevertheless, in order to assure the validity and reliability of our research, we decided to carry out a multiple case study including seven different study objects (excluding the pilot study).

4.2.3 Choice of study objects

The next step of the process was to decide what kind of companies to include in the research. The current theory and the general discussion in media have, as mentioned in earlier sections, focused on large, multinational OEM-companies. We therefore decided to investigate the phenomenon outsourcing out of an SME-perspective. We thought this would be interesting as well as a great opportunity to highlight the importance of the SMEs in the marketplace.

Our next step was to make the distinction between activities outsourced since the differences in rationale concerning outsourcing between manufacturing and service processes logically differ due to the nature of the activities/processes. The supplier of the service will in principle be in direct contact with the customer since services are not tangible and cannot be stored. This implies special requirements on the supplier in areas such as language skills and customer service that does not apply for suppliers within

manufacturing. Problems concerning for example logistics and lead times are not applicable concerning service outsourcing operations. Accordingly, we made the distinction between outsourcing manufacturing activities and services activities and decided to only focus on manufacturing activities.

Next, we made the choice to solely focus our research on SMEs in the Gnosjö region. This choice is motivated, as mentioned earlier, by for example the region's high density of manufacturing companies and its old traditions of entrepreneurship and production. Moreover, companies in the Gnosjö region are demonstrating a commitment and a competitiveness that has been significant for the Swedish industry. The fact that many of the companies in this particular region is acting as suppliers to larger multinational OEM-companies, also played a central role in our choice of the Gnosjö region since their high exposure and obvious dependability on the OEM-companies, as discussed earlier, make them vulnerable to the fierce competition from LCCs. Many of the large companies are more or less forced to consider relocation of their business in order to lower their cost structure, which affects SMEs to a large extent. In addition, many of these SMEs are interesting to examine because their production is often simple and commodity-like and can be replicated elsewhere rather easily. These companies would therefore not occupy unique capabilities and thus be exposed to the outsourcing and relocation threat by their customers. Our choice of study objects is further depicted in Figure 8.

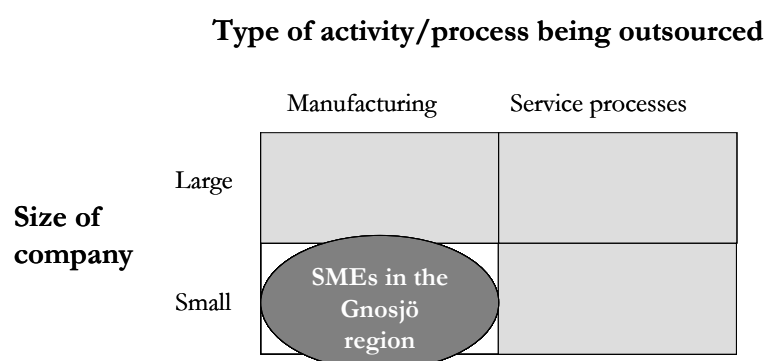


Figure 5. Categorization of study objects. The figure shows the distinctions between size of the company and the type of activity being outsourced or relocated (authors' model)

The process of finding appropriate SMEs in the Gnosjö region started with the creation of a database (see appendix III). We first included manufacturing companies that could be found registered in the four municipalities' business organizations that constitute the Gnosjö region, in other words the municipalities of Gislaved, Gnosjö, Vaggeryd and Värnamo. Secondly, we excluded companies that were not involved in metal- or plastic production. Out of this population, we then listed all the companies with a number of employees between 35 and 250. The rationale behind this categorization was that we considered companies with fewer employees than 35 to be less significant for our study

due to various reasons (e.g. consisting of mostly family members' etc.). The upper limit was set by the EU-definition of what constitute a SME. The database then consisted of 51 companies. As a next step, we left out SMEs that were subsidiaries to larger companies and those that had foreign ownership, as well as companies that did not suit our research due to other factors. The result was a deduction of 18 companies, hence ending up with the 33 suitable companies for our case study. Finally, these companies were approached and asked whether or not they wanted to participate in our study. We received positive answers from twelve of the companies, but since our schedule did not work with two of them and since interviews conducted with two other companies did not contribute with any useful information, these were excluded from our study. Moreover, of the remaining population, we selected one company as a pilot study to further calibrate our case protocol. Thus, the final case study concerned seven companies plus one pilot case.

4.5 Data gathering

In this section we will describe the process of gathering data, both primary data as well as secondary data. As the purpose of this thesis is to fully understand the phenomenon being studied, we tried to achieve this through perceptual triangulation as described by Yin (1994). In other words, by collecting data from multiple sources, we strived to support the evidence to assure that the facts being collected are indeed correct.

4.5.1 Primary data

By definition, primary data is reported from a first hand source (Arbnor and Bjerke, 1994). Also, according to Befring (1994) there are three main strategies in order to collect primary data: observations, interviews and research. In this paper, we have first and foremost been using interviews. Thus, our primary data consists of data gathered from interviews with non-governmental organizations and interviews with the executive managers at the seven companies that constitute the case study, which equals in a total number of ten interviews.

4.5.2 Interviews with study objects

The study objects of this master thesis consist of the following companies (for thorough presentation of the respondents, see Appendix I):

EAB AB	Pelly Industri AB
Esbe AB	SGV Industrier AB
GnosjöPlast AB (pilot case)	Swede-Wheel AB
Hörle Automatic AB	Wulkan AB

In order to get a holistic view and a good understanding of the topic, an interview guide was constructed and used in the interviews. By following the guide we believe that we have achieved a more accurate result. In addition to the interview guide, we used a semi-structured approach in the interviews, which enabled us to receive elaborated and clarifying answers. Moreover, some communication has occurred through telephone as well as by email.

4.5.3 Interviews with non-governmental organization

With the purpose of enhancing our understanding and knowledge about the region and its entrepreneurial spirit, we chose to interview a couple of persons with excellent insights in the region and the business environment.

To begin with, we interviewed the General Managers of two confederations of local enterprises in the Gnosjö region, Eddie Davidsson and Jan Hultegård. In addition, we also interviewed Lars Warenmo at ALMI Företagspartner, due to his familiarity with the local business environment (for presentation, see Appendix I).

4.5.4 Secondary data

Secondary data is defined as information gathered from a third party (Lundahl & Skärvad, 1999). Secondary data generally consist of academic literature, periodicals, journals etc. (ibid). We collected information from multiple sources in order to achieve a broad and accurate view of the problem area in focus. Weiderheim-Paul and Eriksson (2001) mention three different purposes with secondary data. Accordingly, in order to gain as much knowledge and insight in the actual phenomena and its related issues as possible, we have followed their suggestions. In order to get a broad picture of how the issues are discussed in the literature, we mapped different views in the area as well as collected relevant data. By extensive searches in different databases (LIBRIS, SSE for instance) a lot of articles and working papers have been studied and used as a theoretical framework in order to give an enhanced understanding about the topic of outsourcing. Furthermore, other secondary data used in this thesis consists of business literature, internet resources and other written material by different stakeholders. Finally, we have examined internal submitted material from all companies in the study.

4.5.5 The interview process

Interviews can be conducted in many different ways (Merriam, 1994). However, the most common procedures are structured, unstructured and semi-structure interview techniques (ibid). When using a structured interview approach, one uses prepared detailed questions, with the most extreme case being an oral version of a survey interview. This method is preferable when the research population consists of a large number of respondents, when the researcher wants to explore different kinds of hypotheses or when quantification of the

results is important (ibid). In contrast, an unstructured interview is rather a discussion about the actual topic and is suitable when the researcher has too limited knowledge about the topic in order to ask relevant questions (ibid). When using this technique, the researcher has no prepared questions and the interview is more of an explorative nature. The researcher tries to learn about the topic in order to be able to ask relevant questions at the next occasion. The semi-structured interview method is not as formalized as the structured method and is more suitable when the respondent possesses some knowledge about the subject and has insight in related problems. This technique entails the researcher to adjust his questions to the interview situation, to the given answers from the interview object and to new ideas that are becoming evident during the interview (ibid).

Since we are trying to enhance our own knowledge concerning outsourcing in Swedish SMEs with real-life experiences, we came to the conclusion that the semi-constructed approach was most suitable for our research. By using this approach, we enable the respondents to better voice their own opinions regarding outsourcing since they were involved in shaping and pushing the interviews forward, at the same time as we kept the general control by setting the overall direction of the interview with the help of our interview protocol.

All our interviews were conducted on site, at the different companies' production facilities in the Gnosjö region during two weeks in April and May 2005. The interviews lasted approximately between 1-3 hours and were both recorded and typed down. By using this strategy we gave ourselves an opportunity to listen to the interviews again, after they actually took place, and modify the interview protocols by clarifying aspects that were not that clear during the actual interview process. Not recording the interviews would have implied the risk of missing or misinterpret important information from the interviews.

Due to the limited size of the study objects, we decided to conduct one interview at each company. For this, we chose the CEO of the companies since this person should possess the most knowledge of the company and its strategies. We are of the opinion that the quality of this thesis would not have benefited to a larger extent by interviewing other stakeholders at each company. One could argue that it would have been interesting to interview members of the board or owners to hear their opinion of the specific inquiry being studied, but since these people are less involved in the day-to-day operations and management of the companies we chose not to include them in our research. Besides, in many of these Swedish SMEs, the managing director is also the major owner of the company.

During the interview process, we followed our interview guide as close as possible. Moreover, we tried to let the interview objects express their thoughts and opinions on the specific topic as freely as possible. Both researchers were attending all interviews, where one had the responsibility to ask the questions and the other one the responsibility to

document the answers. Being two people at each interview enabled us as researchers to back-up each other and fill in gaps that the other person had missed.

4.6 Data Reduction and Analysis

In this section, we will show how the collected data has been analyzed and reduced through this paper, enabling us to finally arrive at our conclusions and generalizations.

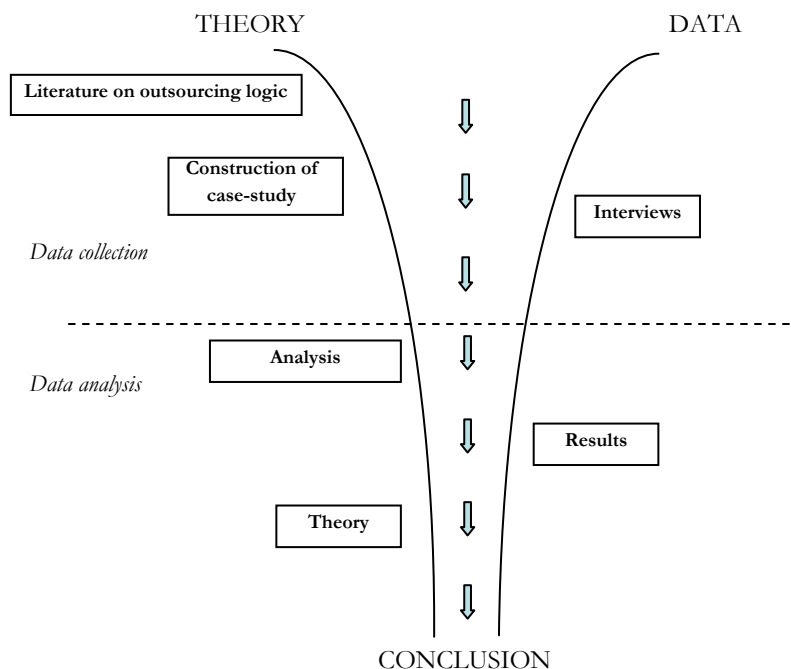


Figure 6. Data reduction process. The model shows how the data has been reduced and analyzed throughout this thesis (based on Richtnér, 2005).

According to Miles & Huberman (1994), the data reduction is the stage before the analysis. This stage aims to focus, simplify, abstract and convert the data from written field notes or interview transcriptions. The starting point for this thesis was, as mentioned before, previous literature concerning the make-or-buy logic in outsourcing and theories related to outsourcing as well as business press and “white papers”. We also met different companies specialized in the specific area. Based on these different sources, we identified certain areas that seemed to be especially important for the rationale behind outsourcing and, as the next step, we used these areas to design a case study protocol for the guiding of our planned interviews. In more practical terms, we divided up the guide into the areas of *Competitiveness*, *Manufacturing*, *Outsourcing*, *Rationale concerning the decision process* and *The region and other important aspects*.

Beside these specific areas, the protocol of course contained other complementary questions concerning information about the executives that we were interviewing, the

history of the companies and their current position as well as other relevant information. The process of creating these separate parts of the case study protocol also served, to some degree, as a coding of the data that we were to receive from the company and helped us in the analysis of the findings later conducted.

The next step in the process represented the analysis of the case write-ups being generated during and after the interviews. In these analyses, central parts of the generated data from the interviews were highlighted and summarized. The case-write ups included not only data gathered during the interviews, but also information collected from secondary sources beforehand, such as financial statements, in order to take the companies' performance the last couple of years into account.

After we finished the separate case write-ups for all the different study objects, we continued by identifying cross-case patterns from our analyses which served as the base of our synthesis and the "new" ideas developed for outsourcing in SMEs. As mentioned before, our clear separation between different parts of the case study protocols, and hence the interview and findings as such, facilitated this process to a wide extent and made it possible to identify both similarities and discrepancies between the study objects.

As a last step, we validated our findings by contrasting them to the existing theory concerning outsourcing, leading us to the conclusions and generalizations that we are presenting in this thesis.

4.7 Validity and Generalizability

The problem with generalizability, also known as external validity, for case studies is well known among researchers. One typical challenge that most researchers face is the requirement concerning the generalizability of new and other types of populations (Meredith, 1998). One obvious argument is whereas findings from a case study have little generalizability due to the fact that the results are only valid for that particular case situation. But, according to Meredith (1998, p. 449):

"case researchers often maintain that the theory developed from their studies is applicable to other similar (in the sense of having the same population parameters) situations and even in situations that are not similar but where the theory would still apply and predict different result."

Also, one has to bear in mind that many researchers over the years has criticized the qualitative research in general, because its limited contribution and the tendency for constructing poor validation and questionable generalizability (ibid). Nonetheless, it is important to note that external validity depends on more factors than just sample size (ibid). Therefore, there is no obvious reason why a quantitative approach should generate

more generalizability than a qualitative approach. The reason for this is as Meredith (1998) also points out that generalization is much more an inductive process, rather than just a simple statistical projection of sample to the population (ibid). We believe, in accordance with other researchers (Meredith, 1998; Yin, 1994 for instance), that generalization can be reached through a depth of understanding of a dual or multiple case study.

In order to increase the validity, Yin (1994) presents three different tactics that can be used:

1. Use multiple sources of evidence during the data collection.
2. Establish a chain of evidence during the data collection.
3. Have the draft case study report reviewed by key informants.

We have to a high extent followed Yin (1994) suggestion in this thesis in order to guarantee the validity. As we have discussed earlier, many different sources have been used in the data collection process in this thesis, e.g. outsourcing theory, articles, business press, interviews with study objects and other stakeholders etc. Moreover, the data collection occurred in a specific chain of order; we started on a macro level examining theory, business press and other types of secondary data in order to set the broader picture and gain deeper knowledge of the problem area as such. After we identified the small gap in the theory concerning the “make or buy” logic in SMEs, we moved down on a micro level and proceeded with the data collection through interviews. As the last step, we then finally moved up again on the macro level, putting together our empirical findings with the theory in order to come up with our conclusions and generalizations. We did however not have the case study reports reviewed by the key informants, since the process of re-listening to all the interviews and rewrite the interview protocols was very time-consuming and was first completed several weeks after the interviews took place.

To further increase the validity of our interviews, we conducted a pilot study in order to test our interview protocol. This pilot study was conducted with the Managing Director of GnosjöPlast AB. After the pilot study, we made necessary smaller changes in the protocol and adjusted some questions and parameters. We did for example change the sequence of some of the sections and eliminated a few questions that were not working well in the actual interview situation. By doing this, we strengthened the odds to receive accurate information and gave ourselves an opportunity to better prepare for the interviews included in the case study.

Although we are fully aware of the possible limitations in terms of the generalizability of our finding, we believe the results will highlight some interesting facts and ideas concerning outsourcing strategies among Swedish manufacturing SMEs in year 2005. In addition to that, we are of the opinion that our findings concerning the outsourcing decision in SMEs in Gnosjö can be applied on a higher level for SMEs in a dynamic

context in general. Today, the theory in this field is to some extent ignoring the impact and importance of the outsourcing decision for smaller companies.

Given this contribution, we would also like to address the importance and relevance of conducting further research in the field to further enhance the understanding of the issues covered in this paper. Nevertheless, Yin (1994) argues that in order to generalize the results, the theory must be tested and replicated by further studies in the field. He further states that once such replication has been made, the finding can be accepted for a larger number of companies.

4.8 Reliability

It is of great importance to address the reliability of a study (ibid). According to Yin (1994), the reason for controlling the reliability is to minimize the possible errors and biases that might occur in a study. Yin (ibid) also mentions that the reliability of the results are determined on the possibility to repeat the study and get the same result, or in other words the ability to replicate the actual results of the study. In order to control the reliability in our case study we conducted, as mentioned before, a case study protocol which we then followed strictly in order to make it possible to repeat the study in the future. The importance of this approach is supported by Yin (ibid). A pilot study was also conducted where we tested our interview protocol at one company to assure that we addressed the correct and appropriate problem areas aligned with the purpose of this thesis.

There are of course some problems in terms of replication concerning the interviews since they have been conducted in a semi constructed manner. But the fact that we have been following an interview guide that focused on hard facts rather than on individual and subjective opinions, it should guarantee high possibilities to replicate our findings. In other words, it would therefore be reasonable enough to imagine similar answers and results if the interviews were to be made again. Also, the points of inquiry have been standardized to all companies and remained the same to respondent managers with similar positions and responsibilities. Notably is also the fact that we have under no circumstances tried to suggest, nor affect any statements in the interviews.

5. EMPIRICAL PRESENTATION

In this section we will present our empirical findings from our case study. In order to guide the reader through our findings we will present the material company by company and summaries each presentation through an “in-case analysis”. A more elaborated introduction of the respondents and the study objects can be found in the appendix.

5.1 The Gnosjö region

The Gnosjö region is situated in the south of Sweden and is the home to a vast number of SMEs involved in manufacturing. The region has traditionally always been focused towards industry and manufacturing. In the end of the 19th century, the manufacturing of products out of metal wire, e.g. whips, mousetraps etc, became important and a metal wire-industry came to life (The industry museum of Gnosjö). This type of industry is still very common in the region today. In our interviews with different stakeholders, we developed an understanding of the factors that make the region special (Eddie Davidsson and Jan Hultegård, see appendix I for presentation). Both respondents highlighted aspects like the deep and well developed knowledge concerning production and engineering in the area. They also stated that respect towards and concern about other people and the region itself, are important for the long-term success of the region. According to these respondents, collaboration among companies as well as large number of different networks (social, professional and family related) was also underlined as key characteristics for the region. The respondents were also of the opinion that even though the number of university graduates in the region is limited, the general competence in the area is high because of practical know-how, which is acquired through learning-by-doing. Other factors like entrepreneurial spirit and willingness to work hard were also highlighted as significant factors that have formed the region over the years. Other sources are foremost highlighting factors like the entrepreneurial spirit, the vast number of family businesses and the high working moral as key characteristics for the Gnosjö region (DI, 5 of August, 2005).

The manufacturing industry is of high importance for the region and is currently employing 64 % of the inhabitants in the Gnosjö region (DI, 12 of August, 2005). Eddie Davidsson points out that due to the importance of the manufacturing industry for the region as well as the current trend of OEM-corporations relocating and outsourcing production, the outlook for the region is somewhat problematic.

5.1 Case 1 - EAB AB

EAB was founded in 1957 by Sven Andersson, the father of the current owners, Per-Åke (P.A.) and Sven-Gunnar Andersson. The company is involved in the production of storage equipment, doors and steel building. EAB mainly delivers subsystems and systems to other manufacturing companies. The largest part of the sales (60 %) comes from storage equipment products, which are also the only products the company currently exports. 40 % of the total production is exported.

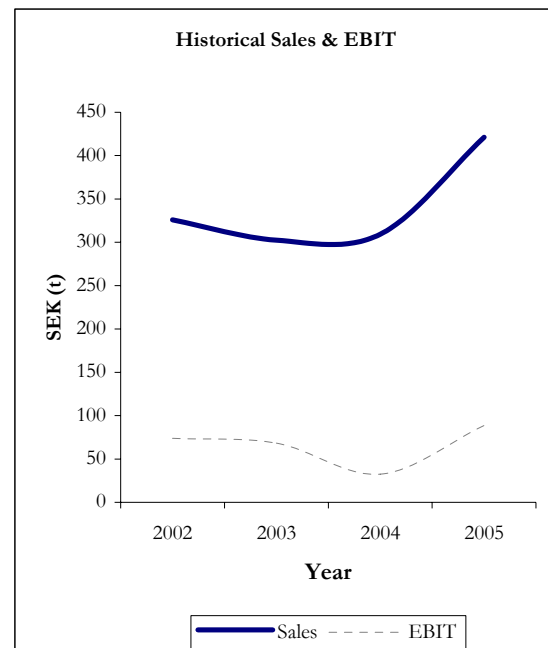
Competitiveness

According to the Managing Director (MD) of EAB, the company's competitive advantages are reliable and accurate delivery to customers and to be able to produce in a rational, efficient and a fully automated way. Thanks to their current geographical location, the company has short lead times and is able to offer customers a variety of solutions using a module-system and keeping standard components in storage. The company's core competence is, according to the respondent, know-how in production.

The competition the company face is very fierce in some segments and quite limited in others. The reason for this is the existence of cultural and geographical barriers for some of the products since these are only used in Sweden, Scandinavia or Europe, thus to some degree holding possible LCC competitors back for entering the market.

General Information - EAB AB	
Founded	1957
Owners	Per-Åke Andersson (50%), Sven-Gunnar Andersson (50%)
HQ	Smålandsstenar, Sweden
Manufacturing	Smålandsstenar, Sweden
Products	Storage equipment, Doors, Steel buildings
Key Figures (MSEK) 2004/05-2005/04	
Number of employees	170
Sales	421.0
EBIT	88.6
Net Earnings	47.1
Key Ratios	
Solidity (%)	50.8%
Profit Margin (%)	21.5%
Sales/Employee (MSEK)	2.48
ROE (%)	59.5%

Source: Affärsdata



“Construction has very much to do with culture, how you like to have things. In Sweden, we are putting up buildings with a certain standard on windows, doors etc. which may very well differ to other countries. We use, for example, doors which are opened outwards, while they use doors that are opened inwards in other parts of Europe.”

Steel buildings stands for approximately 25 % of the revenues. In this segment, EAB is more active on a local market with highly limited numbers of competitors. The company offers projecting, construction, production and assembling. This enables the company to partly climb in the value-chain to become a system supplier to their manufacturing customers. Although a large portion of the activities in this production process are relatively labour intensive, it is almost impossible to automate this process since the volume is very low (produce one of each product). Instead, lead time becomes the most important factor to consider in order to stay competitive according to P.A.

“If the customer would say that he would need the product first in a year’s time, the conditions would change completely. But today, the decision to construct a building is often taken very close to the start of the project. Thus, lead times and time to market are crucial.”

Concerning steel doors, which amounts for approximately 15 % of the revenues, the picture is similar. Here, EAB is facing competition from other parts of Europe as well since steel doors are more standardized products than steel buildings. These products are normally customized and not tied to any particular module standard. This production process is therefore rather labour intensive since it is difficult to automate this process as well.

The storage equipment segment is highly competitive with competitors from all over Europe. The reason for this is that the products are standardized world-wide which increases the competition. According to P.A., there are however limited products exported from Asia to Europe in this segment, since the products are not optimal to transport due to the relative low value and the size and shape of the products. P.A.’s strategy of how EAB will continue to be competitive in this market place is to continue to rationalize by further replacing labour with robots. The company has recently made huge investments in the production facility in Smålandsstenar which has raised the capacity with almost 30 %.

“The investment is mainly made for the future demand for our products. We cannot cover this capacity with today’s customers, but in order to grow and to be successful in the future, one has to dare to make the necessary investments and take on the risk.”

EAB has long-term investment plans, which they have been able to follow thanks to the high solidity in the company. Capital has, in other words, not been a serious problem for the company even though EAB is a family business.

The major threat for EAB in the future is, according to P.A., not to be able to get hold of raw material to competitive prices. Today the company is buying steel from all over Europe, but has due to the rapid growth in China experienced a steep increase in steel prices lately. Previous to China's rapid growth, the raw material was rather stable in price and the small increases that existed from time to time were transferred to the customers. This has been harder to carry out lately, since the competition has increased and the customers have become more sophisticated. If competitors will be able to get hold of raw material to lower prices, the company will face serious threats of being out-competed. However, no real threat has been experienced from LCCs yet mainly due to the inappropriateness of transporting the products long distances as well as the highly automated production of some of the products. P.A.'s opinion is that companies that are suffering from LCCs are involved in too labour intensive production.

Manufacturing

Most of the value-adding work concerning EAB's products is done in the company's production facility in Smålandsstenar, but the company also source services from nearby providers. According to P.A., this is what makes the region so special - companies are helping each other. EAB is for example buying wire-netting, which is one of the main components in the storage equipment products, from a local supplier.

The average labour cost is down to 10 % on the products that are facing the highest competition, i.e. storage equipment, and the general cost for material is as high as 50 %, although differing slightly in the other product categories. The skills that are needed in the manufacturing are acquired through learning-by-doing according to the MD.

"When the company gets people to like their work, we are slowly building up more and more competence in the company as people tends to stay longer. This enables me to delegate more responsibility to the personnel. If I would outsource or be working with Manpower, with employees constantly going in and out of the company, I would need to simplify all the different stages of the operation. We have chosen the other approach."

EAB mainly functions as a first-or second-tier supplier, but a limited part of the total sales comes directly from end-consumers as the company tries to take away as many levels in the distribution network as possible.

Outsourcing

EAB focuses on being competent in production and if they would outsource any part of this process, they would, according to P.A., lose competence. He views the closeness between sales and production as an obvious competitive advantage. Since the products are customized to a high extent and due to the size and the low volumes of some of the products, outsourcing is not an option for EAB. Also, as P.A. points out:

"Lead times are an order-winning factor!"

Instead of outsourcing, EAB is trying to eliminate as much manual input as possible from the production process. Until this point, P.A. has never considered outsourcing as a serious option, but states at the same time *“that Hungary and Poland could be of future interest due to their favourable geographical location.”* China is not of interest to P.A. due to factors related to cultural differences, laws and regulations, moral and distance.

“If we would establish ourselves in another country, which we probably will do, then why go so far away!? I mean, it is already a big cultural difference to go to the south of Poland, Hungary or elsewhere in Eastern Europe. If I cannot handle those kinds of differences, how would it then be to come to a country without a proper juridical system where they dislike the “white man”, call him “the white ghost” and so forth, and believes in another god?

The pressure to outsource has always existed according to P.A. Besides that, since EAB is a flat organization with very limited administration and highly empowered working groups, outsourcing of the production would unavoidable mean increased costs for administration to keep everything in order.

The region and other aspects

It has according to P.A. always been a struggle for survival in this region and this is still very much present today.

P.A. is not concerned about the future of his company, but he shows great concern about the outlook for the region. He is of the opinion that the biggest threat today is that customers to the SMEs in the area are moving their operations to other countries. He links this issue to the recent years of globalization, but says at the same time that EAB has been able to benefit from this development due to the fact that more products have been set in motion, which has raised the global demand for storage equipment. P.A. thinks that the future of the region is very important, but concludes on the other hand that he is not involved in charity, which means that there are limits to what he can do.

5.1.1 Case Summary

<u>Competitiveness</u> - Experiences no real threat or competition from LCC - The partly automated production and the geographic location competitive advantages - Different levels of competition in separate product segments due to cultural barriers and standardization - Climbs in the value chain by only offering systems - Concerned with the supply of raw material to competitive prices
<u>Manufacturing</u> - Emphasizes the importance of having different departments closely together - Continue to emphasize rationalizations through IT and replacement of labour with robots
<u>Outsourcing</u> - MD negative towards outsourcing in general - Emphasizing increased costs for administration and other indirect costs due to outsourcing/outsourcing - Built up internal competence which would EAB would not be able to receive from outsourcing partner - Hungary and Poland might be of future interest due to geographical location - China not interesting at all due to issues related to culture differences, the juridical system, moral and distance
<u>The region and other aspects</u> - Family business but always high solvency → no real obstacles for future investments - Many small suppliers facing serious problems as a customers are moving their operations offshore - Obvious concern for the region but limitations to what you can do, “business is business, not charity”

5.2 Case 2 - Esbe AB

Esbe AB was founded in 1939 by Johan August Skogsfors, the grandfather of the current managing director, Johan Skogsfors (J.S.), also the interviewed. J.S. defines Esbe's core competence as their special knowledge of producing regulated hydronic systems for small buildings.

Competitiveness

In terms of competition, there are according to the respondent a couple of large companies in Europe "that does everything for everyone". In addition there are also a number of Swedish companies that is very similar to Esbe when it comes to competence and size, active in some of the product segments.

J.S. does not see any direct threats to Esbe's business since the dominant design in this segment (i.e. hydronic heating) will most likely not change and the company will hence be able to continue to be competitive. To further strengthen their position in the future, Esbe will focus on their core competence to supply small buildings with regulated hydronic systems and by investing in production technique as well as improve the process flow in the factory.

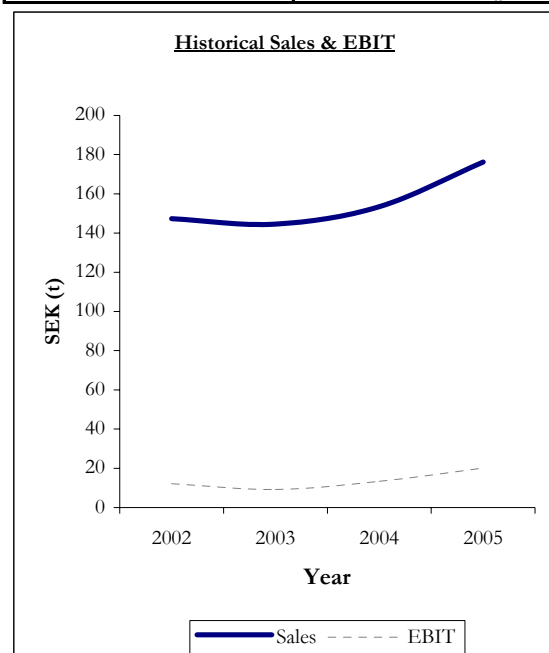
J.S. does not consider competition from LCCs to be a serious threat today, but he admits that the industry has changed lately to focus more on price than quality.

Manufacturing

Today, the company are active within three different product segments and has in sold off divisions and product categories in order to better focus on their core business. Today, the company is both supplying products directly to wholesalers as well as to other manufacturing companies further up in the value chain. Products to OEM customers are

General Information - Esbe AB	
Founded	1939
Owners	Family Skogsfors (80 %) Employees (20 %)
HQ	Reftele, Sweden
Manufacturing	Reftele, Sweden
Products	Motorized valves for regulating hydronic systems in small and large
Key Figures (MSEK) 2004/01-2004/12	
Number of employees	124
Sales	176.2
EBIT	20.1
Net Earnings	10.6
Key Ratios	
Solidity (%)	67.8%
Profit Margin (%)	11.6%
Sales/Employee (MSEK)	1.42
ROE (%)	26.5%

Source: Affärsdata



customized while products to wholesalers are standardized. Finally, the company is only supplying systems or subsystems and 70 % of the revenue comes from exported products.

The company is currently focusing on three processes in the production, i.e. testing, assembling and packaging. The MD would not have a problem to outsource parts of the production processes, but says at the same time rather contradictory that;

“We have no “boly coms” in the production except the assembly and the testing processes, since these are crucial in order to be able to guarantee the quality. But we have outsourced 75 % of the forming of the products and the entire injection-moulding for example.”

The company are forming the necessary components before they receive the orders from the customers. Once the customer has placed the order, the products are assembled and packaged. This way, the products are being customized rather late in the production process with limit the need for storage. *Lead times* are hence crucial for the company.

Concerning the cost of the products, labour cost currently represents 18 % of the total costs, but the goal is to lower this number to 5 % by rationalizing the production.

“We have a rather labour-intensive working process, a hand is always involved! We have although decreased the number of employees with 10-15 people the last years and this progress will continue.”

Outsourcing

The MD's general thoughts concerning outsourcing are that many companies are moving out their operation only to enjoy short-term gains and lose in the long-term perspective.

“I think that one loses the long-term thinking and the understanding for necessary developments if one would outsource for cheaper production...you will stop growing and you will lose the ability to rationalize.”

The MD has not seriously considered the possibilities of outsourcing certain processes. He also concludes that it might be hard to find the competence in LCCs, since the market for hydronic systems for heat regulations is geographically limited.

The company has outsourced a couple of processes during the years. For instance, Esbe used to manufacture the electronics needed for their products, but since it was concluded not to be their core competence as well as was a very labour intensive process, the company started to outsource the activity to East Europe. The company has just recently taken a further step by starting to source this and all other electronic components from China. The MD further explains that the company has also tried to source other components from China with very unsatisfying results due to quality issues.

The company has also insourced a production activity. Until the beginning of the 90's, Esbe used to source cables but due to logistical reasons, the company decided to bring back that activity in to the house again. Hence, logistical aspects play a crucial role in the make-or-buy decision for Esbe. They have recently been analyzing the possibilities of outsourcing these components to China as well, but have concluded that this would not be feasible due to deteriorated flow and quality. Instead, the company has decided to automate this very labour intensive process, by investing in new production equipment.

The MD also admits that sourcing strategies are important and will probably be even more important in the future. As a consequence, this issue has lately been placed rather high up on the company's agenda.

Concerning the rationale with outsourcing, the MD explains that accessibility is the most important factor. Lead times and flexibility are also highly decisive when it comes to outsourcing. According to the MD, the total cost concerning outsourcing from LCCs is often higher even though the actual product unit cost is much lower. This is due to more administrative costs, freight, long lead times and less accessibility. At the moment, the MD cannot really see that it would be worth the lower cost since *quality* is the most important competitive factor for Esbe, and there are considerable differences in this area between for example Sweden and China.

The region and other aspects

According to J.S., the SME-cluster in the region and the social responsibility for the community is what makes the region so special. It has been a constant demand for different competences which has shaped this region to be production orientated. An important reason for why the MD has not considered outsourcing to any larger extent is the fact that it is a request from the owners of the company (MD's family to 80 %) that the manufacturing should be left in Reftele or in the nearby surroundings.

5.2.1 Case Summary

<u>Competitiveness</u> - Core competence is knowledge in how to supply small buildings with regulated hydronic systems - Investing in production technique and improving production flow important for the future - Products to some extent connected with geographical barriers - Manufacture only systems or subsystems
<u>Manufacturing</u> - The MD clearly displays preferences for local production - Labour-intensive production processes - Labour cost represents 18 % of total costs → goal to lower this to 5 % by rationalizing the production - Emphasizes automation
<u>Outsourcing</u> - The MD rather negative, “only able to make short-term gains” - Most important factors are accessibility, lead times, flexibility and quality - Lead time is especially important since products are customized after incoming orders - Currently outsourcing electronic components, majority of work with forming and injection-moulding - Insourced a process due to logistical reasons - Assembling, testing and production will never be outsourced due to reason of quality control - MD can currently not see that it would be worth the lower price since quality is most important - Sourcing strategies started to become a more prioritized issue on the company’s agenda
<u>The region and other aspects</u> - Owners of the company explicitly demands that the production should be left in the surroundings - The SME-cluster and the social responsibility very important

5.3 Case 3 - Hörle Automatic AB

Hörle Automatic is a producer of metal pipe components and functions as a subcontractor, mainly to the European automotive sector. The respondent, Anders Magnusson (A.M.), is the Managing Director of the company. He started to buy shares in the company in 1991 and is since 1998 the sole owner of the company.

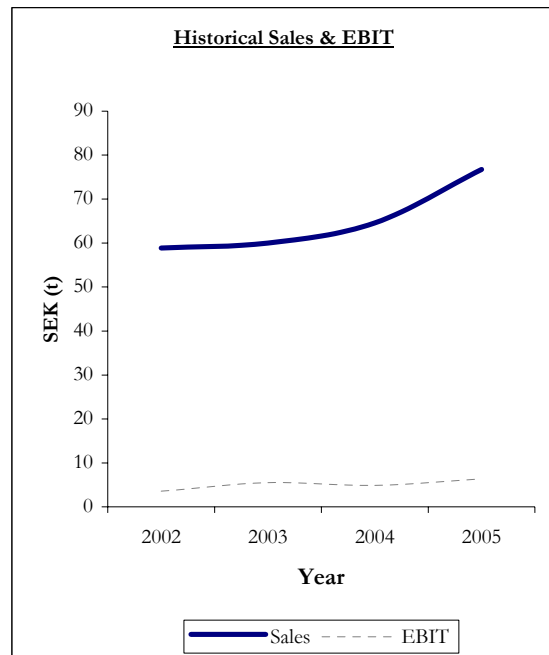
Competitiveness

Hörle Automatic's core competences are technological knowledge concerning metal pipes components and the logistics involved in these products. A.H. explains that even though Hörle Automatic produces clear commodities that look very simple, the working process behind them calls for sophisticated technical knowledge. The logistics is also of critical importance for this type of business. The company has advantages due to large volumes, which give them a favourable position whenever they acquire raw material. Since the competition is extremely fierce in this segment and since material costs are a big part of total cost, procurement has an immense impact on the financial performance of the company. Companies that do not have the volumes for an own sourcing operation find themselves in the

hands of wholesalers who immediately adds another 10-20 % in margins on top on the material. The MD points out that when you compete for projects from large OEM-corporations on a global basis, you cannot afford to give up those 10-20 %, since you will only have an own margin of approximately 10 % in the end. Further, A.H. underlines the flow of raw material as the single most important factor for the company's operations since the company each year acquires approximately 2 200 000 kg of raw material.

General Information - Hörle Automatic AB	
Founded	1986
Owners	Anders Magnusson
HQ	Hörle, Sweden
Manufacturing	Hörle, Sweden
Products	Manufacturer of metal components
Key Figures (MSEK) 2005/01-2005/12	
Number of employees	32
Sales	76.7
EBIT	6.4
Net Earnings	3.6
Key Ratios	
Solidity (%)	37.3%
Profit Margin (%)	8.4%
Sales/Employee (MSEK)	2.40
ROE (%)	39.2%

Source: Affärsdata



Another important aspect concerning the company's competitiveness is that Hörle Automatic has kept the investment rate in automation high the last couple of years, which has enabled them to produce in an efficient way today.

“Automation is our only option. Five years ago, we had average sales per employee that amounted to approximately 1.5 MSEK. Today, that number is up to 2 MSEK and in order for us to survive, I think that there cannot be too many years before we have reached an average sales per employee that equals 3 MSEK.”

The company is facing fierce competition both locally and globally. The nature of the products and the logistics make it however cheaper to produce in Europe than in LCCs, since the products are suboptimal to transport. The product value compared to the weight of the products is very low and when you are transporting pipes, you will in addition to that unavoidable transport a lot of air. The quality of the raw material from Europe is also much higher. Today, the company sources all their material from Europe and mainly from Italy due to quality reasons

Since many customers have started operations in China in order to lower costs and supply new emerging markets, Hörle Automatic has challenged their operations, and for comparison reasons, calculated the cost of setting up the same operation they have in Sweden in China. Up to this point, the figures have been in favour for their current production strategy. On the other hand, A.M. concludes:

“If you want to deliver to these customers in a 10-20 year perspective, you will undoubtedly have to move with them!”

Earlier, the company faced less competition, but with the development of the LCCs, the number of competitors has increased notably. This development has caused a shift in focus in the business - from *quality* to *price*. Only looking at price per unit, the company can currently not match any of their competitors in China for example. But since logistics, lead time and flexibility plays a central role in this business, as well as the fact that most of the car manufacturing facilities are still situated in Europe, the company is able to be highly competitive with their Swedish production. Another important factor in this regard is the requirement of high quality products that is demanded by the car manufacturers. This also plays a crucial role why subcontractors are not pushed out of the market by competitors from LCC. It is therefore crucial for the company to be close to their customers, and A.M. concludes that one of the biggest threats to Hörle Automatic today is that their customers are moving offshore, as the case was with Autoliv. And as Hörle Automatic's 10 biggest customers are owned by large, American corporations, this is especially worrying for the company. Reducing costs by moving the expensive production in Sweden to LCCs will surely be a major point on the agenda for these companies, according to A.M.

A.M.'s strategy of how the company will be able to stay competitive in the future is to stress longer product-cycles and further invest in automation. Moreover, the MD stresses the importance of focusing on higher volumes on standard commodity products, and smaller volumes with high margins on complex and customized solutions to customers who are willing to pay for it.

Manufacturing

A.H. is underlining the importance of risk willingness concerning investment, even before you have the order stock to cover the new investment.

“Yesterday for example, I received an order for approximately 700 000 SEK annually. To be able to produce the required products, I had to order the material directly even though the contract can be annulled until next Thursday when the company representatives are coming to audit our factory. They want to see that we are able to produce efficiently. I cannot show them an old machine park since there are already a lot of players in the market who have the proper production equipment in place.”

The items that the company is producing are clear commodities; different types of metal pipe components. A rather large fraction of the company's products goes to the automotive sector, and the company is therefore extremely dependent on this particular industry. If the automotive sector would leave Sweden, the company's revenues will according to A.M. fall from 77 to 25 MSEK (68 %).

The company has fairly high levels of fixed costs and only 10-15 % labour costs on the products in average. Average cost of direct material represents clearly the biggest part with approximately 50 % of total costs. The ratio sales/employee (ca. 2.5 MSEK) is also indicating that Hörle Automatic is not a very labour intensive company.

Outsourcing

The managing director expresses a clear negative opinion concerning the outsourcing wave to LCCs currently present in the business environment.

“At the moment, it feels like every one is talking about China or India. Somewhere down the road, a realistic picture of outsourcing has to come along! Now it resembles more a mass psychosis to me! A good friend of mine who is also running a company that delivers to the automotive sector wanted to participate in the bidding process for a large order from M.A.N. But the company refused to let him participate only because he did not produce in China! In the beginning of the 90's when companies started to experience problems, East Europe was very popular and viewed as the only solution. So we have experienced this outsourcing wave before. Today we know exactly how much the total cost would be if we where to move our machinery to Lithuania for example, and I mean, since our labour cost on the products is down to 10-15 %, it would not have any real affect on the end price.”

A.M. also conclude that the company cannot compete on *price* with for example China. However, the calculation fails on total costs and flow of raw material according to the respondent. The respondent also argues that the hidden costs with outsourcing are often significant. Hörle Automatic would probably experience problems with rust and contamination if the raw material and the products would need to be shipped by boat for example. Other considerable increases in costs can be linked to the additional administration needed in order to remain in control of the operations. These are the reasons why A.M. is convinced that the production will remain in Hörle for at least another five years. In his opinion, it is absolutely possible to have the production in high-cost areas like Europe or US if you do not have too much manual input in the production processes and if you are able to react and are willing to act fast enough upon the changes in the market place. A possible expansion to China is however included in the company's long-term visions, but only if the company's customers are setting up their operations there as well. He does, however, highlight the complexity of such a strategic move;

"It is not like going to Poland to start up a subsidiary there. It is a 10 hour flight down to China and 7 hours time difference between Sweden and Shanghai. You have a mentality that is completely different to what we are used to. One also has to be aware of that coming to China to compete on prices with the local companies is completely impossible. A Chinese buys from another Chinese. We do not understand them or how they to do business."

The company is currently sourcing a couple of labour intensive assembly activities that are either too complex or where volume is too limited for a fully automated production process. If the company would choose to offshore any of their current processes in the future, they would initially use an external partner but would then set up their own production at the location, hence a captive strategy. In such a make-or-buy decision process, the most important factor for A.M. would be the overall cost reduction followed by the flexibility and dependability towards the customers. A.M. also mentions that he has been thinking of the possibility to avoid big capital outlays through outsourcing, but says at the same time that in the long-run, it has turned out to be more profitable to invest heavily in automation to keep the closeness to the customers. Finally, the respondent concludes that it is today absolutely crucial to have explicit sourcing strategies if you want to survive in the competitive landscape.

The region and other aspects

The Gnosjö spirit which everybody is talking about does exist to a certain limit, but it is also the biggest myth around, according to A.M. Instead of highlighting the cooperation among companies in the region, A.M. points to the fact that many companies in the region are similar and are offering the same products. The competition has therefore always been extremely fierce and this has been the main driver for efficient and profitable companies.

5.3.1 Case Summary

<u>Competitiveness</u> - Core competences are technical knowledge of production, knowledge of logistic and sourcing - Subcontractor on a highly competitive market - large volumes give the company a favourable position - 70 % of the company's revenues come from the European automotive sector. - Flow of material is of significant importance for the company - Low product value, design of products/raw materials & location of the automotive industry beneficial - Customers that are moving offshore represent the most serious threat for the company
<u>Manufacturing</u> - Manufacture commodities - High levels of fixed costs and only 10-15 % in average labour costs - Crucial to emphasize automation and focus on keeping the investment rate up
<u>Outsourcing</u> - Thinks that the outsourcing wave to LCCs resembles a mass psychosis - Currently sources a couple of labour intensive assembly activities - Lead times, flexibility, hidden costs and logistics plays a crucial role - Underlining the complexity of a strategic move to outsource to LCC due to cultural issues - Underlining the importance of explicit sourcing strategies - Most important factors in make-or-buy decisions are overall costs, lead times, flexibility and dependability - Assessed possibilities of setting up own operations in China if most of the company's customer were to move
<u>The region and other aspects</u> - Fierce competition behind the success of the companies in the region

5.4 Case 4 - Pelly Industri AB

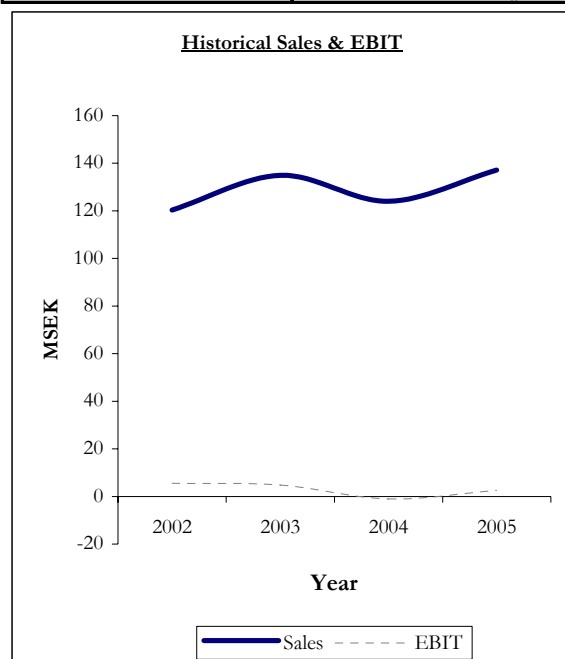
The company consists of three business units, wire products for kitchen, bathrooms and wardrobes, freestanding storage (Pelly Systems) and sliding door systems (Alliax and Mirror). When S.J. took over as managing director, the company was only involved in the production of wire products, but since the company predicted the intensified competition from LCC, they choose to divest and acquired Mirror in 2001, Pelly System in 2001 and Alliax in 2003. These acquisitions fit well into the company's business concept which is storage solution for homes. Pelly Industri is delivering both to end consumers and to OEMs. The respondent, Stefan Jarbratt (S.J.), has been the managing director of Pelly Industri since 2000. Through an MBO in May 2005, he is today one of five owners in the company.

Competitiveness

The company's core competences are knowledge in production, product development, innovation and sourcing. The MD argues that the competitive landscape has definitely changed since East Europe and China have made their way into the market and today, the competition is rather fierce in this industry. In order to stay competitive, S.J. stresses the importance of preserving the company's technical competence in production. One competitive advantage for the company against international competitors is their extensive relationship with the customers and their knowledge concerning Nordic customer requirements.

One critical issue for Pelly is the fact that IKEA accounts for 25 % of the company's total sales. And since IKEA is constantly trying to reduce costs, this dependency is not an

General Information - Pelly Industri AB	
Founded	1938
Owners	Management (5 people)
HQ	Hillerstorp, Sweden
Manufacturing	Hillerstorp, Sweden; Hornsyld, Denmark; Gdansk, Poland; China
Products	Wire products for kitchens, bathrooms and wardrobes, freestanding storage and sliding doors systems
Key Figures (MSEK) 2005/01-2005/12	
Number of employees	90
Sales	137.1
EBIT	2.6
Net Earnings	3.4
Key Ratios	
Solidity (%)	31.9%
Profit Margin (%)	2.3%
Sales/Employee (MSEK)	1.52
ROE (%)	12.2%
<i>Source: Affärsdata</i>	



optimal situation for the company. They have, however, through the acquisitions made been able to reduce this figure from 55 % of total sales.

S.J. also addresses the issue of different prices of raw material in Europe and China. According to the MD the company experience differences to up to 60 % between European and Chinese raw material. Given that direct material amounts for a large portion of the total product cost, this has resulted in a major disadvantage in the competition against Chinese players. The managing director links this to the existence of cartels in Europe.

Manufacturing

The company's local production has the last five years been extremely rationalized and is today highly automated. The average direct labour cost on the company's products is down to 12 %. This has enabled the company to reduce number of employees from 160 to 90 people over the last 5 years. Since all the machinery has to be customized for each product, the company unavoidable gets less flexible with every new investment in production equipment. In order for such an investment to pay off, the company needs to be certain that they will sell large volumes of these specific products.

Pelly Industri has split up their manufacturing between Sweden, Poland and China based on the characteristics of the production process for each product. In Sweden, the company manufactures all products with high volumes where investments in rationalizations of the production process can be realized. In Poland and China, the company keeps production process where volumes are lower, i.e. processes that are inefficient to automate. Another reason for this is the cost for tools needed in the production that varies a lot. In China, this cost is only 20 % of the cost in Poland for some of the production.

The nature of the products is influencing the overall competition, particular from LCCs. According to S.J., sliding doors is for example less sensitive towards competition from LCCs since these products are not standardized. Each door needs to be customized for its specific application, which means that the company can only produce on order. Since for example Chinese companies have lead times up to 6 weeks, they are unable to compete with Pelly. In this segment, Pelly Industri emphasizes customer service to such a high degree, that they have not chosen to merge the subsidiary Alliax's two factories in Denmark. Instead, one of them is today serving Swedish customers, while the other is focusing on Danish customers. The other product segments which the company is involved in consist of products more similar to commodities and can hence be mass produced to stock, which opens the door for production from LCCs.

Outsourcing

Pelly Industri has today both explicit sourcing and outsourcing strategies. This development started when S.J. was appointed managing director. Before that, the company did not source or offshore any of their products or processes. China, Poland and other

East European countries are the most interesting locations when it comes to sourcing in general and outsourcing in particular for the company. Since 2001, the company is outsourcing parts of the labour intensive production (e.g. lots of welding and bending) that they due to low volumes are unable to automate, to a factory in Gdansk in Poland. The company does not, however, own any of the facilities in Poland or China due to flexibility issues. However, part of the production in Poland was recently moved to China to further reduce production costs. It can although often be challenging to find suitable vendors since they are demanding high volumes in order to accept the projects.

The company has also insourced production that used to be situated in Poland. When Pelly acquired the door division (Mirror), they were manufacturing doors in Poland, but after the company concluded that the labour cost involved were limited in comparison with cost of material and the support needed for the retailer, the company chose to move back that process to Hillerstorp. Instead of competing on prices, the company emphasize system solutions in this segment, which includes among other things short lead times, delivery reliability and render the company a possibility to climb in the value-chain.

The most important rationale for the company's sourcing- and outsourcing strategies, is to bring down the production costs. S.J. believes that the company will not invest in production facilities and equipment for new products in Sweden in the future. Instead, they will enhance their sourcing strategies and focus on finding long-term partners for outsourcing in China with suitable size in order for Pelly Industri to become an important customer for the partner. Moreover, for some products that they are selling, they source components from China and then manufacture the products in-house in Hillerstorp. The reason for that is often that, even though the prices offered from Chinese vendors are at least 25 % lower than Pelly Industri's cost of production, the total cost including transport and capital costs will be higher. The MD also stresses the fact that when dealing with China, the company binds up a lot of capital for long periods of time which is very costly and leads to deteriorated flexibility;

"Most of the time, the Chinese vendor demands 30 % in advance to take on the order. During the boat transport, which takes 6-7 weeks, your capital is completely tied up. On top of that, you will have to buy much larger volumes for it to be profitable, especially if you have different variants of the products since you then will be forced to build up security stock levels of each variant. As a consequence, you will tie up enormous amount of capital at the same time as you become less flexible.

Pelly Industri's strategy is to work with China to produce products with high volumes that only exists in a few variants, and that are well suited for transport (i.e. well designed for transport) and where the product value is rather high. As the cost of a container is fixed, the more value you can fit in to one container will automatically decrease the transportation cost's part of total costs.

Today, we are a project group. We are sitting down and analysing each product starting by deciding what the target price should be in order for it to sell on the market. We are then using our organisation in Sweden, Poland and China to reach this target. Sometimes we produce the whole product in Sweden, sometimes in China, but very often we produce different components, subsystems and systems in different countries.”

The logistics involved in these products are very important. The company supplies for example IKEA with 2 of the 5 million pieces that IKEA sells per year of a particular steal tray. The rest, IKEA buys from Chinese competitors. This particular product has a very low value per kilo and is suboptimal to transport. Thus, due to logistical reasons, Pelly Industri produces this steal tray in Hillerstorp and supplies the central and northern Europe, while the Chinese competitors supply the Asian, American and South European markets. On another product, the company is producing the metal net to a basket in Poland, but bends the products first when they reach Hillerstorp using an automated process. By this, the company greatly reduces the logistics cost. Pelly Industri has also patents on innovative solutions that the company has developed the last couple of years solely to rationalize the transport of the products. These solutions enable the company to put up to 4 times as many products on one pallet as their competitors and hence reduce transportation costs.

The company is overall very satisfied with the results from their sourcing and outsourcing activities but it is a challenge to work with China. Problems with rust during transportation on sea and the distance are highlighted by S.J.

“To work with China is very difficult! Everybody is saying that each one can buy from China, but it is much more to it than that! Only to travel there costs a lot of money and energy. I can travel to Poland just over the day. If something goes wrong with a shipment from China, you are in deep trouble since the next shipment is six weeks away. Another problem is that we cannot make the surface treatment in China, since the products often need to be bended in Sweden. Rust during the six week long transport is therefore a serious issue. So as you can understand, there are a lot of risks that you have to consider when you outsource to China.”

In the outsourcing decision process, the most important factor for the company is whether or not the external supplier will be able to manufacture the products to a satisfying quality. Other important factors are the risks involved and the accessibility aspect.

“As the first step, we asked ourselves if it is even feasible at all to produce the particular product in China in regards to quality. If the answer to that question is yes, we considering the issue of back-up production and the risks if something happens with the shipment from China. The accessibility is very important and as a consequence, we often start with the production in Poland and then move it to China once we are sure that

everything works. By keeping the tools in Poland for back-up production, we clearly reduce the risks involved.”

The MD repeatedly stresses these risks with outsourcing and that they must be taken in to account when doing the calculations.

The region and other aspects

When S.J. was appointed the MD in 2000, he replaced the entire management. The former management team followed old traditions very strictly and, for example, only acquired raw material from local suppliers and ignored potential suppliers from other parts of Sweden. Secondly, they only considered local production. S.J. is therefore of the opinion that many companies in the region would benefit from having external management in order to see new possibilities and be successful in a more global environment since old traditions of keeping production in the region as well as the reluctance to think globally is so strong. Nevertheless, he also stressed the fact that many entrepreneurs in the region are extremely competent, far-sighted and innovative in terms of finding new businesses and challenge old paradigms. The companies have to start focusing on their core competence in a wider context, according to S.J. Thus, he thinks that the question of whether companies in the region will survive or not is purely in the hands of the management.

“When we started to relocate and outsource parts of our production to Poland in 2001, a lot of people explicitly showed their scepticism. But that has changed rapidly. Managers that are a bit more far-sighted have really started to address this issue. But then you have the companies who will not be able to make the necessary changes since the management are too stuck in the old way of thinking. These companies will surely be out-competed...you have to start thinking in projects. For us, the production is not that important any more, the important thing is instead to focus on developing concepts for the customers, i.e. how the products should be packaged, priced, which functions they should have and which services should be included. The production is a secondary question. First in the next step, we consider our three different production options, Sweden, China and a nearby low-cost country (Poland).”

The ownership has also a clear impact on the companies in the region according to S.J. He argues that it of course is tougher and more risky when your own capital is at stake. But he does not think that it is the main challenge for family owned companies in the region. The negative aspects for these companies are in S.J. opinion that they will often end up in decision making dilemmas. They have always been a part of the region and the social responsibility that is resting on their shoulders is therefore a heavy burden.

“To outsource a process that will put 20 people out of work will affect your soul. I mean, your father never had to do that and today, you might not have another option. Imagine yourself to live here. Your children run down to the kiosk to buy a magazine and meet their friend, whose father has just been discharged because you decided to outsource half of

the factory to a low-cost country. That is not very pleasant and I fully understand the emotions that are involved in such situation. The Gnosjö spirit is in fact the underlying pressure that has always been present here and it implies that one buy and cooperates solely with other local companies...one must start looking beyond the 50-signs. Of course, outsource production to China or Poland is not that simple but if you have an external investor or owner behind you, the decision will be much easier!”

S.J. also calls the region “the old China”, since it used to be the area where companies had access to low labour costs.

“After the Vietnam War, a wave of immigration to Sweden began from Vietnam and a lot of these people ended up in the Gnosjö region. This enabled companies to be more competitive, since the immigrants accepted lower wages. Today, the region is facing this problem themselves with the production from China.”

5.4.1 Case Summary

<u>Competitiveness</u> - Core competences are in production, product development, innovation and sourcing - Fierce competition in standardized segments, less in customized segments - Lead-time is an order winning factor - Differences in raw material prices competitive disadvantage against LCC competitors
<u>Manufacturing</u> - Highly automated production in Sweden. Products that are inefficient to automate are made in Poland & China - The average labour cost for the company is down to 12 % - All machines have to be customized for each product - Products with high volumes in Sweden - Will do very limited investments in new production equipment in Sweden in the future
<u>Outsourcing</u> - Offshored to Poland and China → does not own the factories in Poland or China due to flexibility. - Consider each product to be an own “project” and make explicit offshore- and production strategies for each - Develops own tools for many of the outsourced products that are placed in the vendor’s factory - Most important rationale are quality and total costs (production, logistics), capital expenditure and accessibility - Will increase the sourcing and focus on finding long-term partners for outsourcing in China in the future - Challenging to work with China for the company
<u>The region and other aspects</u> - Emphasizes importance of external leadership for some companies in the region due to old traditions - Highlights the emotions involved in outsourcing and the situations for local family businesses - Main challenge family businesses in the region → decision making dilemmas due to social responsibilities

5.5 Case 5 - SGV Industrier AB

The company was founded as Metallfabriken Stacke AB in 1938, but went bankrupt in 2003. Albin Invest AB acquired the company in the beginning of 2004 and renamed it to SGV Industrier AB. The company's business concept is to offer high accessibility of quality warm-pressed, casted and processed metal components to the Swedish industry segment. The company is active mainly as a 2- and 3-tier supplier to the Swedish automotive sector and 70-75 % of total sales come from Scania, Volvo, Haldex and SAAB.

Competitiveness

The company is active on a highly competitive market supplying mainly to larger OEM companies. SGV also delivers to smaller customer but since set-up times in production vary from four hours to four days, it is very hard to be profitable on such customers.

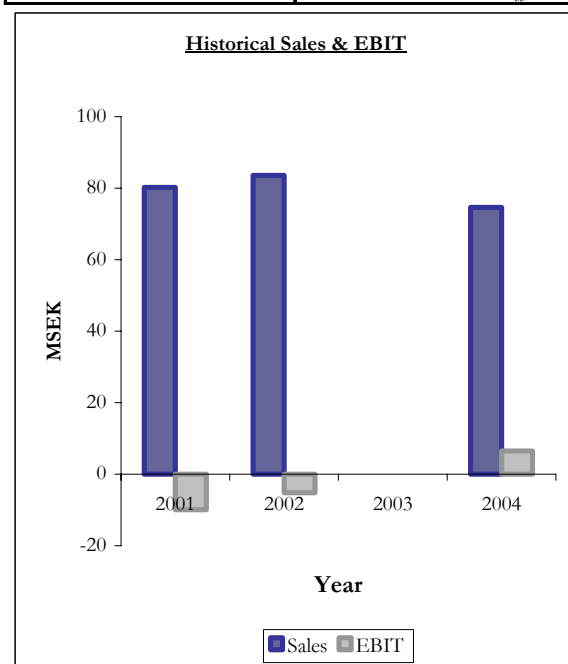
The company's core competence is know-how about forging. This is also SGV's main competitive advantage as there are plenty of turners in the near surrounding but limited number of competent forging companies. The company possess unique equipment for this kind of work processes and has according to the MD only two competitors in Sweden in this area.

Internationally however, the company experiences fierce competition from Germany and Italy, but almost no competition from the East. The MD concludes however that the company's customer have started to look for suppliers in China.

The MD explains that the management is in the middle of a restructuring process and is today, (compared to when Albin Invest acquired the company), producing the same

General Information - SGV Industrier AB	
Founded	1938* (former Metallfabriken Stacke AB, bankruptcy 2003)
Owners	Albin Invest AB
HQ	Gnosjö, Sweden
Manufacturing	Gnosjö, Sweden, Skultuna, Sweden
Products	Metal components for the industry
Key Figures (MSEK) 2004/03-2004/12	
Number of employees	95
Sales	74.6
EBIT	64.9
Net Earnings	2.8
Key Ratios	
Solidity (%)	11.3%
Profit Margin (%)	8.7%
Sales/Employee (MSEK)	0.94
ROE (%)	162.7%

Source: Affärsdata



number of components with 20 % less personnel. It is approximately 15 years since the last time the company was profitable, but the MD believes they make progress in the right direction. The last couple of years, the company's competitiveness have decreased due to the fact that the company has failed to make the necessary investments in machinery.

As a subcontractor to multinational corporations, the company is under constant pressure to reduce costs and to rationalize.

"I think that it is sometimes overkill. They can suddenly contact us to tell us that we will have to reduce our costs with 20 % until next year and they even offer to send out their own people to help us realize such cost savings. Open books are standard requirements in this business."

SGV is also suffering from customers who move their operations offshore. The company has for example recently lost ASSA as a customer to whom they were delivering handles. ASSA is today producing these handles in Rumania. According to the MD, labour-intensive work processes have started to be relocated to low-cost countries the last year or two.

"It will be very tough to compete against the competition from low-cost countries in the future! We have to be good in automation. If we can keep the machines running it will be very hard for such players to out compete us on large volume products. The capital cost is the same down there at the same time as we enjoy lower cost for transports."

The MD continues by concluding that the nature of the products plays an important role in this context. The products are fairly simple and have a low value, which make them suboptimal to transport.

Manufacturing

For some of the company's products, the production process is fairly simple, while it is a lot more complex for other products due to increased number of different processes. In general the company only make to order, except for very small volumes of products that customers are demanding SGV to make to stock.

In order to survive in the future, the MD emphasizes the importance of automation and to invest in machinery. Unfortunately, the owners have not the capital required for a complete "face-lifting" of the current production facility. The MD estimate that 20-25 MSEK in investment would be needed to rationalize the production fully.

The average labour cost amounts today to 35 %, and the material costs to 35-40 % of the total product cost. The casting process is very labour intensive since it involves lot of after-treatment. Due to the characteristics of this activity, it is also very hard to automate and

therefore, the MD concludes that SGV might outsource or offshore this activity in the future. Packaging of products is also done manually. The MD says that he has been thinking of merging the company's two production facilities into one in order to focus investments and enhance the benefits from economies of scale.

Outsourcing

The company's main focus is on forging and tooling activities. Turning processes, which are not a core activity, might be more efficient to outsource according to the MD. The same counts for the casting process, but this process would however be more complex to outsource.

The company used to manage the maintenance by themselves, but is today buying this competence from nearby suppliers. The company has also outsourced a couple of other activities to local suppliers.

Production in China or in any other LCC has not really been on the agenda so far since M.L.'s time as MD has been limited. He is however planning to get quotes on a couple of products and activities from Chinese manufacturers, since these players are becoming increasingly sophisticated. The MD already uses the web tool "Kompass" to post inquiries concerning manufacturing on and receives on weekly basis answers from Chinese manufacturers who want to see drawings on the company's products. These players are becoming increasingly professional according to M.L.

The region and other aspects

M.L. experienced the special regional culture when Albin Invest acquired the old company (Metallfabriken Stacke AB) and he was appointed MD.

"It is very difficult to implement changes since the old culture is very much "in the walls" of the company. People are very negative towards changes and rationalizations and since this company has changed management constantly the last couple of years, they think that these new directions will soon be replaced by other ones. They are on other words sceptical to new guidelines."

5.5.1 Case Summary

<u>Competitiveness</u> - Core competence is know-how about forging processes - 2- and 3-tier supplier to the Swedish automotive sector --> three customers amounts for 70-75 % of total sales - As subcontractor, constantly under pressure to reduce costs and to rationalize - Suffers from customers who move their operations offshore - Product characteristics plays an important role → simple and low value → suboptimal to transport
<u>Manufacturing</u> - Part of production process fairly simple, more complicated for other products - Produces only on orders → make to order! - Emphasizes the importance of automation and investments in machinery - Lacks the needed capital - Average labour cost amounts for 35 % of total cost, material costs for 35-40 %
<u>Outsourcing</u> - Buy maintenance and a few other processes from local suppliers - Turning of the products might be more efficient to outsource - Production in LCC has not really been on the agenda in recent year, lately started to change - Initiated inquiries concerning low-cost production
<u>The region and other aspects</u> - Very difficult to implement changes due to the presence of the “old culture”

5.6 Case 6 - Swede-Wheel AB

Swede-Wheel was founded by the Hildingsson family in 1942 and was bought by the current owners in 1998 from their father and his two business colleagues. The company is involved in the production of castors, e.g. wheels for furniture, and functions purely as a first-tier supplier. Andreas Hildingsson (A.H) took on the Managing Director role 2000.

In the beginning of 2000 the company lost its biggest customer, IKEA, and with that 29 % of total revenues. The company had at that time invested heavily in the production facility since they anticipated a large order from IKEA on a wheel that they a couple of weeks earlier had presented for the company. IKEA choose according to A.H, however, do replicate the design and sourced it directly from China. The investment that Swede-Wheel had made in the production was washed out and the company has since then struggled to regain momentum. To counteract this loss in sales, the company started-up a subsidiary that began to source different parts needed for the castors directly from China.

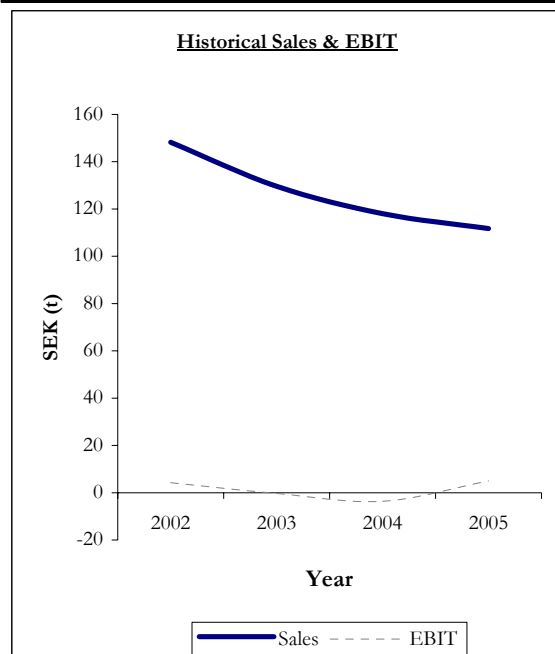
Competitiveness

The company's core competence is knowledge concerning injection-moulding processes, metal-work and assembling. Swede-Wheel are currently products ranging from castors with diameters from 50-250 mm. Swede-Wheel's production is focused on castors with diameters between 50-125 mm, the rest of the products are sourced directly from China.

The company has serious problems with the competition from larger players with in Europe (German) since they only have 65 MSEK in sales compared with the biggest companies with revenues above 1000 MSEK. Accordingly, the MD says that it is

General Information - Swede-Wheel AB	
Founded	1942
Owners	Andreas, Erik och Anders Hildingsson
HQ	Hillerstorp, Sweden
Manufacturing	Hillerstorp, Sweden and in China
Products	Manufacturing of castors
Key Figures (MSEK) 2004/01-2004/12	
Number of employees	64
Sales	111.7
EBIT	5.0
Net Earnings	1.2
Key Ratios	
Solidity (%)	27.2%
Profit Margin (%)	4.5%
Sales/Employee (MSEK)	1.75
ROE (%)	16.4%

Source: Affärsdata



absolutely crucial for the company to grow if they want to survive in this business since economies of scale in the production is essential in order to lower costs and become competitive in the market place. Swede-Wheel also suffers from smaller competitors, and lately also from traders who are offering help to Swede-Wheel's customers to source directly from China.

A.H. says that the biggest problem with competing with China is that Swede-Wheel is very sensitive to changes in the production. The Chinese competitors are much more flexible since they can use cheap tools in their production and then manually make the finishing treatment since labour is so cheap. While the Chinese competitor only needs to invest approximately 50 000 SEK in a tool, the same cost for Swede-Wheel is ten times as high, as they need finer tools with much higher quality and accuracy. Hence, the company then needs large volumes to cover this investment.

Another serious problem for Swede-Wheel is that the local market is diminishing every year, as customers are moving their operations offshore. As a result, the advantage that Swede-Wheel had in being close to their customers disappears, while the traders and the competitors from China are benefiting from this development. The downsizing of the production sector in Sweden is a serious problem for the company, according to A.H.

To be able to be competitive in the future, the company is focusing on automation and on finding cheaper tools.

"If we find cheap and good tools, we are in the race directly! And through automation, we can hold our ground against the Chinese concerning production cost. On really cheap commodities though, we do not stand a chance! There, we have already lost before we start the machines."

Furthermore, new product development is also crucial for the company's competitiveness and here, the MD states that patents and copyright in the business is a serious problem. Swede-Wheel has not the financial muscles to carry on a lawsuit against Chinese and Turkish companies who are stealing their designs.

"Everybody else is just copying others. The pay-off period for investments in R&D must be incredible short! You have to get the investment back within a year, because after that, your innovation is copied by every player on the market. Europe does all the innovation while the low-cost countries are just cutting the costs by copying our solutions."

One fairly new strategy that the company has started to implement in order to compete with the traders is the idea of an "express warehouse", where Swede-Wheel is offering their customers more than 50 different models of castors that the company guarantees to supply to the customer on the same day if the order comes in before 12.00. Swede-Wheel has set up goals to become Europe's fastest supplier of these products and A.H. says that

their own production is the winning concept against the trader. Swede-Wheel can easily decide *when* and *which* product to produce and the company would therefore be flexible when it comes to changes in demand. The trader has 6 weeks of lead times from China. The company is in other words trying to out-compete competitors from LCCs with their short lead times.

Manufacturing

Large amounts of capital are tied up in the company's production facility since they cannot use any standard tools and machines in the process. Since the production processes for some of the products are already automated to such high degree that, the only involvement of manual labour is in the process of moving the finished pallets. Even though the company is very protective of the production, A.H. says that they are always comparing it with other possible solutions and with the competition. A.H. concludes that in production where the company is far gone concerning automation, they can definitely compete with the Chinese. But on products with lower quality and cheaper materials as well as when the production process is more labour intensive, Swede-Wheel does not stand a chance.

"If it is the same material, we are certainly competitive, but on cheap crap, we are totally off. But we are not looking for the customers that demand these kinds of products anyway. Our quality is definitely worth its price compared with China. It might not be a Mercedes or a Royce, but at least a Volvo."

According to the MD, the direct material cost of some of the products is as high as 85 % of the total product cost. In his opinion, LCCs like China has an advantage in this area since they have wider range of raw material available to better prices. He is also of the opinion that there is plenty of "cartel activity" going on in Europe which is pushing the prices upwards.

Outsourcing

The company has outsourced a couple of labour intensive activities to Latvia, where one to two persons are currently working for the company. Moreover, 10 % of all the company's products are currently manufactured in China. The MD is of the opinion that you cannot just focus on the actual price.

"You cannot be stupid and greedy! 5 % savings in Latvia is not 5 %. For us, it has to be at least 20 % cheaper to produce anywhere else since you have a lot of hidden costs, much longer lead times and no flexibility or control when you outsource...the tricky thing with outsourcing something overseas is that it increases the fixed cost charge on your other products. I mean, it is impossible to suddenly close down 1/7 of the factory! Also, if I am outsourcing to China and something goes wrong, then it is rather difficult to explain for the customer that I have his products three weeks away on a boat in the Pacific..."

Accordingly, the overhead costs are also important to take into account in the make-or-buy decision. One of the reasons why A.H. is trying to produce as much as possible in their local facility, is in other words to get higher volumes to split up the overhead costs on.

Today, the company has a Swedish employee working for the company in China with quality assurance, factory auditing and other processes. Through this arrangement, the company works with a couple of different Chinese producers. Up to this point, the company has mainly sourced from China. One product has although been fully outsourced, including tools, material and labour work.

“On that product, we just could not compete against the Chinese. It concerned the cheapest castor that you can find in the market. The Chinese have big sheds with fishing nets, nylon stockings and every other thing that you can think of that they are melting down and producing these castors with. How are you supposed to compete against that? However, that is the only product that we have completely outsourced so far.”

In terms of outsourcing, the company does not own any of the Chinese factories that they are working with and do not intend to do so in order to stay flexible. Hence, they use international outsourcing according to Bengtsson et al's categorization (see 2.2.1) and do not intend to relocate its own production. Another highly interesting factor that A.H. mentions is the legitimacy aspect with Chinese production. In his opinion, Swede-Wheel should be renamed to something that shows that they are active in China, since this would create legitimacy at the customers. As it is today, some of the customers' managers are always questioning why they are buying from Sweden and not from China where everything is suppose to be much cheaper. A.H. concludes in other words, that they have gain a lot of physiological advantages as well with their Chinese operations.

A.H. also shows obvious concerns for pirate copying when working with Chinese suppliers. Swede-Wheel uses different outsourcing strategies in China depending on complexity and distinctiveness of the products and activities. For less complex and more commodity-like products, the company works with well-established manufacturers who are experts on “simple and mature” castors, and supply these manufacturers with own tools. With recently developed products on the other hand, the Swede-Wheel goes directly to a general injection-moulding company, since they fear that the other suppliers would directly copy their innovative designs.

The company uses outsourcing strategies to make the company grow and to complement their product portfolio. A.H. states explicitly that castors with diameters between 125-250 mm are not the company's core competence, why Swede-Wheel has chosen to source most of these products from China. The company focus in other words their production on their core competence, and source everything else.

A.H. says finally that you have to look on outsourcing from both the positive and the negative side. He concludes for example that if he would find the right tools, he would not hesitate to insource the production that is today outsourced. But as mentioned before, the tools they use in China cannot be used in the local production. A.H. would therefore like to implement a strategy where the company starts the production of new products in China, and then bring these production processes back to Hillerstorp once the company is certain about the demand and high volumes, as well as the accessibility of proper tools for local production. To conclude, Swede-Wheel strives to find the most efficient mixture between in-house production and outsourcing.

The region and other aspects

Most of the companies in this region are family businesses, which makes the area very special, according to A.H. For these families, it really hurt to outsource production, because you are so proud of what you have been able to build up. Most of the people in the region know each other some way or another and to layoff people due to an outsourcing decision is very tough.

The MD is also highlighting that the fact that the company is a family business highly limits their economic resources and possibilities. They cannot turn to the public market for capital needed for investments. Instead, they often have to take on all the risk by themselves. He brings up the obvious differences with companies in the area that have recently been bought by outside private equity companies.

5.6.1 Case Summary

<u>Competitiveness</u> - Active on a highly competitive market - Core competences are competence in injection-moulding, metal work and assembly - Emphasizing the importance of automation - No chance against competitors from LCC on cheapest commodities - Uses short lead time as a main competitive advantage - LCC has an competitive advantage since they have wider range of raw material available to better prices
<u>Manufacturing</u> - Local production must fully be automated, cannot afford manual input and modifications - Importance of volume and overhead costs - Price discrepancies on raw material is a severe problem - Pirate copying/replications of protected designs serious problems → new product innovation complicated
<u>Outsourcing</u> - Lead times, flexibility, dependability, quality and total costs important factors - Price per item has to be significantly lower (20 %) if they would consider outsourcing - Has outsourced a few products to Latvia and China - 10 % of the company's products are currently manufactured in China - Sourcing strategies depend upon the complexity, volume and distinction - Customers that are moving offshore the most serious problem to their business - Trying to find the optimize level of in-house production and outsourcing
<u>The region and other aspects</u> - Highly limited economic resources as a family business - Hurts to outsource production as a family business → extremely protective of the production

5.7 Case 7 – Wulkan AB

The respondent, Gert Ove Almgren (G.A.) has been the managing director since 2002. Before that, he was the Chairman of the Board during 10 years and has work in the company since 1968. Wulkan AB is a family owned company and is situated further down the value chain and functions primarily as a 3- or 4-tier supplier.

Competitiveness

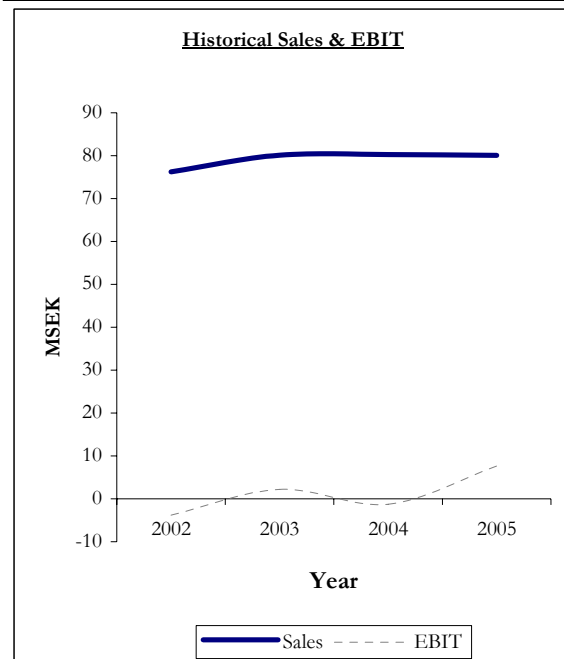
The company's core competences are know-how in manufacturing equipment, screw threading, turning and slotting, as well as knowledge concerning engineering. G.A. also stresses the company's employees as the most important asset.

G.A. describes this market as extremely competitive, with low margins and constant price pressure. The increases in raw material prices have lately been considerable due to the demand in China. This has for example caused the price on metal wire to increase with 50 % during the last year.

As one of the company's most important competitive advantages is their geographical location and thus the closeness to their European customers, which enables the company to deliver on time and offer constant accessibility. Since companies from LCCs in Asia have lead times up to six weeks, G.A. considers the competition from East Europe to affect the company the most. Since the company's primary market is customers in the near surroundings, the problem with customers moving their operations offshore is also very much present in this case and G.A. shows great concern for the development. So far, the company has managed to keep most of these customers even after they have relocated, but G.A. fears that it is just a matter of time until these customers find cheaper suppliers at their new locations.

General Information - Wulkan AB	
Founded	1933
Owners	The founding family
HQ	Anderstorp, Sweden
Manufacturing	Anderstorp, Sweden
Products	Manufacturer of special screws and nuts
Key Figures (MSEK) 2005/01-2005/12	
Number of employees	75
Sales	80.1
EBIT	7.7
Net Earnings	3.3
Key Ratios	
Solidity (%)	23.8%
Profit Margin (%)	1.1%
Sales/Employee (MSEK)	1.07
ROE (%)	3.6%

Source: Affärsdata



In order to stay competitive in the future, the company plans to emphasize improved quality as well as becoming a certified manufacturer and increase the value refining their delivery offers. The managing director believes that quality, environmental considerations and quick delivery will be order-winning factors in the future. Moreover, one of the most important aspects is to find a niche market to invest in. One problem for Wulkan is however that the current investment capacity is too low which hinders the company to acquire more efficient machines in order to reduce the costs. This is partly due to the fact that the company still suffers from a bad investment in 2001, when manufacturing equipment was acquired as the company received a large order from Ericsson. Ericsson cancelled the order in the last hour, and today, the acquired equipment is out of use. Nevertheless, automation, and hence investments in production equipment, is clearly very important for Wulkan.

“We have to be more efficient and invest in new machinery. The volumes are out there if we only manage to produce faster and more efficient. Today, we deliver to Volvo and SAAB. Tomorrow, this could instead be to GM or Ford.”

The management has also addressed the current trend in the market, which goes towards larger players, against who it will be increasingly hard to compete as their volumes increases. Thoughts about starting up a wholesale department has therefore been on the agenda and G.A. concludes that this strategy might be the company's only option in the long run, i.e. to source the products from external partners and to phase out the production.

Manufacturing

Today, the company produces only non-standardized components. The products should still be considered as commodities since they are fairly simple. The company has currently approximately 600 customers and produces both components (70 %) as well as products to end consumers (30 %). The company produces almost entirely on orders and the company has limited number of products in stock. Closely situated subcontractors to the Nordic/European automotive sector, stand for a large part of the orders. As the managing director views his company mostly as a 2- or 3-tier supplier, he underlines the importance of nearby manufacturing companies for Wulkan.

The company's production process is labour intensive; hence the competition from LCCs affects Wulkan severely. Welding and bending processes are not very automated and the same yields for the after-treatment processes, where the company is adding most of the value to the products. The average labour cost amounts in general to 25 % of the total cost and the knowledge needed in the production is more or less entirely related to learning-by-doing. Even though the company's production process is not very automated, the company still has rather extensive fixed costs as they have to follow strict regulations which call for large investments in production facilities.

Outsourcing

G.A. views outsourcing more as a threat than as an opportunity. If they were able to move with their customer, outsourcing would be an opportunity for the company, but the company's investment capacity is obstructing such strategic moves. Plans to relocation have therefore not been on the company's agenda so far.

"For us, it is not feasible out of an economical perspective to relocate. Besides, many companies relocate their production without getting the investments back as costs are not decreasing as expected. Wulkan remains calm in this perspective since we do not possess the required capital. Instead, we are focusing on rationalizations in Anderstorp concerning IT and administrative cost as well as the implementation of "line" (i.e. lean; authors own interpretation) production."

G.A. also expresses the importance of emphasizing the risks involved in outsourcing and outsourcing and is of the opinion that these are exceeding the possible positive aspects of such strategic decisions.

Through focusing on reducing cost by cutting marketing budgets and reducing the number of employees (2001 with 10 %), the company has finally started to achieve positive cash flows again. G.A. concludes that as a subcontractor, the company has to fully adjust themselves to what the companies higher up in the value-chain require, since that is the only thing they get paid for.

The region and other aspects

The old tradition in the region affects companies like Wulkan to be less capitalistic than elsewhere, since the social responsibility is so widespread, according to G.A.

"The small companies in the region sense their social responsibility. But ever since the big players made their way into the market, this has ceased, which is sad and devastating for the region. It is in fact the responsibility for the society that has formed this region."

The toughest challenge for the region is the relocation of production and the competitors from the Baltic region. To be able to survive, the MD is of the opinion that companies in the region have to emphasize increased collaboration, system development and joint production development as they do in other company clusters in the world (Exemplifies with the near surroundings of Milan, Italy). Today, companies are doing the opposite and are instead *"killing the products"* by transporting them back and forth through the country. Since this is a non-value adding process, the companies are according to G.A. only hampering their competitiveness as products get more expensive. G.A. therefore finally concludes that the outlook for the region is not very positive. However, he believes that Wulkan will always survive.

5.7.1 Case Summary

<u>Competitiveness</u> - Core competences are know-how in manufacturing equipment, screw threading, turning and slotting - Extremely competitive market → low margins, downward pressure on prices and increased raw material prices - Lead-times very important concerning customized products - Competition from East Europe affects the company to a high degree - Closeness to Europe customers is the most important competitive advantage - Quality, environmental considerations and quick deliveries are order-winners for the company in the future - Large parts of incoming orders from closely situated subcontractors to the European automotive sector
<u>Manufacturing</u> - Weak investment capacity hinders the company to acquire more efficient machines - Produces non-standardized components, although very commodity alike - Produces both components (70 %) as well as products to end consumers (30 %) - Labour intensive production process → average labour cost is 25 % of total product cost
<u>Outsourcing</u> - More a threat than an opportunity for the company → no plans to relocate - Do not have the investment capacity to move with their customers - Emphasizing the risks involved in outsourcing and that these exceed the positive aspects
<u>The region and other aspects</u> - Social responsibility is important - Companies have to emphasize increased collaboration, system development and joint production development

6. ANALYSIS

In the previous three chapters we have described our theoretical framework, research framework and our empirical findings. In this chapter we will take a step further in our research process and analyze our empirical findings in conjunction with our theoretical framework. The analysis will be conducted on the basis of our research questions and be divided into two parts. The first part will consider the question whether traditional outsourcing theory can be applicable and alone explain the rationale in an outsourcing decision in our study objects. Part two of the analysis serves to identify possible discrepancies to conventional theory validated for OEM-corporations.

6.1 Data processing

The data processing is based on our theory, our research model and our empirical findings. The process mainly consists of primary data, but also of secondary data. Furthermore, our data processing can be described as an iterative process, where theory and empirical findings are jointly processed and analyzed. This is also in line with our abductive research approach. Accordingly, the working process of repeatedly going back and forth between theory and empirical findings has created the analysis of this study. Fundamental for this process are our research questions which we aim to answer with this chapter.

6.2 General attitudes towards outsourcing

As the general outsourcing theory suggests there are a few main motives behind an outsourcing decision (see section 2.3). Nevertheless, it is also of importance to take associated risks into consideration in these kinds of make-or-buy decisions (see section 2.4). As we also discussed in chapter three, the conventional theory tend to describe the phenomenon (outsourcing) based upon a specific empirical setting (large OEM-corporations). Taking these factors into considerations when analyzing the motives in a new setting – the rationale behind outsourcing in SMEs in the Gnosjö region - we could first and foremost identify a general lack of enthusiasm towards relocating/outsourcing manufacturing overseas. This was mainly due to the unwillingness to cut down local businesses and/or the opinion that the region would suffer from such initiatives and strategic decisions.

Notably is the fact that all companies in our study, direct or indirect, argue that the greatest challenge for the region as such, is the relocation of their customers. However, since some of the study objects in the sample develop, manufacture and market unique and highly geographical focused products (ESBE, EAB etc.), they are less vulnerable towards direct

competition from companies from LCCs as they tend to search for mature markets with larger volumes that suits their production better (IVA II, 2005). Thus, these companies compete less on price and have less pressure to use outsourcing as means to increase their competitiveness. Instead, in these particular cases, quality becomes instead the most important factor.

As can be seen in the literature, many researchers argue that it is of greatest importance to link outsourcing to business strategy in order to be competitive. This has been confirmed and emphasized by several of our study objects (e.g. Pelly Industri)

“...you have to start thinking in projects. For us, the production is not that important any more, the important thing is instead to focus on developing concepts for the customers... first in the next step, we consider our three different production options...”

– The MD of Pelly Industri

6.3 Analysis Part 1 – To what extent do traditional outsourcing theories explain the rationale for SMEs in outsourcing decisions?

In this section we intend to analyse the empirical findings in conjunction with the traditional outsourcing theories (see 2.2). The objective is to investigate whether these generic rationales, as presented in the traditional outsourcing theory also are applicable in the empirical environment focused on in this thesis, as well as if they can fully explain the rationale for outsourcing in SMEs.

6.3.1 Cost reduction

Traditional outsourcing theories argue that *cost reduction* is one of the key rationales behind outsourcing and this is also confirmed by our case study. Nevertheless, the study also shows that the outsource decision for SMEs implies more emotions involved and multi-facet than an ordinary make-or-buy decision presented by the outsourcing theory (Alexander and Young, 1996; Ehie, 2001; Insinga and Werle, 2000; Quinn and Hilmer, 1994; Quinn, 2000; Venkatesan, 1992; Welch and Nayak, 1992).

Although a general reluctance towards relocating and/or outsourcing activities currently performed in-house was evident in our study; the motive to reduce cost was, as no surprise, stressed as the main rationale behind an outsourcing decision. In general, the study objects highlighted low labour costs and the LCC players' ability to develop and acquire inexpensive tools as the main reasons for this rationale.

As Quinn and Hilmer (1994) points out, the cost reduction from outsourcing is derived from leveraging supplier's enhanced knowledge, better production capabilities and by economies of scale. However, as the empirical background as well as our empirical findings show, the main reason behind anticipated cost savings lies in savings made in labour costs. Hence, although the traditional outsourcing framework provides a good basis for the analysis and understanding of the rationale behind outsourcing in SMEs in terms of costs, there are still some differences in the way these savings are accomplished in SMEs. Instead of necessary searching for better production capabilities and better knowledge concerning the outsourced activities, low labour cost is significantly more appealing.

Furthermore, our study showed that many respondents pointed out the price discrepancy in terms of raw material as important (Swede-Wheel, Hörle Automatic, Pelly Industri). When material costs represent a large portion of total product cost, procurement has an immense impact on the financial performance of many of the companies. Hörle Automatic counts for example knowledge in procurement as one of the company's core competences since cost of material has such an impact on the profitability of the company.

A couple of the study objects are also motivating their rationale *against* outsourcing with the cost aspect. During many interviews, the importance of not being deceived by the lower cost per item often offered by LCC is highlighted. EAB, Esbe, Hörle Automatic, Pelly Industri and Swede-Wheel are all discussing the crucial importance of reasonable estimates and the presence of "hidden costs", increased over-head- and administrative costs as consequences of outsourcing.

"You cannot be stupid and greedy! 5 % savings in Latvia is not 5 %. For us, it has to be at least 20 % cheaper to produce anywhere else since you have a lot of hidden costs, much longer lead times and no flexibility or control when you outsource."

– The MD of Swede-Wheel

The cost perspective is highly considered in the outsourcing decision among SMEs in our study. This is in line with conventional theories. Low labour cost in LCCs is the most relevant factor.

6.3.2 Opportunity to focus on core competence

In regards to the rationale about focusing on core competence in order to free time to enable enhanced focus on activities that are connected to the company's core competence, we have derived a rather inconsistent picture from our empirical findings. Some of the companies (Esbe and Pelly Industri for instance) are well aware of their core competences and the activities that are critical to their competitive advantage as well as why they intend to focus on developing these activities in-house and outsource other non-critical activities. Other companies in our study display a negative attitude towards refining and downsizing

the company's activities through outsourcing. Even though the study objects might be able to define their core competences and core-activities, a couple of them do not argue for the importance of focusing on these specific activities and outsource other more peripheral activities. Moreover, notably is that none of the SMEs in our study, with exception from Pelly Industry, highlight this specific rationale as the most significant one in the outsourcing decision. This is in contrast to the literature that states that this is one of the main motives behind outsourcing (Ehie, 2001, Quinn and Hilmer, 1994; Welch and Nayak, 1992) and that outsourcing will enable management to focus the company's resources on high-value adding activities and as a result, increasing the company's competitiveness in the market place.

Since most SMEs in our study functions as component- and subsystem suppliers in niche markets with limited numbers of customers, a somewhat complicated situation is emerging as companies are already as slimmed down as they can possibly be. A component supplier that base its business on only one or a few activities and products, tend to have less alternatives to cut back on their activities since the activities they actually performs are essential to their product offerings and business. Figure 7 below intends to illustrate this interpretation. The circles represent the activities that are performed within the company and the closer to the centre the activity is, the more critical it is to the company's competitiveness.

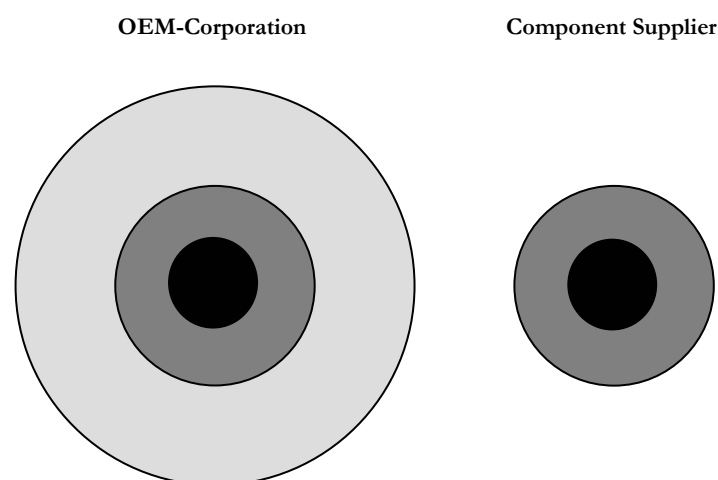


Figure 7. Critical activities and non-critical activities. The figure illustrates the difference between large multinational OEM-corporations with SMEs manufacturing components to larger customers.

Our research shows that outsourcing in order to free up resources emphasized in the current theories is not the most significant rationale for the SMEs in our study. The limited number of activities carried out by the SMEs contributes to the different logic.

6.3.3 Expertise

As stated before, the outsourcing theory emphasizes the motive of acquiring knowledge capabilities and innovations from suppliers or leveraging “best-in-class” supplier’s quality or economies of scale developed through greater expertise (Quinn and Hilmer, 1994). Although this seems to be a highly valid motive for larger and more diversified OEM-corporations, we have found no evidence of such direct motive behind an outsourcing decision in our empirical setting. Rather, our study points in the direction that these SMEs possess extensive know-how and expertise about the products and the production processes. This is also supported by the fact that our study objects as well as the region itself (Gnosjö) have a long tradition of know-how in these particular manufacturing activities. Five out of our seven study objects are family businesses and six out of seven have history of 49 years or more. Hence, in many cases knowledge has been developed through several family generations and the empowered “learning-by-doing” mentality is highly present in the majority of the case studies.

Instead, several respondents in our study (e.g. Swede-Wheel) highlighted the problem that many less knowledgeable manufacturers “steal and copy” products and innovations made by the companies in our study. Our interpretation is therefore that it is rather the players in LCCs that are searching for product knowledge and innovation from our study objects, than the contrary (see Swede-Wheel and Pelly Industri for instance). Hence, it is not the “buyer” that is gaining access to inventions and innovation from “suppliers” as the valid outsourcing theories argue (e.g. Quinn and Hilmer, 1994) in these cases. This can however be related to one of the greatest risks associated with outsourcing – the loss of control.

There is no evidence that acquiring expertise and innovation is a major motive behind an outsourcing decision in our empirical setting. Rather, there is a broad conviction among our study objects that outsourcing enhances the risk of losing critical knowledge.
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6.3.4 Flexibility

As we mentioned in our theoretical framework, there is a constant trade off between flexibility and control. Our empirical findings support this predicament as the majority of the study objects claim that they (will) give up a lot of control when outsourcing an activity.

However, few study objects are arguing that they will gain flexibility by taking such action. Instead, our findings show that the loss of control outweighs any potential increase in flexibility. Only Pelly Industri states that they believe that outsourcing to a third party supplier would free time, money and capabilities and give them more flexibility. Swede-Wheel’s concern regarding the expensive tools needed should also imply that this rationale is present in outsourcing decision, but the MD never states that explicitly. Moreover, all of the respondents underlined the high importance of lead time as a competitive advantage

and often stated that outsourcing of critical activities would reduce this advantage. The SMEs would not be able to keep up necessary service and delivery accuracy towards their customers if they, for example, would be forced to add another six weeks to the lead time due to the boat transport from China.

“...if I am outsourcing to China and something goes wrong, then it is rather difficult to explain for the customer that I have his products three weeks away on a boat in the Pacific...”

– The MD of Swede Wheel AB

Thus, our empirical findings point rather in the opposite direction of the traditional outsourcing theory; the more activities a company keeps in-house, the more flexibility is gained. Our interpretation is that because of the high dependency on only a few customers, which due to their comparable large size both in terms of financial resources and number of employees, have profound leverage over the relatively smaller suppliers, our study objects face tough market conditions.

For this reason, the SMEs in our study must in many cases prioritize closeness to the customer not only in terms of relationship and product development but also in terms of short distances in order to enable flexible delivery and enhance speed as a competitive advantage. This makes them especially vulnerable to the risk aspects involved in outsourcing to LCCs far away from their customers location.

The empirical findings indicate that the rationale concerning flexibility is taken into serious account in the outsourcing decision. However, the motive to increase operating and financial flexibility through outsourcing as the literature suggest do are not emphasized among the SMEs in our study.

6.3.5 Reducing capital investments requirements

As mentioned in the theory chapter, numerous researchers stress the significance of the rationale of potential reductions in required capital investments as a consequence of outsourcing (Insinga and Werle, 2000; Welch and Nayak, 1992 for instance). The outsourcing theories also highlights the aspect concerning enhanced competitiveness by achieving higher returns on assets through an outsourcing decision since the capital requirement will be reduced through outsourcing (Ehie, 2001). Our empirical findings give us a two-folded picture of the importance of this rationale in the outsourcing decision for SMEs. Many of the respondents (Swede-Wheel, Wulkan for instance) stress investments and the access to required capital as serious challenges for small, family owned businesses without the same basic conditions as MNCs and large OEM-corporations. Our empirical findings also emphasize the risks involved in investments as the companies, primary due to their limited size, has serious problems to “bounce back” from bad investments. Both

Wulkan and Swede-Wheel invested heavily in production machinery due to anticipated orders from large companies (IKEA, Ericsson), only to experience the downside of the fierce competition as the customers choose other suppliers in the “11th hour”. Hence, the companies were left with a bad investment that the companies still suffer from today. Moreover, as for example the MD for Swede-Wheel also mentions, the fact that most companies in our study are family businesses, highly limits their economic resources and possibilities.

Other aspects that should imply the significance of this rationale for the study objects is that some of their production processes are too complex to fully automate due to product characteristics (EAB, SGV Industrier, Swede-Wheel, Wulkan). Companies like Pelly Industri and Swede-Wheel are also, as mentioned earlier, underscore the differences in cost of tools between Sweden and LCCs. Since the labour costs are relatively high in Sweden, the companies cannot afford any after-treatment of the products which calls for more expensive tools, implying a larger investment in Sweden than in LCCs. Still, even though the SMEs in our study experience negative aspects with large investments, none of them highlight this rationale to as decisive or even important in the outsourcing decision process. Instead, each of them (except Pelly Industri) stresses the importance of *large investments* in production machinery in order to further automate to retain their competitiveness in the future.

“Automation is our only option.”

– The MD of Hörle Automatic

Hörle Automatic has considered the issue of reducing capital investments, but states that they in the long perspective believe that investment in automation together with their closeness to the customers is the best strategy. The study objects are instead emphasizing the negative aspects of outsourcing to a LCC (e.g. China) in order to reduce capital requirements. In this context they highlight the fact that it is costly and risky to tie up extensive capital in transport, long lead times and storage. If production is outsourced far away for instance, the companies are unable to anticipate the demand which forces them to build up large stock-levels to be able to constantly guarantee reliable delivery to their customers.

“For us, it is not feasible out of an economical perspective to relocate or outsource.”

– The MD of Wulkan

The empirical findings indicate that the opportunity of reducing capital outlays does not affect the outsourcing decisions in SMEs in the Gnosjö region to a high extent.

6.4 Analysis Part 2 - Other identified rationale

In this section, we will move on to address our second research question: *If discrepancies exist, what other rationale, not mentioned in traditional outsourcing theories, influence SMEs in outsourcing decisions?*

We have been able to identify other important, qualitative issues that are involved in the outsourcing decision process for SMEs. These aspects are not emphasized in the *outsourcing* theory, which further displays the clear gap in the literature concerning outsourcing rationale for SMEs. We have chosen to categorize these as “non-financial rationales”. In order to fully explain these rationales, we will introduce some new theories in this section. Although this is not optimal from a research perspective, we motivate this decision by the fact that we were unaware of what to expect when we started this study and could therefore not anticipate what theories in addition to outsourcing theories to use. We will in the following sections explain these “non-financial” rationales more in detail.

6.4.1 The heritage of a dynamic region – the social responsibility

One factor that obviously affects our study objects in the outsourcing decision is their heritage from the region and the feeling of social responsibility for the community. In the majority of the SMEs that we have interviewed, concern for the local production and the social responsibility as well as the rather negative opinions towards relocation and outsourcing are very distinct. We have found that this rationale can to a high degree be explained by current stakeholder theory. Donaldson and Preston (1995) for instance, defines stakeholders as persons or groups with legitimate interests in procedural and/or substantive aspects of corporate activity, regardless whether the corporation has any corresponding functional interest in them or not. They emphasize that in stakeholder management, simultaneous attention to the legitimate interests of *all* appropriate stakeholders is needed in establishment of organizational structures and general policies in decision making. This is very much in line with our findings from the interview with the MD of Vulkan for example. The MD explained that leaders in smaller companies in the region like himself do not have the normal “capitalistic” approach to business as elsewhere due to the responsibility they feel for the region, the local church, the football team and so forth.

Donaldson and Preston (ibid) argue for the fact that the variation of existing, rather simple input-output models in the theory that only include suppliers, employees, investors and customers are too rough simplifications of the real world. Instead, they view the organization as surrounded by many different stakeholders with various agendas that put pressure on the organization to act in certain ways. This is further depicted in figure 8.

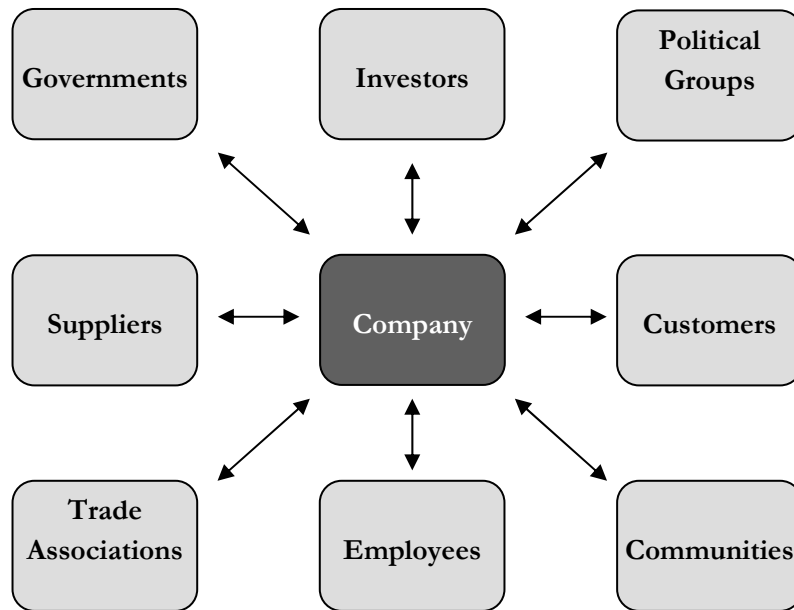


Figure 8. Contrasting Models of the Corporation: The Stakeholder Model (Donaldson and Preston, 1995).

The authors state that the plant-closing controversy of the last couple of decades clearly shows that some communities have come to expect, and sometimes able to enforce, stakeholder claims that some firms clearly do not recognize. Testimony from our externally recruited MDs is supporting this argument. The MD of SGV Industri AB experiences for example problems to rationalize the production process due to the old traditions in the company. Furthermore, when Mr. Jarbratt was appointed the MD for Pelly Industri, he had to replace the entire management team since they were caught in old traditions and ways of thinking, hence had trouble to outsource or source activities or products from anywhere outside the region.

Furthermore, Donaldson and Preston's discussion concerning three aspects of stakeholder theory is also very much in line with our findings concerning this rationale. Stakeholder theory is normally justified through the *Descriptive, Instrumental or Normative approaches* (ibid). The Descriptive approach focuses on how corporations are actually managed etc.), while the Instrumental approach tries to identify connections between stakeholder management and the achievement of traditional corporate objectives like growth, profitability etc. Finally, the *Normative approach* strives to interpret the function of the corporation, especially the identification of moral or philosophical guidelines for the operation and management of corporations. In their framework however, these three approaches are nested within each other and the normative theory represents the central core of stakeholder theory (see figure 9), thus individual or group rights, social contract or utilitarianism have a very large impact on the actions taken by managers.

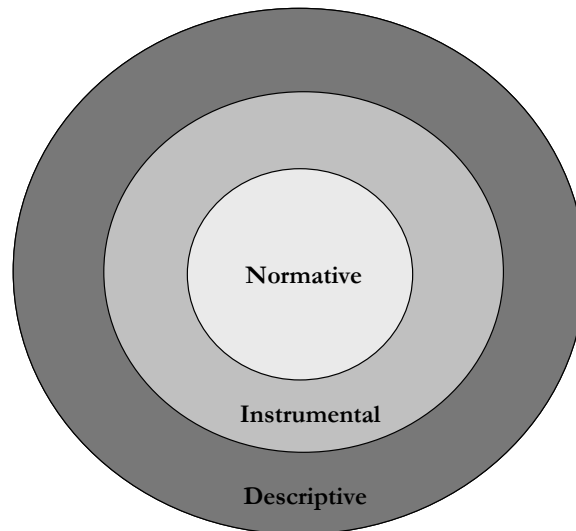


Figure 9. Three Aspects of Stakeholder Theory (Donaldson and Preston, 1995).

Our empirical findings clearly support this theory of the normative approach being the core of stakeholder management. At the same time as many of the respondents expressed rational economic behaviour and thinking, by emphasizing the importance of benchmarking as well as the avoidance of “holy cows” in the manufacturing processes, they clearly displayed what could be labelled as irrational or emotional behaviour in reality. One of the requirements from management of Esbe is for example that the production should always remain in Reftele where the company was founded. Another example of normative behaviour concerning the outsourcing decision can be found in the management of Swede-Wheel. The MD concluded that the company is very protective in regards to their own production and that every outsourcing decision *“leaves a feeling of failure behind it”*. The father to the current MD wanted to sell Swede-Wheel a couple of years ago, but the MD and his brother took such pride in the company’s production that they took on the company by themselves.

“We will never get rid of our production! That would be the last thing we would do. We are happy about it and we take great pride in it!”

– The MD of Swede-Wheel

Statements of how much it hurts to outsource production and to be forced to discharge people you know in private also contribute to our conclusion that this factor plays a central role in the outsourcing decision process in these SMEs.

To conclude, the empirical findings indicate that a social responsibility for people and the region clearly exists and affect outsourcing decisions to a high degree in the SMEs included in our study. This is also supported by stakeholder theory that emphasizes the importance of normative justifications for managerial behaviour.

6.4.2 The legitimacy aspect

Part of our empirical findings point in the direction that the question of legitimacy involved in outsourcing is often a very important factor influencing the outsourcing and relocation decisions in SMEs. The current theory concerning outsourcing seems to clearly neglect this aspect. The ongoing debate during the last couple of years in the media (see for example DI 2005; SvD Näringsliv, 2005; Affärsvärlden 2004; The Economist, 2004; TIME, 2004) has clearly raised the awareness of outsourcing and relocation among companies around the globe. Production in LCCs is today viewed as conventional means in order to bring down costs and enhance competitiveness. Generally, this seems in some cases to have created a too positive view on outsourcing as such, and many companies tend therefore to accept outsourcing as a more cost effective strategy than local production without relating it to their specific situation, circumstances and the total costs including lead times, accessibility, risks etc. (Bengtsson et al., 2005). Our research shows the potential benefits from using explicit outsourcing strategies (e.g. Pelly Industri). At the same time, it also displays that some products and activities, due to their characteristics and special requirements (high material costs, low part of labour costs, suboptimal to transport etc.), are not ideal for outsourcing.

In our research, many companies raise the issue of legitimacy as a matter of vital importance. The MD of Swede-Wheel stated explicitly that he is even considering renaming the company to something that highlights their involvement in China, since the company often gets rejected, even before presenting their tender, by company representatives who think that everything produced in Sweden cannot be competitive in terms of price. The MD of Hörle Automatic shared this opinion and calls the ongoing development for a “mass psychosis”. The interview highlighted the fact that companies in the automotive segment who cannot display that at least part of their production is situated in China or in another LCC, is not even allowed to make a tender offering. The MD of EAB is also leaning more towards the psychological aspects as explanations for the intensive outsourcing and relocation wave that we are currently experiences.

“I have been working for a long time now, and there has always existed pressure to relocate somewhere! Earlier, everybody was supposed to move their operations to Ireland. I mean, the pressure and the hysteria to offshore somewhere are always present. Humans are herd-animals.”

– MD of EAB

Since the pressure on the customers’ managers concerning cost reduction is so intensive today, it is hence in many situations not accepted or legitimate to procure from companies not involved in LCC production. Thus, from this discussion we can conclude that outsourcing decisions will automatically possess a company with positive effects other than the financial ones; higher legitimacy and emotional advantages that will be beneficial in the dialogue with future customers.

The rationale concerning gain legitimacy towards customer through outsourced production in LCCs is very much present in outsourcing decisions among SMEs in the Gnosjö region.

7. SYNTHESIS

In this chapter we intend to conclude our findings given our theoretical framework, methodology and empirical findings. However, in order to bring our findings from the analysis to a higher level of abstraction and enabling a tentative contribution, we will conduct a synthesis based upon our empirical findings as well as the theoretical- and research frameworks.

7.1 Discussion - How can we explain the discrepancies in rationale?

In the previous chapter, the analysis highlighted to what extent traditional outsourcing theory was applicable in a new empirical setting, i.e. in SMEs. Moreover, we identified and described other highly relevant motives that were found to be present in the outsourcing decision among SMEs in the Gnosjö region. However, in order to derive an explanation for the discrepancies in rationale between our empirical findings and traditional outsourcing theories, differences between the empirical settings will firstly be addressed. In principal, to find a valid “cause-and-effect relationship” is very difficult. Instead, by identifying the different characteristics in each empirical setting (i.e. OEM-corporations versus SMEs), possible reasons that can facilitate explanations why the rationale differ will be derived.

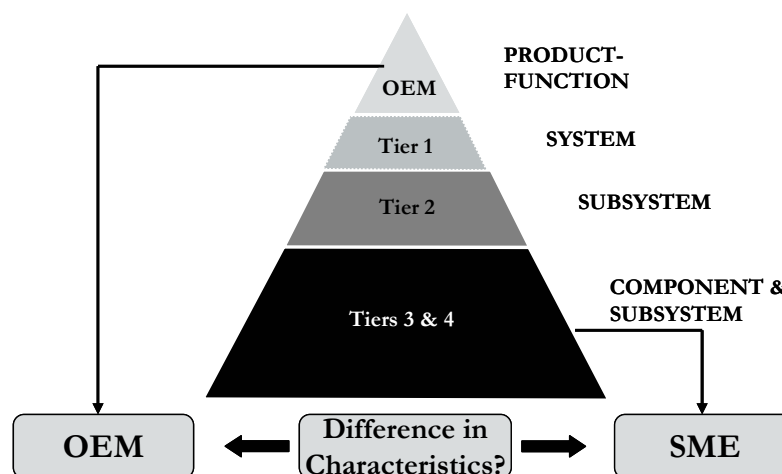


Figure 10. The OEM-industry. The model illustrates the supplier levels and hierarchy within the OEM industry (modified from Karlsson, 2003).

As we concluded in chapter three, one can clearly see that current theories in this particular research field are based upon the rationale and strategic considerations in many large OEM-corporations (Alexander and Young, 1996; Ehie, 2000; Gottfredson et al., 2005; Quinn and Hilmer, 1994; Venkatesan, 1992; Welch and Nayak, 1992 for instance).

However, all manufacturing companies are not MNCs or OEM-corporations, displaying similar features as the companies illustrated in these theories. Rather, many companies that operate further down the value chain often face other agendas, challenges and competition. In fact, as our empirical findings, as well as our analysis suggest, these companies do not display the same attributes as large OEM-corporations in terms of volume, economies of scale, global operations, management logic, size, capital resources etc. The following are some characteristics of the OEM-industry (Karlsson, 2003):

- Products are complex, built up of many components and systems as well as several different technologies
- Production as well as product- and process development for components and systems tends to be sourced from a high number of suppliers
- The suppliers are often divided into several hierarchies
- First tier suppliers are often big, global and powerful
- Suppliers increasingly take care of technical specializations, while further development of product functions take place within the OEM-corporation
- The OEM-corporation specializing in designing and constructing integrating concepts

The study objects in our research are relatively small, involved in capital intensive and mature businesses. Further, the companies operate mainly as 2, 3 or 4-tier supplier in the OEM-industry. They typically manufacture components and/or subsystems to larger suppliers on a higher supplier level or direct to the OEM-company at the top of the hierarchy. Furthermore, the businesses tend to be based on one or a few technologies. These companies (SMEs) also tend to differ in terms of ownership and access to capital.

From the analysis and the discussion above concerning the differences in characteristics between OEM-corporations and SMEs, tentative explanations on *why* our empirical findings display differences in rationale in outsourcing decisions compared to OEM-corporations have emerged. These factors are (1) Ownership, (2) Size of the company, (3) Product characteristics and (4) The position in the value chain. These four factors will be elaborated and argued for in the following subsections.

7.1.1 Ownership

Given the general reluctance towards outsourcing in our research, together with the findings regarding the study objects' social responsibility, one can see a tentative pattern that SMEs with similar corporate governance incorporate this kind of stakeholder perspective to a large extent in their management of the companies (i.e. normative). This non-financial rationale, brought into light in part two of the analysis, is a possible cause to the reluctance of pursuing outsourcing in order to reduce capital investments in SMEs. This is due to the unwillingness to close-down operations and discharge employees, which is not in line with the social responsibility.

Fundamentally, given the ownership structure, there are more emotions involved that could explain their reluctance towards outsourcing in general. As can be deduced from the empirical findings, several of our respondents clearly advocate the importance of remaining the business in the surroundings. This is supported by the fact that many of the study objects are companies with a long history of family ownership. This is in contrast to OEM-corporations that often display a different ownership structure, as these companies tend to be publicly listed and have several different shareholders. Based on these facts, different ownership structures seem to contribute to the different views on outsourcing in SMEs and OEM-corporations.

7.1.2 Size

We consider the size of the companies, both in terms of number of employees as well as revenues and assets, as one of the main characteristics that definitively sketch out the different agendas for SMEs and OEM-corporations. In contrast to OEM-corporations, the limited resources in terms of personnel and capital will hold back SMEs in obtaining information, competence and international experience in order to develop skills necessary for the somewhat disruptive move to decide what to make and what to source externally. Given its size, SMEs tend to act locally in contrast to OEM-corporations that are often active on a global basis and thus have fewer attachments to specific regions.

Furthermore, with regards to how size affects the opportunity to focus on core competence for SMEs, one has to consider the fact that the companies in our study are small in comparison to most OEM-corporations. This implies that less activities and technologies are involved. Therefore, as the products of OEM-corporations tend to be complex, built up by many components and system, their incentives to outsource in order to free time and resources as a mean to focus on their core competences is greater. The same reasoning applies to the rationale of acquiring expertise, since it is difficult for OEM-corporations to have all the necessary capabilities in-house in order to be responsive to technological and market changes (Karlsson, 2003).

In contrast, our study showed that acquiring *expertise* from suppliers would not be significant for an outsourcing decision for SMEs. The reasons for this can be many, but our study points in the direction that manufacturing SMEs already possess relatively slim production processes and organizations in comparison to OEM-corporations. The SMEs have also accumulated extensive technological knowledge about a certain amount of activities in the company through many years of experience. As we claimed in the analysis, it is rather the supplier, not the SME (the outsourcing company), that is gaining access to inventions and innovations.

7.1.3 Product characteristics

Products from manufacturing SMEs on a component level, tend to be relatively simple with low value added through processing of raw material and based on a relatively few technologies in comparison to OEM-corporations, where more value added is included in the offerings. This, together with the fact that many of the products that SMEs are manufacturing are suboptimal to transport, contributes to the discrepancies recognized in outsourcing rationale. When products have either a low value (e.g. metal components, simple moulded plastic products etc.) or an inappropriate design out of a logistical viewpoint (cannot be packed together, low weight compared with size etc.), the transportation costs from a far distanced LCC will in many cases offset the cost savings in production, i.e. the total cost of LCC production will exceed local production costs (IVA 2, 2005). Hence, product characteristics contribute to the identified discrepancies in rationale in the outsourcing decisions made in SMEs and OEM-corporations.

Moreover, the existence of cultural and geographic barriers in some products is also playing a crucial role for the discrepancies in rationale in the outsourcing decision for SMEs. These barriers can to some extent function as hurdles for LCC competitors to make their way into the market, as small geographical areas can be categorized as niche-markets with limited numbers of potential customers. The outlook of these markets is therefore often too weak for certain actors to make the necessary, often extensive investments needed to penetrate these markets. As a consequence, these product segments are, as our empirical findings support, often characterized as less competitive. As a result, the pressure on the SMEs to compete on prices is reduced and focus on quality factors became more relevant.

In terms of reducing capital investment requirements as a motive behind outsourcing, our empirical findings have showed that this motive does not play a major part in the outsourcing decision for SMEs. It is easy to see why OEM-corporations, that offer products made of several different technologies, competences, systems and components can use this rationale in order to focus their operations, leverage suppliers capabilities and increase return on capital (see Ehie, 2001; Karlsson, 2003; Quinn and Hilmer, 1994). On the contrary, our empirical findings point in the direction that the SMEs actually have characteristics which could support the idea of such an outsourcing initiatives, e.g. are

relatively capital intensive, volume dependent and in most cases have unfavourable access to capital. Nonetheless, our empirical findings did not support the proposal that this would be a major reason behind an outsourcing decision.

The fact that OEM-corporations tend to source subsystems and components from many different suppliers implies that SMEs producing commodities, will experience fierce competition. This stresses the importance of closeness to the customer in order to guarantee short-lead time, accurate delivery and flexibility towards the customer (OEM-corporation). This reasoning would support the fact that outsourcing to an external supplier far from the SMEs' customers would decrease flexibility. However, this is only a matter of a trade off between control and flexibility as the theories state (Quinn and Hilmer, 1994). For this reason, given that a SME displays the same or similar characteristics as our study objects, one can draw conclusions that SMEs have to prioritize closeness to the customer.

There exist negative aspects due to this condition. The potential of increased flexibility through outsourcing activities where a supplier assumes the investment risk related to demand variation as the theory highlights, (Quinn and Hilmer, 1994) is not really applicable for the SMEs due to the importance of short lead time and flexible delivery. This dilemma is especially present if the manufacturing SME wants to reap the benefits from lower labour costs in LCCs in other parts of the world due to logistical factors.

7.1.4 Position in the value chain

As stated before, all our companies are operating at lower supplier levels in the OEM-industry (see figure 10). The companies' position in the value chain creates a high dependency on a small number of customers. This relationship further enhances lead time as an order winning factor, which can explain the limited incentives to outsource for SMEs.

On the other hand, looking at the rationale reducing cost, it is interesting to note that this motivator is of great importance regardless position in the value chain. However, as is the case with many OEM-corporations, (Quinn and Hilmer, 1994; Welch and Nayak, 1992 for instance), SMEs do not consider achieving this through leveraging suppliers with enhanced production capabilities and better knowledge. Instead, it is about finding either cheaper raw material or lower labour costs.

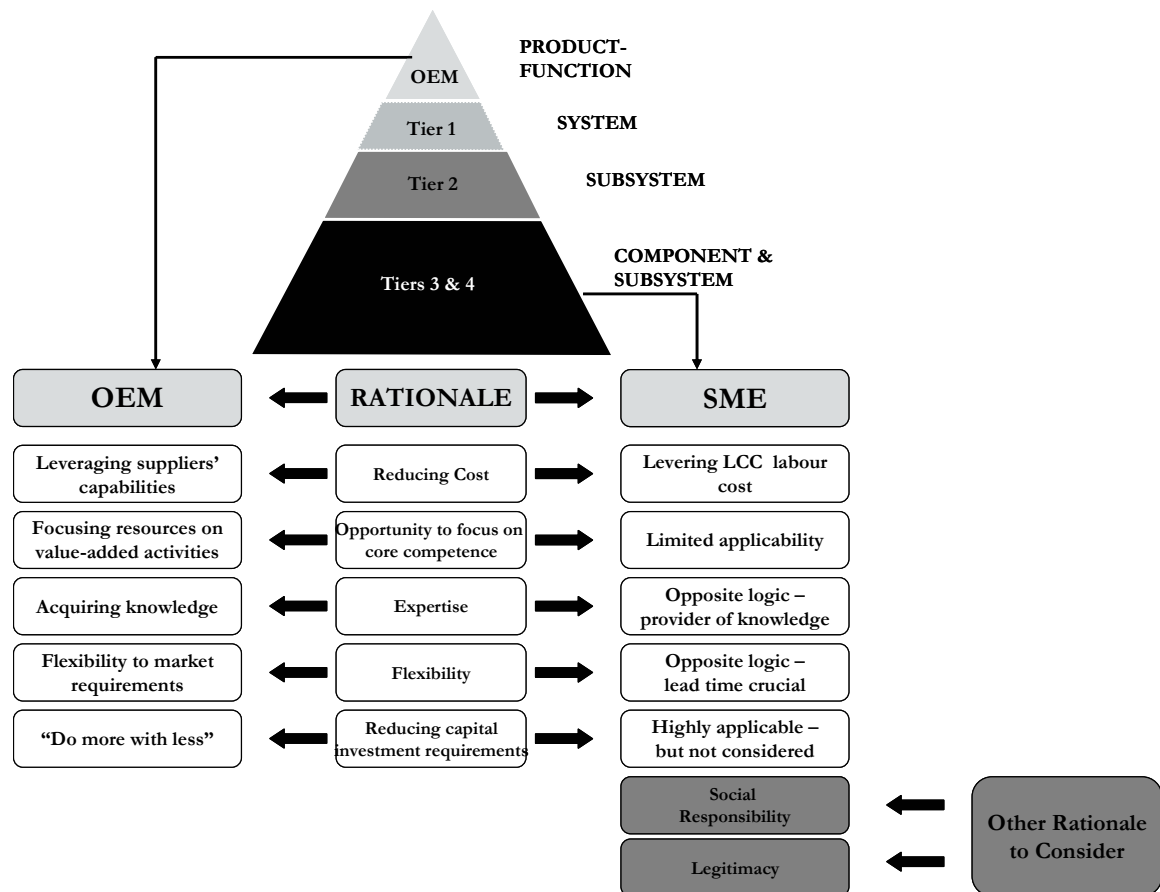


Figure 11. Synthesis model. The model captures the essence in our synthesis and illustrates the differences between traditional outsourcing theories and the rationales and considerations that SMEs face and take into account in the decision process (authors' model).

8. CONCLUSION

In this chapter we will present our conclusion from this study as well as comment on our theoretical contribution. Suggestions for further research are then addressed. Finally, we will present relevant managerial implications.

How traditional outsourcing theories explain the rationale in outsourcing decision in SMEs

Our findings have illustrated that although traditional outsourcing theory provides a good platform for explaining the rationale behind outsourcing decisions in SMEs, we have identified additional considerations that SMEs, operating as 2, 3 or 4-tier suppliers towards OEM-corporations, make. Notably, managers in SMEs seem to have a more emotional picture than the OEM-corporations described in present literature. The study has also showed, however, that even for SMEs, the sourcing predicament – to make-or-buy – is of great importance.

Just as the theories on outsourcing suggest, potential cost savings are the main interest for SMEs in outsourcing decision. Low labour cost in LCCs could be seen as the driving force for SMEs to consider this rationale. In terms of core competence, our research indicates that SMEs have fewer incentives than OEM-corporations to focus on this specific rationale in outsourcing activities. This is due to the fact that manufacturing SMEs in general already have relatively slimmed operations and hence find it hard to actually identify peripheral activities to outsource. Contradicting traditional outsourcing theories, we find no evidence that acquiring knowledge would be a motive behind outsourcing for the SMEs in our research. Instead, our findings indicate a general reluctance to outsourcing due to the lost of control of critical knowledge and innovation. Another significant finding is the fact that companies in our study do not generally emphasize flexibility as a motive for outsourcing. Our research rather indicates that these companies consider outsourcing as contributing to less flexibility due particularly to longer lead times that could jeopardise delivery accuracy as well as bind up too much capital, coupled with the possibility to lose valuable knowledge to future competitors. An additional conclusion from our study is that even though the study objects are running capital intensive business, despite relatively small capital resources, the findings point towards that this rationale is not a major consideration either. In terms of reducing capital investment requirements as a motive behind outsourcing, our empirical findings have showed that this motive does not seem to play a major part in an outsourcing decision for SMEs. In contrast, our empirical findings also point in the direction that the SMEs actually have characteristics which should support this rationale for outsourcing. Nonetheless, our empirical findings did not

support the notion that this rationale would be a major reason behind an outsourcing decision in SMEs.

Other rationale that influence SMEs in outsourcing decisions

We have identified other rationale that could possibly influence SMEs in outsourcing decisions. The empirical findings indicate that a social responsibility exists and affects outsourcing decisions to a high degree in SMEs in our empirical setting. The social responsibility can further be explained by the heritage of the region and by the feeling for the community.

Part of our empirical findings indicates that a potential rationale for outsourcing in SMEs could be increased legitimacy towards customers. This is according to our respondents, due to customers' perception of outsourcing as a too positive tool in order to achieve lower cost structures, without relating it to their specific situation, circumstances and the total costs.

Possible explanations for discrepancies between traditional outsourcing theories and outsourcing decisions in SMEs

This thesis has derived four tentative explanations for the discrepancies between traditional outsourcing theories and outsourcing in SMEs in the OEM-industry, which could be considered as a small contribution to existing theories. The identified factors are;

- Ownership
- Size of the company
- Product characteristics
- The position in the value chain

8.1 Suggestions for further research

Our suggestions for further research mainly concern three key areas, namely (1) to conduct the study in similar empirical settings in order to verify if the same findings and conclusions can be drawn elsewhere, i.e. in another region; (2) to investigate if other non-financial factors can be identified as important considerations for SMEs; (3) to use another approach to the problem area and apply a different theoretical framework as well as research framework in order to explain how manufacturing SMEs are considering outsourcing.

8.2 Discussion of managerial implications

This section is rather tentative with the objective to present our own thoughts concerning important issues in this research field. In this section, we therefore intend to take a step away from our purpose of this thesis and present some general thoughts about the phenomenon as such.

8.2.1 SME sourcing clusters

Since purchased inputs are such a large portion of total production cost for the manufacturing companies in our study, the attention that make-or-buy decisions deserve cannot be overstated. In fact, the gains to be made by addressing procurement issues are far greater than those that accrue by only attacking labour costs (Welch and Nayak, 1992).

In order to reap benefits from economies of scale in purchasing, companies must buy larger volumes of raw material. However, as our study objects have highlighted, lead times, efficient logistics and make-to-order are cornerstones in the SMEs' businesses. Accordingly, in order to enjoy the benefits of being "big" as a "small" player one has to enhance the collaboration with other companies – suppliers, other types of business and also competitors. One solution to this is the forming of clusters among SMEs. This allows companies to collaborate in order to build the economies of scale needed to leverage low cost sources. While the companies forming a cluster may also be competitors, they can benefit from combining their resources both in the pre-contract (e.g. market investigations, supplier evaluation, bid administration etc.) and post-contract phases (e.g. supplier development, supply chain management, logistics and supplier surveillance).

By clustering, the companies (SMEs) in the region can compete against their global competitors and achieve better "bargaining power" towards suppliers. Moreover, by taking this action, they can add value to their customer offerings by benefiting from their location through the management of a supply chain including low cost sources, and hence deliver the benefit of using LCCs.

As Sweden has many strong industry clusters in relation to the size of the country (IVA:2, 2005), this strategy possesses non-realized opportunities for the country's industry segments as the existing clusters are forming solid grounds for possible cross-industry collaborations. Today, this process of knowledge exchange between different industry segments is rather underdeveloped. Examples of improvements that could be achieved are implementation of new production techniques and improved competitiveness through joint procurement operations (ibid).

This proposal is also supported by our research and therefore we can conclude that economies of scale and cost savings through LCC procurement are probably the most relevant aim for the SMEs in our study. We believe this is specific for companies in the

empirical setting that we have investigated, since these players most often are suppliers of components and/or subsystems based on processing raw material. Hence, their products are commodity-like and can not easily be outsourced since it may be the most critical (and often the only) activity that the company performs. This cluster could also lever economic of scale in distribution networks as well.

8.2.2 “Look beyond the fifty-signs”

Let us finally propose a model based on our analysis. As described earlier, our empirical findings showed unwillingness towards outsourcing. However, we think it is crucial for SMEs with this mind-set to take a step back and see the possibilities with outsourcing, rather than only the threats. Judging by our research, SMEs in general can gain in competitiveness and remain profitable in the future even in highly competitive segments by finding a balance between automation and outsourcing and reap the benefits of both by implementing our suggest model in their organizations. The special characteristics of the outsourcing decision process in SMEs previously identified (i.e. discrepancies due to ownership, size, product characteristics and value chain position), call for specific frameworks to facilitate the creation of explicit outsourcing strategies in these companies. If such strategies are not emphasized, many of our Swedish SMEs will surely disappear from the market place in a short period of time. The fact that many SMEs are often situated in dynamic regions similar to the Gnosjö region where we conducted our research, is further contributing to the need for a new strategic outsourcing framework for SMEs, since heritage from the region and social responsibility often bring in somewhat irrational thinking into the outsourcing decision process, and prevent the companies “to look beyond the fifty-signs”. Although it is now 14 years since this article was published, this is what Venkatesan wrote in 1992:

“Companies often manufacture these “commodity like” parts out of a sense of corporate social responsibility – namely to preserve jobs. Nevertheless, a strategy predicted on preserving jobs often results in in-sourcing parts that are easy to manufacture, largely to make work, while outsourcing those that are hard to make. Over time, fixed costs rise, product differentiation declines, and manufacturing performance remains stagnant as employees remain complacent. The very survival of the company is threatened.”

Many scholars argue for enhanced automation in order to increase the competitiveness and strengthen the position in the global market place (Bengtsson et al., 2005 for instance). The predicament many manufacturing SMEs are facing though is the lack of capital resources required for these kinds of extensive investments. Hence, finding the right balance of in-house production and outsourcing becomes especially important for SMEs in order to optimize the use of time, people and money, i.e. their scarce resources.

Therefore we suggest the use of the presented model (Figure 12) as a tool for supporting a sustainable and balanced sourcing strategy. The starting point for the companies is to identify their core competences and thus, the strategically critical activities currently carried out within the company. Secondly, they need to determine and map the different activities in accordance with grade of current automation, as well as future potential, i.e. how labour intensive the activities are and the possibilities for efficiency improvements. Once identified, the non-critical and labour intensive activities where significant efficiency improvements cannot be realized should be considered for outsourcing. When estimating the feasibility of this strategic action, it is of great importance not to underestimate transaction cost and take into account the possibility of replication of products and know-how. Appropriate activities should as a next step be offshored to competitive suppliers in LCCs. The cost saving realized through this strategic move, should then be reinvested in the local production facility in order to enhance automation and hence increase the efficiency and output levels. This increased productivity, will lead to enhanced competitiveness that will facilitate a sustainable position in the market place in a long-term perspective.

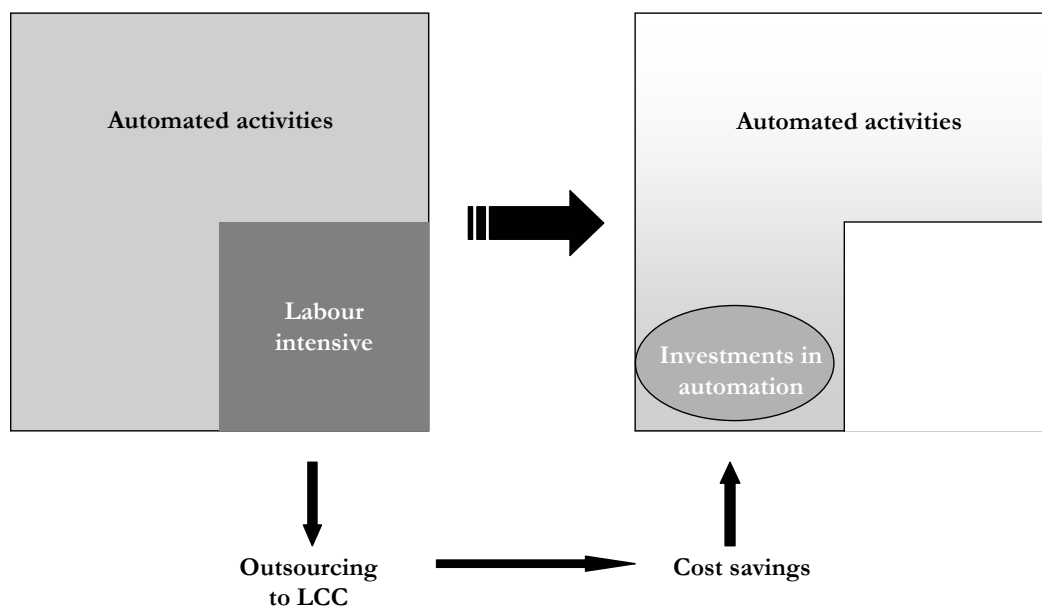


Figure 12. The Strategic Outsourcing Framework for SMEs. The figure illustrates our progressive approach towards the complexity that SMEs faces in the outsourcing decision process

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APPENDIX I - Company and respondent presentations

Almgren, Gert Ove, Managing Director of Wulkan AB

Gert Ove Almgren has been the Managing Director of Wulkan since 2002. Before that, he held the chairman of the board position for ten years, from 1992-2002. He has been a part of the company since 1966.

Andersson, Per-Åke, Managing Director of EAB AB

Besides being Executive Director for EAB, Mr. Andersson is also one of the majority owners in the company, with 50 % of the shares. Mr. Andersson worked within EAB for over 20 years before he took over the leadership position from his father, and also founder of the company. EAB AB was founded in 1957 by Sven Andersson. The business started at first with the manually production of steel railings in S.A.'s basement and has then gone from production of stairways and entresols to today's production of storage equipment, doors and steel buildings.

Davidsson, Eddie, General Manager of Gnosjö Industriförening

Mr Davidsson is also the municipal of Gnosjö's chief of Trade & Industry. This confederation of local companies was establish 1947 and comprises today a number of 220 companies from the manufacturing-, trade- and service sector.

Hildingsson, Andreas, Managing Director of Swede-Wheel AB

Mr. Hildingsson has been CEO since 2004 and is besides Managing Director, also a part-owner in the company. He has worked in the company since 1995 when he started as a warehouseman

Hultegård, Jan, General Manager of Värnamo Näringsliv AB

This organization was established in the spring of 1998 and is a non-profit organization of which 90 % is owned by the companies in Värnamo and the remaining 10 % by the municipality of Värnamo.

Jarbratt, Stefan, Managing Director of Pelly Industri AB

Stefan Jarbratt has been the Managing Director of the company since 2000. Through a MBO in May 2005, he is today the sole share holder in the company.

Lindström, Michael, Managing Director SGV Industrier AB

Before taking on the leadership position at SGV on a temporary basis, Mr. Lindström used to work within the financial sector. Mr. Lindström is also part of the management of the private investment company Albin Invest AB, which is the owner of SGV.

Magnusson, Anders, Managing Director of Hörle Automatic AB

Mr. Magnusson is besides Managing Director of Hörle, also the sole owner of the company. He started to buy shares in 1991 and by 1998 his full ownership of the company was completed

Skogsfors Johan, Managing Director of ESBE AB

Esbe AB was founded in 1939 by Johan August Skogsfors, the grandfather of the current managing director, also the interviewed. J.S. has been the MD since 2000. J.S. is also the majority owner of the company. Johan started to work in the company when only 13 years old, and has thus been involved in the company in some way almost his entire life. Before he took on the Managing Director role, he was put in the position as Sales Director.

Warenmo, Lars, ALMI Företagspartner in Jönköping

ALMI Företagspartner in Jönköping is part of the ALMI-group own by the Swedish government. The ALMI-group was founded in 1994 and consists of the parent company owned by the government and 21 regional ALMI offices. All regional ALMI companies are owned by the ALMI parent company (51%) and by the county council in which they are located (49%). All ALMI companies are particularly familiar with local conditions and each one plan its activities based on variations in the local business structure.

APPENDIX II - Interview protocol

A – INTRODUCTION i. Us – name and background ii. The study –Background, why here (sampling), aim, duration iii. Confidentiality
B – BACKGROUND PERSONALA i. Respondent-background and position ii. Organisation –size, number of employees, turnover, location, owner/shareholder etc.
C – COMPETITIVENESS 1. What is your competitiveness? a. How do you stay competitive and what is the key element of your success? b. What is your competitive advantage? c. What is your core competence? 2. Fierce competition? d. Have your competitiveness changed lately (how, to what extend, why)? e. How will you stay competitive in the future? f. Any specific threats (historically, currently, in the future)? g. How do you deal with these threats? h. How do you consider your competition from LCC? Any country in particular?
D – MANUFACTURING 1. Commodity vs. Capability a. Would you characterize the production process as a commodity or as a capability process (volume, variety & customization)? b. How would you define your products (commodity vs. capability)? 2. Manufacturing characteristics c. How would you describe your cost structure (Fixed vs. Variable)? d. Would you characterise your company as labour intensive? e. Does the manufacturing process require high skilled workers (experience, age, education – on the job creations vs. formal education)? 3. Where are the set of skills that are critical to the manufacturing process? f. Where is the critical knowledge (workers/machines/processes/innovation & R&D)? g. How is this determined? h. Do you benchmark your operations against other companies? 4. Primary market and customers i. What is your primary market and what are the most significant characteristics of that market according to you? j. Who are your customers (B2B, end-customers)? k. How would you categorise your company as a supplier (1, 2, 3 tier supplier)?
E – OUTSOURCING 1. What are your thoughts about outsourcing in general? a. Your opinion concerning opportunities and threats? b. Any particular region that is more interesting from you point of view? c. Any particular region that you consider as a direct threat to your business (where, why, what makes them some competitive/their competitive advantage)?

2. Have you ever considered to relocate/outsource any part of your business?

- d. Have you outsourced any production/process/activity? Why, why not?
- e. Where did you outsource?
- f. Are you satisfied with the chosen approach (why/why not)?

3. Outsourcing strategies

- g. Do you have explicit outsourcing strategies and why?
- h. Can you describe the time-horizon of the strategy (short-term vs. long-term)?
- i. What do the strategy consist of? j. How important is these for the company (short run vs. long run)?
- k. Who initiates these and who is in charge of them?

4. How do you consider and measure risks?

- m. Do you have any explicit measurements (models, scorecards)? Why, why not?
- n. Have you considered possible hidden costs/transaction costs involved in the process?
- o. Do you consider the risks to be different between outsourcing and offshore outsourcing?

F – RATIONALE CONCERNING THE DECISION PROCESS

1. How do you evaluate and consider the motives for outsourcing? Where are the main opportunities according to you?

- a. Cost reduction
- b. Opportunity to focus on core competence
- c. Expertise
- d. Flexibility and speed
- e. Reducing capital investment requirements

2. Any other issues of importance when evaluating “make-or-buy”?

- f. What is the most critical element (why is X most important)?
- g. Motivate the most critical element (why is X most important)?
- h. Do you have the impression that companies like you (SMEs) have different approaches (considerations) to outsourcing problems than other large companies?

3. Have the motives as well as the logic behind outsourcing changed over time?

- i. Past, present and future thoughts and motives?

G – FUTURE CHALLENGES FOR THE REGION

1. What makes the region so “special” in terms of competitiveness?

- a. What are the most significant characteristics for the regions competitiveness according to you?
- b. How is it affected by the enhanced competitions from low-cost countries?
- c. What is the greatest challenge the region is facing for the future?

H – OTHER

- a. Do you think we have missed anything that is of importance or do you have anything else to add?

APPENDIX III – Database

Company Name	Sales	No. of employees.	Plastic	Metal
SWEDFORM METALL AB	1 086 873	1 019		X
CONTINENTAL GISLAVED DÄCK AB	616 431	447	X	
ISABERG RAPID AB, HUVUDFABRIK HESTRA PELTOR	811 207	414		X
	42 299	350	X	
J D STENQVIST AB, FABRIKEN I NISSAFORS	740 000	314	X	
GISLAVED GUMMI AB	400 000	310	X	
KENDRION HOLMBERGS AB	284 431	270		X
WELAND AB	255 292	200		X
UPPÅKRA MEKANISKA AB (Vätterledens Invest AB)	290 000	200		X
HORDAGRUPPEN	165 000	189	X	
GISLAVED FOLIE AB	244 958	178	X	
RECTICEL AB	226 499	163	X	
RAPID GRANULATOR AB	235 000	160	X	
EAB AB	325 637	148		X
GUNNEBO TROAX AB	186 000	146		X
SCAPA BEDDING AB	27 800	130	X	
BURSERYDS BRUK AB	413 190	126		X
PELLE INDUSTRI AB	134 000	124		X
ABA OF SWEDEN AB	162 945	123		X
VAGGERYDS HYDRAULIK AB	185 000	120		X
ESBE AB	138 878	120		X
GNOSJÖ PLAST AB	121 000	119	X	
GP Plastindustri Intressenter AB	164 042	115	X	
ETAC SUPPLY CENTER AB	225 126	103		X
SGV Industrier AB	100 000	100		X
EWES STÅLFJÄDER AB	100 000	97		X
STILEXO INDUSTRI AB	125 546	96		X
STACKE HYDRAULIK AB	107 000	90		X
NEWELL RUBBERMAID SCANDINAVIA AB	317 548	90	X	
KRAHNERS (PROTON GROUP)	157 000	90		X
Wulkan AB Nitfabriken	80 000	85		X
HOLMBERGS INDUSTRI AB	76 282	84		X
PETTERSSONS JÄRNFÖRÄDLING AB	144 080	81		X
PROTON ENGINEERING SKILLMECH AB	74 683	81		X
SIGARTH AB	115 000	75		X
PROTON FINISHING INDUSTRI PULVER AB	64 148	75		X
AB LEBÄ INDUSTRI SERVICE	60 000	74		X
A.G.I. DÄCK AB	79 000	68	X	
AB SKOGLUNDS METALLGJUTERI	48 098	67		X
GJUTERIBOLAGET I BREDARYD AB	70 000	65		X
BLADHS PLAST BREDARYD AB	74 102	64	X	
PLAST AB ORION	57 210	57	X	
AXJO PLASTIC AB	43 000	54	X	
VÅ PRESSGJUTERI AB	54 644	53		X
EZZE AB	70 000	53		X
KENDRION PRESSO AB	76 476	52		X
AB VARMFÖRZINKNING	58 779	52		X
VÅ PRESSGJUTERI AB	60 000	51		X
HÖRLE AUTOMATIC		50		X
FERBE FORMVERKTYG AB	51 000	50		X
ZINKTEKNIK I BREDARYD AB	135 000	49		X
WAGGERYD CELL AB	222 379	48		X
SKEPPSHULTS PRESS OCH SVETS AB	68 410	48		X
BLADHS PLAST GISLAVED AB	53 255	48	X	
PLASTINJECT AB	65 161	42	X	
SMIDMEK I REFTELE AB	55 413	40		X
SWEDE-WHEEL AB	68 000	38	X	
INDUSTRI AB WOG	41 347	36		X
LEGOSTANS I VAGGERYD AB	27 343	27		X
THOR AHLGREN AB	44 809	23		X
MATTIAS MATTSSONS MEKANISKA AB	21 462	22		X
GE-JI INDUSTRI AB	48 818	21	X	
G. ANDERSSONS MEKANISKA AB	16 534	21		X
GM-VERKEN AB	14 400	14		X
HOOKPROD, HOOKS PRODUKTIONS AB	11 852	12		X
JOE STEEN AB	10 907	10		X
RUNA AB; METALLINDUSTRI	8 000	7		X