On Logistics in the Strategy of the Firm

Tobias Kihlén

Logistics Management
Department of Management and Economics
Linköpings universitet, SE-581 83 Linköping
Abstract

The purpose of this thesis is to describe and analyse the role of logistics in the strategy of the firm. Leading to this purpose are empirical observations of firms that manage to grow under sustained profitability, by the means of logistics.

The clothing retailers H&M and Inditex manage to pursue strategies of growth under sustained profitability. Both H&M and Inditex acknowledge that logistics is used in achieving these strategic goals. The competitive environments are similar for the two retailers. However, the strategy content, i.e. the what of strategy, differs greatly between H&M and its Spanish competitor. H&M focuses on economies of scale in their operations to allow for low logistics costs and a cost-efficient geographical expansion. Inditex focuses on flexibility and speed, being able to quickly respond to changes in demand, which calls for a more agile logistics platform.

From this background, two cases are studied as regards the role of logistics in the strategy. The case companies Ahlsell and Bergman & Beving, two wholesalers of industrial goods, display growth under sustained profitability and have an outspoken focus on logistics in their strategies. The cases are described in terms of the content and the context of logistics in the strategy of the firm. The content is the what of strategy whereas the context is the where of strategy. The context is further divided into inner and outer context, where inner context is the firm and outer context is its environment.

The theoretical basis of this research is found in logistics and in strategy: Logistics research on the relation between logistics and strategy from a logistics perspective, and strategy theory ranging from the resource-based view of the firm, or the inside-out perspective, to positioning theory, or the outside-in perspective. A pattern-matching methodology is used to establish an appropriate description of the logistics content and context in the strategy of the firm. In the content-dimension, the opposing views of the resource-based view and positioning theory are tested on the cases. In the context-dimension, the cases and their environment are described with a stance taken in the contingency approach to the organisation of logistics.

The research shows that the role of logistics in the strategy of the firms in the scope of this study is most appropriately described using a resource-based view of the firm. Further, the two firms under study serve as examples of two different ways to use logistics in the strategy:
- Bergman & Beving manages to integrate a decentralised group of product companies in one logistics platform.

- Ahlsell achieves synergies in acquisitions by moving logistics and administration of the acquired firms into their centralised logistics platform.

The cases also serve as examples of that the logistics solutions need not be optimal in terms of the lowest cost and the highest service level to be used successfully in the strategy of the firm to reach growth under sustained profitability.

The firms in the scope of this research act in similar outer contexts but interpret these contexts in different ways depending on their manner to use logistics in the strategy. The research shows that similar outer contexts can be approached successfully with strategies with different logistics content.

The logistics organisations in the firms in the scope of this thesis display robustness towards changes in the outer context of the firm, i.e. the logistics organisations can encounter considerable changes in the environment without altering their position in the firm.

It is concluded that in order to make the role of logistics in the strategy more comprehensible, a bridge between the abstract strategy theory and the role of logistics needs to be established. A possibility to attain this can be found in the application of a business model framework to the relation between logistics and strategy, which is suggested as an area for further research.
Acknowledgements

This thesis is the result of a two-year process and would not have been possible without the support and encouragement by a number of people. I take this opportunity to express my gratitude to you.

Through invaluable discussions and constructive suggestions, my supervisor Professor Mats Abrahamsson has guided me to the point where I am today, a finished licentiate thesis. I look forward to continuing towards a doctoral dissertation under your guidance. Also very helpful have been Fredrik Stahre, the project leader of the E-Log 2 project of which this thesis is a part, and Daniel Kindström, who gave me many constructive suggestions towards the end of the process. Writing this thesis has also meant taking a number of Ph.D. courses, which have been administered by Lena Sjöholm.

Without the interviewees at AhlSell and Bergman & Beving this thesis would be quite thin. Thank you for giving me access to your organisations and for giving of your time to this research project. The project would not have been possible at all had it not been for the financial support by Vinnova.

A good working environment is essential, and something that has been provided by my colleagues at Logistics Management and the Department of Management and Economics. Thank you all of you! A special thank you goes to Kristina Dalberg who has helped me with numerous practical issues during the last two years, among them the layout of this thesis.

And last but not the least, I would like to express my sincere gratitude to those who despite geographical distance always stay close to me, my parents, my sisters, and Richard. Thank you for your support and encouragement, and for your understanding during these last intensive months.

Linköping in May 2005

Tobias
# Table of Contents

1 INTRODUCTION............................................................................................................ 1

1.1 THEORETICAL BACKGROUND ...................................................................................... 1
  1.1.1 Two Perspectives on Strategy ............................................................................ 2
  1.1.2 Two Dimensions of Logistics in Strategy ........................................................... 2
1.2 EMPIRICAL BACKGROUND........................................................................................... 3
  1.2.1 H&M................................................................................................................... 3
  1.2.2 Inditex................................................................................................................. 5
  1.2.3 H&M and Inditex in Terms of Content and Context .......................................... 8
1.3 PURPOSE...................................................................................................................... 9
1.4 FOCUS, SCOPE, AND DELIMITATIONS ......................................................................... 9
1.5 SOME IMPORTANT DEFINITIONS ............................................................................... 10
  1.5.1 Logistics ........................................................................................................... 10
  1.5.2 Strategy............................................................................................................. 10
  1.5.3 Content ............................................................................................................. 12
  1.5.4 Context ............................................................................................................. 12
1.6 THE STRUCTURE OF THE THESIS................................................................................. 12

2 RESEARCH QUESTIONS ........................................................................................... 15

2.1 CONTENT................................................................................................................... 16
2.2 CONTEXT................................................................................................................... 19
  2.2.1 The Outer Context ............................................................................................ 19
  2.2.2 The Inner Context............................................................................................. 20

3 METHODOLOGY......................................................................................................... 23

3.1 CHOICE OF LITERATURE............................................................................................ 23
3.2 CHOICE OF CASE STUDY METHOD ............................................................................ 24
3.3 CHOICE OF CASE STUDY COMPANIES .................................................................... 26
3.4 DATA COLLECTION ................................................................................................... 27
3.5 ANALYSIS.................................................................................................................. 28
  3.5.1 The Theory and the Research Problem ............................................................ 28
  3.5.2 Constructs used in the Analysis........................................................................ 29
3.6 VALIDITY AND RELIABILITY ..................................................................................... 31
1 Introduction

This is a thesis on logistics and strategy with a focus on the relation between the two areas from a logistics perspective. During the last decades the role of logistics in the firm has changed. Parallel to the emergence of a resource-based view of the firm, see e.g. Prahalad and Hamel (1990) and Stalk Jr. et al. (1992), there has been an increasing attention directed towards logistics as a competitive weapon. Stalk (1988) states that “As a strategic weapon, time is the equivalent of money, productivity, quality, even innovation.” Persson (1991) argues that in the context of competing on time, “time is essentially an issue concerning logistics”. However, despite two decades of recognition of logistics as a source of competitive differentiation there has been little effort put into building a theory of the role of logistics in the firm, (Mentzer et al., 2004).

1.1 Theoretical Background

Research on logistics and its relation to strategy has so far shown on managers’ increasing recognition of the importance of logistics, (Daugherty et al., 2000; Lynch et al., 2000). There has also been extensive quantitative research on the classification of different logistics strategies, see e.g. (McGinnis and Kohn, 1990; Cavinato, 1999; McGinnis and Kohn, 2002). This research has to a large extent taken stance in the assumption that logistics is a supporting function that is to pursue a strategy that is determined by the corporate and business unit level strategies. That is to say that the logistics strategy has no larger part in determining the overall strategic direction of the firm.

There is also a stream of research putting forward a view of logistics as something that to some extent can drive the strategy of the firm forward. Bourlakis and Bourlakis (2001) argue for logistics taking a more active role in the strategy by being a platform for the strategic moves of the firm. Aldin (2002b) shows on an interplay between logistics and market development with specific interest towards the influence of e-commerce on this interplay. Aldin argues that new requirements placed on logistics, due to changes in the market environment and subsequently in the marketing strategy, lead to changes in logistics that may enable new market possibilities. The latter could yet again lead to new requirements on logistics creating a dynamic interplay between marketing strategy development and logistics development. This view is also supported by Abrahamsson et al. (2003) presenting a logistics platform model which includes the utilisation of logistics as a resource base for the strategic moves of the firm. The mode of organisation is also affected by which role logistics is to take on; this is discussed by Pföhl and Zöllner (1997) and Persson (1997) assuming a contingency approach to the organisation of logistics. Pföhl and
Zöllner discuss the influence both of firm external and firm internal factors on the role of logistics in the firm whereas Persson presents contingency factors that are of more firm internal nature. It is subsequently recognised that logistics can be a powerful resource to utilise in the strategy of the firm and that the role of logistics in the strategy is influenced by both firm external and firm internal factors.

1.1.1 Two Perspectives on Strategy

There are two largely opposing perspectives on strategy, the positioning perspective and the resource-based view of the firm. Positioning theory, see e.g. Porter (1980; 1985; 1996; 2001), has the environment of the firm as a starting point for the strategy. This is why this perspective in strategy theory is termed the outside-in perspective. According to this school of thought the firm should assess possible strategic positions on the market and seek the most favourable one. In doing this, the firm should adapt its resource-base so that the activities pursued by the firm support the chosen position. The resource-based view, see e.g. (Penrose, 1959; Wernerfelt, 1984), takes the opposite view on how strategic advantage is reached. This school of thought has the resource-base of the firm as a starting point. The choice of strategic position by the firm should then to a large extent be made so as to exploit the resources controlled by the firm. In the use of these resources the firm strives to attain a sustainable competitive advantage. The resource-based view is also termed the inside-out perspective.

Until now, logistics research has often assumed a positioning perspective as regards the relation between logistics and strategy. This includes the assumption that the overall strategy of the firm has consequences for logistics in terms of requirements on which activities logistics is to pursue. It is thus assumed that logistics does not drive strategy; instead logistics rather supports strategy by fulfilling the set requirements. It has not to any larger extent been empirically tested which school of thought, the positioning perspective or the resource-based view of the firm, that most suitably describes the role of logistics in the strategy of the firm.

1.1.2 Two Dimensions of Logistics in Strategy

An understanding of the role of logistics in the strategy, seen from either a positioning perspective or a resource-based theory perspective, would mean an understanding of the logistics content in the strategy. The content could be described as the basis on which strategy is developed, i.e. the what of strategy, see (de Wit et al., 1998).

The content of strategy must exist in an environment, in the context or the where of strategy (ibid). That is to say in which firm and under which market circumstances the strategy content is set. In this thesis a division of context into inner and outer context is made. Inner context is the firm, and outer context is its environment. In logistics terms, the inner context is the organisation of logistics both in terms of responsibility and physical structure, and the outer context is the environment of the firm described in terms of suppliers, customers, and competitors.
1.2 Empirical Background

The theoretical background to this thesis takes stance in logistics theory on logistics as part of strategy and strategy theory with a focus on strategy content. The empirical background of the thesis is founded on observations of firms that use their logistics in growing under sustained profitability.

Dell, H&M, IKEA, Inditex, and Wal-Mart are all examples of companies with a high degree of logistics content in their strategies. In this section, two of these companies, namely H&M and Inditex, will be presented. These two firms, at the surface very similar, use their capabilities in logistics to enable long-term growth and profitability, however in very different ways.

1.2.1 H&M

H&M, the Swedish clothing retailer, has displayed growth under stable profitability during the years; see Table 1. The stated strategy of H&M is to grow while maintaining profitability, H&M annual report (2003), and the concern is permeated by a philosophy to offer fashion and quality at the best price, (hm.se). The goal is to increase the number of stores by 10-15% per year at the same time as sales in existing locations increase, H&M annual report (2003).

The chain expands worldwide with a current yearly pace of 140 new shops adding to the current about 1,000 shops spread throughout the 20 countries where H&M is present. The most important market is Germany, followed by Sweden and the United Kingdom.

Table 1. H&M’s turnover and result 1998-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover</th>
<th>Profit after financial items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-1999</td>
<td>3000</td>
<td>1000</td>
</tr>
<tr>
<td>1999-2000</td>
<td>4000</td>
<td>2000</td>
</tr>
<tr>
<td>2000-2001</td>
<td>5000</td>
<td>3000</td>
</tr>
<tr>
<td>2001-2002</td>
<td>6000</td>
<td>4000</td>
</tr>
<tr>
<td>2002-2003</td>
<td>7000</td>
<td>5000</td>
</tr>
</tbody>
</table>

The headquarters are in Stockholm together with central functions for finance, design, procurement, shop design, IT, marketing, information, display, human resources, and logistics, (hm.se). There are national headquarters in most countries where the concern is present.
The products sold by H&M range from fashion basics to high fashion, see Figure 1. The triangle illustrates the breadth of the assortment. At the bottom of the triangle are the fashion basics sold in large volumes. At the top of the triangle are the latest clothes, high fashion, primarily sold in larger cities in order to strengthen the image of H&M. It is among the trendiest items some of the future fashion basics are found and great emphasis is placed on identifying those articles that may be sold in larger volumes in the future.

![Figure 1. The triangle symbolising the breadth of the assortment from fashion basics to the high fashion (H&M annual report 2003)](image)

**Logistics**

The logistics organisation of H&M is large and employs approximately 3,200 people; this can be set in relation to the total number of employees, which amounts to 28,000. Stock management is carried out internally while transportation is bought from external parties.

The logistics organisation is managed from the Stockholm headquarters but has its physical centre in Hamburg where the concern has its transit terminal. A large proportion of the goods sold pass the transit terminal on its way from the factory to the retail country. Most of the countries in which H&M is present have their own distribution centre. When goods arrive from the transit terminal to the distribution centre it is either passed on to the stores or put in a warehouse, which is then used as a call-off warehouse by the stores. The logistics operations also include a mail order solution for the Scandinavian market, H&M Rowells. This is operated by two separate warehouses, one in Sweden and one in Norway, both operated by H&M internally, (hm.se).

The inbound flow to the transit terminal comes from approximately 750 different suppliers. The production is concentrated to mainly Asia and Europe. The contact with the suppliers is to a large extent kept locally by one of the 21 production offices in Europe, Asia, and Africa. By decentralising decision making regarding the production H&M has managed to shorten the average lead-time by 15-20% during the last couple of years. The lead-times vary from two weeks for fashion sensitive garments up to six months for more basic garments. An example of a lead-time reducing change is the decentralised responsibility for sample garments. This was earlier...
taken care of centrally and is now under the responsibility of the local production office in the country of production.

The lead-time is adjusted depending on the type of garment procured. Trend sensitive items need to be purchased throughout the season and require very short lead-times. Orders for more basic large-volume garment on the other hand are placed long in advance in order to enable low production and distribution costs. H&M formulates it as follows:

“Lead-times vary from two to three weeks up to six months. The different lead-times reflect differences in the nature of the goods. The trick is to know the right time to order each item. A short lead-time is not always the best, since the right lead-time is a matter of bringing price and quality into balance.”

H&M annual report (2003, p. 20)

The triangle illustrated in Figure 1 shows that H&M focuses mainly on the basic garments being able to utilise the advantages of economies of scale.

The Expansion of H&M

H&M has as a strategy to grow profitably, something that the firm also manages to do. During the last three years, the turnover has increased by 60% and the number of stores has increased by 40%. At the same time, the profit after taxes has increased by 150%. This expansion has been possible without any external financing. In doing this, logistics plays an important role.

In expanding to new geographical markets H&M pursues a strategy of entering one market at a time. In a fast pace, the density of shops in a region is extended so that economies of scale can be reached in areas such as logistics and marketing. Instead of first setting up a logistics centre in a market awaiting the volumes needed for intended efficiency, a new market is often first supported by the logistics platform present in a neighbouring region.

An example of this can be seen in the recent expansion of the store network into Poland, the Czech Republic, Portugal, and Italy. The neighbouring countries; Germany, Austria, Spain, and Switzerland; were made responsible for the respective expansions. Poland, the Czech Republic, and Portugal share distribution centres with their neighbouring countries, whereas a distribution centre in France is serving the Italian expansion, since the new operations in these countries are too small at the moment to allow for economies of scale. By expanding in this manner H&M avoids large initial costs for the expansion and simultaneously allows for the transfer of knowledge to the new region.

1.2.2 Inditex

Inditex is a retailer in mainly clothing, presenting eight store concepts: Zara, Pull and Bear, Massimo Dutti, Bershka, Stradivarius, Oysho, Zara Home, and Kiddy’s Class, (inditex.com). The concern has in total more than 2,200 stores in 56 countries with headquarters in A Coruña in Spain. Inditex has displayed a stable growth and profitability for a long period; see Table 2.
The stated philosophy behind Inditex is

“creativity and quality design together with a rapid response to market demands” (inditex.com)

With this philosophy, the group aims at a fast global expansion, something that is also being realised. At the moment, the number of stores increases by approximately one per day, (Wessman, 2004). The Zara chain which accounts for more than 70% of the concern’s total sales, focuses mainly on fashion goods and concentrates on markets that are trend sensitive, such as southern Europe, The United Kingdom, and Japan, (Wilke, 2004).

**Logistics**

Since Zara constitutes the majority of the concern’s sales it serves as a good example of how logistics is used in the concern. The physical logistics structure of Zara is organised around two distribution centres: Arteixo in A Coruña in Spain, and Plataforma Europa in Zaragoza, also in Spain. The latter distribution centre was opened in 2003 as a result of increase in sales. Apart from serving the Zara clothing chain, the distribution structure also handles the latest addition to Inditex, Zara Home, specialising in home furnishing. The other chains in the Inditex concern have their own centralised distribution structures.

In the case of Zara the process of supplying the chain’s shops with goods begins with a forecast based on the analysis by a cross-functional team of fashion, retail, and commercial specialists. In their analysis they have access to point of sales data from all the shops in the Zara chain. Raw material is procured by buying offices in the United Kingdom, China, and the Netherlands. The material comes from Mauritius, Australia, New Zealand, Morocco, China, India, Turkey, Korea, Italy, and Germany. Approximately 40% of the goods sold are imported from low cost countries.
in the Far East. These 40% consist of basic products with little variability in demand. The remaining 60% is produced by quick response in Zara’s own highly automated factories in Spain and by a network of small sub contractors. The fabric used for this production is held undyed and unprinted as long as possible to be able to quickly respond to an unanticipated demand for a specific garment.

During the season, new products are constantly being produced depending on demand. In practise, the chain of events leading to a new release or increased production of an existing line works as follows, (business2.com).

(i) A store manager notices that a certain garment sells more than planned. Using a handheld computer, the store manager sends an order to the Zara headquarters via the Internet. At the same time, the store manager can suggest alterations or completely new lines of garments that are being requested by the customers.

(ii) At the Zara headquarters, designers and product managers receive information from the store managers and make decisions based on the aggregated demand from all Zara stores.

(iii) The designers then draw up the new lines of garments and send orders to the Zara factories where the garments are being produced. Keeping a large proportion of the production in-house, production can be agile and able to respond to changes quickly.

(iv) Most products move from the production through one of the Zara distribution centres in just a few hours before ending up in the stores within 48 hours.

Other clothing companies well known for similar solutions are The GAP and Benetton. The latter, a manufacturer of knitwear, postpones the colouring of the garments until demand is known. However, Christopher (2000) argues that Zara has refined the production philosophy of these companies by adding ideas from Toyota. Only operations that can benefit from economies of scale are performed in-house whereas all other activities are performed by the more than 300 small sub contractors, each being specialised in a specific part of the production process and therefore, in relation to their smaller scale as compared to Zara, can reach economies of scale.

According to Christopher (2000), the success of the Zara chain lies much in an ability to create a supply chain that is agile but still incorporating characteristics that traditionally have been seen as inconsistent with agility or flexibility, namely leanness. The market of Zara is very volatile with products sensitive to rapidly changing trends. Christopher means that in order to succeed on a volatile market one must incorporate an agile supply chain strategy. However, to remain profitable this agility needs to be combined with leanness, a difficult equation.
The Expansion of Inditex

In all countries where Inditex is present, entry and expansion is made in a uniform manner. First, a flagship shop is opened in the capital. Only after a year or so the concept is expanded to other locations on the new market. The first year is used to train the personnel in the Inditex philosophy and to sense the market, (Svensson, 2003). The opening of a flagship shop in a prime location is good marketing for Inditex, which as a firm does not have a large central marketing budget. Marketing is simply made through the shop windows. In relation to the apparel industry as a whole, Inditex has a marketing budget as a percentage of sales of 0.3% compared to the industry average of 3.5%, (Shearwood, 2004).

This way of expanding the chain of stores does not favour economies of scale. Instead Inditex favours the market knowledge and agility and the resulting minimisation of items that need to be sold below full price. Only 15-25% of the products sold during a season are procured more than six months in advance compared to an industry average of 45-60%, (Shearwood, 2004). Further, only 15-20% of the products of a season need to be sold below full price, which can be compared to an industry average of 30-40%, (ibid).

1.2.3 H&M and Inditex in Terms of Content and Context

In section 1.1.2 the dimensions content and context were introduced. In the following, H&M and Inditex will be briefly discussed in these two dimensions.

The outer context, the environment in which H&M and Inditex act, is similar for the two firms; in fact, they are, to a large extent, direct competitors. Both display profitable growth and acknowledge the use of their operative platforms in attaining this, placing much emphasis on logistics. H&M and Inditex as organisations thus place logistics high on the agenda. That is also to say that logistics has a central position organisationally within the firm, i.e. in the inner context, in both H&M and Inditex.

However, despite the similar outer contexts and the central role of logistics what regards inner context the two have chosen to embark on very different strategic paths as regards strategy and its logistics content. H&M on the one hand focuses on economies of scale. Inditex, on the other hand, focuses on flexibility and speed, which has called for a need of a more agile logistics platform than that of H&M.

Not only do these, at the surface similar firms, differ in terms of how logistics is used in the sourcing and marketing of goods, but also in how they use their logistics in their expansion to new markets. H&M, also in this case, utilises economies of scale and begins to supply a new market through the logistics platform used in a neighbouring region until the point in time when the new market has reached a volume critical for efficiency and economies of scale in a logistics platform of its own. Inditex has no major focus on economies of scale in this respect. The expansion into a new market is allowed to take longer time and begins with the opening of a
flagship shop in the capital of the country, this in order to get to know the market and the demand. It could here be argued that national borders may mean more to Inditex than they do to H&M, which expands more on a basis of how it is possible to supply the new region with goods.

The observations made in H&M and Inditex may be patterns on the content and context of logistics in the strategy of firms that use logistics in order to expand under sustained profitability. In order to reach further understanding of growth under sustained profitability and logistics’ role in the strategy of firms that achieve this, further study of the content and context of logistics in strategy is needed.

1.3 Purpose

This background leads to the purpose of this thesis.

The main purpose of this thesis is to describe and analyse the role of logistics in the strategy of the firm.

Following the purpose, a theoretical foundation in the areas of logistics as well as strategy is needed. Logistics research relevant for this thesis is research that discusses the strategic role of logistics. Since this thesis does not aim at giving a theoretical contribution to the strategy theory, the area of interest in this theory is the strategy theorists’ view of logistics as a part of strategy. For this reason the research will be conducted from a logistics perspective.

Theoretically as well as practically, this research contributes by building a better understanding of the relation between logistics and strategy. More specifically this means a clarification of the role of logistics in the strategy from a resource-based as well as a positioning perspective and an understanding of contextual circumstances of firms that compete on logistics. The research builds on previous research, at Logistics Management in Linköping, on logistics and market development, see (Abrahamsson and Brege, 1995; Aldin, 2002b; Abrahamsson et al., 2003), but extends that research by having a scope that not only incorporates market strategy but the overall strategy of the firm.

1.4 Focus, Scope, and Delimitations

The background of this research is based on empirical observations of trading and/or manufacturing firms that manage to attain long-term growth under sustained profitability. A common denominator for these firms, apart from long-term growth under sustained profitability, is an outspoken focus on logistics and operations that are logistics intensive. Such firms would be the wider focus of this thesis. Narrowing down to the primary cases, Ahlsell and Bergman & Beving, these are both wholesalers of industrial goods, which means that the results may to some extent only be applicable in that context. However, I believe that the results to a large extent are applicable also within the wider focus of the research.
It is in the scope of this thesis to establish an understanding of the role of logistics in the firm in the dimensions content and context by describing and analysing two cases. The research does not cover the strategy formation process of the firm, i.e. the process dimension of strategy.

The companies in focus of the research will in the thesis be termed firms or companies interchangeably. Please note that these terms should not be interpreted in their widest meaning but only as firms or companies within the focus of the thesis.

1.5 Some Important Definitions

The focus, scope, and delimitations of this research have defined the area under research. Within this area, two important terms are in focus: logistics and strategy. These two terms are in this thesis studied in two dimensions: content and context.

1.5.1 Logistics

The definition of logistics used in this thesis is the one of Council of Supply Chain Management Professionals, CSCMP: “Logistics management is that part of the Supply Chain Management process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements.” (cscmp.org)

According to CSCMP, Logistics Management activities typically comprise: “inbound and outbound transportation management, fleet management, warehousing, materials handling, order fulfilment, logistics network design, inventory management, supply/demand planning, and management of third party logistics services providers.” (cscmp.org)

“To varying degrees, the logistics function also includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service. It is involved in all levels of planning and execution – strategic, operational and tactical. Logistics Management is an integrating function, which coordinates and optimizes all logistics activities, as well as integrates logistics activities with other functions including marketing, sales manufacturing, finance and information technology.” (cscmp.org)

1.5.2 Strategy

There is a large number of definitions of the term strategy. Among the earlier authors in the area is Chandler, stating that “strategy is the determination of the basic long-term goals of an enterprise and the adoption of courses of actions and the allocation of resources necessary to carry out these goals” (Chandler, 1962, p. 13). This classic definition of strategy incorporates the idea of strategy as being a plan. This notion, which is very common in the literature, does however not acknowledge that strategy may also be emergent, see Mintzberg (1998). Mintzberg argues that strategy is a pattern that evolves over time as a result of a stream of actions, deliberate as well as emergent.
Two major schools of thought in strategy, positioning and the resource-based view of the firm, are discussed in this thesis. Porter, coming from the positioning school of thought, argues that strategy is “the creation of a unique and valuable position, involving a different set of activities” (Porter, 1996, p. 68). This definition incorporates the idea of the firm attaining a positioning on the market, a position that is supported by a set of activities. When taking on the resource-based view of the firm one encounters more difficulty in finding a definition of the term strategy. In this school of thought the term strategy is not commonly used in the debate. Instead, the discussion is held around the concept of a sustained competitive advantage. Barney (1991) means that “a firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy.” (Barney, 1991, p. 102) It is here interesting to note that the word strategy is used in the definition of sustained competitive advantage, however not handled further by the author. Yet, the notion of strategy is avoided in that the sustained competitive advantage is traced back to resources of the firm without handling the term strategy specifically. Naturally, not all resources can be the sources of a sustained competitive advantage; such resources must possess a number of properties, e.g. be valuable, rare, and difficult to imitate or substitute, (ibid). The two schools of thought will be discussed in detail in the theoretical framework.

Since both these theoretical perspectives are used in this thesis a definition of the term strategy becomes problematic. Hence, a broad notion of strategy needs to be used. Addressing the whole field of strategic management, Mintzberg expresses this need for a broader notion of strategy as follows: “Human nature insists on a definition for every concept. The field of strategic management cannot afford to rely on a single definition of strategy, indeed the word has long been used implicitly in different ways even if it has traditionally been defined formally in only one.” (Mintzberg, 1987, p. 11)

Mintzberg (1987) therefore presents five definitions of strategy: strategy as plan, ploy, pattern, position, and perspective:

- **Strategy as plan** means that the strategy is formulated in advance to the actions to which it applies and the strategy itself is consciously and purposefully developed. Subsequently, strategy in this sense works as a guideline.

- **Strategy as ploy** can be seen as a sub group of strategy as plan. Strategy as ploy is about manoeuvres made in order to outwit the competition.

- **Strategy as pattern** incorporates the notion that if a strategy can be intended, as a plan, it can also be realised, i.e. have a resulting pattern. Pattern in this respect is about consistency in behaviour whether or not intended. The resulting strategy, by this definition, can only be identified after it has been in action as a pattern of deliberate and emergent actions.
- *Strategy as position* means that strategy is about finding a match between the organisation and its environment.

- *Strategy as perspective* is to the organisation what personality is to the person. This means that strategy is a perspective shared by the members of the organisation.

This group of definitions, complementing and partly opposing each other, can act as a rough guideline for what strategy “is” in this research.

### 1.5.3 Content

The content of strategy as it is used in this thesis must, in order to encompass a wide strategy theoretical base covering positioning theory as well as the resource-based view of the firm, acknowledge a number of different ways to define strategy, as was discussed in the previous section. A general explanation of the content-dimension of strategy is given by de Wit et al.: ”Stated in terms of a question, strategy content is concerned with the *what* of strategy – what is, and should be, the strategy for the company and each of its constituent units?” (de Wit et al., 1998, p. 6) In this thesis strategy content encompasses the pattern of actions observed, both deliberate and emergent, as well as the stated intended strategy of the firm.

### 1.5.4 Context

The context of strategy in this thesis is the firm and the environment in which it acts. The firm then, can be termed the inner context, whereas the environment, i.e. the market of the firm, can be termed the outer context. To be more specific, inner context, as it is used in this thesis, is the organisation of the firm in general with a focus directed towards the organisation of logistics both in terms of responsibility and physical structure. The outer context as used in this thesis is the environment of the firm described in terms of suppliers, customers, and competitors. In terms of a question de Wit et al. describe strategy context as follows: “Strategy context is concerned with the *where* of strategy – where, that is in which firm and in which environment, are the strategy process and strategy content embedded?” (de Wit et al., 1998, p. 6)

### 1.6 The Structure of the Thesis

A theoretical background to the purpose is given in chapter 1, the present chapter. Also an empirical background to this research is presented through the cases of H&M and Inditex. The cases introduce how some successful firms use logistics to achieve long-term growth and profitability, which is a view of logistics that is different from the traditional view that logistics is to achieve a set service level at a lowest cost. Moreover, the focus, scope, and delimitations in the research are presented in this chapter, together with definitions of key terms.

Chapter 2 introduces the research questions, which have their foundation in the empirical and theoretical backgrounds as well as the theoretical framework in chapter 4.
The methodological considerations are presented in chapter 3. The chosen methodology is a result of the character of the research questions and results in a chapter presenting both a theoretical view of the author’s approach to science and a more practical description of how this research has been conducted.

Chapter 4 presents the theoretical framework. This chapter has been important for the formulation of the research questions as well as to provide a theoretical base for the analysis.

The chapters 5 and 6 contain the cases of Ahlsell and Bergman & Beving, the empirical data. In the dimensions content and context, the two firms are described as regards their strategies and their logistics.

In chapters 7 and 8, the analysis, the cases in chapters 5 and 6 are compared with the theoretical framework in chapter 4. This means that the theoretical framework is compared with the empirical findings in the analysis in order to identify matches and mismatches between theory and empirical data. The analysis eventually leads to conclusions and issues for further research in chapter 9.
2 Research Questions

The introduction of this thesis highlighted the growing understanding that logistics is an important factor behind the success of many firms. It was concluded that the content, and context of logistics in the strategy of the firm needed to be investigated further, thus the purpose...

...to describe and analyse the role of logistics in the strategy of the firm.

In this section the purpose of the thesis will be discussed with a foundation in the theoretical framework, see chapter 4. The short case descriptions of H&M and Inditex in chapter 1 give clues as to how logistics is used in some successful firms in enabling stable growth and profitability. H&M manages to keep logistics costs low through economies of scale for basic goods while pursuing a more flexible approach for trend sensitive goods. Inditex, on the other hand, pursues a more agile and integrating strategy in their logistics controlling the whole chain from raw material manufacturers to the retailers.

Until recently, research has not handled operations, e.g. logistics, as described in the cases of H&M and Inditex, i.e. as a resource for profitability and growth. A traditional view of logistics assumes a position of logistics being a function that is only to fulfil a set service-level, see e.g. (Olavarrieta and Ellinger, 1997). Recent development in research puts forward a more active role of logistics. Abrahamsson et al. (2003) introduce the concept of logistics platforms and define a logistics platform as “a homogeneous part of the logistics system, which a logistics organisation centrally manages and controls, and has the power to design in a way that it is a resource base for new market positions. The logistics platform includes concepts for logistics operations, a physical structure, processes and its activities as well as the information systems needed for design, operations and reporting.” (Abrahamsson et al., 2003, p. 104). The logistics-platform view includes a more active role of logistics in the firm, a role in which logistics can be a source of strategic flexibility enabling strategic moves by supporting new strategic positions in a cost effective manner.

Abrahamsson et al. acknowledge the inherent power in a strategic use of logistics. This role of logistics has also been recognised by Bowersox and Daugherty (1995) in defining what they call a control/adaptability enhancement strategy. A firm pursuing such a strategy has an ability to “successfully accommodate changing conditions and to exploit new opportunities.” (Bowersox and Daugherty, 1995, p.74) According to Bowersox and Daugherty, such firms are often
decentralised in their decision-making authority, display a high degree of specialisation in activities, and have employees that strive to capitalise on new opportunities. In fulfilling new and maybe previously unknown needs of the customer, such a firm is dependent on external partnerships characterised by close cooperation rather than arms-length agreements.

In terms of content and context, what the authors discuss, is how logistics can be part of the strategy content of the firm. A traditional view of logistics would suggest that the boundary for the content, set by the context, is fixed, i.e. that logistics as a function is to perform as well as possible given the contextual boundaries and itself not actively affect the content and context of the strategy of the firm.

The theoretical framework focuses on two areas: logistics and strategy. The theory presented on logistics is to a large extent about context. It deals with the inner and outer context of the firm. The theory on strategy on the other hand, deals with content to a larger extent. Both these areas affect each other. Taking in logistics as discussed in the preceding sections, logistics as a strategy driver, one can see content and context in a more dynamic manner with interdependencies between the two and a possibility for content to change context and vice versa.

In summary, there is in theory a recognition that the role of logistics, the dependency and interplay between logistics and strategy in terms of content and context, is changing towards a more active role for logistics. It remains to be answered how this role of logistics can be described.

2.1 Content

The content of a strategy is an issue about the basis on which the strategy is developed. According to de Wit et al. (1998) the content of a strategy answers the question of the what of strategy and can mainly be seen in two ways: the outside-in perspective of strategy and the inside-out perspective of strategy.

Traditionally, logistics research has used the outside-in perspective of strategy in describing the relation between logistics and strategy and the strategic utilisation of logistics by the firm; see e.g. Persson (1991). This view of strategy assumes a supporting rather than driving position of logistics relative to strategy since the outside-in perspective says that the outer context of the firm determines the position taken by the firm. This, in turn, results in the need to create or acquire the ability to pursue a number of activities that are to support the chosen position; see e.g. Porter (1980; 1985).

A different picture emerges when taking an inside-out perspective of logistics relative to strategy. According to this view, the firm can be seen as a bundle of resources (Penrose, 1959) and the sustainable competitive advantage of the firm can be traced back to a set of resources that are perceived as unique, important, and valuable by the customer, (Barney, 1991).
The empirical background seen in the cases of H&M and Inditex show two firms with considerable logistics content in their strategies. H&M focuses on economies of scale in logistics in their strategy to grow under sustained profitability. Also Inditex aims at an expansion and does so under sustained profitability. The philosophy of Inditex is founded on rapid response to market demands, which results in a more agile logistics platform than that of H&M.

From this background, theoretical as well as empirical, it is needed to investigate how the strategy content of firms can be described most appropriately and what the implications are for the context of the strategy, and the role of logistics in the strategy of the firm.

A research question in terms of strategy content is:

**What are the characteristics of the logistics content in the strategy of the firm?**

Taking an outside-in, or positioning perspective, of strategy, there are five competitive forces that the firm needs to take into account and relate to, Porter (1980). These are: threat of new entrants, bargaining power of buyers, threat of substitute products or services, bargaining power of suppliers, and rivalry among existing firms. These five forces determine which position on the market that is seen as most favourable by the firm. An internal analysis can also be made in order to identify e.g. strengths and weaknesses. In combination, the five forces model and the analysis of internal strengths and weaknesses could constitute a so-called SWOT-analysis (Strengths-Weaknesses-Opportunities-Threats). Important to note is that the outside-in perspective assumes a theoretical position according to which internal strengths can be purchased on a market. Accordingly, the main determinant of the strategic direction for the firm is the external analysis based on the five forces model or equivalent.

The result of the analysis of the external environment to the firm, according to the positioning school of thought, is a conclusion as to which is the most favourable position on the market. Porter (1985) defines three generic strategies: differentiation, overall cost leadership, and focus. A later development of this school of thought has led to a set of generic strategies that are sometimes overlapping. These are variety-based positioning, needs-based positioning, and access-based positioning, (Porter, 1996).

The inside-out perspective of strategy content assumes a view of the firm as a bundle of resources (Penrose, 1959), and that the competitiveness of the firm can be derived from these resources. Resources are of different kinds; Olavarrieta and Ellinger (1997) divide resources into input factors, assets, and capabilities. In the latter group can be found those distinctive capabilities (Day, 1994) that constitute the sustainable competitive advantage of the firm. A number of authors (Prahalad and Hamel, 1990; Barney, 1991; Stalk Jr. et al., 1992; Day, 1994) have contributed to describing these distinctive capabilities, sometimes under a different term than distinctive capabilities but with the same meaning. A distinction can be made between capabilities at corporate level, core competences, and capabilities at a business unit level,
capabilities. In order to determine which distinctive capabilities there are to be found in a firm, questions addressing the characteristics typical for distinctive capabilities need to be asked. The different theories presented in the theoretical framework are condensed into a synthesis of characteristics that need to be fulfilled by a distinctive capability. Distinctive capabilities should be:

- valuable in that they support the market position, neutralise threats, or exploit opportunities. (Barney, 1991; Day, 1994)
- rare, difficult to imitate or substitute. (Prahalad and Hamel, 1990; Barney, 1991; Day, 1994)
- built up from transformed key business processes. (Stalk Jr. et al., 1992)
- deliver disproportionate contribution to perceived customer value. (Prahalad and Hamel, 1990; Day, 1994)
- robust and possible to use on a wide variety of markets (Prahalad and Hamel, 1990; Day, 1994) and aid the firm in adapting to environmental change. (Day, 1994).

These characteristics of logistics as a distinctive capability can be seen in the cases of H&M and Zara that here serve as examples.

The scale of the H&M logistics platform supports the firm’s market position by allowing for the cost-efficient supply of goods to the regions where the clothing retailer is present. The logistics platform is further used to move into new markets, always neighbouring to a region where the concern is already present, using the present physical structure. The scale of the operations makes them difficult to imitate or substitute. Logistics is, together with design, a key business process for H&M that states that the philosophy of the concern is to offer fashion and quality at the best price. Logistics at H&M does indeed give disproportionate contribution to the perceived customer value by making affordable fashion items available in the local shop at a low cost. It may however be disputed if the end customer is actively aware of the contribution by logistics. The large-scale logistics operations of H&M are used in a wide variety of markets geographically. H&M has however not attempted to use their logistics platform for other product markets than those of fashion garments.

Inditex too, has a market position that is heavily supported by its logistics operations. The agile platform of Inditex allows the firm to rapidly adapt to changes in trends. The network of factories, external as well as fully owned by Inditex, can by the means of e.g. close communication with store managers, rapidly respond to changes in the market and exploit opportunities that may arise. Such a complex logistics platform is not easy to imitate or substitute. Logistics as a key business process allows not only for efficient distribution but also for fast response to changes in trends for Inditex. As in the case of H&M, logistics contributes disproportionately to the perceived customer value and
is used on a wide variety of markets geographically. Inditex further uses its logistics platform for new markets product-wise, which can be seen in e.g. Zara Home.

A capability fulfilling the requirements discussed should provide a sustainable competitive advantage for the firm. According to Barney (1991) a firm has a sustainable competitive advantage “when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy”, (Barney, 1991, p. 102). As discussed in the theoretical framework, the stance what regards sustainable in this thesis is that a sustainable competitive advantage remains after attempts of competitive duplication have ceased.

2.2 Context

The content of a strategy does not evolve in an environmental vacuum. The context very much influences the content of strategy. De Wit et al. (1998) refer to strategy context as the where of strategy, i.e. in which firm and environment is the strategy content set.

A division can be made into inner context and outer context where inner context is the firm and the outer is the environment outside the boundaries of the firm. It could be debated if the management of the firm can affect the context of strategy or not. In this thesis, no distinction is made between aspects of the context that can be influenced by the management of the firm and those aspects that cannot be influenced. This will result in a description of context of which some parts can be influenced, and other parts not. Clear is however, that the firm has got a larger influence over inner context than over outer context.

2.2.1 The Outer Context

The outer context, i.e. what is found outside the boundaries of the firm, of firms within the wider focus of this research is often very competitive. It could be argued that firms pursuing strategies with similar logistics content also compete in similar outer contexts. The cases of H&M and Zara show two firms in a very similar outer context, on most country markets the two retailers are in direct competition. This may however reveal little or nothing on the inner context of the firm. It is in any case sound to make a division into outer and inner context when formulating research objectives since this will enable a more structured presentation and analysis of the empirical data. Therefore the research question:

What are the characteristics of the outer context of logistics in the strategy of the firm?

When logistics constitutes a large part of a firm’s offering, the market is usually rather mature with commodity-like products with low margins. Christopher (1998) argues that as businesses move towards a higher degree of “commoditization”, product or technical features of the product sold are not seen as unimportant, rather they are taken for granted. The order-winning criteria in such markets are more likely to be service-based than product based. The latter implies
a large importance of logistics. It should here be emphasised that a commoditization of the market does not mean that the market is any less volatile. Examples of such markets could be trading companies in construction- and industrial equipment; with commoditized products and, seen aggregated over all involved parties, market channels reaching most of the relevant markets and customers, expansion means consolidation through acquisitions of the competition. This is to a large extent fierce and volatile situation. The specifics regarding logistics in the context of the firm is discussed by Persson (1991). Persson discusses logistics in two dimensions: the importance of logistics as a unique driver, and the importance of logistics as a cost driver. These two dimensions do not only affect the outer context of the firm, they also affect content and inner context.

2.2.2 The Inner Context

From the cases of H&M and Inditex it can be concluded that these are two firms which both act in a similar environment however using logistics strategically in different ways. Consequently, it is possible that the inner contexts of these firms may be different from each other. The inner context needs to be investigated, which leads to the research question:

What are the characteristics of the inner context of logistics in the strategy of the firm?

The inner context is interesting to study with regards to a number of aspects. One needs to understand how logistics is situated organisationally and subsequently which relations there are to other parts of the firm.

Abrahamsson et al. (2003) argue for the existence of three types of logistics, which can be distinguished from each other in four areas: main focus, priorities in logistics, structure and organisation, and flexibility. A key priority in type three logistics as defined by Abrahamsson et al. is the use of logistics as a resource-base for strategic moves on the market. The logistics organisation for type three logistics is centralised in relation to the business system.

Taking on a contingency approach to the organisation of logistics one acknowledges that there is not one best way to organise logistics. Pfohl and Zöllner (1997) discuss organisational aspects of logistics and present a number of contingency factors affecting the organisational role of logistics in the firm, these being:

- Environmental relations
- Product line
- Production technology
- Size of the organisation
Also Persson (1997) uses a contingency approach to the organisation of logistics and argues for three contingency factors affecting logistics:

- Logistics task predictability
- Number of logistics decision elements
- Autonomous logistics decision areas

The contingency factors discussed by Persson (1997) have their basis in factors of firm-internal nature whereas Pföhl and Zöllner (1997) also discuss external factors in introducing environmental relations as a contingency factor.
3 Methodology

A scientific method is fundamental in the pursuit of discovering the previously unknown, a goal of science. Scientifically, the research conducted in this thesis has a positivistic approach. The positivistic paradigm is also the dominating paradigm in logistics research, (Mentzer and Kahn, 1995). In a positivist approach one has as goal to explain and predict the reality, and this reality is considered to be objective, tangible, and fragmentable, (ibid). Also dominating logistics research is the systems approach, see e.g. (Churchman, 1968), i.e. that the whole may be greater than the sum of its parts. Systems thinking has strongly influenced the research in this thesis.

According to Stentoft Arlbjorn and Halldorsson (2002) there is a conflict in combining positivism with the systems approach. In stating that, Stentoft Arlbjorn and Halldorsson (2002) argue that positivism means that the whole equals the sum of its parts. For me, however, positivism is the view that reality may be objectively observed. The latter can be combined with the systems approach.

3.1 Choice of Literature

The theoretical framework of this thesis is divided into two parts: logistics and strategy. The former part consists of theory on the relation between logistics and strategy from a logistics perspective and originates from a literature review based on articles in logistics journals. The journals studied is a qualitative selection of journals available through the online databases at Linköping University Library, namely:

- European Journal of Purchasing and Supply Management
- International Journal of Logistics
- International Journal of Physical Distribution & Logistics Management
- Journal of Business Logistics
- Supply Chain Management

In searching for relevant articles searches have been conducted with the keywords “logistics” and “strategy”. The resulting hits have been screened qualitatively for their relevance, a screening though which obviously irrelevant articles have been omitted. Further, references found through referencing in the through the database searches found articles also make up a significant part of
the theoretical framework on logistics. The resulting theoretical base is intended to show how the
relation between logistics and strategy has been handled in logistics research.

The second part of the theoretical framework, strategy, consists of an introduction to the two
main domains of theory on strategy content, namely theory on positioning and theory on the
resource-based view of the firm. It is here worth to note that this thesis does not aim at
contributing to strategy theory, why the goal of this part of the theoretical framework is to
present a picture of the two theoretical streams to be able to conduct an analysis on the cases
showing which strategy theoretical perspective is most suitable.

Positioning theory is dominated by Porter, see e.g. (Porter, 1980, 1985, 1996; 2001), and there is,
in my opinion, little debate on the general characteristics of the outside-in perspective, why it is
decided to let Porter be the main representative for this stream of research in the theoretical
framework. The resource-based view of the firm has, in my opinion, a larger variety of views why
this section in the theoretical framework consists a richer variety of authors than does the section
on positioning theory.

According to Creswell (1994) there are three ways to use literature in a qualitative study:

(i) To “frame” the problem posed in the study.
(ii) To review the literature around the subject.
(iii) To compare and contrast the literature to the findings in the study.

The cases of H&M and Inditex give clues that the theory is lacking insights into how logistics is
used in these companies. Consequently, a “framing” of the problem in its explicit sense is not
possible. The use of literature in this thesis is therefore focused on review and comparison, i.e. to
present what has been written on the subject so far, and to show what the literature is unable to
describe and explain. The latter could be part of what Yin (1994) terms pattern matching.

3.2 Choice of Case Study Method

This is a qualitative study and such studies can be carried out in various ways, of which one is the
case study method. Yin (1994) argues that there are three questions to be asked in choosing
which research strategy to use; experiment, survey, archival analysis, history, or case study;
namely (i) the type of research question asked, (ii) the extent of control over behavioural events,
and (iii) the degree of focus on contemporary rather than historical events, see Table 3.
The research questions asked in this thesis are aimed at investigating the “how” of logistics in the content and context of strategy. One could argue that the questions asked just as well are of a “what”-type since that is how the research questions are formulated. However, Yin differs between exploratory what-questions and what questions about prevalence. Only the latter group favours a survey or archival analysis instead of a case study. There is no requirement of control over behavioural events in this research; I as a researcher have not been involved with the case companies in any other manner than for collecting data. The focus is directed towards contemporary events; a new manner to incorporate logistics in the strategy has been observed. Naturally, there are descriptions of historical events but the main emphasis is on how the studied companies are run today. Thus, a case study methodology, as pursued, is preferred for this research.

According to Yin (1994), there are three types of case studies: explanatory, exploratory, and descriptive. As discussed previously, the type of research questions asked in this thesis is exploratory questions. As Yin (1994) points out, there are no clear distinctions between the different research strategies. Therefore, there are also elements of explanatory and descriptive character in this thesis.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Form of research question</th>
<th>Requires control over behavioural events</th>
<th>Focuses on contemporary events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, why</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, what, where, how many, how much</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival analysis</td>
<td>Who, what, where, how many, how much</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History</td>
<td>How, why</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case study</td>
<td>How, why</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Yin (1994) further means that there are five components of research design to consider in conducting case study research. These are:

(i) “a study’s questions
(ii) its propositions, if any,
(iii) its unit(s) of analysis,
(iv) the logic linking the data to the propositions, and
(v) the criteria for interpreting the findings.” (Yin, 1994, p. 20)

The questions of the study, and more specifically their type, have been discussed earlier in this section when the choice of case study methodology was made. A rather exploratory study, as this one, need not have any propositions. At the same time it is naturally no use setting about to conduct a case study without direction. The direction of this research has been guided by the purpose, which is…

… to describe and analyse the role of logistics in the strategy of the firm.

The unit of analysis, i.e. the case(s), which will be further discussed in the next section, is the firm and its competitive environment. Using the systems approach, the studied system is the firm, and the competitive environment is also the system’s environment. Yin (1994) terms the environment of the case the case’s context. This is avoided in this thesis since the term context coincides with the terms used in defining what is being studied in the cases (content, inner context, and outer context).

As discussed earlier, there are no clear propositions in this thesis. Guided by the purpose, the logic linking the data to the same is based on pattern matching between the cases and the theory. This pattern-matching logic is also guiding the interpretation of the findings and thus become the criteria for evaluation.

### 3.3 Choice of Case Study Companies

The companies chosen for case studies in this research have been chosen for three main reasons:

- They display long-term profitability and growth
- It is believed that logistics may be the enabling factor behind this growth under sustained profitability
- The outer contexts of the firms are similar

Leading to this research were observations of companies such as H&M, Inditex, Wal-Mart, and Dell. These companies have all displayed long-term profitability and growth. Also, they are all well known for their conscious focus on logistics. The cases of H&M and Inditex further showed
that there are firms that have very different strategy content in similar outer contexts. To be able to observe such sets of firms closer, firms in similar outer contexts were sought.

Apart from fulfilling the requirements above Bergman & Beving has previous co-operation with Logistics Management in Linköping through a previous research project, E-Log, within a similar area, see (Aldin, 2002b). Bergman & Beving also participates in the research project E-Log 2, which this thesis is part of. Ahlsell also fulfils the requirements of displaying long-term profitability and growth as well as logistics intensive operations that may enable the profitable growth. Both case study companies are in a similar environment, or outer context, undergoing considerable change, and being highly competitive.

No attempt is however made to compare the cases in terms of judging one firm as better performing than the other; each case is of interest on its own. Yet, it is still of interest to have two cases since this may show that firms in similar outer contexts can compete successfully with very different strategy content and internal contexts.

### 3.4 Data Collection

The data collection for this thesis was conducted during the period from the 15th of April 2004 to the 13th of October 2004. All interviews were conducted at the sites of the respective companies and were carried out in the form of semi-structured discussions based on the interview guide in Appendix 2. In the case of Bergman & Beving this meant five interviews in Ulricehamn, two interviews in Alingsås, and two interviews in Stockholm. In the case of Ahlsell, two interviews were conducted in Hallsberg, and two interviews in Stockholm. All interviewees, in both case companies, were at management level. It was believed that it was at this level that the most fruitful discussions on logistics and its relation to strategy could be held.

The choice of interviewees at Bergman & Beving, see Appendix 1, was made through discussions internally within my research group in Linköping, based on an understanding of the case company from previous research, and through discussions with the contact person at Bergman & Beving. The choice of interviewees at Ahlsell, see Appendix 1, was also made through discussions internally in the research group. Also, a previous co-worker in the research group, now employed by Ahlsell, provided good access and information on which interviewees to approach.

When the interviewees had been chosen, an e-mail with attached information on the research project was sent out, followed up by phone calls leading to the agreement on an interview. All interviews were recorded digitally and afterwards transcribed. The interviews lasted between one and two hours and loosely followed the interview guide in Appendix 2. The interviews and their transcriptions are all archived. The written cases have afterwards been sent to Ahlsell and Bergman & Beving respectively for verification in order to avoid misinterpretations on my behalf. Not all interviewees are directly cited although empirical material from all interviews is used in the cases.
Apart from primary data collected through the interviews, secondary data has also been used. In the case of Bergman & Beving a previous case study conducted within my research group has been used, see (Aldin, 2002a). Further, for both case companies, company information material in the form of annual reports, brochures, leaflets, and web sites have been used.

3.5 Analysis

As discussed in section 3.2, the analysis conducted is a form of pattern matching, see (Yin, 1994), between theory and the cases. Matches and mismatches between the theoretical framework and the two cases have been sought. There is however no evaluation made of the two cases relative to each other.

A form of pattern matching discussed by Yin is rival explanations as patterns. In using an approach of rival explanations one studies a phenomenon that can be compared with mutually excluding theories in order to determine which theory is the correct one under the studied circumstances.

Set in relation to this research, being conducted in the two dimensions content and context, pattern matching in the form of rival explanations is partly used. In the content-dimension of strategy theory, in this thesis, there are two rival explanations and answers as to which theoretical school of thought most appropriately describes the role of logistics in the strategy. In the context-dimension there cannot be said to be as evident rival explanations as in the content dimension of this research. Theory on the context and the role of logistics in this dimension of strategy is being pattern-matched to the cases but there are no mutually excluding explanations used in the theory.

3.5.1 The Theory and the Research Problem

In chapter 1 it was argued that to reach further understanding of growth under sustained profitability by the means of logistics requires further research into the role of logistics in the strategy of the firm.

The theoretical framework contains theory from two directions: logistics and strategy. Set in relation to the research questions, which are divided into the dimensions content and context, the theory on logistics strategy classifications, see section 4.1.1, presents an opportunity to classify the use of logistics in the cases under study in this thesis. The classifications presented are to a large extent built upon the what of strategy and subsequently fall under strategy content.

That part of the theoretical framework that handles the relation between logistics and strategy, structure, and organisation, see section 4.1.2, covers aspects of both content and context. This section handles logistics as part of strategy content and the role of logistics in the firm and the importance of logistics on the market, i.e. the inner and the outer context. Subsequently, this
section of the theoretical framework assists in describing and analysing issues both on content and on context in the empirical data.

The two largely opposing views of strategy, namely positioning theory and the resource-based view, presented in sections 4.2.1 and 4.2.2 respectively, can, when applied to the research problem, aid in discussing which school of thought that most appropriately describes the studied phenomenon. A discussion on these two schools is a discussion on strategy content. Figure 2 illustrates the division of theory into content and context showing to which dimension, context or content, the different chapters in the theoretical framework belong. The content, the what of strategy, is in the figure illustrated as an arrow present in a context, the where of strategy. The cases are also presented in the dimensions content and context why Figure 2 also shows which theory that will be used in the analysis of the different parts of the cases.

![Figure 2. A classification of the theory handled in the theoretical framework into content and context as used in the pattern matching](image)

### 3.5.2 Constructs used in the Analysis

Apart from findings related to pattern matching relative to the theoretical framework similarities between the cases, both the secondary data cases and the primary data cases, have been identified what regards economies of scale, economies of scope, and economies of integration. These constructs (Aronsson, 2000) are referred to in the analysis and will therefore be presented in the following. The reason why these constructs are introduced here instead of in the theoretical framework is that they are constructs that have emerged from the empirical material rather than from the theoretical framework.
Chandler (1990) discusses economies of scale and scope and defines economies of scale as:

“...those that result when the increased size of a single operating unit producing or distributing a single product reduces the unit cost of production or distribution.” (Chandler, 1990, p. 17)

Chandler (1990) further uses the term economies of joint production or distribution but also acknowledges economies of scope (Panzar and Willig, 1981) as a synonym. Chandler defines economies of scope as:

“...those resulting from the use of processes within a single operating unit to produce or distribute more than one product.” (Chandler, 1990, p. 17)

Panzar and Willig (1981) define economies of scope as:

“cost savings which result from the scope (rather than the scale) of the enterprise. There are economies of scope where it is less costly to combine two or more product lines in one firm than to produce them separately.” (Panzar and Willig, 1981, p. 268)

Chandler (1990) also handles transaction costs, namely those costs involved when transferring goods or services from one operating unit to another. When transactions are made between firms, there is normally a contract defining the terms of the transaction and handling the transfer of the property rights. If the same procedure is performed within the firm, the terms are usually defined by accounting procedures. Chandler uses the division into external and internal transactions in defining the difference between the minimisation of transaction costs and economies of scale and scope. Transaction costs, then, occur in transactions between operating units, and are to be minimised. Within operating units, the same goal of efficient use of resources is described by economies of scale and scope. Economies of scale and scope are thus tied to the more efficient utilisation of skills and facilities within operating units. Not referring to transaction costs explicitly Håkansson and Persson (2004) discuss supply chain management and term the exploitation of interdependencies between activities in the supply chain to achieve economies of integration.

“Economies of integration will be pursued and exploited by solutions supporting coordination and adaptation, where serial interdependencies in the supply chain are perceived by management as representing a major driver for economies.” (Håkansson and Persson, 2004, p. 24)

The three constructs economies of scale, scope, and integration are identified in the cases and serve as descriptions of how logistics can be and is used in the strategy of the firm.
3.6 Validity and Reliability

According to Yin (1994) there are four main tests to be applied when judging the quality of case study research:

(i) Construct validity, i.e. the establishment of correct operational measures for the issue studied.

(ii) Internal validity, (only applicable for explanatory or causal studies) i.e. the establishment of a causal relationship between conditions.

(iii) External validity, i.e. the establishment of the domain within which the results of a study are applicable.

(iv) Reliability, i.e. showing that the study could be repeated with the same results.

In order to ensure the construct validity of the study, three case study tactics, as recommended by Yin (1994), have been used: First, the use of multiple sources of evidence by interviewing several persons at each firm using the same interview guide. Second, the establishment of a chain of evidence by building the study around the dimensions content and context which have been used throughout the process, from the formulation of research questions to the collection of empirical evidence, and to the analysis and conclusions. Third, letting the respondents review the cases to ensure accuracy.

The causal relationship between conditions, termed internal validity by Yin (1994), is concerned with establishing that the causal relationship between events in the case study is correct and that there are no factors that affect the cause of action that have been overlooked. The internal validity is only applicable on explanatory or causal case studies. The nature of this case study is largely descriptive but to some extent also explanatory. The internal validity is, as far as possible, ensured by using multiple sources of evidence and also by using two cases.

External validity is concerned with establishing if the results of a case study are possible to generalise beyond the studied cases, (Yin, 1994). This thesis builds on a background of two cases based on secondary data and continues with two primary data cases. In all these four cases, a similar pattern is found. The business environment, the outer context, is similar for the two secondary data cases and the two primary data cases respectively. However, from a logistics perspective, the case companies are similar in that they use logistics to grow profitably.

The reliability of the case study, i.e. that the same findings would be found again if the case studies were repeated using the same methodology (Yin, 1994), has been ensured as far as possible by following a interview guide in the collection of data, using open questions allowing for the respondents to expand the discussion, letting the respondents review the written cases and in doing so avoiding misinterpretations on my behalf.
4 Theoretical Framework

The theory used in this thesis consists of two parts: logistics and strategy. The first part, logistics, gives an overview of what logistics research says about the relation between logistics and strategy. The second part, strategy, consists of two to some extent opposing views of strategy theory, namely positioning theory, or the outside-in perspective, and the resource-based view of the firm, or the inside-out perspective.

4.1 Logistics

During the last decades logistics’ role in the firm has changed. Parallel to the emergence of a more resource-based view of the firm, see e.g. (Prahalad and Hamel, 1990; Stalk Jr et al., 1992), which will be further discussed in the strategy section of this theoretical framework, there has been an increasing attention directed towards logistics as a competitive weapon. Stalk (1988) states that “As a strategic weapon, time is the equivalent of money, productivity, quality, even innovation” (Stalk Jr., 1988, p. 41). Persson (1991) argues that in the context on competing on time, “time is essentially an issue concerning logistics” (Persson, 1991, p. 1). Despite two decades of the recognition that logistics is a source of competitive differentiation little effort has been put into building a theory of logistics, a theory of the role of logistics in the firm, (Mentzer et al., 2004).

In this section examples of this new role of logistics will be given together with theoretical frameworks supporting this. In the current research on the relation between logistics and strategy, two groups of research can be identified:

(i) Classifications of logistics strategies, see e.g. (Bowersox and Daugherty, 1987; McGinnis and Kohn, 1990; 1993; Kohn and McGinnis, 1997b; 1997a; Cavinato, 1999; McGinnis and Kohn, 2002)

(ii) Logistics and its relationship to strategy, structure, and organisation, see e.g. (Persson, 1991; Bowersox and Daugherty, 1995; Normman, 1997; Pfohl and Zöllner, 1997; Stock et al., 1999; Christopher, 2000; Bourlakis and Bourlakis, 2001; Abrahamsson et al., 2003)
The first stream of research, the logistics strategy classifications, highlights the wide diversity of roles that logistics can play in the organisation depending on the strategic goals of the firm. The second stream of research describes logistics and its relationship to strategy, structure, and organisation.

4.1.1 Classifications of Logistics Strategies

A large body of research conducted on logistics and strategy handles logistics strategy classifications.

Different Types of Logistics Strategies

A considerable amount of research in this area has been undertaken by McGinnis and Kohn, see (McGinnis and Kohn, 1990; 1993; 1997b; 1997a; 2002). In this series of articles, all based on empirical data from surveys, the authors discuss logistics strategies, among them the typology of Bowersox and Daugherty (1987), and pay specific attention to organisational aspects of logistics strategy. The Bowersox and Daugherty typology is a qualitative typology identifying three distinct logistics strategies:

(i) The \textit{process strategy} consists of “a broad group of traditional logistics functions managed as a value added system.” (Bowersox and Daugherty, 1987, p. 51)

(ii) The \textit{market strategy} “typically involves a limited group of traditional logistics activities which are managed across business units.” (Bowersox and Daugherty, 1987, p. 52)

(iii) The \textit{information strategy}, also known as channel strategy, consists of “interorganisational coordination and uses logistics to achieve cooperation and collaboration” (Bowersox and Daugherty, 1987, p. 53)

McGinnis and Kohn (1990) define a classification of logistics strategies, those being

(i) \textit{Intensive logistics strategy} with high focus on customer service, and logistics coordination, and moderate focus on integrated computer systems.

(ii) \textit{Integrated logistics strategy} with high focus on integrated computer systems, logistics coordination, and customer service.

(iii) \textit{Low integration logistics strategy} with low emphasis placed on integrated computer systems and moderate emphasis placed on logistics coordination and customer service.

(iv) \textit{Low effectiveness logistics strategy} with moderate focus on integrated computer systems and customer service, and low emphasis on logistics coordination.
Of these strategies, intensive logistics strategy is proposed by McGinnis and Kohn to be used, when requirements on flexibility are high, whereas the low effectiveness logistics strategy is to be pursued when the firm competes on other areas than logistics. The different classes were developed through a cluster analysis of results from a survey sent to logistics executives.

Also in the 1993 article, a set of logistics strategies is defined, see McGinnis and Kohn (1993). This is also a result of a cluster analysis, which shows three groups of strategies:

(i) **Intense logistics strategy** incorporates both the market strategy and the process strategy in the Bowersox and Daugherty typology and focuses on optimisation and integration of two or more business units for the serving of a common customer. The market environment for this strategy should be moderately unpredictable and very hostile.

(ii) **Balanced logistics strategy** also incorporates both the market strategy and the process strategy in the Bowersox and Daugherty typology however not to the extent displayed in the intense logistics strategy. The market environment for this strategy is hostile and moderately unpredictable.

(iii) **Unfocused logistics strategy** places low emphasis both on the market strategy and the process strategy in the Bowersox and Daugherty typology. The market environment for this strategy is moderately hostile and fairly predictable.

In the 1997 and 2002 articles, see (Kohn and McGinnis, 1997b; 1997a; 2002), the earlier surveys are followed up. The findings include the conclusion that logistics strategy is two-dimensional differing between the degree of logistics integration and the degree of logistics efficiency. It is also stated that during the time period the authors have studied logistics strategy (1989-1994) logistics strategy in the studied firms has not changed significantly.

**Matching Logistics with Strategic Management**

Another survey is that of Cavinato (1999) who presents a methodology for determining a fit between the development of logistics and the development of strategic management in an organisation, based on a four stage development path for the evolution of strategic management developed by Gluck et al. (1980). According to the model of Gluck et al. the four evolutionary stages are:

(i) **Basic financial planning**. “In this stage, formal planning is centred around budgeting and other financial processes. Revenues and costs are forecast for the year and performance is evaluated on the basis of actual versus budget. The focus is within the function, and the overriding objective is to meet the goals of the budget.” (Cavinato, 1999, p. 163)
(ii) **Forecast-based planning**, in this stage “formal planning is conducted primarily through gap analysis: anticipated earnings are forecast, desired earnings are plotted, and programs are developed to rationalise the two. The development of these programs fosters an environmental analysis process, multi-year forecasting, and the allocation of limited resources across the various segments of the business” (Cavinato, 1999, p. 164)

(iii) **Externally oriented planning**, “The planning procedure in this stage is dynamic and anticipatory, scanning the environment and responding to the marketplace. Companies reorganise into strategic business units to facilitate this strategic focus.” (Cavinato, 1999, p. 164)

(iv) **Strategic management**, in this stage “companies seek to combine the strategic planning process with operational decision making. Their ability to do this is based on three factors: the planning framework, the planning process, and the corporate value system” (Cavinato, 1999, pp. 164-165)

Cavinato further adds a fifth stage called the knowledge-based business which is a stage that builds on continuously evaluating what is possible and how. The aim of Cavinato is to investigate how long ahead in the evolutionary stages logistics has reached, i.e. whether logistics is considered of strategic importance or if it is a minor stand-alone entity in the firm. The methodology used by Cavinato is that of interviewing the heads of logistics and/or supply chain management in 199 organisations. The interviews led to classifications of the organisations according to 17 attributes, e.g. logistics’ added value, management style, and key measures. Having mapped the organisations’ general level of strategic management evolution it was established whether there was a fit between logistics evolution and the evolution of strategic management in general, as seen by Gluck et al., in the studied organisations. Cavinato concludes that in companies where logistics is ahead of the rest of the organisation from a strategic management perspective, there is a risk that logistics is neither understood nor appreciated for its activities and contributions. If, on the other hand, logistics is lagging behind the rest of the organisation the threat is that it is not being valued and subsequently vulnerable to outsourcing or downsizing.

The survey-based research on logistics strategy classifications shows on the wide diversity of roles logistics can have strategically. Also, as is shown by Cavinato (1999) there needs to be a fit between the general strategic management development of the firm and the development of logistics.
4.1.2 The Relation between Logistics and Strategy, Structure, and Organisation

Logistics operations are important for the competitiveness of the firm. They must, however, also be related to the strategy, structure, and organisation of the firm.

The Importance of Operations

Andries and Gelders (1995) argue for the increasing demands placed on logistics. Many of the world’s markets have gone from being producer-driven to being consumer-driven. The consumer is offered an ever-increasing variety of products available at short delivery times. Andries and Gelders discuss the effects of this change from a production and distribution point of view. The main focus of the authors is on the order penetration point, OPP, and different techniques to place this as near the customer as possible. The discussion pursued is largely conceptual taking in a few empirical examples such as the case of Benetton. Benetton has pushed the OPP forward by locating the colouring of the garments at the end of the production process. The product diversity of Benetton is mainly based on the colour of the garment why the placement of the colouring at the end of the production process has a large effect on the OPP. The authors conclude that the competition on logistics will increase and that logistics departments must be able to answer to these changes. Whereas Andries and Gelders are discussing mainly internal production logistics, Gill and Allerheiligen (1996) focus on the distribution. With a number of cases as examples the authors argue for closer co-operation in supply chains. Rather than operating with arm’s length agreements the authors are of the opinion that there is money to be saved by operating what they term consensus systems organised through co-operation between channel members.

It is not in the interest of this thesis to in depth describe the, largely operative, concepts of Andries and Gelders (1995), and Gill and Allerheiligen (1996). Instead, they serve as examples of research on new operative requirements and changes in planning and control posed on logistics as the competitive situation changes.

Strategy Content in Logistics from a Resource-based Theory Perspective

Bourlakis and Bourlakis (2001) discuss the emergence of strategies from a logistics perspective. In the study of the Greek multiple food retail sector the authors establish differences between domestic firms and multinational firms as regards strategy formation. Through case studies of four domestic and three multinational firms the authors argue that in the multinational firms, the strategy formation process for the logistics strategy is more planned and deliberate than in the domestic firms, which display a more emergent approach to logistics strategy formation. The authors argue that the multinational firms, which also pursue a more standardised form of logistics with e.g. central warehousing, are more efficient than the domestic firms. Also Olavarrieta and Ellinger (1997) argue for the importance of logistics for strategy and strategy
formation. According to Olavarrieta and Ellinger, the role of logistics in strategy may be appropriately described using the resource-based view of the firm, RBV, see e.g. (Penrose, 1959; Wernerfelt, 1984). To achieve a sustainable competitive advantage one needs to, according to RBV, attain distinctive not easily imitated capabilities. With a rapid pace of development in logistics, few distinctive capabilities in the area will remain unique to one firm. However, Olavarrieta and Ellinger argue that a firm that by continuously being in the forefront of logistics, learning new capabilities, can use logistics as a sustainable competitive advantage. Unlike Bourlakis and Bourlakis (2001), Olavarrieta and Ellinger do not distinguish or narrow down their research to specific industrial sectors.

Bourlakis and Bourlakis (2001) argue that there are mainly two ways to conceive or use logistics in a firm. Logistics could be used as a purely supporting function that is to fit in the strategy of the firm aiding the firm in e.g. geographical expansion. Logistics could also assume a more active role and be a platform for a firm’s strategic moves. From being a strategy supporter, logistics can in this way move towards becoming a source of strategic advantage, (ibid).

Bowersox and Daugherty (1995) also, although not explicitly, refer to RBV in the use of logistics in inter-firm competition. The authors state: “Firms that use logistics strategically seek to exploit their unique competencies to gain and maintain competitive advantage.” (Bowersox and Daugherty, 1995, p. 67) Despite this, Bowersox and Daugherty choose to pursue their discussion on logistics and strategy using a positioning perspective, see e.g. Porter (1980; 1985), and the strategic use of logistics for a strategy of low costs, differentiation, or focus. The three generic strategies specifically discussed, from a logistics perspective, by Bowersox and Daugherty are: cost minimisation strategy, value-added maximisation strategy, and control/adaptability enhancement strategy.

In a cost minimisation strategy the focus of the firm is to maximise efficiency. This can be reached through a centralised organisational structure with concentrated decision making to coordinate decisions for maximum cost control and a low level of specialisation. External to the firm, this strategy means, according to Bowersox and Daugherty, arms-length agreements and the view of every transaction as an isolated event.

In a value-added maximisation strategy the firm seeks effectiveness. Bowersox and Daugherty then see effectiveness as “a measure of the relative success of a firm’s products or programs in relation to competitors”. In this strategy the authors expect moderate internal centralisation and formalisation, the reason for this being that product quality and differentiation are more important considerations than cost minimisation. In this type of strategy and organisation the level of specialisation is expected to be greater than in an organisation focusing on cost minimisation. Expert knowledge is needed in specific products as well as in specific customer segments. External to the firm, partnerships are agreed upon with suppliers and distributors. In negotiating terms, quality is given priority over price.
In a control/adaptability enhancement strategy flexibility is the prime objective. With this, Bowersox and Daugherty mean “a firm’s ability to successfully accommodate changing conditions and to exploit new opportunities”. This strategy means a decentralised structure, placing the decision-making authority at low organisational levels. The level of specialisation is expected to be greater than that of both a cost minimisation strategy and that of a value-added maximisation strategy. The focus of every employee should be to capitalise on new opportunities. In order to accommodate new and previously unknown needs of the customers, partnerships external to the firm are needed. Instead of arms-length agreements close cooperation with strategic partners is essential according to Bowersox and Daugherty.

Bourlakis and Bourlakis (2001) discuss logistics and strategy in an isolated setting, the Greek multiple food retail sector, distinguishing between the characteristics of domestic from those of international actors on the market. In Bowersox and Daugherty (1995) the discussion is held at a more generic level. The cost-minimisation strategy in Bowersox and Daugherty’s terminology, could be compared with the centralised low-cost and high-efficiency approach to logistics pursued by the international actors in Bourlakis and Bourlakis (2001).

**Strategy Content in Logistics from a Positioning Perspective**

Persson (1991) claims that competition to a large extent is a matter of delivering better, more reliable and more attractive products to the marketplace faster than anyone else. The central role this gives to logistics implies that there should be a link between logistics and strategy. However, Persson (1991) further argues that logistics more or less has been excluded from strategy formulation and subsequently has become a barrier to rather than a support for a specific market strategy. Logistics is in that case viewed upon as a cost factor that at best should be minimised.

Persson (1991) presents ideas on how to link logistics to strategy from a Porter-influenced strategy perspective. A major flaw, according to Persson, in many attempts to linking logistics strategy to corporate strategy is the unit of analysis. From a strategy point of view, a business is normally described as a number of strategic business areas. These business areas are defined so that they can pursue a single strategy. The basis on which a corporation has been divided into business areas is the same basis as is being used in the strategy formulation, namely products and markets. “In practice, most business strategies are formulated as product/market strategies. In other words, they define which product areas and markets the company focuses on.” (Persson, 1991, p. 2) This division of the corporation may not be the most appropriate for the formulation of a logistics strategy. According to Persson, a logistics strategy should instead be formulated at the materials flow level; Persson refers to these as strategic materials flow segments. Products or groups of products in the same materials flow segment have the same competitive environment and have similar requirements as far as logistics is concerned.
Persson (1991) argues that the importance of logistics at the materials flow segment level is determined by two factors:

(i) “The importance of logistics as a unique driver, i.e. to what extent the logistics performance of a company, in a specific segment, has any impact on the customers’ behaviour and to what extent a unique or excellent logistics performance creates a competitive edge.” (Persson, 1991, p. 3)

(ii) “The importance of logistics as a cost driver, i.e. logistics cost share of total costs.” (Persson, 1991, p. 3)

These factors determine how important logistics becomes as a strategic issue. The highest importance is reached for those materials flow segments for which logistics is highly important both as a unique driver and as a cost driver, see Figure 3.

![Figure 3. The importance of Logistics in a Materials flow segment (Persson, 1991, p. 4)](image)

Persson (1991) further makes two proposals:

(i) “The winners in a given high cost and/or strong competition materials flow segment are the most cost-effective in the business.” (Persson, 1991, p. 6)

(ii) “The new winners in any high cost and/or strong competition materials flow segment are not only the most cost-effective in the business, they have a superior logistics performance as well.” (Persson, 1991, p. 6)

What Persson implies, is that logistics can be seen not only as a strategy supporter but also as a strategy driver. This view is shared with Stank et al. stating “Companies that recognize logistics service as a significant element in the buying process often respond by developing effectiveness in basic operational capabilities. This allows them to contribute value by performing such service elements better than any competitor.” (Stank et al., 1998, p. 74)
Persson (1991) presents three basic strategies for competing in logistics:

The first type of strategy presented by Persson, called strategy one, means that the firm should try to influence the competitive forces with logistics and thereby create a competitive advantage. This strategy is a reference to the competitive forces as defined by Porter (1980). However, I am of the opinion that the competitive forces theory is not very much disputed as compared to the positioning theory and that this strategy therefore can be seen as valid also from other strategy theoretical perspectives. In pursuing this type of strategy one assumes that the materials flow segment is given and that the market as such is difficult to change. Persson is of the opinion that influence of the competitive forces can be made in three ways:

First, one can use logistics to increase the interdependence between the supplier and the customer. This is done through closer logistics cooperation, which results in market entry barriers for the competition. An example of this strategy is cooperation in product development through e.g. design for logistics. It could also be a JIT or VMI agreement.

Second, one can eliminate competition through investments. Persson here uses an example from the tool supplier LUNA. What LUNA did, some years ago, was to supply their customers with computer terminals making their ordering of LUNA products easier. This strengthened LUNA’s relationships with their existing customers as well as helped in acquiring new ones. I find it questionable to make a division between this type of altering of the competitive forces and that presented before; both ways are about creating a closer relationship with the customer.

The third type of influence on the competitive forces is however somewhat different. The reason for this is the level of aggregation. This strategy deals with eliminating competition through laws and regulations concerning logistics. In this case Persson leaves the unit of study proposed earlier: the strategic materials flow segment. Laws and regulation are traditionally mostly national but even though Persson’s article is up to date in most areas this is an issue that has changed tremendously since its publication in 1991. The development of the inner market has since resulted in a massive decrease in trade barriers. On a global basis the situation is somewhat different though.

The second type of strategy, strategy two in Persson’s terminology, is about using existing logistics resources to create new business opportunities, to achieve competitive advantage through the development of new logistics services, or to develop completely new markets through innovations enabled by logistics development, (Persson, 1991). To create new business opportunities through logistics could be e.g. to offer the firm’s own excess logistics capacity on the market. According to Persson, companies in this situation often transfer skills from one part of the supply chain to another by taking over activities earlier managed by other parties; an example could be an airline buying a road transportation company making the acquired company more profitable by transferring their own logistics skills.
The last type of strategy, strategy three, is about doing what one is already doing better, i.e. improving operations. Instead of changing the type of performance, the firm in this case, strives for a more ambitious level of performance, (Persson, 1991). Considering the fact that Persson refers solely to Porter when discussing strategy and logistics, it is interesting to contrast this type of strategy referred to as type three to the writing in Porter (1996). There, Porter is very persistent in arguing that operational effectiveness is not strategy. Porter sees operational effectiveness as something necessary but by far not sufficient. A high degree of operational effectiveness often means being better than the competition at managing similar activities; strategy, according to Porter, is about performing different activities than ones competitors or performing similar activities in different ways. To conclude, strategy three should not, from a Porter perspective, be called strategy, it should rather be called increasing operational effectiveness.

The Contingency Approach to the Organisation of Logistics

In the organisation of logistics, Persson (1997) identifies three approaches or design strategies for logistics: the one-way approach, the life-cycle approach, and the contingency approach. The one-way approach argues for a one best solution for organising logistics, normally involving a logistics manager at top management level. According to the life-cycle approach on the other hand, logistics should be organised depending on the stage of logistics development the firm is in. Parallels to the latter are can be drawn to the logistics strategy classifications of Cavinato (1999) discussing logistics and its relation to the evolutionary stage of the general management of the firm. The last approach identified by Persson (1997) is the contingency approach. The contingency approach to organisation has its roots in Burns and Stalker (1961), Galbraith (1973), and Lawrence and Lorsch (1969), and has under recent years been used in logistics research, see e.g. Norrman (1995) and Pfohl and Zöllner (1997).

The contingency approach acknowledges the influence on the organisation of logistics by a number of different factors recognising that there is no one best solution to the organisation of logistics. In the study of firms that have changed from a decentralised to a centralised distribution structure Norrman (1995) investigates how this change affects the organisational structure. According to Norrman, the contingency approach incorporates the acknowledgement of the linkages between factors in the environment of the firm, the context, and the effects of these factors on the organisation of logistics.
In a contingency model, Persson (1997) presents three factors that influence the organisation of logistics:

- **Logistics task predictability**, i.e. the extent of production to stock. With an increasing ratio of production to stock the logistics task predictability increases.

- **Number of logistics decision elements**, i.e. the size of the organisation, the number of different products, and the complexity of the products in terms of number of components. A large organisation with many complex products has a large number of logistics decision elements.

- **Autonomous logistics decision areas**, i.e. the existence of separate product groups in terms of technology, market, or location.

According to Persson (1997), these three factors determine the patterns in logistics coordination. Persson argues that an organisation with low logistics task predictability and few logistics decision elements should be co-ordinated by mechanisms of informal and functional rather than flow-oriented character. With an increasing number of logistics decision elements, the flow-orientation of the firm should increase (ibid). Further, the existence of autonomous logistics decision areas influences the degree of flow orientation within a divisionalised organisation (ibid). Many autonomous logistics decision areas would consequently call for co-ordination beyond that made possible within the divisionalised organisation.

Pfohl and Zöllner (1997) discuss, as do Bowersox and Daugherty (1995), organisational aspects of increasing demands placed on logistics. Pfohl and Zöllner mean that organisational design to a large extent is about adapting the organisational structure to changing environmental conditions, part of which is to aggregate tasks to form departments. A traditional way of performing this is to form departments according to function; e.g. procurement, production, and marketing. This way of organising has been criticised from a logistical viewpoint since logistics is an activity that crosses many departments and that might gain on being organised in a different way, maybe as a separate department at the top of the hierarchy. There are however, no clear answers as to in which way this problem should be solved. According to Pfohl and Zöllner there are a number of contingency factors that affect how logistics should be organised. The contingency factors that are identified and discussed by Pfohl and Zöllner are:

- **Environmental relations** such as number of sources of supply and number of customers to be served. Both the complexity and the dynamics of these issues need to be considered.

- **Product line**, i.e. “the kind and extent of products produced and/or distributed in a certain time limit” (Pfohl and Zöllner, 1997, pp. 307-308) The characteristics of these products, e.g. if they are homogeneous or heterogeneous, determine how complex the logistics solutions need to be.
- **Production technology** involving everything from the location of the production equipment within a plant, and the production planning philosophy used, and the location of production units globally. As an example could be seen that planning and control of logistics is very different in a job-shop production from a flow production.

- **Size of the organisation** is also a determinant for logistics organisation. With a large organisation there are opportunities and problems associated with being able to departmentalise and use specialised personnel for logistical tasks.

These factors, among others, do according to Pfohl and Zöllner affect how logistics can be organised.

### Three Types of Logistics

Abrahamsson et al. (2003) argue for how logistics should be organised in order to allow for a high degree of dynamic capabilities in the organisation. That is to have an organisation able to make strategic moves, as they are needed, using logistics as a resource base enabling those moves. Abrahamsson et al. (2003) name this logistics platforms for improved strategic flexibility. By introducing the concept of logistics platforms the authors argue for logistics to be used as a platform and a resource base to support and enable strategic moves on the market. The authors call this type three logistics.

In type one logistics the logistics function is a decentralised unit affiliated to production and/or marketing, (Abrahamsson and Brege, 1995). In manufacturing firms with type one logistics, logistics is affiliated to production or marketing and sales. In trade companies the logistics function is, instead, affiliated to the purchasing function. In production-oriented firms logistics is used as a part of the production system and is contributing to achieving a high productivity and efficiency whereas in market-oriented firms, logistics is used, as a part of marketing or sales, to achieve high levels of customer service, (Abrahamsson et al., 2003). Design and control of type one logistics is decentralised and attention is directed mainly towards internal efficiency and geographical closeness to the customer. This type of logistics can often lead to sub-optimisation due to the fact that too many local units build up the logistics organisation, (Abrahamsson et al., 2003).

In type two logistics, logistics is a centralised unit conducting direct distribution. Here, the distribution is channel-wise separated from the sales. The focus is directed towards total logistics cost, economies of scale, product availability and order lead time, (Abrahamsson et al., 2003). In type one logistics the firms stays close to the customers geographically whereas in type two logistics it is more important to be close to the customers in terms of lead-time. As in type one logistics focus is directed towards internal efficiency rather than external. However, the risk of sub optimisation is eliminated through the centralised logistics. It is here worth to note that on an even larger scale, sub optimisation is still possible on a supply chain level since type two logistics
does not pay specific attention to upstream and downstream integration with other parties in the supply chain.

In type three logistics there is, as compared to type two logistics, a change of focus towards external relations in the supply chain, from producer to final customer, (Abrahamsson et al., 2003). In neither type one nor type two logistics, is logistics an integral part of the firm’s strategy. Instead, logistics is “squeezed” between market and production development since changes in these areas have direct effects on logistics. “When production is in focus, logistics is used as a buffer stock to support a production push philosophy. When marketing is in focus logistics has to carry a speculation stock to support a market expansion philosophy with short lead times.” (Abrahamsson et al., 2003, p. 88) When the market environment is changing, logistics is needed as a resource base to support new marketing or production strategies. A cost and lead-time oriented logistics concept is not enough, (Abrahamsson et al., 2003). Subsequently, type three logistics must be able to support the firm in its strategic decisions. The logistics function should be able to support strategies such as: broadening of assortment, additional marketing channels, geographical expansion, support global customers, expansion by company acquisitions, and downsizing, (Abrahamsson et al., 2003). Table 4 summarises the characteristics of a logistics platform, or type three logistics, and what differs it from logistics of type one and two.

Table 4. Characteristics of the three types of logistics (Abrahamsson et al., 2003, p. 101)

<table>
<thead>
<tr>
<th></th>
<th>Type 1 Logistics</th>
<th>Type 2 Logistics</th>
<th>Type 3 Logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Focus</strong></td>
<td>Optimisation of logistics activities</td>
<td>Logistics structure</td>
<td>Dynamic capabilities</td>
</tr>
<tr>
<td><strong>Priorities in Logistics</strong></td>
<td>Internal efficiency and resource utilisation</td>
<td>Reduction of total logistics costs from economies of scale</td>
<td>Logistics as a resource base for new market positions and marketing strategies</td>
</tr>
<tr>
<td></td>
<td>Customer service related to geographical distance to customers</td>
<td>Customer service related to time to customer and availability</td>
<td>Develop new offers to key accounts</td>
</tr>
<tr>
<td><strong>Structure and Organisation</strong></td>
<td>Logistics tightly connected to production or sales</td>
<td>Centralised logistics, organisationally separated from production and sales</td>
<td>Centralised logistics responsibility in relation to the business system rather than the logistics system</td>
</tr>
<tr>
<td></td>
<td>Decentralised responsibility for design and control</td>
<td>Centralised responsibility for design and control of the logistics system - high degree of standardisation of processes</td>
<td>Standardised processes with adaptations to market segments</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Operational flexibility, e.g. The ability speed operations ona rush order</td>
<td>Operational flexibility from ability to respond to unique customer requirements</td>
<td>Strategic flexibility from ability to reposition faster and more cost-effective than competitors</td>
</tr>
</tbody>
</table>
Abrahamsson et al. define a logistics platform, as it is seen in type three logistics as “a homogeneous part of the logistics system, which a logistics organisation centrally manages and controls, and has the power to design in a way that it is a resource base for new market positions. The logistics platform includes concepts for logistics operations, a physical structure, processes and its activities as well as the information systems needed for design, operations and reporting.” (Abrahamsson et al., 2003, p. 104)

**Agile Logistics**

The tool used in the strategic moves that Abrahamsson et al. account for in type three logistics is often flexibility. A similar term is agility, which Christopher means is a “business-wide capability that embraces organisational structures, information systems, logistics processes, and, in particular, mindsets. A key characteristic of an agile organisation is flexibility.” (Christopher, 2000, p. 37)

According to Christopher, a marketing strategy that is to succeed on a volatile market must incorporate an agile supply chain strategy. As an example of an agile supply chain strategy Christopher uses the Spanish fashion company Zara, this case was introduced in section 1.2.2 of this thesis. In explaining the agile supply chain strategy pursued by companies such as Zara, Christopher presents a number of qualities that need to be obtained by firms embarking on an agile course. These companies need to be market sensitive, i.e. able to read and respond to real time demand; this could be seen as opposed to purely forecast-driven organisations. A road towards this state could be through the effective use of information technology through e.g. point of sales data. Second, as an effect of using information technology in such a manner the firm is able to create a virtual supply chain carrying information rather than stock. To be able to reach a state of a virtual supply chain, process integration between the participating parties is a prerequisite. This includes close cooperation between the buying and selling companies, and shared information. Christopher argues that process integration also creates a basis on which joint strategies can be formulated and with closely cooperating companies maybe even open-book accounting. These steps towards the agile supply chain also mean that the supply chain is rather to be seen as a network of actors. Seeing ones partners as linked together as a network is, according to Christopher, the fourth ingredient of agility, see Figure 4.
In relating Abrahamsson et al. (2003) to Christopher (2000) there is a connection in the terms flexibility and agility. Christopher discusses these aspects from a supply chain perspective whereas in Abrahamsson et al. focus is to a larger extent directed towards the firm.
4.2 Strategy

The resource-based view of the firm, the inside-out perspective, has the firm as starting point. From this perspective the strategy of the company should be built around the firm’s internal capabilities and competencies. The firm’s focus should subsequently be on the development of unique difficult-to-imitate competences. The resulting resource base should be used as the starting point for the strategy formation, see e.g. (Barney, 1991).

In positioning theory, the outside-in perspective of strategy, the company’s environment is seen as given. Depending on the competitive environment, the firm should form a strategy that allows it to compete successfully. One dominating proponent of this perspective is Porter, see e.g. (Porter, 1980; 1985) and one could also argue that theory on strategic positioning form a large part of the origins of modern strategy research.

4.2.1 Positioning Theory

The positioning theory takes stance in the environment of the firm. The determinants of a firm’s strategy are therefore sought mainly outside the firm’s boundaries. The most notable of the proponents of this view is Porter, see e.g. (Porter, 1980, 1985, 1996; 2001). Although there are other authors proposing this view, in this thesis Porter will be used as the only voice of this school of thought.

The Five Competitive Forces

According to Porter (1980), there are five main competitive forces that the firm must acknowledge. These are: threat of new entrants, bargaining power of buyers, threat of substitute products or services, bargaining power of suppliers and rivalry among existing firms, see Figure 5.

![Figure 5. The Five Competitive Forces (Porter, 1985, p. 6)](image-url)
The competitive forces determine the attractiveness of an industry, an important contributing factor to firm success. A common division of factors determining firm success from an outside in perspective is into an industry effect and a positioning effect. The former is determined by the five forces and the latter by the own firm’s position in that industry.

**Generic Strategies**

In the early positioning theory there are three basic generic strategies for a firm to position it in an industry. Figure 6 illustrates these three generic strategies.

![Three Generic Strategies](image)

*Figure 6. Three Generic Strategies (Porter, 1985, p. 12)*

The logic behind the generic strategies is that there are two basic determinants of long-term competitive advantage, namely cost leadership and differentiation. The combination of the firms’ low-cost or differentiation approach to the market and the scope of the market being targeted result in the three basic generic strategies seen in Figure 6, namely differentiation, overall cost leadership, and focus. The logic behind the differentiation strategy is to try to be perceived as unique by the customer. The uniqueness of the firm’s offering should then motivate a higher price than that being offered by the low cost rivals. Overall cost leadership is simply about offering something at a comparatively low cost and price. Both the differentiation strategy and the overall cost leadership strategy are directed to an industry-wide market. Either of the two strategies can also be directed to a particular segment and are then collectively termed focus strategies.

**The Value Chain**

The five competitive forces dealt with industry level issues, the generic strategies can be used to describe the firm’s strategy at an aggregated level, but to be able to pursue a strategy at all, the firm must execute a number of activities. Porter (1985) sets the activities in their context in the value chain, see Figure 7. The purpose of the value chain is to entangle a firm into the discrete activities it consists of in order to create an understanding of how these activities may be
performed in a cost-efficient or unique manner and thus create a competitive advantage. Value is what the customer is prepared to pay for what the firm is providing. Profit for the firm arises when the value exceeds the cost the firm has in performing the different activities in the value chain. The resulting margin is illustrated in Figure 7. There are two types of activities in Porter’s terminology: support activities and primary activities. Primary activities are involved in the physical making of the product and its transfer to the customer whereas support activities are those activities that enable the execution of the primary activities.

![Figure 7. The Value Chain (Porter, 1985, p. 37)](image)

The value chain is used to describe one firm or one SBU within a corporation. Naturally it is part of a larger system, which can be described as a chain of value chains, or as many argue, as a network. Porter chooses to visualise this more aggregate picture as a value system, see Figure 8.

![Figure 8. The Value System (Porter, 1985, p. 35)](image)

This theory, of the value chain and the value system, has, due to changes in the competitive environment and indeed in areas such as logistics, undergone changes during the last years. Today many firms, as can be seen earlier in this frame of reference, have discovered that they by the means of e.g. logistics can offer improved service to the customer at lower cost. This has earlier been seen as two opposing powers. Further, the developments in technology enabling the
disbundling of activities in time and space have made the notion of the chain as such questionable, see e.g. Normann (2001).

**Later Developments of the Positioning School of Thought**

Some argue that the success that during the 1980’s and 1990’s has been derived from developments in operations, see e.g. the Japanese car industry, has turned the attention away from strategy as positioning. One resulting stream of research is the inside-out perspective of strategy focusing on the firm’s internal capabilities. This will be discussed further ahead in the frame of reference. The response from the positioning theorists to this internal focus has been warnings of hyper competition as a result when businesses become more and more alike in terms of operations and thereby in their activity systems erasing their differences and hollowing out the profit margins. Porter (1996) argues that one shall not confuse operational effectiveness with strategy. He thereby takes a step away from his earlier theories according to which one can reach a sustainable competitive advantage by performing similar activities as one’s competitors in a more cost efficient manner and thereby pursue a strategy of overall cost leadership.

In Porter (1996) the positioning theory is defended from being out-dated by the last decade’s focus on operational effectiveness very much inspired by the Japanese industrial success. Opponents of positioning theory have argued that it is too static for today’s dynamic markets and changing technologies. With a decrease in regulations and technological development it is said that a strategic position is easily copied and that, subsequently, a competitive advantage based on positioning is, at best, only temporary. Porter is critical to management tools and techniques such as total quality management, time-based competition, and benchmarking. The reason for this is that he argues that the operational improvements achieved with theses techniques are rarely translated into sustainable profits since all competitors perform the techniques as well. It all boils down to the ways in which to perform activities. Operational effectiveness means performing similar activities better than the competitors perform them as opposed to strategic positioning, which means performing different activities from the competitors or performing similar activities in different ways.

Porter (1996) names two main reasons why improvement in operational effectiveness is necessary but not sufficient for sustained profitability: Firstly, there is a rapid diffusion of best practises; a high operational effectiveness is simply easily copied. Secondly, the more management tools and techniques the companies are pursuing the more similar they all become. This results in a competitive convergence whose final result could be hyper competition in a business where no one makes money. An example of this could be the large retailers of home electronics whose profit, if there is any, does not come from selling products; instead, the money comes from insuring and financing the products sold.
Strategy, from a Porter perspective, rests upon unique activities. To outperform ones competitors one should deliberately choose a different set of activities than those of the competition and thereby deliver a unique mix of value. Such a strategic position can come from, according to Porter (1996), three distinct sources which he name:

- Variety-Based Positioning
- Needs-Based Positioning
- Access-Based Positioning

Variety-based positioning means producing a subset of an industry’s products or services, (Porter, 1996). This can be exemplified by Jet, the European subsidiary of the U.S.-based oil company ConocoPhillips. Jet offers petrol only at its unmanned petrol stations. By not offering other services and products associated with petrol stations Jet can offer petrol at a very competitive price to those customers who are willing to trade off the comfort of checking tyre pressure, oil level, and buying food at the petrol station.

Needs-based positioning is about serving most or all needs of a particular group of customers, (Porter, 1996). This type of positioning is appropriate when there are groups of customers displaying differing needs, which can be served with a tailored set of activities. Porter’s own example of this is IKEA. The Swedish chain of furniture stores aims at fulfilling all furniture needs of its customer group, not only a subset of them. The customer who seeks affordable, modern furniture, and is willing to trade off in-store service, free home delivery, and furniture mounting to lower prices can fulfil all furniture needs at IKEA.

Lastly, access-based positioning is about segmenting customers who are accessible in different ways. These customers have needs that are similar to other customers but there is a different set of activities needed in order to reach this group. As an example, the Swedish banking company Skandiabanken offers similar financial services as their competitors, but only to those customers who prefer to handle their banking business over the phone or the Internet.

These three, sometimes overlapping, sources of strategic positioning, come from a development of the three generic strategies presented in Competitive Strategy, (Porter, 1980). Porter argues that the bases for positioning – varieties, needs, and access – carry the understanding of the original generic strategies to a greater level of specificity.
4.2.2 The Resource-Based View of the Firm

In this section the resource-based view of the firm will be discussed from a logistics perspective. Traditionally, logistics has been viewed from a positioning perspective when discussed in relation to strategy theory, see e.g. Persson (1991). However, it has been recognised that a resource-based view of logistics’ role in the firm could be favourable to explore, see e.g. Olavarrieta and Ellinger (1997).

The resource-based view of the firm has its origins in the work of Penrose (1959) but remained largely untouched until the late 1980s when it was popularised by Hamel and Prahalad (1990). The later development of resource-based theory came about as a criticism against the positioning theory’s inability to explain two critical issues:

- Why do some companies in similarly attractive industries display differing performance?
- Why do some companies in industries of differing attractiveness display similar performance?

(Olavarrieta and Ellinger, 1997, p. 560)

Since these issues could not be explained by factors external to the firm it gave growth to a theory based on factors internal to the firm, the resource-based theory.

Firms as Bundles of Resources

The fundamentals of resource-based theory build on an assumption that a firm is a bundle of resources, (Penrose, 1959), and that the competitiveness of the firm can be derived from these resources. Wernerfelt defines resources as “those (tangible and intangible) assets which are tied semi-permanently to the firm” (Wernerfelt, 1984, p. 172). Examples of resources, as seen by Wernerfelt, are brand names, capital, efficient procedures, in-house knowledge of technology, employment of skilled personnel, machinery etc. Since the publication of Wernerfelt’s seminal article there have been presented a number of definitions of resources. Olavarrieta and Ellinger (1997) divide resources into three categories: input factors, assets, and capabilities.

- Input factors are, according to Olavarrieta and Ellinger, generic resources that can be acquired on a market. From a logistics perspective, input factors can be raw factors; e.g. forklift trucks, warehouse racking, and packaging materials; or raw skills; e.g. loading and driving skills, picking skills, and computer skills. The input factors contribute to the outputs of the firm as they are transformed or applied and are consequently part of the firm’s assets or capabilities.

- Assets are stocks of factors, which are owned or controlled by the firm. Examples of logistics-related assets are, according to Olavarrieta and Ellinger, warehouses, plants, fleets, and EDI computerised networks.
Olavarrieta and Ellinger use the definition of capabilities presented by Day, namely that “capabilities are complex bundles of skills and accumulated knowledge, exercised through organizational processes, that enable firms to coordinate activities and make use of their assets.” (Day, 1994, p. 38) Examples of capabilities could, according to Olavarrieta and Ellinger, be ability to work in teams, ability to manage supplier relationships, and technological abilities. A popularly used example is that of Wal-Mart’s cross-docking distribution system; see e.g. Stalk et al. (1992).

A distinction between assets and capabilities is given by Day (1994) stating that capabilities are different from assets in that they cannot be given a monetary value. Further, capabilities are so rooted in organisational routines and practises that they cannot be bought, sold, or imitated. Grant (1991) argues that on their own, few resources are productive. Productive activity is established when coordination and cooperation of teams of resources is accomplished. A capability “is the capacity for a team of resources to perform some task or activity.” (Grant, 1991, p. 119). According to Grant, resources can be seen as the source of a firm’s capabilities, and the capabilities, in turn, are the source of a competitive advantage.

Naturally, there is no distinct definition, differing capabilities from other resources. Barney (1986) introduces the concept of strategic factor markets in which firms can trade strategic factors, such as technological know-how through acquisitions of research intensive firms. However, as Dierickx and Cool (1989) propose, strategic factor markets are incomplete implying that it is not always possible to acquire strategic factors; an example of a strategic factor that is difficult to acquire is firm reputation. In Barney (1991) it is acknowledged that resources are heterogeneously distributed among competing firms and that mobility barriers result in making certain resources unique to one or a small number of firms.

In summary, resource-based theory says that firms are bundles of resources. These resources can take the form of input factors, assets, and capabilities. Input factors can always be acquired in a market, something that is also true for many assets. Capabilities however, are often difficult to give a monetary value and acquire on a market. It is in a competitive firm’s capabilities that one, according to resource-based theory, can find capabilities that are the roots of the competitive advantage of the firm.

Capabilities as discussed by Olavarrieta and Ellinger (1997) are not necessarily always roots to a firm’s sustainable competitive advantage. Therefore, there needs to be a discussion on, firstly what constitutes a sustainable competitive advantage, and secondly which resources; and in Olavarrieta and Ellinger’s terminology, more specifically capabilities; that can be the roots to a sustainable competitive advantage.
Defining Sustainable Competitive Advantage

A successful strategy must enable a sustainable competitive advantage for the firm. Sustainable competitive advantage is “an advantage over competitors that is not easily duplicated or countered” (Aaker, 1989, p. 91). This definition may be seen as somewhat vague since it does not reveal anything as regards what is meant by easily duplicated or countered. Barney (1991) discusses the term as a twofold problem; firstly, what is a competitive advantage, and secondly what is a sustainable competitive advantage? Barney argues that a competitive advantage for the firm is reached when “it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors” (Barney, 1991, p. 102). Barney further defines a sustainable competitive advantage as “when it (the firm) is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy”, (Barney, 1991, p. 102).

Also in Barney’s definition it is not clear what is meant by sustainable. However, in discussing the definition, Barney argues for two ways of defining sustainable; either as a long period of calendar time, as seen by Porter (1985), or as survival after attempts of competitive duplication. This latter way of defining sustainable does not incorporate calendar time, instead it describes a state of equilibrium. The stance taken in this thesis is that of competitive duplication. A sustainable competitive advantage is an advantage that remains after attempts of competitive duplication have ceased.

Resources for a Sustainable Competitive Advantage

In resource-based theory, as in any area of research, there is a multitude of definitions and different opinions on the definition of terms. In this section resources for a sustainable competitive advantage will be discussed. Some authors choose to use the terms capabilities or distinctive capabilities for that sub-group of resources that can be the sources of a sustainable competitive advantage. The reader should therefore note that in the following, resources, capabilities, and distinctive capabilities may be used interchangeably, however always referring to that sub-group of resources that can constitute a sustainable competitive advantage.

In order to be part of the competitive advantage of a firm the resource must be perceived as important, valuable and unique by the customer, and also difficult to imitate by the competition. Barney (1991) argues that to hold the potential of delivering a sustainable competitive advantage, a firm resource must possess four attributes:

(i) “it must be valuable, in the sense that it exploit opportunities and/or neutralizes threats in a firm’s environment,

(ii) it must be rare among a firm’s current and potential competition,
(iii) it must be imperfectly imitable, and
(iv) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable.”

(Barney, 1991, pp. 105-106)

Barney chooses to use the wider term resources in discussing the roots of competitive advantage; in the terminology of Olavarrieta and Ellinger (1997) resources include input factors, assets, and capabilities. The attributes set by Barney delimits the resources discussed at least to the extent that they do not include input factors. An assumption made by Barney is also that resources are heterogeneously distributed among firms and that they stay so over time, i.e. they are immobile.

According to Barney, resources are valuable when they enable a firm to implement a strategy that improves its efficiency and effectiveness. A connection to the positioning perspective of strategy can be made in that valuable resources help either to exploit opportunities or neutralise threats in the environment, (Barney, 1991). Definition-wise, a resource must be rare in order to deliver a competitive advantage. If the resource is available to all or a large number of firms it can give no one firm a sustainable competitive advantage. Also in order to maintain sustainability in the competitive advantage, the resources used in the strategy must be imperfectly imitable. In other words, it should be difficult or impossible for the competition to replicate the resource. The causes of imperfect imitability can be history dependent, due to causal ambiguity, or social complexity (Barney, 1991). History dependent imperfect imitability depends on unique historical conditions for a specific firm making that firm’s resources difficult for the competition to imitate. An example could be a firm that has obtained a geographical location that turns out to be unique and valuable at a time after the acquisition of the piece of land. When there is a not very well understood link between a firm’s resources and its sustainable competitive advantage one speaks of a causal ambiguity that can protect the resource from imitation. A last cause of imperfect imitability is social complexity. This is when the firm’s resources consist of very complex social phenomena, such as the interpersonal relations between the managers of the firm or the reputation held by the firm by its customers, (Barney, 1991). If a resource could be substituted by another resource in order to pursue the very same strategy one has a situation of substitutability, (Barney, 1991). In this case it does not matter if the resource is rare and imperfectly imitable since another resource, or bundle of resources, can be used to pursue that same strategy. The connection from resources to a sustainable competitive advantage as seen by Barney (1991) is illustrated in Figure 9.
Stalk Jr. et al. (1992) depart from a business process perspective in discussing capabilities-based competition. They mean that as the business environment becomes increasingly dynamic, so is the strategy. Competition has become a “war of movement” (Stalk Jr. et al., 1992, p. 62) in which the winner is the firm that manages to anticipate and fulfill the ever-changing customer needs. In such a fast-changing environment “the essence of strategy is not the structure of a company’s products and markets but the dynamics of its behaviour.” (Stalk Jr. et al., 1992, p. 62) The consequent goal for the firm then becomes to identify and develop organizational capabilities that distinguish it from the competitors. Stalk et al (1992) argue for four basic principles of capabilities-based competition:

(i) “The building blocks of corporate strategy are not products and markets but business processes.

(ii) Competitive success depends on transforming a company’s key processes into strategic capabilities that consistently provide superior value to the customer.

(iii) Companies create these capabilities by making strategic investments in a support infrastructure that links together and transcends traditional strategic business units and functions.

(iv) Because capabilities necessarily cross functions, the champion of a capabilities-based strategy is the chief executive officer.”

(Stalk Jr. et al., 1992, p. 62)

Another view of what type of resources that can enable a sustainable competitive advantage is given by Day (1994). Day argues that far from all capabilities of a firm can be said to be part of the firm’s sustainable competitive advantage. Only a few capabilities, so-called distinctive capabilities are part of the sustainable competitive advantage. According to Day, distinctive capabilities are characterised by:

- supporting the market position of the firm
- being difficult for the competition to imitate or match
• delivering a disproportionate contribution to the provision of superior customer value
• being robust and possible to use on different markets and aid the firm in adapting to environmental change

(Day, 1994)

If a distinctive capability spans several lines of business in a corporation, Day (1994) terms it a core competence. The same terminology is used by Prahalad and Hamel (1990; 1992; 1994). The core competence, from Prahalad and Hamel’s perspective, can be seen as the collective learning in the firm (Prahalad and Hamel, 1990). Keywords are coordination and integration since it is seen as important to let knowledge and talent travel over functional borders as well as between business units. Prahalad and Hamel describe the role of core competence in the firm in a very colourful manner:

“The diversified corporation is a large tree. The trunk and major limbs are core products, the smaller branches are business units; the leaves, flowers, and fruit are end products. The root system that provides nourishment, sustenance, and stability is the core competence.” (Prahalad and Hamel, 1990, p. 82)

They define three key conditions that need to be fulfilled in order to be able to call a competence strategic, or core:

(i) “A core competence provides potential access to a wide variety of markets.

(ii) “A core competence should make a significant contribution to the perceived customer benefits of the end product.”

(iii) “A core competence should be difficult for competitors to imitate.”

(Prahalad and Hamel, 1990, pp. 83-84)

Figure 10 describes the connections between core competence and end products in the diversified corporation, as seen by Prahalad and Hamel. Based on a firm’s core competencies there are core products. An example could be Canon and its expertise in precision mechanics, fine optics, and microelectronics. These core competences are translated in a number of core products; in Canon’s cases these are small optical units dependent on both precision mechanics and microelectronics. The different businesses within Canon then use these core products for as diverse end products as cameras and copiers.
Configuring the Organisation for Competition Based on Resources

To configure the organisation for core competence one has to switch from a focus on a portfolio of business units (in the case of the diversified corporation) to a focus on a portfolio of core competencies, (Prahalad and Hamel, 1990). The competition on core competencies is, according to the authors, fought on three levels: core competencies, core products, and end products, see Figure 10. The distinction between the three levels is important, the authors argue, since the rules of competition are different at each level. This distinction is however not put forward by Day (1994).

Core competencies need to be identified and cultivated. The goal at this level is to build world-leadership in design and production of a particular product functionality, (Prahalad and Hamel, 1990). This might be precision mechanics, fine optics, and microelectronics as in the Canon example. It could also be engine, and power train technology as in the case of Honda.

Core products are vital in the respect that they can be the main motors of profitability. Although Canon only has a miniscule market share in desktop laser printers as a brand, their core product the laser printer “engine” is present in 84% of the world’s production of laser printers, (Prahalad and Hamel, 1990). The goal at this level is to maximise the world-manufacturing share. To produce core products for both internal and external customers (often competitors on the end-product level) enables economies of scale and gives market feedback that enables further development of the core competencies.

Prahalad and Hamel argue that in many cases of competition based on core competence, the firm has started off by focusing on competence, embedding it into core products. From this position,
with advantages in component markets, they have leveraged off into the end-product market. Here, it is interesting to note a major difference between the inside-out perspective and the outside-in, or positioning perspective (Porter, 1985). Whereas in the latter case, strategy largely is about matching end products with market position the inside out perspective, as seen by Hamel and Prahalad, sees the end-products as secondary.

It is clear which the objectives at each level; core competence, core product, and end product; are. It is however, less clear how the firm can develop a strategic architecture for achieving those objectives. According to Hamel and Prahalad, that architecture is very much firm specific although they argue that the picture of the diversified corporation as a tree is helpful in designing such architecture. Stalk Jr. et al.(1992) emphasise that organisationally the chief executive officer is key in capabilities-based competition since capabilities necessarily cross functional borders.

Hamel and Prahalad (1990) argue for looking at the traditional borders between SBUs in the diversified corporation in a new manner. The authors do not argue that these borders together with the SBUs should be abandoned. Instead they argue that it should be encouraged that competence travels over the borders. Traditionally, managers at SBU level need to compete for corporate cash; from Hamel and Prahalad’s standpoint they should instead compete for key people.

In Day (1994), the notions of assets, capabilities, core competence, and distinctive capabilities are brought together, see Figure 11. The resources of the firm are here divided into business assets, capabilities of the business, and, at a more aggregated level, core competencies of the corporation. From these resources can be extracted a few distinctive capabilities, which result in positions of advantage on the market.

![Figure 11. Sources of Competitive Advantage and Superior Performance (Day, 1994, p. 40)](image-url)
5 The Ahlsell Case

The history of Ahlsell starts 1877 with the foundation of Bernström & Co, a firm selling pumps and threshing machines. A number of mergers are made in the thereafter-following decades and the company also undergoes restructuring. In 1937 the first attempts to create a centralised department for purchasing of heating equipment are made. During the 1950s the decentralised organisation focusing on being close to the customer is introduced; a philosophy present also today. In the 1960s the Ahlsell & Ågren stock is noted at the Stockholm Stock Exchange and in the following ten years expansion outside Sweden is made. During this time focus is also directed towards the opening of local sales branches in order to come closer to the market. In the 1980s the company leaves the Stockholm Stock Exchange. In 1986 Boliden acquires Ahlsell and one year later, in 1987, Trelleborg acquires both companies. In 1988 the new owner decided to build a central warehouse in Hallsberg; the warehouse was opened in 1990.

In the years to come a large number of acquisitions are made. Between 1996 and 2003, 18 acquisitions are made both within and outside of Sweden. In 1998 Ahlsell opens its E-commerce solution, which today constitutes 8% of the total sales volume (sales via either the Ahlsell website or EDI). From 1999 the company has a new main owner through Nordic Capital but Trelleborg remains a large shareholder.

Today Ahlsell is a wholesale concern consisting of five divisions: Plumbing/Heating, Electrical, Refrigeration, Tools and DIY-activities. The annual turnover is ca SEK 10,000 million with an EBITA of approximately SEK 500 million. There are ca 3,000 employees.

In most of Ahlsell’s market segments there have been an increase in sales during the last years. Table 5 shows Ahlsell’s turnover and result development for the years 1994-2003. The many acquisitions made have a large part in the increase in sales. Table 6 illustrates the development during the years 1999-2003 in closer detail.
Table 5. Ahlsell’s turnover and result 1994-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>MSE K</th>
<th>MSE K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Ahlsell’s financial development during the years 1999-2003

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Turnover, SEK million</td>
<td>6,837</td>
<td>7,411</td>
<td>8,589</td>
<td>10,069</td>
<td>9,883</td>
</tr>
<tr>
<td>Result (EBITA), SEK million</td>
<td>254</td>
<td>385</td>
<td>417</td>
<td>394</td>
<td>455</td>
</tr>
<tr>
<td>Change in Turnover, %</td>
<td>28</td>
<td>8</td>
<td>16</td>
<td>17</td>
<td>-2</td>
</tr>
<tr>
<td>Profit Margin (ROS), %</td>
<td>3.7</td>
<td>5.2</td>
<td>4.9</td>
<td>3.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Solidity, %</td>
<td>21.6</td>
<td>24.5</td>
<td>22.4</td>
<td>22.9</td>
<td>26.9</td>
</tr>
</tbody>
</table>

5.1 Content

The business concept of Ahlsell is to…

“…create efficient trade for installation products and industry supplies for professional users in the Nordic countries.” (Ahlsell, 2003b, p. 3) (Translated from Swedish by the author)

The vision and goal is stated as:

“Ahlsell shall within each market segment be the customers’ obvious choice as a stable and long-term supplier and cooperation partner. The overall goal of the concern is to create high and stable growth and profitability. The ambition is to, through organic growth and growth through acquisitions, become one of the leading actors in all market segments in every Nordic country.” (Ahlsell, 2003b, p. 3) (Translated from Swedish by the author)
5.1.1 An Acquisition Strategy

The officially stated strategy of Ahlsell is formulated as:

“Unique product breadth, local presence, high competence, and efficient logistics and administration is Ahlsell’s strategy to offer a high level of customer service and to create high profitability.”

(Ahlsell, 2003b, p. 3)

The product breadth that Ahlsell offers is evident through the more than 100,000 articles kept in stock. Ahlsell claims to be the only Swedish wholesaler offering a product range covering all aspects of installations. Since the 1950s, local presence has been high on the agenda for Ahlsell. The stated reason for this is that local presence enables the firm to know the local market in order to understand the customers’ needs and win the customers’ trust. The continued expansion of Ahlsell is aimed at coming closer to even more customers on new locations. The concerns’ local units have a high degree of independence with a clear responsibility for profitability. Ahlsell claims itself to possess a high competence in the products on offer to the customers; this in order to supply qualified advice. The company’s personnel are continuously trained in the Ahlsell Academy. The centralised logistics platform serves as a hub in the concern’s activities with central warehousing on a few locations in the Nordic countries. Through direct deliveries to the customers from the central warehouses, Ahlsell can guarantee delivery on time. Further, the central warehousing also means economies of scale and thus a high profitability. In each country, Ahlsell aims at doing business in one legal entity where the logistics, IT, and administrative systems are common for the whole operation. The acquisitions are central to the attainment of the concern’s goals of high stable growth and profitability. The acquisitions are also aimed at improving Ahlsell’s local competitiveness and presence.

The intention to grow through acquisitions is emphasised in the Ahlsell information material:

“Growth, organically and through acquisitions, is important in order to achieve further synergies, higher accessibility, better customer service, and increased profitability. Ahlsell is organised for decentralised decision making with result units that independently work towards the concern’s financial goals.” (Ahlsell, 2003b, p. 3) (Translated from Swedish by the author)

5.1.2 On How Ahlsell Came to Focus on Acquisitions

Ahlsell’s present strategy can be traced back to 1995. At that time the turbulence caused by the centralisation five years earlier had ceased. The logistics platform had found its position in the organisation and it was time to see which strategic direction Ahlsell should take.
Leif Christensson, the vice president of logistics, recalls that there was a discussion on the future strategy that led to the realisation that the strengths of Ahlsell were in logistics and administration.

“We realised that we were more efficient than our competitors.”

(The author’s translation from Swedish)

At that time Ahlsell had a turnover of about SEK 4,000 million and there was an understanding that the company needed to grow. The management believed that there was no money to be made by being number four or five on the market. Ahlsell needed to be number one or two. This led to an aggressive strategy of acquisitions based on the strengths in logistics and administration. Between the years 1996 and 2002 the concern acquired 18 companies; see Table 7. The acquisitions are made in order to enable the growth into a larger market.

Table 7. Ahlsell’s acquisitions 1996-2002 (ahlsell.com)

<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Country</th>
<th>Product Area</th>
<th>Turnover in SEK million*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Gelia</td>
<td>Sweden</td>
<td>DIY</td>
<td>180</td>
</tr>
<tr>
<td>1997</td>
<td>Tornab</td>
<td>Sweden</td>
<td>Heating and Plumbing</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Landol</td>
<td>Sweden</td>
<td>Heating and Plumbing</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Skoogs El</td>
<td>Sweden</td>
<td>Electrical</td>
<td>1,200</td>
</tr>
<tr>
<td></td>
<td>Hilco Kulde</td>
<td>Norway</td>
<td>Refrigeration</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>PeFo</td>
<td>Norway</td>
<td>DIY</td>
<td>25</td>
</tr>
<tr>
<td>1998</td>
<td>VVS-Trading</td>
<td>Denmark</td>
<td>DIY</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Värmekällan i Östersund</td>
<td>Sweden</td>
<td>Heating and Plumbing</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Storm Elektro</td>
<td>Norway</td>
<td>Electrical</td>
<td>200</td>
</tr>
<tr>
<td>1999</td>
<td>Suomen LVI-Tukku</td>
<td>Finland</td>
<td>Heating and Plumbing</td>
<td>1,200</td>
</tr>
<tr>
<td></td>
<td>Sjörlie &amp; Birch</td>
<td>Norway</td>
<td>Heating and Plumbing</td>
<td>70</td>
</tr>
<tr>
<td>2000</td>
<td>Sinex</td>
<td>Norway</td>
<td>Electrical, Heating and Plumbing</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Elektroskandia</td>
<td>Sweden</td>
<td>Heating and Plumbing</td>
<td>180</td>
</tr>
<tr>
<td>2001</td>
<td>Ventilation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Triator Isoler</td>
<td>Sweden</td>
<td>Heating and Plumbing</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Tibnor Industrivarhus</td>
<td>Sweden</td>
<td>Tools and Machinery</td>
<td>1,300</td>
</tr>
<tr>
<td>2002</td>
<td>K Lund Engros</td>
<td>Norway</td>
<td>Heating and Plumbing</td>
<td>340</td>
</tr>
<tr>
<td>2004</td>
<td>TotalPartner Optimera</td>
<td>Sweden</td>
<td>Tools and Machinery</td>
<td>440</td>
</tr>
</tbody>
</table>

*Estimated yearly turnover at time of acquisition

Ahlsell states that the focus in acquisitions is directed towards independent wholesalers only conducting business in a single Nordic country and not aiming at a pan-Nordic expansion. These companies are part of what Ahlsell calls the non-consolidated part of the market; see Table 8. The table shows that, in Ahlsell’s judgement, the markets with the highest degree of unconsolidated acquisition candidates are to be found outside of Sweden in the other Nordic countries.
Table 8. The degree of consolidation in Ahlsell’s areas of business in the Nordic countries (ahlsell.com)

<table>
<thead>
<tr>
<th>Location</th>
<th>Electrical</th>
<th>Plumbing Heating</th>
<th>Refrigeration</th>
<th>Tools and Machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>&lt;10%</td>
<td>&lt;10%</td>
<td>appr 30%</td>
<td>appr 80%</td>
</tr>
<tr>
<td>Denmark</td>
<td>appr 40%</td>
<td>ca 55%</td>
<td>&lt;10%</td>
<td>appr 30%</td>
</tr>
<tr>
<td>Norway</td>
<td>&lt;10%</td>
<td>appr 45%</td>
<td>appr 55%</td>
<td>appr 80%</td>
</tr>
<tr>
<td>Finland</td>
<td>&lt;5%</td>
<td>&lt;5%</td>
<td>&lt;10%</td>
<td>appr 70%</td>
</tr>
</tbody>
</table>

In the acquisitions cost savings are reached through the synergy effects coming from the coordination of logistics and administration. The company’s Logistics manager Leif Christensson even argues that the savings reached in logistics and administration finance the acquisitions as such. Göran Näsholm exemplifies with the acquisition of Tibnor a company that at the time of the acquisition had a turnover of SEK 1,300 million and a profit of SEK 30-40 million. In integrating Tibnor in the Ahlsell logistics platform, synergies of SEK 90 million were established. Näsholm argues that strategically, Ahlsell uses logistics as a means to create an efficient corporation.

During the 1980s and 1990s, there was a widespread belief that the construction and installation industry would move towards a state of being dominated by major installation companies, which would take over the position of the builder, which in turn would be a sub contractor to the installation company. That was the reason why Ahlsell built up a business in electrical installation equipment. In 1997, through the acquisition of Skoogs, Ahlsell became the largest supplier of electrical installation equipment in Sweden. Now, the company has a solid position of being number two.

After that, the company made investments in refrigeration. This is a market displaying considerable growth due to the increased demand of refrigeration not only in commercial buildings but also in private homes.

Göran Näsholm further claims that Ahlsell is good at looking into the future. “A lot of today’s Ahlsell is founded on insightfulness during the 1970s to a large extent inspired by the USA. This resulted in our investment in retailing. In the USA at least 50% of the flow of goods passes through traditional resellers. A few years ago Sweden was seen as virgin territory in that respect. That was before Bauhaus and the other giants established themselves in the country.” To meet this new competition Ahlsell acquired Gelia; it would be too risky market strategically to compete with these new actors under the Ahlsell brand name.

From this position Ahlsell had four areas of business: plumbing/heating, electrical, refrigeration, and DIY-activities. It should be noted that DIY is not a product-group on its own; it is rather a market channel incorporating products from Ahlsell’s other product-groups.
When Tibnor, a group of 28 so-called industry supermarkets, was for sale Ahlsell saw an opportunity to enter the market of tools and machinery. The Tibnor chain was acquired in 2001. This acquisition gave Ahlsell a fifth area of business in a market that was highly fragmented. The assortment of Tibnor cut across heating/plumbing, electrical and refrigeration, all the existing product groups Ahlsell had. This meant an enormous strengthening of the company market-wise and further meant large cost savings in logistics and administration.

This wide product portfolio is now used in the marketing. Clein Johansson, vice president of sales, views Ahlsell’s strategy as consisting of the focus on being the complete supplier. On his behalf this results in the goal of maximising the possible deliveries to the market segments. The measuring of Ahlsell’s market share per market follows up the goal of maximising possible deliveries. Lars Svensson, vice president of procurement, views Ahlsell’s breadth of products on offer, the central warehousing, and the local presence as important building blocks of the company’s strategy. The wide product portfolio as well as the local presence are in fact effects of the acquisitions made during the last ten years.

Göran Näsholm sees Ahlsell as a company that has reached a level of maturity in Sweden. The company has a position as number one in heating and plumbing, number two in electrical and refrigeration, and number one in tools and machinery. Despite these figures, Ahlsell controls no more than 25% of each market with heating and plumbing as an exception, where the market share is 40%. It is thus a fragmented market. The future expansion will more likely take place in the other Nordic countries. As mentioned before, Ahlsell pursues an acquisition strategy focusing on independent wholesalers only conducting business in a single Nordic country and not aiming at a pan-Nordic expansion.

5.1.3 The Acquisition Process

Ahlsell actively searches the market for candidates to be bought. Göran Näsholm says that the negative aspect of being the actively seeking party in acquisitions is that the price tag for the acquisition is slightly higher than otherwise. This, however, is seen as a minor drawback only. Since the company is very open with its intentions to grow through acquisitions both company owners interested in selling their businesses and corporate broker promoting acquisition objects contact Ahlsell.

The first consideration made in determining whether an acquisition is worthwhile or not is market-based. It is determined whether the acquisition of a certain firm may strengthen Ahlsell market-wise. An example of this could be geographical coverage. However, it is not believed that there are synergies to be made on the market-side. Göran Näsholm states:

“Acquisitions where the synergies are on the cost-side are highly prioritised before the ones with synergies on the market-side.” (The author’s translation from Swedish)
After the decision has been made to try to buy a business, the costs for logistics and administration at the to be acquired company are scrutinised. It should here be emphasised that once the market-considerations have been made and a “go” for a continued evaluation of an acquisition object has been agreed upon internally, market-considerations are not further made and consideration in logistics and administration determine the outcome of the rest of the process.

Sometimes complex and expensive calculations of the performance of the acquisition candidates have been made. Göran Näsholm points out that due to the massive experience within Ahlsell from acquisitions these investigations often come to the same results as he and the vice president of finance, Gunnar Haglund, come to based on sheer experience. He concludes that the formal investigations therefore only confirm what they already know but that they are sound to use as a basis for the board’s decision to buy a company.

After the decision to acquire has been made, the time plan for the integration into the Ahlsell platform is tight. Normally, the management of the acquired company is given notice at an early stage. The administrative and logistics functions are integrated into the Ahlsell platform at a fast pace. Normally the personnel in the acquired company are aware that once Ahlsell has acquired them, sales people are kept whereas administrative personnel and logistics personnel are made redundant and the functions are moved to Hallsberg. Göran Näsholm puts it as follows:

“Once we have decided to acquire, we move on in a very fast pace. In the acquisition strategy we aim to integrate the acquired company fully within twelve months from the acquisition date. The associated risks make us do this. Say that a to be acquired company has 160 employees; then normally, about 60 of them must leave. Naturally, the motivation among the employees is not the best. Therefore, we need to move fast.” (The author’s translation from Swedish)

The process of integrating the acquired company is pursued in project groups, normally in the areas logistics, administration, sales, and procurement. One or two people lead each project and there are checklists on what needs to be done. An example of a major issue to deal with is conversion of registers; an acquisition could mean 20,000 new customers and 10,000 new articles. The process described is further illustrated in Figure 12.
5.2 Outer Context

Ahlsell state that their market is:

“professional users of goods and related services in the areas heating and plumbing, electrical, tools and machinery, refrigeration, and DIY (do it yourself).” (Ahlsell, 2003b)

Since 80% of Ahlsell’s sales are in the areas electrical and heating and plumbing, Ahlsell is dependent on investments in industry and construction. However, the growth of Ahlsell’s market has, for a number of years, exceeded the increase of investments in industry and construction as well as the general GDP increase. This is due to two main factors: Firstly, there has been a structural change in the market with an increase in the ratio of sales going through wholesalers such as Ahlsell. Secondly, there has been an increase in the design and technology content in the areas electrical, and heating and plumbing resulting in an increased price level in those areas. The area of refrigeration is largely dependent on the construction industry. Since there is an increase in the demand of climate control in public as well as in private buildings the area has a market increase exceeding the average of the construction sector. The business area tools and machinery follows the traditional industry in terms of market changes. This has resulted in poor development for a number of years. The DIY-market is not very sensitive to the general economic state; instead, it is dependent on an increased general interest in DIY activities. There has been an increase in this market for a number of years.
Ahlsell pursues its business in the Nordic countries. Table 9 shows how large the Nordic markets for Ahlsell’s products, excluding DIY, are.

Table 9. The Nordic wholesale market 2003, SEK million (DIY-market excluded) Ahlsell annual report (2003a, p. 6)

<table>
<thead>
<tr>
<th>Country</th>
<th>Electrical</th>
<th>Plumbing Heating</th>
<th>Refrigeration</th>
<th>Tools and Machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>8,800</td>
<td>8,300</td>
<td>600</td>
<td>11,000</td>
</tr>
<tr>
<td>Denmark</td>
<td>6,100</td>
<td>6,800</td>
<td>400</td>
<td>6,500</td>
</tr>
<tr>
<td>Norway</td>
<td>7,100</td>
<td>6,000</td>
<td>350</td>
<td>5,000</td>
</tr>
<tr>
<td>Finland</td>
<td>5,000</td>
<td>6,600</td>
<td>350</td>
<td>6,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>27,000</strong></td>
<td><strong>27,700</strong></td>
<td><strong>1,700</strong></td>
<td><strong>28,500</strong></td>
</tr>
</tbody>
</table>

Table 10 shows Ahlsell’s market share on the Nordic markets, as estimated by Ahlsell. As can be seen, Ahlsell’s relative position is strongest in Sweden; 70% of Ahlsell’s sales are on the Swedish market. According to Göran Näsholm, Ahlsell’s position on the Swedish market will probably be very stable during the years to come whereas the company expects to gain market shares in the other Nordic countries.

Table 10. Ahlsell’s Market Share on the Nordic Market, approximate figures, Ahlsell annual report (2003a, pp. 23-28)

<table>
<thead>
<tr>
<th>Country</th>
<th>Electrical</th>
<th>Plumbing Heating</th>
<th>Refrigeration</th>
<th>Tools and Machinery</th>
<th>DIY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>25%</td>
<td>40%</td>
<td>25%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>Denmark</td>
<td>&lt; 5%</td>
<td>&lt; 5%</td>
<td>30%</td>
<td>N/A</td>
<td>30%</td>
</tr>
<tr>
<td>Norway</td>
<td>5%</td>
<td>10%</td>
<td>15%</td>
<td>N/A</td>
<td>20%</td>
</tr>
<tr>
<td>Finland</td>
<td>N/A</td>
<td>20%</td>
<td>20%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The positions on the Norwegian and Finnish markets have been partially gained through acquisitions. The Danish subsidiary is however a green field project with Ahlsell setting up a completely new operation in the country.
5.2.1 Market Trends

There are three major shifts in the market that will be discussed: increased product assortment, consolidation, and lead-time reduction.

Increased Product Assortment

The earlier discussed increased demands on design and technology content in the areas electrical and heating and plumbing, result in an increase in the product assortment of wholesalers as Ahlsell. This can be seen i.e. in the fact that Ahlsell today keeps 120,000 articles in stock as compared to 50,000 articles ten years ago. Another reason for the increase in product assortment is the geographical expansion of many wholesalers, including Ahlsell. With the establishment of a subsidiary in a new country follows that new products, fulfilling the requirements of national standards (or traditions), need to be introduced. Further, the increased demand of a broader product line has also resulted in a need to acquire other wholesalers in order to broaden the assortment.

Consolidation

From having been a very fragmented market there has been a shift towards fewer and bigger actors on the market. This is especially true in Sweden; in the other Nordic countries the market is more fragmented but with the same trend of consolidation. Figure 13 illustrates the market structure of both Ahlsell and Bergman & Beving, the other case company in this thesis.

Figure 13. The Market Structure

At the manufacturer level there are large global actors. The market is fragmented but there is a trend towards consolidation. Ahlsell believes that this trend is especially strong in the electrical area since the products in this area are highly standardised.

At the supplier level, the market is regional and dominated by a few large actors. Ahlsell is one of the largest actors. Göran Näsholm, the president of Ahlsell, argues that Ahlsell is number one on the markets of tools and machinery, and heating and plumbing and number two on the markets of electrical and refrigeration. The market of tools and machinery is the most fragmented one, which can be illustrated by the fact that Ahlsell being number one is ten times as big as number two on the market and still controlling less than 20% of the market. Table 11 shows an estimate (by Ahlsell) of unconsolidated market shares. In constructing the table Ahlsell views unconsolidated firms as those firms being independent wholesalers, only conducting business in a
single Nordic country and not aiming at a pan-Nordic expansion. As can be seen in the table, the area of tools and machinery is the overall least consolidated area. Also, Sweden and Finland seem to be the countries in which the consolidation trend has gone the furthest. Ahlsell takes active part in this consolidation.

Table 11. The unconsolidated part of the markets in Ahlsell’s areas of business in the Nordic countries (ahlsell.com)

<table>
<thead>
<tr>
<th>Location</th>
<th>Electrical</th>
<th>Plumbing Heating</th>
<th>Refrigeration</th>
<th>Tools and Machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>&lt;10%</td>
<td>&lt;10%</td>
<td>appr 30%</td>
<td>appr 80%</td>
</tr>
<tr>
<td>Denmark</td>
<td>appr 40%</td>
<td>ca 55%</td>
<td>&lt;10%</td>
<td>appr 30%</td>
</tr>
<tr>
<td>Norway</td>
<td>&lt;10%</td>
<td>appr 45%</td>
<td>appr 55%</td>
<td>appr 80%</td>
</tr>
<tr>
<td>Finland</td>
<td>&lt;5%</td>
<td>&lt;5%</td>
<td>&lt;10%</td>
<td>appr 70%</td>
</tr>
</tbody>
</table>

The market trends on the reseller level are twofold. First, there is a trend of consolidation. Apart from the consolidation there is also a considerable establishment of so-called mega retailers, e.g. K-Rauta and Bauhaus, on the Nordic market. Ahlsell has made acquisitions on the reseller level and controls their channels to the market. Second, there is a trend towards direct deliveries to end customers. In these cases a wholesaler like Ahlsell normally handles the transactions of sales information despite not handling the goods.

Lead-time Reduction

Historically, a major shift of focus in the market for installation equipment and industry supplies is the increased focus on lead-time. As Leif Christensson, Vice President of Logistics at Ahlsell formulates it:

“Twenty years ago the end customer had a planning horizon of a week or maybe ten days…ten years ago, the planning horizon had shrunk to 48 hours…now the customer can place an order at 1600 and receive the goods the next morning.” (The author’s translation from Swedish.)

This trend has made Ahlsell’s logistics platform a stronger competitive force than before. Also the local presence in the form of resellers is an important factor in reducing the lead-time for the customer. However, for larger customers this local presence is not seen as important since they expect direct deliveries to their respective building sites. Lars Svensson, vice president of sales, recognises that in order to best utilise Ahlsell’s local presence, more attention should be directed towards the smaller local customers.
5.2.2 Ahlsell’s Suppliers and Customers

Ahlsell procures approximately 120,000 articles from their 5,000 suppliers to the five product areas.

The Suppliers

The large supplier market is global and fragmented, however displaying signs of increased consolidation. Ahlsell is, however, not taking part in that consolidation. According to Lars Svensson, consolidation backwards in the supply chain would result in conflicts of interest. In Sweden, Ahlsell is a dominating actor on the buyer market. There is probably only one competitor, Onninen, which is present in both plumbing and heating, electrical, and tools. And there is no competitor with as many customers as Ahlsell.

There is also an increasing globalisation with an increase in suppliers outside of Europe. Further, many of Ahlsell’s European suppliers shift their production from Europe to e.g. the Far East. Ahlsell closely follows that trend in order to ensure that the producers’ cost savings are also distributed to Ahlsell.

Ahlsell also actively seeks new suppliers abroad. At the moment, according to Lars Svensson, China is in focus, but at closer distance, the Baltic States are of high interest. It is also part of Ahlsell’s strategy, to whenever possible, procure their products directly from the producers instead of doing business via agents. This is mainly done in cases when Ahlsell’s volume bought is large enough to be in a dominant position relative to the supplier. Traditionally, the producers prefer when the customers procure via agents.

The Customers

The largest customer group of Ahlsell is installation companies followed by the manufacturing industry and the construction industry. These three customer groups account for about 80% of the turnover. In total, Ahlsell has approximately 70,000 customers. The ten largest customers account for about 15% of the total net turnover and no single customer accounts for more than 5% of the net turnover. (ahlsell.com)

The customers are mainly professional users of goods and related services in heating and plumbing, electrical, tools and machinery, refrigeration, and DIY. Ahlsell delivers both to nation wide concerns and local firms. Due to the high local presence that Ahlsell can display through its own outlets there is a belief that focus should be directed towards the small local customers instead of the large national ones since the former to a larger extent appreciate and are willing to pay a premium for the local presence.
Or as Lars Svensson puts it:

“No competitor can match our local presence. We have, however, not always used that. The large customers receive their goods directly from Hallsberg and do not appreciate the local presence. On those deals we have become big as what concerns volume but not as what concerns profitability. We have simply forgotten the local customer. In that area we need to make a turnaround.”

(The author’s translation from Swedish)

If the local customer requests a product that is not kept in stock locally or if volumes are larger than expected an order can be placed as late as 1600 hrs to be delivered the following morning. There is also a possibility for the customer to place an order on the Internet.

The Product Areas

There are about 45,000 articles in stock in heating and plumbing. The products sold range from heating and ventilation systems to pipes and bathroom equipment. This product area has four main customer segments: large Nordic construction entrepreneurs; small, medium, and large installation firms; industrial customers mainly in traditional industry, chemical, and paper; and public sector customers. (ahlsell.com)

Ahlsell offers about 30,000 articles in the product area electrical. Among the products sold are cables, installation equipment, lighting, and products in heating. There are also IT-related products, such as cables, hubs, switches and alarm systems. In the product area electrical, there are three customer segments: electrical installation companies ranging from small local ones to large national ones; industrial customers in petrochemical industry, pulp and paper, and traditional industry; and customers in energy production and distribution. (ahlsell.com)

There are about 30,000 articles in stock in product area tools and machinery. The assortment includes handheld tools, working clothes, storage systems, fastening products, and welding products. Customers for tools and machinery are mainly operating in the manufacturing industry or in the construction industry. Further, the public sector is an important customer group. (ahlsell.com)

Refrigeration offers cooling products and customer specific climate control systems for offices, industry, homes, and commercial property. Further, there are products offered in computer refrigeration. About 5,000 articles are held in stock. There are two large segments in refrigeration: Installation companies and OEM-manufacturers. (ahlsell.com)

DIY is product-wise not a separate unit in Ahlsell. It is rather a different channel to the market. There are about 10,000 articles held in stock in DIY. Of those, about 60% are in the area electrical whereas about 40% are in the area heating and plumbing. The customers can be found in two larger segments: specialised trade, e.g. Järnia, Silvan, and Coop; and convenience goods super markets, e.g. ICA and Coop. (ahlsell.com)
5.3 Inner Context

Logistics has played an important role in the historical development of Ahlsell and is believed to be vital for the future development of the concern. This section handles the inner context of the case with a focus on logistics.

5.3.1 The Organisation

As can be seen in Figure 14, logistics is given a central position in the Ahlsell organisation. Each country in which Ahlsell is pursuing its activities has its own central warehouse, although the central warehouse for Denmark is situated in Sweden.

![Figure 14. The Ahlsell Organisation](image)

The Ahlsell organisation recently underwent considerable changes. During 2003 changes were made to make the organisation switch from a product-oriented organisation to a market-oriented organisation. The earlier product focus came from the large number of acquisitions made. The concern had strived towards being able to offer a breadth of products and services. All the acquisitions have resulted in an increased complexity for the customers since many of the new customers coming through an acquisition are already customers of Ahlsell. This has resulted in one customer having many different contacts at Ahlsell for different product areas, and also many different account numbers. Therefore Ahlsell has now decided to direct more attention towards the customers through this new organisational direction.

One other important aspect of the reorganisation is that procurement has been given a more central role by placing it in one unit responsible for the whole concern’s procurement. Göran Nåsholm, the President of Ahlsell, claims that the new organisation will increase Ahlsell’s focus on the customer and the efficiency in sales and procurement. The Swedish organisation is illustrated in Figure 15.
5.3.2 Logistics

This section on logistics will start with a historical expose of Ahlsell’s logistics development. That will be followed by a description of logistics as performed by the concern today.

Logistics Development from 1990 until Present Day

Before 1990 Ahlsell had a decentralised logistics structure. The company’s logistics system consisted of six or seven regional warehouses and between 50 and 100 local warehouses, Hans Gunnarsson, logistics controller, recalls. There was a strong culture of local independence at regional level. Each regional manager also controlled a separate fleet of trucks.

In 1988 Ahlsell decided to centralise its logistics activities to a central warehouse in Hallsberg. A driving force behind the decision was the company’s new owner at the time, Trelleborg. The main reason for the centralisation was, according to Leif Christensson, to lower the amount of capital tied up in stock. The warehouse opened in March 1990. To switch from the decentralised logistics system to one in which the regional managers over night became outlet managers was complicated, especially from a human resources perspective. Hans Gunnarsson recalls that the change internally, to a centralised structure, was much more difficult than the later acquisitions involving the integration, and centralisation, of formerly external organisations. Further, the opening of the new warehouse coincided with the implementation of a new IT system. Hans Gunnarsson remembers those times as very turbulent and argues that it was a major mistake to centralise logistics operations and change IT systems simultaneously. With the centralisation followed that working in a warehouse became a work that required skilled workers. This view was new at Ahlsell at the time, says Leif Christensson.
The warehouse opening was shortly followed by the crisis in Swedish construction industry. Liquidity-wise those were tough days during which, according to Hans Gunnarsson, Ahlsell would not have survived had it not been for the financially strong owner Trelleborg.

Apart from the centralisation, Trelleborg as owner, set logistics as a top priority at Ahlsell. It was with Trelleborg’s ownership that logistics was lifted up to the central management. The present logistics manager, Leif Christensson, was transferred from Trelleborg in 1994. He recalls that at his arrival, times were still very turbulent in logistics at Ahlsell. Apart from making logistics work operationally there was a need to build up trust internally as well as externally.

Since the first turbulent years of the centralised logistics platform there has been progress and expansions. Today the warehouse is one of Europe’s largest with more than 120,000 articles in stock. The lessons learned from opening the warehouse in Hallsberg have been helpful in the opening of new central warehouses in Norway and Finland. In the new warehouses Ahlsell has chosen not to start with all complex solutions present in Hallsberg from the beginning. Instead, more advanced solutions are introduced in the new warehouses when needed and when the personnel has received the proper experience and training.

**The Role of Logistics in the Organisation**

As can be seen in section 5.3.1, logistics has a central position organisationally within Ahlsell; logistics is placed directly under the CEO in the Swedish organisation. Leif Christensson, the vice president of logistics, is responsible for the operations at the Hallsberg warehouse and its outbound flows. The responsibility of the warehouses in Norway and Finland is placed under the respective warehouse management. The warehouse for the Danish market, placed in Malmö in the south of Sweden, is however under Leif Christensson’s control. The responsibility for the inbound materials flow to Hallsberg and the other warehouses is placed under procurement, and not the logistics function.

According to Leif Christensson, there are three parts that together constitute what the customer sees as customer service: the sales support, the procurement, and the physical logistics. The sales support is the interface to the sales organisation. This function is also responsible for communicating necessary information to the rest of the company. Then there is the procurement function. This function is responsible for seeing to that there are always enough products kept in stock to secure the customers’ orders but at the same time not tying up too much capital. Lastly, there is the physical logistics, seeing to that the customer receives the requested products accordingly.
Even though logistics is a central part of the organisation it is not seen as a dominating force internally. The organisation is strongly market driven, says Leif Christensson, he continues:

“Internally the logistics department sees itself as a muscle, which it is up to the sales department to flex. However, Marketing and Sales are very conscious that without the operative logistics the deals will not be won.” (The author’s translation from Swedish)

Logistics is seen as a source of profitability. Göran Näsholm, Ahlsell’s president, sees logistics as the sole most important area for synergies in acquisitions. Clein Johansson explains that if there are changes made, e.g. a new concept is introduced to the customers; logistics is engaged as early as possible. There is also an established routine that Clein Johansson and Lars Svensson call Leif Christensson at least monthly to discuss a number of issues. This is made in order to avoid emergency operations resulting from bad communication.

**The Physical Structure**

At the hub of Ahlsell’s physical logistics structure is the central warehouse in Hallsberg. Today, the central warehouse has 500 employees, covers a surface of 55,000 m², and stores 100,000 different articles; concern-wide there are 120,000 articles in total in the four central warehouses. The yearly amount of goods leaving the Hallsberg warehouse is 385,000 tonnes. The warehouse in Hallsberg serves the Swedish market of Ahlsell and also the other Nordic countries for specific articles.

Apart from the warehouse in Hallsberg, there are warehouses in Norway, in Langhus outside Oslo, and in Finland, in Hyvinge outside Helsingfors. These warehouses supply their respective country markets. Apart from operations in Norway and Finland, Ahlsell is also present on the Danish market. For Denmark there is a warehouse in Malmö in the south of Sweden. The latter warehouse is organisationally under the control of Hallsberg, with Leif Christensson as highest responsible, whereas the warehouses in Norway and Finland are autonomous to a larger extent. The central warehouse operations of Ahlsell are illustrated in Figure 16.

![Figure 16. Map of Ahlsell's central warehouse operations (warehouses are indicated with a dot)](image)
From Hallsberg there are daily deliveries to 35 distribution centrals within Sweden from which local deliveries are made to the outlets and the final customers. Since the centralisation AhlSell does not own any vehicle fleet. External subcontractors handle all transportation. Figure 17 illustrates the goods flows from suppliers, via the Hallsberg warehouse to the customers. Of the total sales, 75% pass the central warehouse whereas 25% is sent directly from the suppliers to the customers. In the latter case AhlSell has no part in the physical distribution, only in the sales and economic transactions. This channel is normally used for exceptionally large orders or for orders of articles with a small yearly volume. Of the total volume, 25% pass AhlSell’s own outlets. These 25% are what AhlSell calls day-zero-need. If the customer does not need the goods immediately it is sent directly to the customer from the central warehouse without passing an outlet. Orders placed before 1600 day zero are delivered to the customer on the morning of day one.

**Figure 17. The AhlSell goods flows (Sources: AhlSell annual report (2003a, p. 12) and Leif Christensson)**

The warehouses in Norway and Finland are set up with the same principles as the Hallsberg warehouse. If an article is kept in only one location in Scandinavia, it is kept in Hallsberg. Internally, it has been discussed whether the control over the central warehouses in Norway and Finland should be centralised or not. Göran Näsholm believes that most decisions made at central warehouse level are of an operative nature and require local knowledge and control why the central warehouses outside Sweden are managed locally. However, when problematic situations do arise, Leif Christensson, responsible for the Hallsberg warehouse, is used as an expert resource to solve matters.

**Information Technology**

In 1998 AhlSell opened their operations to e-commerce. Today, a large part of AhlSell’s sales is made via the Internet. On the AhlSell website, all 120,000 articles in stock are available together with information on stock level, delivery time, and the customer’s own order history.

Apart from being able to order via the web site, AhlSell’s customers have the opportunity to connect to AhlSell via e.g. EDI. AhlSell also offer their customers handheld computers with bar
code readers that enable easier ordering, also via the Internet. Further, the customers can use software solutions from Ahlsell enabling a seamless integration between the customer’s warehouse and Ahlsell’s order system.

The Outlets

All Ahlsell’s 125 outlets are owned by the concern, which makes planning and control somewhat easier to handle than what would have been the case with independent resellers. All outlets are constantly online with the central warehouse in Hallsberg, which can follow local changes in sales and stock levels in real time. When needed, according to parameters set locally, refill orders are placed at Hallsberg.

In 1990, when logistics was centralised and the local warehouses overnight became outlets, there were problems with local acceptance of this new role. Since then, the concern has expanded and the expansion on the reseller or outlet level has mainly been made through acquisitions. Nowadays, it is seen as easier to make this local transition since Ahlsell enters as the new owner and therefore more easily can implement its own working principles locally. However, the local independence is nevertheless seen as substantial. Each outlet is responsible for its own costs and it is up to the respective outlet to decide on local stock levels. However, each outlet pays a percentage fee on the stock kept and when the stock is slow moving there is an additional penalty fee. Logistics controller, Hans Gunnarsson, acts as a resource for the outlets when it comes to logistics knowledge. In new acquisitions he visits the acquired outlets to inform and train the staff in Ahlsell routines.
6 The Bergman & Beving Case

Arvid Bergman and Fritz Beving founded Bergman & Beving in 1906. The early course for the firm was to import technically advanced products to the Swedish industry. During the decades to come, the product portfolio on offer was expanded and covered laboratory equipment, measuring equipment, and from the 1960s also electronics. In 1976, the group was listed on the Stockholm Stock Exchange and expanded its business outside the Swedish market to Denmark, Finland, and Norway.

Organisationally, Bergman & Beving has moved from being organised in sales departments in the 1960s, to being organised in independent subsidiaries in the 1970s, and in divisions in the 1980s. In 1989, Bergman & Beving consisted of 14 divisions with in total 60 subsidiaries. In 1997, the group was once again reorganised; now into business areas. In the year 2000, the group consisted of five business areas; Tools, MediTech, Electronics, Lagercrantz Group, and Industry; with in total 20 divisions, and more than 100 subsidiaries.

In the autumn of 2001, Bergman & Beving was divided into three independent groups, each listed on the Stockholm Stock Exchange. Apart from Bergman & Beving, the new listed companies were Lagercrantz Group AB, consisting of the former business areas Electronics and Lagercrantz, and Addtech AB, consisting of the former business area Industry. Both Lagercrantz Group and Addtech are in the electronics industry.

With Lagercrantz Group and Addtech independently noted on the stock exchange, Bergman & Beving consisted of Tools and MediTech, with Tools accounting for about 75% of the total turnover, according to Carl Johan Lundberg, Executive Vice President in Bergman & Beving. It was then decided to keep the business area management in MediTech, but to break it up in Tools and place the companies within the business area Tools directly under the control of the Bergman & Beving management. This new organisation went into effect as of April 2002.

Bergman & Beving has grown largely through acquisitions. In total, 175 acquisitions have been made during the firm’s history. In the 1990s, three major acquisitions were made: Ferro, NC Nordic Components, and Berendsen Components. The two latter acquisitions are now part of the Lagercrantz Group, external to the Bergman & Beving Group. The acquisition of Ferro included Essve, Luna, and Järnia, which are now part of the Tools group within Bergman & Beving. However, Järnia, does no longer exist as a company. In 2002, TengTools, an international...
trading company in hand tools, was acquired. The organisation, as it is today, will be further described in the following sections.

During a number of years there has been an increase in the sales of Bergman & Beving. However, during the operating year 2003/2004 the demand in the industrial sector has weakened. The operating income displays stability despite the weaker sales during the last year, see Table 12.


<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover, MSE K</th>
<th>Operating Income*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/2001</td>
<td>3,658</td>
<td>167</td>
</tr>
<tr>
<td>2001/2002</td>
<td>3,748</td>
<td>179</td>
</tr>
<tr>
<td>2002/2003</td>
<td>3,966</td>
<td>146</td>
</tr>
<tr>
<td>2003/2004</td>
<td>3,975</td>
<td>160</td>
</tr>
<tr>
<td>2004/2005</td>
<td>3,881</td>
<td>163</td>
</tr>
</tbody>
</table>

Table 12 shows that during the last five years the net turnover has displayed an on average small but stable increase, except for the year 2003/2004, and that the profit margin has only fluctuated marginally.


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Turnover, SEK million</td>
<td>3,658</td>
<td>3,748</td>
<td>3,956</td>
<td>3,975</td>
<td>3,881</td>
</tr>
<tr>
<td>Result (EBITA), SEK million</td>
<td>167</td>
<td>179</td>
<td>146</td>
<td>160</td>
<td>163</td>
</tr>
<tr>
<td>Change in Turnover, %</td>
<td>2.5</td>
<td>5.5</td>
<td>0.5</td>
<td>-2.4</td>
<td></td>
</tr>
<tr>
<td>Profit Margin (ROS), %</td>
<td>4.8</td>
<td>3.5</td>
<td>3.7</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Return on Capital Employed, %</td>
<td>17</td>
<td>13</td>
<td>15</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Table 13 shows that during the last five years the net turnover has displayed on average small but stable increase, except for the year 2003/2004, and that the profit margin has only fluctuated marginally.

6.1 Content

Bergman & Beving is a trading concern with its activities concentrated to the Nordic countries. The main business areas are:

- Tools, machinery, protection equipment, fastening elements, and other consumables for the industrial and construction sectors.
- Components for bearings, sealing, transmission and automation for the industrial sector.
- Laboratory instruments, diagnostic equipment, and consumables for industry, health care and research.

(Bergman & Beving annual report 2003/04, p. 4)

It has been stated by Bergman & Beving that the latter area, called MediTech, is to find its long-term development outside the concern. In March 2005 it was decided to sell MediTech to Addtech, a former subsidiary of Bergman & Beving. MediTech will not be handled in this thesis.

6.1.1 A Strategy Expressed in Terms of the Value Chain

Bergman & Beving is a concern with a number of operating areas. Strategically however, it is evident that the tools operations are in focus for the long-term development of the concern. The tools operations consist of a number of product companies and it is Bergman & Beving’s intention to pursue a strategy that builds on a decentralised organisation however still achieving economies of scale in IT and logistics within Tools.

According to Carl Johan Lundberg, executive vice president, Bergman & Beving’s vision is…

“…to reach multi-local market leadership” (The author’s translation from Swedish)

This means that on each local market Bergman & Beving aims at a market share of at least 30%. The concern’s present position is far from this goal however. In segmenting the strategy, Carl Johan Lundberg argues that the focus is directed towards the manufacturing industry followed by the construction industry, and the private DIY-market. The strategy used to reach multi-local market leadership is illustrated with the Bergman & Beving value chain, which is a common way within Bergman & Beving to illustrate the strategy, see Figure 18.

Beginning from the left in the figure, the value chain shows the manufacturing level. This level is divided into manufacturing and design or brand. In the middle of the model are the product companies, this is the supplier or distributor level of the value chain. Towards the end of the model there are two possible channels to the end customers: partner resellers and fully independent resellers. The Bergman & Beving value chain and the concern’s strategic goals in each of its components will be described further in the following sections. This description will give a brief overview of the strategy of the concern.
Design and Brand and Manufacturing

It is Bergman & Beving’s intention to integrate backwards in the value chain into the manufacturing level. However, the intention is not to own any production resources. Instead, it is the concern’s intention to increase the ratio of proprietary brands in the product portfolio. Carl Johan Lundberg expresses this as Bergman & Beving owning “the recipe” for the products that they let other actors in the value chain produce. Today the concern manufactures a small fraction of its products. However, there is no intent to increase this fraction.

In increasing the share of proprietary brands Bergman & Beving includes increased control over brand names, product development, and design and quality.

Product Companies

As mentioned, Bergman & Beving’s main interest lies on the supplier or distributor level of the value chain. It is on this level that the product companies pursue the majority of their operations.

An important point to the running of the product companies is the focus of the concern on a decentralised business responsibility. Based on the internal and external conditions for each product company they have individual financial and strategic goals. At the same time; it is intended to reach economies of scale in areas such as IT and logistics, market cultivation, purchasing, and internal efficiency; between the product companies. This paradox between independence and economies of scale will be further discussed later on.

Based on the company’s present position in the market for tools and supplies for the building sector and industry Bergman & Beving intends to take an active part in the consolidation that is now taking place on the market. The goal is to reach a leading position on the market in northern Europe.

Bergman & Beving formulates four key words in its strategic guidelines for the product companies: focus, market strength, efficiency enhancement, and streamlining. Ulf Carlsson, president of Luna, states that today there are almost no overlapping product assortments between the product companies, something that was the case earlier. This allows each product company to focus on their assortment at the same time as efficiency in operations is reached.
through shared resources and coordination between the product companies in administration, logistics, and IT.

The strategy of the concern needs to be communicated to the product companies. The concern is focusing heavily on a decentralised business responsibility at the same time as coordination for economies of scale is to be reached concern-wide. An overarching goal set for the product companies is that they should reach a state of market leadership. It is also important that the market leadership is not only reached on an aggregated level but also on local markets. This is, as stated earlier, termed multi-local market leadership.

Another important part of what is being communicated to the product companies are the goals of growth and profitability. The profitability measure used concern wide is return on working capital (P/WC). The return on working capital should, in all product companies, be 45% or more. The return on working capital is calculated as operating income, not including items affecting comparability, divided with working capital simplified to only include inventory and accounts receivable minus accounts payable, (Bergman & Beving annual report 2003/2004). This is valid for the whole concern as well as for the individual product companies. To reach this goal, there are set rules regarding focus areas in each respective company within the group, see Figure 19. For companies within the concern having a return on working capital less than 25% focus must be directed towards achieving higher profitability. For companies with a return on working capital between 25% and 45% attention is to be directed towards both profitability and growth, whereas companies displaying a return on working capital exceeding 45% should maintain the profitability and achieve growth. Bergman & Beving states that approximately 20 companies within the group display a return on working capital exceeding 45% today.

![Figure 19. Return on working capital within Bergman & Beving](Bergman & Beving annual report 2003/2004, p. 4)
Partner Resellers and Fully Independent Resellers

At the end of the value chain are the resellers. Bergman & Beving operates a partnership chain of independent resellers under the name Tools. Bergman & Beving Integration is responsible for developing the channel to the end customers through the resellers.

Integration forward means the development of strong partnership concepts for the resellers that contribute to their profitability and growth. It is believed that Bergman & Beving can create opportunities for higher volumes, increased profitability, and the access to a valuable distribution channel through the partnerships.

At the reseller level, it is the concern’s goal to reach partnership agreements. This part of the strategy has changed slightly during the last year as a response to the competition’s acquisitions at the reseller level, among them Ahlsell. Formerly, Bergman & Beving sought partnership agreements only. However, a partnership agreement is not as stable as ownership. Hence, Bergman & Beving has now chosen to acquire, fully or partly, resellers in cases where it is judged to be preferred to only a partnership agreement. During the autumn of 2004 the concern has made eight such acquisitions.

6.1.2 Strategy Development

From the founding of Bergman & Beving in 1906 the concern has been involved in importing technically advanced products for the Nordic industry. This direction has largely remained unchanged, however broadened to incorporate also basic commodities, during the concern’s almost one hundred years of existence. However, the concern as such and the environment in which it acts, has changed tremendously. What today is called Bergman & Beving has much of its roots in Ferro, which was acquired in 1994. Ferro as a concern consisted of Essve, Järnia, and Luna. This is largely what today is called the Tools operations within the Bergman & Beving concern.

Throughout the years, acquisitions have been a means of growth for the concern. In total, approximately 175 acquisitions have been made. At the same time, as a means to focus the concern the former subsidiary MediTech has been sold since it is not seen as a part of the core business. Evident in the strategic development of the concern is the effect of the decentralised organisation. Many of the strategic moves taken have been initialised in the product companies. The paradox between economies of scale through centralisation and the decentralised product companies is what is most significant in the case of Bergman & Beving. The decentralisation is emphasised in that Bergman & Beving states:

“Bergman & Beving is permeated by its belief in a decentralised business responsibility. Based on specific market and structural prerequisites, each operating area works according to its strategic and financial goals.” (bb.se)
At the same time, economies of scale and synergies should be achieved:

“Economies of scale and synergies are achieved and developed in logistics and IT, as well as in areas such as market cultivation, purchasing, and internal efficiency.” (bb.se)

This dual focus is argued to be not only a problem but also a competitive advantage by Carl Johan Lundberg, executive vice president:

“We are convinced that the advantages are greater than the disadvantages of our form of organisation. The disadvantages (of having a large number of different product companies, the author’s comment) are the large internal administration and having strategies in the different product companies that are not aligned. However, the latter also means advantages. We live in a world full of paradoxes and if we cannot handle them we cannot survive. There are no absolute truths, each coin has two sides and we need to be able to play them both. Such discussions take us forward.”

(The author’s translation from Swedish)

Carl Johan Lundberg states that in the strategy development of Bergman & Beving there is an interplay between external and internal factors determining the strategic course of the concern. Anders Möller, president of Bergman & Beving InfoTrans, argues that in the strategy formation in the concern up till today, logistics has played an important role:

“If people had not been so insightful what regards logistics development, to introduce the hand terminals for ordering in the seventies, we would not have been where we are today.”

(The author’s translation from Swedish)

Möller continues,

“With a good infrastructure it is fairly simple to take in new assortments. However, the logistics solutions we use are by no means rocket science, it is rather bread and butter.”

(The author’s translation from Swedish)

Ulf Carlsson, President of Luna, points out that, since Bergman & Beving and Luna are large organisations with large volumes there is a natural resistance to too fast strategic changes.

“It is hard to change strategies since we have got a lot to lose.”

(The author’s translation from Swedish)

An example of this could be the recent acquisitions of resellers. Formerly, Bergman & Beving had a strategy according to which resellers were not to be owned. Instead partnership agreements should be made with independent resellers. However, during 2004 the consolidation trend at the reseller level had gone so far that Bergman & Beving realised that partnership agreements were not enough to secure a channel to the end customers on all markets. Consequently it was decided to apart from partnership agreements also take steps to allow for the acquisition of resellers.
6.2 **Outer Context**

Bergman & Beving is present on several markets. The products sold range from household utensils to industrial machinery products. Subsequently, the end customers also range from private households to large industries and construction companies. The main end-customer-base is found in the industrial and construction sectors. As a spin off from being present in this sector, Bergman & Beving is also present on the private DIY-market. The main customer group is the professional end customer who makes purchases via local resellers. Geographically, the concern has its customer base mainly in the Nordic market. Other country markets of increasing importance are the Baltic States and Poland.

Since Bergman & Beving is present on a number of markets there are also a number of market changes, namely: national accounts, increase in proprietary brands, consolidation, vertical integration, and lead-time reduction.

**National Accounts**

At the same time as the local presence is of importance, Bergman & Beving has seen an increase in the ratio of customers that make their purchases based on agreements on group level between them and one or several suppliers. This is mainly a trend in the construction sector and the manufacturing industry. The result is that the local purchase is often tied to a national account.

The effects of this are twofold. Firstly, the importance of a geographical coverage for the concern increases. The suppliers must be present on all locations where the customer with a national account is. Bergman & Beving attempts to reach geographical coverage through its partner chain Tools. The local resellers also experience a pressure to offer larger geographical coverage, through either expansion or partnership, for the same reasons.

Secondly, as a counter effect of the first, with large national accounts the end customer is increasingly expecting direct deliveries making the physical handling at the local reseller unnecessary. This does not necessarily mean that the sales are not made through the local reseller.

**Increase in Proprietary Brands**

What might not be so much a general market trend as it is a trend within the concern, the ratio of proprietary brands increases for Bergman & Beving. This trend is also actively stimulated by Bergman & Beving through the founding and acquisitions of new proprietary brands. According to Ulf Carlsson, president of Luna, one reason to why the proprietary brands are increasing is the low profit margins on external brands. Carl Johan Lundberg, executive vice president, argues that proprietary brands are important and now makes up approximately 25% of total sales. At the same time, brand names as such have a decreasing importance. The end customers are moving towards the procurement of functionality rather than a specific brand. This enables Bergman & Beving to use their proprietary brands to win market shares from the established manufacturers. Anders Möller, president of Bergman & Beving InfoTrans, states that there are significant
differences between the product companies as regards proprietary brands with Grunda as one extreme with virtually no proprietary brands and Anders Petter as another extreme with almost only proprietary brands.

Consolidation

Bergman & Beving operates in a competitive environment in which a trend of consolidation is very evident. The consolidation takes place on all levels of the value chain, at the manufacturer level, at the supplier or distributor level, and at the reseller level. Figure 20 describes the present state of the Bergman & Beving value chain. At the manufacturer level there is a fragmented global market with an ongoing consolidation. Bergman & Beving takes part in this consolidation through the acquisition of brand names. However, the concern has very little own production and the strategic goal is not to increase the production. At the supplier or distributor level there are few regional actors that also take part in a consolidation. One example of Bergman & Beving’s part in this is the acquisition of Momentum in 2004. At the reseller level there has been consolidation for some time. The competitor Ahlsell is very active in this trend of consolidation of resellers. Up till now, Bergman & Beving has attempted not to take part in this in other ways than to partner with resellers through the Tools partner chain. However, as already mentioned, during the last year the concern has decided to actively consolidate also at this level. At this level there is also an increase in the international competition through the entry on the Nordic market of so-called mega retailers, such as K-Rauta and Bauhaus.

![Figure 20. The Bergman & Beving Value Chain and Market Structure](image)

Vertical Integration

During the last years Bergman & Beving has noted a trend towards more partnerships between suppliers or distributors and manufacturers. However, according to Carl Johan Lundberg, executive vice president, the partnerships with the suppliers should be seen both from the short-term and the long-term perspective. From the long-term perspective the suppliers are interested in partnering with strong actors on the supplier or distributor level. Carl Johan Lundberg believes that Bergman & Beving has a strong position in that respect. However, in the short term, the suppliers are interested in filling all channels towards the end customers with their products. This can mean bypassing the supplier level. In the future, Lundberg further states, Bergman & Beving will choose to work closer with some suppliers than with others.
The manufacturer or supplier level in the Bergman & Beving value chain is the only level that is truly global. As has been stated, it is becoming increasingly important to integrate with this level of the value chain. On this level, size is important; large volumes are essential in order to reach favourable agreements with suppliers.

**Lead-time reduction**

An important change during the last decades is the increasing demands of short delivery times. This has resulted in higher requirements on logistics for Bergman & Beving. Göran Andersson, president of Luna Servicepartner, states that a large change in logistics during the last years is the increasing coordination of transports from the two central warehouses in Ulricehamn and Alingsås and the establishment of a number of direct transport routes to cities with large goods volumes. These changes together have made it possible to shorten the lead-time.

### 6.3 Inner Context

Bergman & Beving is a decentralised organisation in terms of separate product companies for different product assortments, however centralised what regards logistics.

#### 6.3.1 The Organisation

The Bergman & Beving organisation, see Figure 21 below, is organised around the Tools operations. In Development are found companies that are to be developed into independent units within the Tools operations or outside the concern.

![Figure 21. The Bergman & Beving Organisation](image)

As can be seen, all companies within the Tools operations are placed directly under the management of Bergman & Beving. The group consists of eight companies: Luna, Skydda, Essve, Gigant, Grunda, Momentum, Integration, and InfoTrans.
Luna

Luna is the largest company in the Tools operation, with a turnover of approximately SEK 1,100 million constituting 25% of Bergman & Beving’s total turnover. The company is present in the Nordic region as well as in the Baltic States, Poland, and Taiwan.

On the Nordic market, Luna is one of the major suppliers of hand and measuring tools, compressed air, torque tools, cutting tools, sheet metal and woodworking machinery soldering and welding. The assortment consists of approximately 30,000 articles. The end customers are mainly found in the manufacturing industry followed by the construction industry and the private DIY-market. Apart from external brands, Luna offers the proprietary brands TengTools, Race, and Limit.

The channel used to the customers consists of 600 local resellers some of which are part of the Tools chain.

Skydda

Skydda specialises in personal protection equipment for professional users with most of its customers found in the manufacturing industry, followed by the construction industry and the DIY-market. Geographically the market is concentrated to the Nordic Region with the Swedish market constituting 70% of the sales. The turnover is approximately SEK 580 million, which constitutes 13% of Bergman & Beving’s turnover. The products on offer are e.g. work wear, work shoes, work gloves, and technical protection. Apart from many external brands, Skydda offers proprietary brands, such as Guide, L.Brador, Cresto Safety, and Axel.

The sales channel used is local resellers, many of which are part of the Tools chain. An increasing part of Skydda’s procurement is made from the Far East.

Essve

Essve offers fastening elements on mainly the Nordic market. The customers are found in the construction industry, which constitutes over 60% of the total sales of approximately SEK 440 million, which is 10% of Bergman & Beving’s turnover, followed by the manufacturing industry and the DIY-market. The product categories on offer are fastening elements, fire seals, standard bolts, electric hand tools, and nailing tools. Among the proprietary brands of Essve are among others Essve, FireSeal and NordFast.

The channels used to reach the customers are local resellers of building materials as well as industrial resellers.
**Gigant**
Gigant is specialised in turnkey solutions in ergonomic workplace equipment. The turnover is approximately SEK 190 million, which is 4% of the total sales of the concern. The customers are found in the manufacturing industry with 74% of the sales, followed by the construction industry and the DIY-market. Sweden is the main market with almost 80% of the sales followed by Norway and Finland. A large proportion of the sales are of the proprietary brand Gigant.

The sales are made through local resellers but Gigant’s own technicians also visit the end customers.

**Grunda**
Grunda sells industrial and construction consumables and has a turnover of approximately SEK 310 million, which is 7% of the concern’s total sales. Grunda has specialised in five product areas: construction consumables, electricity and plumbing, heating and sanitation, industrial rubber, lock and fittings, and cleaning supplies. Grunda’s customers are mainly in the manufacturing industry, followed by the construction industry and in the private DIY-market. 91% of the sales are on the Swedish market and 9% of the sales are on the Norwegian market. Sales are made via resellers. The assortment consists of external brands as well as a number of proprietary brands, such as Grunda El and Fixxa.

**Momentum**
Bergman & Beving acquired Momentum in 2004, which with a turnover of approximately SEK 530 million constitutes 12% of the concern’s turnover. Momentum offers solutions and components in four product areas: roller bearings, transmission, sealing, and automation. The customers are in the industry in Sweden, with 88% of the sales, Norway, and Denmark. Almost one third of the sales are made to the paper industry, followed by the vehicle industry, the steel industry, and the food industry.

In Sweden, Momentum has its own operations in 23 locations; in Norway there are two locations and one in Denmark. The local units carry their own supply. The aim of Momentum is to minimise production downtime at its customers’ sites by offering industrial components, efficient logistics solutions, and service and training.

**Integration**
Integration is a company responsible for business development within the Tools group and for building partnerships with resellers. This includes the operative responsibility for the partner chain Tools for industrial resellers in the Nordic countries.
InfoTrans
InfoTrans is the concern’s logistics and IT development company. InfoTrans is also responsible for the coordination of IT and logistics services within the Tools operations.

6.3.2 Logistics
The logistics of today’s Bergman & Beving originates from outside the concern through its history of acquisitions.

Logistics Development
The two central warehouses, one in Ulricehamn and one in Alingsås, have been added to the concern through the acquisition of Ferro in 1994. Ferro as a concern consisted of Essve, Järnia, and Luna, and had been created a few years earlier to become the group parent of Järnia and Luna; Ferro acquired Essve shortly afterwards.

Järnia was a dealer cooperative owned by approximately 350 dealers. The company consisted of a warehouse function in Ulricehamn and a logistics solution. Carl Johan Lundberg explains that Järnia basically was a cooperative procurement function with logistics services. The dealers had created something that was run on a basis that was most efficient for the independent dealers themselves. That meant that Järnia was run as a “cost economy”; there was no interest in making Järния profitable since the dealers wanted the profit in their respective companies. In 1973 Järnia acquired 50% of Luna, a wholesaler of tools and machinery. Eleven years later, in 1984, Järnia acquired the remaining 50% of Luna. Now the concern had two warehouses: the Järnia-warehouse in Ulricehamn, and the Luna-warehouse in Alingsås. Through the acquisition, Järnia had now taken on a dual role, as a purchaser (the old Järnia), and as a wholesaler (the newly acquired Luna). This dual role created some tension between Järnia and Luna since it restricted Luna’s possibilities to offer their products to external parties. In 1987 Ferro was founded, to act as a group parent of Järnia and Luna. In 1991 the concern acquired another company, Essve, a wholesaler of fastening elements with a central warehouse in Uddevalla. Ferro now had three central warehouses. The at the time present logistics structure within Ferro remained also after the acquisition of Ferro by Bergman & Beving in 1994 and remains partly also today.

Carl Johan Lundberg recalls that when Bergman & Beving acquired Ferro it was seen that there was a strategic conflict between the more industry-focused Luna and the consumer-focused Järnia. It was therefore decided to break up the structures and create product companies allowing for some internal competition within the concern.

In 1998 Bergman & Beving Tools was created to become the group parent of the product companies within Bergman & Beving. Outside the Tools group was Bergman & Beving MediTech. With the three warehouses in Alingsås, Ulricehamn, and Uddevalla in the same concern efforts were made to coordinate logistics. Until this time the three warehouses had been run independently with sub optimisation as a consequence. However, due to transportation costs
and the fact that Essve and the Uddevalla-warehouse used a different IT-system from that used in Ulricehamn and Alingsås, only the two latter warehouses could be coordinated.

The coordination meant that every article was to be kept in one of the warehouses only, and a coordination of transports. A few years later, in 2001, it was decided to move the warehousing operations of Essve from Uddevalla to Ulricehamn.

The Present Structure and Organisation

The present logistics structure within Bergman & Beving is centred around two central warehouses, one in Ulricehamn, and one in Alingsås; see Figure 22.

![Map of the Bergman & Beving central warehouse operations](image)

Figure 22. Map of the Bergman & Beving central warehouse operations (the warehouses are indicated by dots)

Logistikpartner runs the warehouse in Ulricehamn where the articles of the product companies Anders Petter, Essve, Gigant, Grunda, and Skydda, and the external customer Team Sportia are held. Luna Servicepartner runs the warehouse in Alingsås. In this warehouse are kept the articles of the product companies Luna and Gigant, and the external customer Jaktia. The logistics characteristics of the different product companies differ, see Table 14. This also means that the two warehouses are specialised to handle different types of goods.

Table 14. Logistics Characteristics of the Products in Bergman & Beving's Product Companies

<table>
<thead>
<tr>
<th>Product Company</th>
<th>Products</th>
<th>Number of Articles</th>
<th>Product Logistics Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luna</td>
<td>tools and machinery</td>
<td>43,000</td>
<td>Low unit value, large volumes, small products</td>
</tr>
<tr>
<td>Skydda</td>
<td>personal protection equipment</td>
<td>6,500</td>
<td>Low unit value, large volumes, bulky products</td>
</tr>
<tr>
<td>Essve</td>
<td>fastening elements</td>
<td>14,000</td>
<td>Low unit value, large volumes, small products</td>
</tr>
<tr>
<td>Gigant</td>
<td>ergonomic workplace equipment</td>
<td>6,000</td>
<td>Low unit value, large volumes, bulky products</td>
</tr>
<tr>
<td>Grunda</td>
<td>industrial and construction consumables</td>
<td>16,000</td>
<td>Low unit value, large volumes, bulky products</td>
</tr>
<tr>
<td>Momentum</td>
<td>roller bearings, transmission, sealing, and automation</td>
<td>100,000</td>
<td>High unit value, small volumes, small products</td>
</tr>
</tbody>
</table>
In Bergman & Beving logistics and logistics development is a separate organisational unit, or units. The company within the Bergman & Beving group responsible for development of solutions and systems in logistics and IT for the Tools-group of companies is Bergman & Beving InfoTrans. The operative logistics is conducted in the two companies Logistikpartner, which is organisationally subordinated Bergman & Beving InfoTrans; and Luna Servicepartner, which is subordinated Luna, one of the product companies within the Tools-group. The reason why the physical logistics is conducted in two separate companies lies in the history of the concern. Logistikpartner is part of what formerly was the reseller cooperative Järnia, and Luna Servicepartner is part of the formerly independent firm Luna. Organisationally the logistics functions and the two central warehouses are positioned as is illustrated in Figure 23. Momentum, the latest acquisition of the concern, has its own operations in logistics and is thus not seen in the figure.

![Figure 23. The Bergman & Beving Logistics Organisation](image)

Apart from differing geographical locations, the two warehouses have layouts that make them suitable for certain goods. The goods flows from manufacturers to end customers via the central warehouses and/or the resellers are illustrated in Figure 24.
Information Technology

A large proportion of Bergman & Beving’s sales go via the Internet solution Toolstore that is being used by all product companies in the Tools operations. Via Toolstore one has access to more than 100,000 articles from the product companies within the concern. As a reseller of one or more of the product companies one can place orders via Toolstore, watch stock levels, track deliveries, and watch order history.

Further, as a service to the resellers, Bergman & Beving offers a number of IT-solutions. Among them are TOOLS-Online, an e-commerce solution within which the resellers can add an assortment of their own; TOOLS-Refill, a VMI-solution for the resellers inventory; and TOOLS-www, a content management system to aid the reseller in managing their web sites.
7 Analysis of the Ahlsell Case

Through a strategy with large logistics content, Ahlsell approaches a market undergoing considerable change.

7.1 Content

Ahlsell pursues a stated strategy based on five building blocks. These are:

- Unique product breadth
- Local presence
- High competence
- Efficient logistics
- Growth organically and through acquisitions

In closer examination of the case, one can state that the last block, growth organically and through acquisitions, is overarching the other blocks. Founded on competence in logistics and administration the firm increases product breadth and improves the local presence through acquisitions.

Today's logistics within Ahlsell can be traced back to 1990 when Ahlsell centralised its logistics operations to a central warehouse in Hallsberg. After a rough start with many initial problems Ahlsell reached a position in which they in 1995 realised that they had a very powerful and efficient muscle in logistics and administration. Leif Christensson, vice president of logistics, recalls:

"We realised that we were more efficient than our competitors." (The author's translation from Swedish)

At the time, the turnover was approximately SEK 4,000 million and the management was convinced that growth was essential for the long-term survival of the firm. Based on the strengths in logistics and administration, a strategy aiming at growth through acquisitions was embarked upon. The statement by Christensson that the foundation of the new strategic direction of Ahlsell came from a realisation that the firm had an efficiency that was better than that of the competition would imply that the strategy was formed inside-out see e.g. Hamel and Prahalad (1992) rather than outside-in, see e.g. Porter (1980; 1985).
Porter (1996) argues that operational effectiveness is not strategy, for two main reasons: firstly, the rapid diffusion of best practice makes operational effectiveness possible to copy; secondly, the more management tools and techniques firms use, the more similar they become. This would, according to Porter, lead to competitive convergence and eventually hyper competition. However, in the case of Ahlsell, the operational efficiency and effectiveness is not only used to minimise costs for a certain service level but also to create growth under sustained profitability. Only using operational effectiveness and efficiency in logistics to minimise costs could, following the arguing of Porter, lead to hyper competition. When Ahlsell uses this capability to grow under sustained profitability, the competitive advantage gained is not so much lowest price as e.g. better geographical coverage and larger product assortment. Subsequently, operational effectiveness as used by Ahlsell, is indeed strategy.

The capabilities that lie behind the strategy remain to be found in logistics and administration. It is through the efficiency in operations that Ahlsell manages to lower the costs for logistics and administration in the acquired companies to such low levels that the savings finance the acquisitions as such. During the period 1996-2002 Ahlsell has made 18 acquisitions. One of the acquisitions made is Tibnor, which at the time of the acquisition had a turnover of about SEK 1,300 million and a profit between SEK 30 and 40 million. The synergies in logistics and administration amounted to ca SEK 90 million.

The manner in which Ahlsell uses logistics in their expansion makes a discussion of logistics as a distinctive capability worthwhile. In terms of strategy theory, logistics at Ahlsell can be described as a distinctive capability, see (Day, 1994). To be termed distinctive, logistics must fulfil a number of conditions. Distinctive capabilities must be:

- valuable in that they support the market position, neutralise threats, or exploit opportunities. (Barney, 1991; Day, 1994)
- rare, difficult to imitate or substitute. (Prahalad and Hamel, 1990; Barney, 1991; Day, 1994)
- built up from transformed key business processes. (Stalk Jr. et al., 1992)
- deliver disproportionate contribution to perceived customer value. (Prahalad and Hamel, 1990; Day, 1994)
- robust and possible to use on a wide variety of markets (Prahalad and Hamel, 1990; Day, 1994) and aid the firm in adapting to environmental change (Day, 1994).

The logistics capabilities of Ahlsell are valuable in that they not only support but also enable the market position of the firm. Set in relation to the building blocks of the Ahlsell strategy one can see that logistics enables the offering of a unique product breadth and local presence. The central warehousing and the resulting economies of scale make it possible for Ahlsell to offer a wide variety of products to local markets without incurring large amounts of capital tied up. Also the
block stating that growth, organically and through acquisitions, is a goal of the firm is supported and enabled by logistics. Lastly, the logistics platform has made it possible to roll out the Ahlsell operations in the other Nordic countries, thereby exploiting opportunities by the means of logistics. The logistics of Ahlsell cannot be said to be rare in terms of competencies or resources. It can, however, be called rare in terms of scale. A new competitor on the market does not easily copy the scale of operations attained by Ahlsell. The logistics capabilities are indeed built up from key business processes, both in terms of processes for the information flow, i.e. the administration, and the physical flow. Since the products sold by Ahlsell by no means are unique, instead they are commodities as described by Christopher (1998), the services surrounding the products become important for the perceived customer value, among them most evidently logistics. In a cost effective manner, Ahlsell offers logistics that is agile (Christopher, 2000). In their acquisitions, Ahlsell acquires product assortments as well as sales regions not earlier handled by the firm. The capabilities in logistics have proven to be possible to use in these new markets. It can thus be concluded that the logistics capabilities of Ahlsell are indeed distinctive capabilities, (Day, 1994).

The supporting of the strategy by distinctive logistics capabilities is in line with Olavarrieta and Ellinger (1997) arguing for a resource-based view of logistics in the firm.

The fact that Ahlsell wishes to grow through acquisitions is widespread knowledge; both company owners with the intention of selling their businesses and corporate brokers contact Ahlsell. Ahlsell also actively searches for candidates to acquire. Market considerations determine if it is worthwhile to further evaluate an acquisition candidate; a strengthening of Ahlsell’s position is thus a prerequisite to an acquisition. Once that has been established, the process is very much driven by considerations in logistics and administration. In considering the market consequences of an acquisition Ahlsell sees it as important to consider only a clear strengthening of the position and not market-related synergies since the latter are very difficult to consider and evaluate. Göran Näsholm states:

“Acquisitions where the synergies are on the cost-side are highly prioritised before the ones with synergies on the market-side.” (The author’s translation from Swedish)

Once a decision has been taken to acquire a company, the candidate’s logistics and administrative functions are scrutinised. If this leads to an acquisition there is a tight twelve-months-long time plan to be followed in integrating the company in the Ahlsell platform. Göran Näsholm argues:

“Once we have decided to acquire, we move on in a very fast pace. In the acquisition strategy we aim to integrate the acquired company fully within twelve months from the acquisition date. The associated risks make us do this. Say that a to be acquired company has 160 employees; then normally, about 60 of them must leave. Naturally, the motivation among the employees is not the best. Therefore, we need to move fast.” (The author’s translation from Swedish)
The integration of an acquired firm into the Ahlsell platform is made through project groups in logistics, administration, sales, and procurement. Each project team is led by one or two people following checklists on what there is to do. A typical task to do could be to convert registers to Ahlsell standard incorporating maybe 20,000 new customers and 10,000 new articles in an average acquisition. The process of acquiring a company can be illustrated as in Figure 25.

![Figure 25. The Ahlsell acquisition process](image)

Even though the capabilities in logistics have proven to be distinctive, supporting a resource-based view of the firm an external analysis of the market position obviously comes first in considering an acquisition, showing on a more positioning-based view of the firm. In terms of positioning theory Ahlsell could be described most appropriately as a company pursuing a needs-based positioning strategy, see (Porter, 1996). This position being supported by activities in logistics and administration making it possible to serve most or all needs of the professional user in the Nordic construction and industry sectors.

The question of the applicability of these apparently very different strategy theoretical perspectives on the same firm then arises. Ahlsell obviously actively searches for favourable positions on the market under the support of activities in logistics and administration, supporting a positioning perspective. Simultaneously, the ability to perform these activities, the distinctive capabilities in logistics and administration, has driven the strategy to the present state, supporting a more resource-based view. This dual perspective of strategy content can be seen in Bowersox and Daugherty (1995) stating that “firms that use logistics strategically seek to exploit their unique competencies to gain and maintain competitive advantage” which would suggest a resource-based view of the firm, at the same time as the authors argue for a positioning
perspective, see e.g. Porter (1980; 1985). It thus seems to be a duality in the strategy content in the case showing on both a resource-based perspective and a positioning perspective. Described in the light of classifications of logistics strategies, see section 4.1.1 for more detailed descriptions of the classifications, the logistics content of the Ahlsell strategy falls out of the frames of the existing frameworks.

The Bowersox and Daugherty typology identifies three distinct logistics strategies:

(i) Process strategy  
(ii) Market strategy  
(iii) Information strategy

The McGinnis and Kohn classification from 1990, see (McGinnis and Kohn, 1990) consists of four types of strategies:

(i) Intensive logistics strategy  
(ii) Integrated logistics strategy  
(iii) Low integration logistics strategy  
(iv) Low effectiveness logistics strategy

McGinnis and Kohn (1993) show on three types of strategies:

(i) Intense logistics strategy  
(ii) Balanced logistics strategy  
(iii) Unfocused logistics strategy

It is possible to describe the logistics of Ahlsell according to these three classifications. However, the classifications lack an ability to describe how Ahlsell uses logistics strategically in enabling growth through acquisitions. The frameworks rather describe how logistics is performed do not go further in describing the use of logistics in the overall strategy of the firm. A framework coming closer to this is the classification of management by Gluck et al. (1980) set in a logistics context by Cavinato (1999). This classification sees four evolutionary stages in strategic management:

(i) Basic financial planning  
(ii) Forecast-based planning  
(iii) Externally oriented planning  
(iv) Strategic management

Cavinato adds a fifth stage to the classification by Gluck, called the knowledge-based business. This is a stage in which the firm continuously evaluates what is possible and how. The realisation
in 1995 that the strengths of Ahlsell are in logistics and administration leading to an acquisition strategy, places Ahlsell at a high evolutionary stage, maybe as high as on the stage of the knowledge-based business. However, of interest is not so much on which stage Ahlsell could be placed, as the management’s recognition of the possibilities in logistics. This facilitates a fit between the evolutionary stages of strategic management and logistics at Ahlsell. Cavinato argues that such a fit is important in order to facilitate understanding of logistics in the strategic management.

To sum up the use of logistics strategy classifications on the case of Ahlsell it seems that most classifications of logistics in terms of strategy do not incorporate a view that the logistics content of the strategy may affect the content of the overall strategy of the firm. That is however the case in Ahlsell.

Persson (1991) suggests that competition on logistics is held on a materials flow level rather than on a business unit level. On the materials flow level, the strategic importance of logistics is determined by two factors: the importance of logistics as a unique driver, and the importance of logistics as a cost driver. In the case of Ahlsell, logistics is indeed important as a cost driver. The costs of operations at Ahlsell are mainly in logistics. This would imply either flow- or cost oriented logistics according to Persson; see section 4.1.2. However, the market of Ahlsell has set extremely high requirements on logistics in terms of e.g. lead-time, product assortment, which results in making the offering of a high standard of logistics services less unique. Unique at Ahlsell is instead the ability to offer these logistics services in a cost effective way through economies of scale and scope. Further, the competition is in Ahlsell’s case not primarily pursued on the materials flow level. The advantages on the materials flow level are instead used on a corporate level to enable acquisitions.

It seems as if the traditional models of describing logistics in the strategy of the firm is unable to describe a firm as Ahlsell. Ahlsell manages to combine cost-orientation, through economies of scale and scope, with performance, through the fulfilment of very high logistics requirements as regards e.g. lead-time, direct deliveries, and product assortment.

7.2 Context

In Ahlsell, a market undergoing considerable change is approached with a logistics organisation that remains relatively unchanged.

7.2.1 Outer Context

Ahlsell’s own definition of their market, or their outer context, is “professional users of goods and related services in the areas heating and plumbing, electrical, tools and machinery, refrigeration, and DIY (do it yourself).” (Ahlsell, 2003b) The outer context of Ahlsell can be described as a highly competitive market of commodity goods. Christopher (1998) discusses such
“commoditized” markets and argues that as businesses move towards a higher degree of “commoditization”, product or technical features of the product sold are not seen as unimportant, rather they are taken for granted. The order-winning criteria in such markets are more likely to be service-based than product based. Subsequently, in the context of the firm in a “commoditized” market, logistics plays an important role. About 80% of Ahlsell’s sales are in electrical and heating and plumbing. Subsequently, Ahlsell is very sensitive to the market of the construction industry.

The current trends on the market, as recognised by Ahlsell, can be summarised in the following points:

- Increased product assortment
- Consolidation
- Lead-time reduction

With an increasing technology content in the products, especially in the areas heating and plumbing and electrical, follows a larger number of product varieties. Ten years ago, Ahlsell had approximately 50,000 articles on offer; today there are more than 100,000 articles. Some years ago, the market of Ahlsell was very fragmented. Today, however, there is a strong trend of consolidation leading to fewer and bigger actors on the market. Lastly, increasing demands on lead-time reductions have led to higher requirements on the logistics function at Ahlsell as well as for the competition. Leif Christensson, vice president of logistics, summarises:

“Twenty years ago the end customer had a planning horizon of a week or maybe ten days…ten years ago, the planning horizon had shrunk to 48 hours…now the customer can place an order at 1600 and receive the goods the next morning.” (The author’s translation from Swedish.)

The lead-time-reduction-trend has strengthened Ahlsell, as the concern since many years is very strong in logistics.

Looking backward in the supply chain, the suppliers of Ahlsell are placed around the globe and amount to about 5,000. The supplier market is fragmented but Ahlsell believes that there is an increase in consolidation. Ahlsell chooses to be passive in that consolidation. Lars Svensson, vice president of procurement, argues that a consolidation backwards in the supply chain would result only in a conflict of interest. Instead Ahlsell closely follows the consolidation and the shift of production from Europe and eastwards by the suppliers. If there are cost savings made in the supplier level of the chain, Ahlsell expects lower prices. Part of this is Ahlsell’s active search for new suppliers both in the Far East and in the Baltic states. Whenever it is possible, Ahlsell chooses to procure their goods directly from the producer. The latter however, often prefer when Ahlsell buys their products through agents. Normally the size difference between Ahlsell and the producer determines who wins that battle.
Looking forward in the supply chain, the customers are mainly found among installation companies, followed by the manufacturing and the construction industries. Together, these three customer groups make up 80% of the turnover of the in total 70,000 customers. Through the widespread network of Ahlsell-owned local outlets there is a high degree of local presence. In order to use this strategcally Ahlsell now has decided to focus more on small local customers since these are willing to pay a premium for the local presence compared with the large national customers. Lars Svensson says:

“No competitor can match our local presence. We have, however, not always used that. The large customers receive their goods directly from Hallsberg and do not appreciate the local presence. On those deals we have become big as what concerns volume but not as what concerns profitability. We have simply forgotten the local customer. In that area we need to make a turnaround.”

(The author’s translation from Swedish)

The changes that the outer context of Ahlsell is undergoing; the demand of a wider product assortment, the consolidation; are in effect changes in environmental relations and changes in product line for Ahlsell. Pfohl and Zöllner (1997) argue that changes in environmental relations and product line both are contingency factors influencing the role of logistics in the firm. Since the role of logistics is part of inner context this will be further discussed in the next section.

The market and outer context of Ahlsell can be described as the “commoditized” market discussed by Christopher (1998). The requirements by the customers are placed more on the services surrounding the product sold than on the product itself. However, the excellence in logistics that Ahlsell displays is not in itself unique on the market. Ahlsell follows the market trends and realises that there are advantages in the operations of the firm as the planning horizon of the customers is becoming shorter and shorter. The lead-time requirements placed by the customers are however fulfilled by most of the competition. Instead it is a question of fulfilling these requirements in a cost-effective way.

### 7.2.2 Inner Context

In the Ahlsell organisation logistics is given a central role, see Figure 26. Not visible in the figure are the logistics organisations in Norway, Finland, and Denmark. Each of these countries has a separate central warehouse due to limitations in delivery times.

![Figure 26. The Ahlsell Organisation](image-url)
The large number of acquisitions made since the early 1990s have been an enduring task for the organisation. With each acquisition followed a number of new customers but naturally many of these new customers were already customers of Ahlsell. This has meant an increasing complexity for the individual customer maybe having several different contacts at Ahlsell for different assortments and maybe also a number of account numbers to handle. This has resulted in a reorganisation into markets, from an organisation divided into product areas. Also, procurement has been given a more central position in the new organisation, placing it in one department responsible for the procurement of the whole concern. Göran Näsholm, the President of Ahlsell, claims that the new organisation will increase Ahlsell’s focus on the customer and the efficiency in sales and procurement. Figure 27 illustrates the Swedish Ahlsell organisation. Worth to highlight is the central roles of logistics and procurement as well as the division into sales regions over product areas.

Figure 27. The Swedish Ahlsell Organisation

It has already been stated that logistics is centralised organisationally. Since 1990 it is also centralised structurally. At that time, with the new owner Trelleborg, the company shifted from a number of regional warehouses and between 50 and 100 local warehouses to one central warehouse in Hallsberg. The main reason behind the centralisation was, according to the vice president of logistics, Leif Christensson, to lower the amount of capital tied up in stock. Hans Gunnarsson, logistics controller, recalls that the first years in the new structure were quite dramatic. The shift was also difficult since Ahlsell had a culture of strong local independence. The centralisation of the warehousing was put through simultaneously with the implementation of a new IT system. Also that implementation was not trouble-free. It took some five years until the central warehouse ran smoothly. The logistics function improved the performance. The
central warehouse also meant a higher status internally for the logistics function and for the staff working there. That view was new at Ahlsell at the time, says Leif Christensson.

Today, the central warehouse in Hallsberg is among Europe’s largest warehouses with more than 100,000 articles in stock. The experience gained from the opening of the Hallsberg warehouse has been important in the implementation of warehouses for the Norwegian, Danish, and Finnish markets. Leif Christensson, the vice president of logistics, is responsible for the Hallsberg warehouse and its outbound flow of goods. Further, Christensson is responsible for the warehouse for the Danish market, in Malmö. The warehouses in Norway and Finland are however run by their own respective warehouse management. Göran Näsholm means that the decisions made at central warehouse level in the other Scandinavian countries are of an operative nature and require local knowledge and control why these warehouses are managed locally. However, when problematic situations do arise, Leif Christensson is used as a resource. The responsibility for the inbound materials flow to Hallsberg and the other warehouses is placed under procurement, and not the logistics function.

As has been described, logistics is a central part of the organisation, however, it is not seen as a dominating force internally. Ahlsell is strongly market driven, says Leif Christensson, vice president of logistics, he continues:

“Internally the logistics department sees itself as a muscle, which it is up to the sales department to flex. However, Marketing and Sales are very conscious that without the operative logistics the deals will not be won.” (The author’s translation from Swedish)

In Ahlsell’s present strategy, logistics plays an important role; according to Göran Näsholm, Ahlsell’s president, logistics is the sole most important area for synergies in acquisitions.

With Figure 28 is illustrated the physical distribution structure for the Hallsberg warehouse. External subcontractors handle all the flows.

*Percentage of total sales

Figure 28. The Ahlsell goods flows (source: Ahlsell’s annual report 2003, p. 12, and Leif Christensson)
In order to reach economies of scale, some articles are kept in only one location in Scandinavia, that location is always Hallsberg. A large proportion of the orders coming in comes via AhlSELL’s e-commerce solution. Other means to order are EDI, handheld computer terminals, and VMI.

The 125 AhlSELL-owned outlets account for 25% of total sales physically. The customers may also place an order in an outlet for a direct delivery one day later. Despite central control, local independence is seen as important. Each outlet is therefore responsible for its own costs and can independently decide on local stock levels. Hans Gunnarsson, Logistics controller, works as a resource for the many outlets concerning logistics know-how. In acquisitions he visits the acquired outlets to inform and train the staff in AhlSELL routines.

The case follows AhlSELL from a decentralised organisation in 1990 to the centralised logistics organisation of today, with a growing customer base coming largely from acquisitions. During this journey several changes have occurred within AhlSELL, the last being the reorganisation into market areas rather than product areas, as well as in the environment of the organisation, e.g. the consolidation.

The contingency approach to the organisation of logistics acknowledges that there are factors in the environment of the firm that have an effect on the organisation of logistics. Persson (1997) argues that there are three factors that influence:

- Logistics task predictability
- Number of logistics decision elements
- Autonomous logistics decision areas

In AhlSELL, the logistics task predictability is high since the vast majority of the products delivered are kept in stock. The number of logistics decision elements is extremely high at AhlSELL, keeping 120,000 articles in stock. There exist a number of autonomous logistics decision areas through the different product assortment, e.g. DIY, refrigeration, plumbing etc.

The high logistics task predictability would suggest, according to Persson, that a flow-oriented logistics organisation is preferable. Persson discusses the logistics task predictability together with the number of logistics decision elements and the combination of high logistics task predictability with a large number of logistics decision elements would further emphasise the need for a flow oriented logistics organisation. The high task predictability enhances the possibility for formalisation and rules. The third contingency, autonomous logistics decision areas, determines the degree of co-ordination necessary. Persson suggests that the existence of several autonomous logistics decision areas calls for additional co-ordination capacity than that available within a traditional functional hierarchy, i.e. management by a professional co-ordinator in addition to the divisional management.
In the light of Persson (1997) Ahlsell follows this contingency model well. The sales organisation is organised according to markets. The logistics as well as the procurement organisations are flow oriented and the flow co-ordination is handled by the procurement organisation (inbound flow) and the logistics organisation (outbound flow). When changes are planned on the market side, these are discussed with logistics in order to ensure the realisation of changes.

The contingency factors introduced by Persson (1997) could be said to be of firm internal nature. Pfohl and Zöllner (1997) discuss also external factors, the environmental relations of the firm, as determinants for the role of logistics in the firm. Such factors are the number of suppliers, or sources of supply, and the number of customers to be served. The recent reorganisation at Ahlsell as a response to changes in the environment has however let logistics remain at its position centrally in the organisation. This would imply that the logistics organisation at Ahlsell has an inherent ability to adapt and respond to changes in the environment without altering its internal structure.

An example of Ahlsell’s relation to its environment is the relation with its end-customers. In this case, Ahlsell has realised that the logistics solution pursued by the concern has advantages in the relation to small local customers appreciating the local presence by Ahlsell’s outlets. Therefore, focus in sales is currently directed towards this type of customer and their requirements on logistics. Ahlsell has subsequently adapted its approach to the context of the firm based on the resources available within the firm. This adjustment of the strategy to the firm’s operative platforms is acknowledged by Abrahamsson et al. (2003). Abrahamsson et al. mean that logistics, as an operative platform, can be used as a resource base to support and enable strategic moves on the market. The logistics platform of Ahlsell can subsequently to a large extent be described as type three logistics as defined by Abrahamsson et al. Ahlsell uses logistics, as already mentioned, as a resource base for strategic moves on the market. Their logistics is centralised and the logistics responsibility too, is centralised in regards to the business system. Logistics considerations are brought up to a high level in the organisation. The logistics platform is further able to respond cost-effectively to changes in the market. An example of the latter could be the rolling out of logistics platforms similar to the Swedish one in the other Nordic countries.
8 Analysis of the Bergman & Beving Case

As in the case of Ahlsell, Bergman & Beving approaches a changing market with a strategy built to a large extent on logistics content.

8.1 Content

There is a number of operating areas within Bergman & Beving. However, strategically, the Tools operations are the core of the long-term development of the concern. It is the intention of the concern to pursue a strategy that builds on a decentralised organisation within the Tools operations, however still achieving economies of scale in logistics and IT.

According to Carl Johan Lundberg, executive vice president, Bergman & Beving’s vision is…

“…to reach multi-local market leadership” (The author’s translation from Swedish)

With multi-local market leadership is meant a market share of at least 30% on each local market, e.g. in a small town. At the moment, Bergman & Beving is far away from this goal. In illustrating how the position of multi-local market leadership is to be reached, Bergman & Beving uses the value chain, see Figure 29. The value chain is very commonly used within the group in illustrating the strategy and long-term goals.

![Figure 29. The Bergman & Beving Value Chain (bb.se)]

The value chain describes Bergman & Beving and their position in the flow of goods. The concern integrates both backwards and forward in the value chain. In integrating backwards however, there is no intention to gain ownership of production resources. Instead there is a focus towards controlling a number of proprietary brands, i.e. controlling the brand names, design, and
quality. Carl Johan Lundberg expresses this as Bergman & Beving owning “the recipe” for the products that they let other actors in the value chain produce.

The core of the concern consists of the product companies, i.e. the supplier or distributor level of the value chain. For these businesses there is a strong focus on decentralised business responsibility. Based on the internal and external conditions for each product company the product companies have individual financial and strategic goals. At the same time; it is intended to reach economies of scale in areas such as IT and logistics, market cultivation, purchasing, and internal efficiency between the product companies. There is a strong trend of consolidation at this level of the value chain and it is Bergman & Beving’s intention to take active part in this consolidation.

At the right hand end of the value chain are the resellers. There are both fully independent resellers and partner resellers. The partner resellers are not owned but carry the Tools logo as part of the Tools partnership chain. Bergman & Beving Integration is the company within the concern responsible for developing the channel to the end customers through the resellers.

Until recently Bergman & Beving has chosen not to own any resellers and instead focus on partnership with independent resellers. However, since the competition has begun to acquire resellers that previously were partner resellers with Bergman & Beving, the concern has decided to acquire resellers in order to secure the channel to the market.

Applying a strategy theoretical perspective on the value chain reveals a firm that displays a distinctive capability in its logistics operations, namely in the form of integrating a decentralised organisation into one logistics solution. Once again, we return to the definition of a distinctive capability. A distinctive capability needs to be...

- valuable in that they support the market position, neutralise threats, or exploit opportunities. (Barney, 1991; Day, 1994)
- rare, difficult to imitate or substitute. (Prahalad and Hamel, 1990; Barney, 1991; Day, 1994)
- built up from transformed key business processes. (Stalk Jr. et al., 1992)
- deliver disproportionate contribution to perceived customer value. (Prahalad and Hamel, 1990; Day, 1994)
- robust and possible to use on a wide variety of markets (Prahalad and Hamel, 1990; Day, 1994) and aid the firm in adapting to environmental change (Day, 1994).

In the case of Bergman & Beving, strategy centres around the value chain, which very much visualises the core and essence of the distinctive capability of integrating the logistics and administration of diverse product companies seamlessly internally as well as externally with suppliers and resellers. This capability is valuable in that it supports the market position of the firm...
of being a focused distributor of diverse goods. Focused in that, specialised product companies offer the different assortments on the market. Diverse in that the product portfolio spans from household products to workplace equipment. The holding of such a position would not be possible as regards profitability if not costs for logistics and administration could be held low. At the same time, the requirements on logistics and administration are high. Bergman & Beving is yet another example of a firm in a “commoditized” market in which the services surrounding the product is at least as important as the product itself, see e.g. (Christopher, 1998). The logistics operations as such are not very advanced or rare. However, it has taken time to build them up and subsequently it also takes time to copy them. Anders Möller, vice president of logistics, puts it as follows:

“If people had not been so insightful as regards logistics development, to introduce the hand terminals for ordering in the seventies, we would not have been where we are today.”

(The author’s translation from Swedish)

Möller continues,

“With a good infrastructure it is fairly simple to take in new assortments. However, the logistics solutions we use are by no means rocket science, it is rather bread and butter.”

(The author’s translation from Swedish)

Key business processes in the form of physical flow of goods as well as information flows enable the pursuing of the strategy of Bergman & Beving. Without the integrating processes in logistics and administration it would not be possible for the diverse product companies to co-exist profitably. As mentioned above, the products of Bergman & Beving are to a large extend “commoditized” making the capabilities in logistics and administration a large part of the perceived customer value. The fact that the product companies are diverse, acting on different markets, shows that the capabilities of Bergman & Beving are possible to use on a wide variety of markets and adapt to changes on them. The logistics capabilities of Bergman & Beving could be said to be agile (Christopher, 2000) yet also cost-effective.

It seems as if the product companies within Bergman & Beving share a common distinctive capability in logistics and administration, namely the ability to reach a state of economies of scale and scope (Chandler, 1990) with diverse product companies, a state of economies of integration (Håkansson and Persson, 2004). That would imply that a resource-based view of the firm could appropriately describe Bergman & Beving.

The strategy of the concern needs to be communicated to the product companies. The concern is focusing heavily on a decentralised business responsibility at the same time as coordination for economies of scale should be reached concern wide.
The official strategic guidelines for the product companies are based on a few key words:

“focus, market strength, efficiency enhancement, and streamlining” (Bergman & Beving annual report 2003/2004)

Also, the product companies have predefined priorities on growth and profitability. The measure for profitability used in the concern is return on working capital (P/WC). The goal for this measure is set to at least 45%. For product companies displaying a return on working capital less than 25% attention must be directed at reaching higher profitability. For companies with a return on working capital between 25% and 45% attention should be directed towards both profitability and growth whereas companies showing a return on working capital of more than 45% should aim at maintaining the profitability and achieve growth. This is illustrated in Figure 30. Bergman & Beving states that approximately 20 companies within the group today display a return on working capital exceeding 45%.

![Figure 30. Return on working capital within Bergman & Beving](Bergman & Beving annual report 2003/2004, p. 4)

Since the organisation is very decentralised, many strategic moves, such as acquisitions, are initiated in the product companies. It is a balance act for the concern to gain economies of scale through centralisation of i.e. logistics at the same time as the business responsibility to a high degree is decentralised. The concern states:

“Bergman & Beving is permeated by its belief in a decentralised business responsibility. Based on specific market and structural prerequisites, each operating area works according to its strategic and financial goals.” (bb.se)

Simultaneously, economies of scale and synergies are aimed upon:

“Economies of scale and synergies are achieved and developed in logistics and IT, as well as in areas such as market cultivation, purchasing, and internal efficiency.” (bb.se)
The dual focus that this results in is; by Carl Johan Lundberg, executive vice president; argued to be not only a problem but also a competitive advantage:

“We are convinced that the advantages are greater than the disadvantages of our form of organisation. The disadvantages (of having a large number of different product companies, the author’s comment) are the large internal administration and having strategies in the different product companies that are not aligned. However, the latter also means advantages. We live in a world full of paradoxes and if we cannot handle them we cannot survive. There are no absolute truths, each coin has two sides and we need to be able to play them both. Such discussions take us forward.” (The author’s translation from Swedish)

The stated goal of reaching economies of scale set in relation to the theory, see e.g. (Chandler, 1990), is as much about economies of scope as about economies of scale since the concern manages to handle a wide portfolio of product companies and thereby also product assortments.

The Bergman & Beving value chain naturally draws one’s attention towards positioning theory and the value chain of Porter (1985). However, even though it would be possible to describe the strategies of the separate product companies using classifications into variety-based, needs-based, and access-based positioning, see (Porter, 1996), the whole set of product companies displays too much diversity to make such a classification fruitful for the Bergman & Beving concern as a whole. The concern is instead held together through the common platform for logistics and administration. This does not, however, mean that positioning theory can be fully discarded what concerns Bergman & Beving. According to Carl Johan Lundberg, executive vice president, the strategy development in the concern is characterised by being an interplay between external and internal factors, which together determine the strategic course of the concern. The development of for the concern strategically valuable logistics solutions could be an example of an internal factor determining the course of action. An example of an external factor is the recent development that competitors buy resellers that are previous partners of Bergman & Beving. This development has led to an adjustment of the concerns strategy allowing for the acquisitions of a number of resellers even though partnership still is the preferred form of organising the channel towards the customer.

As was made with the Ahlsell case in the previous chapter, Bergman & Beving will be analysed through the classifications of logistics strategies presented in the theoretical framework.

The typology presented by Bowersox and Daugherty (1987) identifies three distinct logistics strategies:

(i) Process strategy
(ii) Market strategy
(iii) Information strategy
The case of Bergman & Beving set in relation to the Bowersox and Daugherty classification shows on unclear distinctions between the three different classes. Bergman & Beving is a concern that in its logistics operations handles a broad group of logistics services (process strategy) across business units (market strategy) heavily relying on interorganisational collaboration (information strategy). The classification is hence not suitable to describe the role of logistics at Bergman & Beving.

The McGinnis and Kohn classification from 1990, see (McGinnis and Kohn, 1990) consists of four strategy types:

(i) Intensive logistics strategy
(ii) Integrated logistics strategy
(iii) Low integration logistics strategy
(iv) Low effectiveness logistics strategy

McGinnis and Kohn (1993) show on three strategy types:

(i) Intense logistics strategy
(ii) Balanced logistics strategy
(iii) Unfocused logistics strategy

Also the classifications of McGinnis and Kohn seem unfit to describe the operations of Bergman & Beving. The classification of McGinnis and Kohn from 1990 could describe the concern in terms of focus on customer service, integrated computer systems, and logistics coordination (intensive logistics strategy and integrated logistics strategy). However, the classification reveals nothing on the relation of logistics to strategy. The classification from 1993 builds on the previously discussed classification by Bowersox and Daugherty (1987). Since the latter classification was found unsuitable the same conclusion can be drawn as regards the 1993-classification of McGinnis and Kohn.

The criticism directed towards the classification in McGinnis and Kohn (1990) that it could not describe logistics in relation to the strategy of the firm is to some extent handled in Cavinato (1999). Cavinato (1999) sets the classification of management by Gluck et al. (1980) in a logistics context. This classification sees four evolutionary stages in strategic management:

(i) Basic financial planning
(ii) Forecast-based planning
(iii) Externally oriented planning
(iv) Strategic management
Cavinato further adds a fifth stage to the classification by Gluck, namely the knowledge-based business. In this stage the firm continuously evaluates what is possible and how. As discussed earlier in this chapter, the strategy development in the concern is characterised by being an interplay between external and internal factors. Developments in logistics can in that way determine the strategic course of action for the concern. This recognition of how logistics can be used strategically implies that there is a fit between the evolution of general strategic management and logistics as discussed by Cavinato as favourable for the success of the firm.

The logistics strategy classifications handled seem to a large extent unfit to describe the role of logistics in the strategy of Bergman & Beving. However, applying the evolutionary stages of Cavinato suggests that logistics is indeed important for the strategy of the firm.

Persson (1991) discusses logistics-based competition and argues that logistics as part of strategy should be discussed on a materials flow level rather than on a business unit level. On the materials flow level the strategic importance of logistics is set by two factors, namely the importance of logistics as a unique driver, and the importance of logistics as a cost driver.

Logistics, in terms of a cost driver is indeed important for Bergman & Beving. The operations are very logistics intensive. However, through economies of integration (Håkansson and Persson, 2004), Bergman & Beving manages to maintain logistics costs at a relatively low level. The market requirements on e.g. lead-time and direct distribution call for a performance oriented logistics solution. Bergman & Beving fulfils such requirements but at a low cost.

8.2 Context

As in the case of Ahlsell, the market of Bergman & Beving is highly competitive and is undergoing considerable change. The logistics organisation in the concern is despite this remaining in a relatively stable position.

8.2.1 Outer Context

Bergman & Beving has a wide range of products and subsequently also markets. The end customers are found both among private households and among large industries. However, the main end-customer-base is found in the industrial and construction sectors. The geographical basis of the concern is the Nordic market; also of growing importance are the Baltic States and Poland.

The market is constantly changing and the main changes affecting Bergman & Beving at the moment can be summarised in the following:

- National accounts
- Consolidation
- Increase in proprietary brands
- Vertical Integration
- Lead-time reduction

An increasing part of the customers’ request national accounts to which the local sales must be tied. This results in an increasing importance of local coverage and also a higher degree of direct distribution to the end customer. Even though local resellers handle the sales for these national accounts, the physical flow might be directly from warehouse to customer. The logistics capabilities of Bergman & Beving make it possible to fulfil this requirement cost efficiently. Articles not available locally can be supplied overnight from the central warehouses.

The consolidation trend is strong on all levels of the value chain. Bergman & Beving takes active part in the consolidation on the manufacturer level through the acquisition of proprietary brand names, however no production. At the distributor level the concern makes acquisitions, the latest being Momentum in 2004. As previously mentioned, Bergman & Beving is now also acquiring resellers in order to secure the channel to the market. It is within Bergman & Beving’s capabilities to integrate the actors throughout the supply chain cost efficiently. An example of this is the partner chain Tools founded and run by Bergman & Beving.

For Bergman & Beving, the ratio of proprietary brands has increased during the last years. Ulf Carlsson, President of Luna, means that the proprietary brands are increasing due to the low profit margins on external brands. In increasing the ratio of proprietary brands the concern recognises that their capabilities are in integration and not in manufacturing. Therefore, external parties manufacture the proprietary brands.

The requirements on lead-time have increased dramatically during the last years. Bergman & Beving can, with the central warehouses in Ulricehamn and Alingsås, meet the current requirements on lead-times in a cost-efficient way. Göran Andersson, president of Luna Servicepartner, states that a large change in logistics during the last years is the increasing coordination of transports from the two central warehouses in Ulricehamn and Alingsås and the establishment of a number of direct transport routes to cities with large goods volumes. These changes have both made it possible to shorten the lead-time.

The outer context of Bergman & Beving is strongly characterised by being a “commoditized” market, (Christopher, 1998). The product itself is not as important as the services surrounding it. This has also affected the operations of Bergman & Beving where a strong focus is directed towards logistics. The changes occurring in the environment of Bergman & Beving, the outer context, can be said to be contingency factors affecting the organisation of logistics within the firm. The changes referred to are the national accounts, the consolidation, the increase in proprietary brands, the vertical integration, and the increasing requirements on lead-time reduction. Such changes are being discussed by Pföhl and Zöllner (1997) and since the effects are within rather than outside the firm this will be further discussed in the next section.
8.2.2 Inner Context

In this thesis, the Tools operations are in focus. Tools is the collective name for eight product companies; see Figure 31. Of the companies within Tools; Luna, Skydda, Essve, Gigant, Grunda, and Momentum; are product companies. Integration is responsible for business development within the Tools operations and for building partnerships with the group’s resellers. InfoTrans is responsible for logistics and IT development within the concern as well as coordination of IT and logistics services.

![Diagram](image)

Figure 31. The Bergman & Beving Organisation

Bergman & Beving has two central warehouses, one in Ulricehamn and one in Alingsås. There are historical reasons why they are two but the concern has put a lot of effort into integrating the two warehouses. The operations at the two warehouses are managed by two companies: Logistikpartner and Luna Servicepartner. Figure 32 illustrates today’s goods flows to and from the two warehouses.

![Diagram](image)

Figure 32. The Bergman & Beving goods flows
Toolstore, Bergman & Beving’s e-commerce solution, is the common way of placing an order at any of the product companies. Via Toolstore one has access to more than 100,000 articles from the product companies within the concern. The resellers can place orders via Toolstore, watch stock levels, track deliveries, and watch order history. Other possible solutions are handheld terminals, VMI, etc.

The Bergman & Beving organisation could probably best be described as a centralised decentralised organisation. Centralised as regards logistics, however decentralised as regards marketing and sales. This results in an ability to quickly react to market changes due to the decentralised market organisations. Simultaneously, logistics is centralised in relation to the business system so that logistics responses to market changes can be made quickly. This is in line with Abrahamsson et al. (2003) also discussing Bergman & Beving and especially focusing on the product company Luna emphasising the importance of centralised logistics not only in relation to the physical structure but also to the business as a whole. The changes in the market described earlier, in the section on outer context, namely national accounts, consolidation, increase in proprietary brands, vertical integration, and lead-time reduction; are to a large extent about changes in outer context. These contingency factors should according to Pfohl and Zöllner (1997) affect and alter the role of logistics in the firm. Despite substantial changes in the environment of Bergman & Beving and subsequently in the contingency factors discussed by Pfohl and Zöllner, the role of logistics in the organisation has remained relatively unchanged.

Whereas Pfohl and Zöllner take in environmental relations as contingency factors, Persson (1997) discusses internal factors, namely:

- Logistics task predictability,
- Number of logistics decision elements, and
- Autonomous logistics decision areas

Just as in the case of Ahlsell the logistics task predictability and the number of logistics decision elements are high in Bergman & Beving. The vast majority of the orders handled are on articles held in stock, and the number of articles held is more than 100,000. The high number of autonomous logistics decision areas is evident in the case of Bergman & Beving since the different product groups are taken care of by different product companies. The resulting suggestion, following Persson, would be additional flow co-ordination beyond that of the traditional divisional organisation. In Bergman & Beving, the logistics co-ordination is taken care of by a separate organisational unit, Bergman & Beving InfoTrans. The effects of the contingency factors presented by Persson then seem to be matched by the empirical evidence in the Bergman & Beving case.
The discussion on contingency factors shows that Bergman & Beving seems to have a logistics
organisation that is adapted to the internal contingency factors of Persson (1997) whereas there
seems to be a robustness towards changes in the environmental contingency factors of Pföhl and
Zöllner (1997). Logistics in Bergman & Beving has thus reached a position in the firm from
which it is able to react and respond to external changes without internal alteration in relation to
the business system.
9 Conclusions and Issues for Further Research

It can be concluded that this research has led to an improved description of the role of logistics in the strategy of the firm in the dimensions content and context, but that further research is needed in order to establish a more solid explanation of the relation between strategy and logistics. A few key findings are briefly summarised below and discussed further in the following sections.

- Bergman & Beving serves as an example of a firm that manages to integrate a decentralised group of product companies into a centralised logistics platform.

- In Ahlsell can be seen a firm that achieves synergy effects in acquisitions by moving logistics and administration of the acquired firms into their centralised logistics platform.

- From a logistics point of view, the logistics solutions of the studied firms are not optimal in the sense of minimised costs and maximised service. However, logistics fulfils an important role in the strategies of the firms.

- The outer contexts of the cases are very alike. However, the firms interpret this outer context in different ways. Where Ahlsell sees a need for economies of scale, Bergman & Beving sees a need for economies of scale, scope, and integration. The research shows that similar outer contexts can be approached with different logistics solutions.

- The logistics organisations in the studied firms display a robustness regarding changes in the outer context. The changes in the environment are met without altering the logistics organisation in the firm.

9.1 The Logistics Content in the Strategy of the Firm

In searching for the characteristics of the logistics content in the strategy of the firm it has been found that this role, in the firm expanding under sustained profitability by the means of logistics, cannot be described appropriately using the established logistics strategy classifications. Logistics has become so intertwined with the general strategy of the firm that there is no clear divider between them. Subsequently, one cannot speak of a logistics strategy; one should rather address the strategy of the firm in general, of which logistics could make up a significant part. This means
that logistics has assumed an active role in the strategy of the firm instead of a traditional supporting role.

In terms of strategy theory, the cases display a high degree of capabilities-based competition (Stalk Jr. et al., 1992), which would imply a resource-based view of the firm, see e.g. (Barney, 1991). Examples of how the resource-based view of the firm surfaces in the studied cases can be seen in the following quotations:

“If people had not been so insightful what regards logistics development, to introduce the hand terminals for ordering in the seventies, we would not have been where we are today.”

Anders Möller, vice president of logistics at Bergman & Beving

Today’s strategy of Bergman & Beving very much has its basis in an ability to integrate a large number of companies into one logistics platform. This ability has its roots in a long period of logistics development, building up a resource-base in logistics, starting off with initiatives such as the hand terminals for ordering introduced in the seventies.

“We realised that we were more efficient than our competitors.”

Leif Christensson, vice president of logistics at Ahlsell comments on the realisation in 1995 that the concern had strengths in logistics after the centralisation five years earlier.

The centralisation of the Ahlsell distribution structure in 1990 was made mainly due to cost considerations. However, as a further effect, Ahlsell realised that their operations were more efficient than those of the competition. This is today used in the acquisition strategy that to a large extent is based on economies of scale in logistics and administration. Logistics and administration in the acquired firms are moved to the centralised logistics platform within Ahlsell.

However, at the same time as the cases display characteristics best described using an inside-out perspective, the analysis shows on how reactive firms must be as regards environmental changes, which would suggest more of an outside-in approach to strategy, see e.g. (Porter, 1980; 1985). This dynamism as regards strategy content in terms of inside-out and outside-in approaches to strategy might in fact be a strength for the firm. Viewing the firm in this more holistic perspective combining inside-out, the resource-based view, with outside-in, a positioning perspective, is also suggested by Kindström (2003).

The analysis also shows that Ahlsell and Bergman & Beving use their logistics capabilities for the same purpose, to grow profitably, but with different means. Ahlsell mainly searches economies of scale (Chandler, 1990) in their centralised operations. In their acquisitions, priority is given to integration of the acquired firms into the central platforms for logistics and administration. Bergman & Beving has a slightly different position since their organisation incorporates several different product companies and resellers that to a large extent are partners rather than
subsidiaries. Therefore, Bergman & Beving focuses on economies of scale and scope (Chandler, 1990), by managing to operate large-scale logistics operations for a group of product companies as well as external customers. Furthermore, in integrating the whole chain, from manufacturers of proprietary brands to partner resellers, crossing multiple firm borders in a cost efficient way, there is large emphasis on economies of integration (Håkansson and Persson, 2004).

A parallel can here be drawn to the two cases presented in chapter 1, H&M and Inditex. H&M focuses on economies of scale and Inditex pursues a strategy based on integration. The requirements on performance and cost are high and are possible to fulfil through agile (Christopher, 2000) yet cost-effective logistics. The constructs economies of scale, scope, and integration thus serve in describing the logistics content in the strategy of the firm.

The conscious focus on logistics in the strategies of the studied firms does not indicate that these firms pursue optimal state of the art logistics solutions, i.e. lower logistics costs as well as higher service levels can be achieved in the studied firms. They use logistics in order to create efficiency through economies of scale, scope, and integration and thus in creating growth under sustained profitability. In the Bergman & Beving case this is expressed as follows:

“With a good infrastructure it is fairly simple to take in new assortments. However, the logistics solutions we use are by no means rocket science, it is rather bread and butter.”

Anders Möller, vice president of logistics at Bergman & Beving

9.2 The Outer Context of Logistics in the Strategy of the Firm

The outer context of logistics in the strategy of the firm is, in the scope of this thesis, characterised by fierce competition resulting in high requirements on logistics. The two cases display similarities in outer context. Both firms act on markets characterised by a large degree of “commoditization” (Christopher, 1998) making the services surrounding the physical product increasingly important, among them logistics. The changes on the market experienced by the two firms are subsequently also similar. Ahlsell experiences:

- An increased product assortment
- Consolidation
- Lead-time reduction

In terms of logistics, the increased product assortment and the consolidation have similar effects. The results of both these trends are increased requirements on volume as well as number of suppliers and customers handled. The demands on decreasing lead-times lead to increased requirements on the operative logistics. For Ahlsell, this requirement has led to a need to have several central warehouses in order to be able to handle transportation to the customer within the lead-time constraint.
Bergman & Beving sees the following trends as the dominating ones:

- National accounts
- Consolidation
- Increase in proprietary brands
- Vertical Integration
- Lead-time reduction

These trends all have effects on the logistics operations of Bergman & Beving. The increase in national accounts has resulted in high requirements on local coverage of all locations where the customers within a national account are present. Simultaneously, this has resulted in increased direct distribution to the end customer even though the sales are handled via the local resellers.

The consolidation and the increase in proprietary brands are trends that affect logistics in terms of scale, scope, and integration. The consolidation occurs on all levels of the Bergman & Beving value chain: in terms of acquisitions of proprietary brands at the manufacturing level; in terms of acquisitions at the distributor level, see e.g. Momentum; and in terms of acquisitions of resellers. In managing numerous product companies in one logistics platform the company searches economies of scale as well as scope. The increase in proprietary brands is not only managed through acquisitions. Brands are also created internally with manufacturing subcontracted to external manufacturers placing requirements on integration with these.

The vertical integration, as seen by Bergman & Beving, is concerned with an increase in partnerships between distributors, such as Bergman & Beving, and manufacturers. Important in order to manage this integration successfully is large volumes; with large volumes come bargaining power towards the manufacturers.

The lead-time reduction experienced by Ahlsell is also recognised by Bergman & Beving. In order to accommodate for this requirement Bergman & Beving has focused on coordination of the two central warehouses as well as direct transport routes from the central warehouses to cities with large goods volumes.

To sum up, in both cases are made evident, changes in the competitive environment, or the outer context, that lead to considerable requirements on logistics. Both firms experience similar changes in their environment. Both Ahlsell and Bergman & Beving recognise the increasing demands for shorter lead-times as well as the trend of consolidation. Even though the changes are similar for the two firms, they interpret these changes in different ways. Ahlsell sees the changes in the outer context as changes that require a focus on economies of scale whereas Bergman & Beving interprets the changes as increasing requirements on scale, scope, and integration.
9.3 The Inner Context of Logistics in the Strategy of the Firm

The previous section handled the outer context of the firm and how the studied firms interpreted the changes in the outer context. The changes discussed, involve both the relations to the suppliers, and the relations to the customers. These relations are by Pfohl and Zöllner (1997) discussed as contingency factors affecting the organisation of logistics in the firm. However, in the studied cases, logistics has remained unaffected organisationally by the changes in the outer context. There seems to be an internal robustness in the logistics organisations enabling the encountering of changed external circumstances with an unchanged logistics organisation.

The cases show that in firms that have reached a level of logistics as part of strategy such as type three logistics, see (Abrahamsson et al., 2003), the logistics organisation is both sufficiently flexible and cost-effective to respond to environmental changes without changing the internal structure and the position of logistics relative to the business system.

It has been stated that the firms in the cases aim at growing under sustained profitability and succeed in doing so. The characteristics of the inner context that allows for such a strategy can be seen in an ability by the firm’s logistics platforms to allow for an expansion in volume as well as in product assortment, and geographically. The centralised warehousing and direct distribution to the customer or the resellers allows for making a wide product assortment available locally overnight. Through a standardised acquisition process in the case of Ahlsell and the resulting utilisation of economies of scale in their acquisitions the firm manages to grow profitably. Ahlsell has a logistics platform that enables logistics to be the sole most important area for synergies in acquisitions.

Bergman & Beving allows for a large degree of independence of each product company but places much emphasis on integrating the different product companies as well as external logistics service customers in one logistics platform. The result is a logistics platform that consists of two central warehouses, however coordinated both what regards the information flow, through e.g. Toolstore, and the physical flow through coordinated deliveries from both warehouses and all product companies.

Persson (1997) introduces contingency factors that are internal to the firm, namely: logistics task predictability, number of logistics decision elements, and amount of autonomous logistics decision areas. Application of this theory to the cases confirmed the contingency factors introduced by Persson.

In both cases the logistics task predictability is high. With this is meant that both firms have most of their products kept in stock. Persson (1997) uses the expression production to stock and thus assumes a manufacturing firm. It can however be argued that the difference between a factory processing products and a warehouse such as those in the cases is small and that the theory is equally applicable in this context. The cases are also similar in that the number of logistics decision elements is high in both cases. Both Ahlsell and Bergman & Beving are large
organisations with extreme numbers of products, exceeding 100,000 articles in both cases. Lastly, there exist a number of autonomous logistics decision areas in both cases, i.e. there exist separate product groups.

The circumstances, as described in the terms of Persson (1997), for the inner contexts of the two firms suggest that the logistics function in these cases should be flow oriented with a high degree of formalisation. The formalisation is called for by the high logistics task predictability. The requirement of flow orientation is a result of the large number of logistics decision elements as well as the high logistics task predictability. The existence of several autonomous logistics decision areas call for, according to Persson, additional coordination capacity than that available in a traditional functional hierarchy.

In the case of Ahlsell a division of responsibility for the flow of goods has been made into inbound flow, handled by the procurement organisation, and outbound flow, handled by the logistics organisation. Further, whenever changes are planned on the market side, these are discussed with logistics in order to ensure the realisation of the changes. In the case of Bergman & Beving, logistics coordination is taken care of by a separate organisational unit, Bergman & Beving InfoTrans.

The primary conclusion from applying contingency theory to the cases is that the logistics functions need to adapt to the internal contingency factors whereas the logistics organisation in the type of firm under study is robust towards changes in its environment.

9.4 Returning to the Purpose and Continuing the Research

In concluding the analysis of the cases from the perspectives of the three research questions, and looking towards the future, a return to what was set out to be attained at the beginning of this thesis is made, namely:

“…to describe and analyse the role of logistics in the strategy of the firm”

The research in this thesis has contributed by establishing that the role of logistics in the strategy of the firm can be most appropriately described using the resource-based view of the firm, however taking into account an ability by the firm to adapt to changes in the outer context. Logistics as a distinctive capability allows the studied firms to adapt to the changes in a dynamic outer context. A traditional positioning perspective, with logistics as supporting activities, might prove too static to describe such a role for logistics. The existing logistics strategy classifications, taking stance in positioning theory, fail to describe this role of logistics. The classifications thus assume that logistics is a strategy supporter rather than a strategy driver. This research further shows on firms that exist in a highly competitive dynamic outer context however displaying considerable robustness internally, in the inner context, as regards the ability by logistics to handle changes in the outer context. This is contradictory to the traditional view that the
development of operational structures follows from a strategy that is based on analyses of the environment, see e.g. (Chandler, 1962).

The strategy theory used to describe the logistics content of the strategy of the firm does so on an abstract level and in order to make the role of logistics more comprehensible, a bridge between the abstract strategy theory and the role of logistics needs to be established. From this would be gained more knowledge on how a strategy for growth under sustained profitability by the means of logistics is put into operation and give insights into the interplay between strategy and logistics, see Figure 33.

![Image of strategy and logistics interplay](image)

**Figure 33. The interplay between strategy and logistics**

A possibility to achieve this can be found in the use of a business model framework. Kindström (2003) states that the term business model in most research is seen as

"a way to understand and analyse a company and the parts that make up a whole."

(Kindström, 2003, p. 5)

Kindström’s way to illustrate such a model is seen in Figure 34 in which central roles are given to strategic positions and operative platforms between which an interaction or dynamism is recognised. The operative platforms include firm internal aspects such as the distinctive capabilities discussed in the analysis of the cases in this thesis. The strategic positions have a focus towards the market; Kindström here uses the term market in its widest sense including not only customers but also suppliers and competitors etc. Expressed in the terms of this thesis, the strategic positions are sought in the outer context whereas the operative platforms are found in the inner context.
A further understanding of the drivers and enablers as well as the interplay between strategic positions and operative platforms in a business model characterised by growth under sustained profitability by the means of logistics, can provide the link between strategy theory and logistics and thus extend this largely descriptive research to also explain the role of logistics in the strategy of the firm. Subsequently, a possible area for future research could be the application of a business model framework to cases such as the ones used in this research.
References


Ahlsell Annual Report 2003a

Ahlsell Information Brochure: En Nordisk Branschledare 2003b


http://www.cscmp.org Accessed on the 13th of April 2005


H&M Annual Report 2003


http://www.hm.se Accessed between August 2004 and March 2005


Normann, R. (2001). *Reframing Business - When the Map Changes the Landscape.* Chichester, John Wiley & Sons Ltd.


# Appendix 1: Interviewees

## Ahlsell
- **Leif Christensson**: Vice President of Logistics
- **Hans Gunnarsson**: Logistics Controller
- **Clein Johansson**: Vice President of Sales
- **Göran Näsholm**: President
- **Lars Svensson**: Vice President of Procurement

## Bergman & Beving
- **Göran Andersson**: President of Luna Servicepartner
- **Ulf Carlsson**: President of Luna
- **Sture Hellstrand**: President of Grunda
- **Lennart Holm**: President of Skydda Sverige
- **Göran Johansson**: Controller, Skydda Europe
- **Carl Johan Lundberg**: Executive Vice President
- **Anders Möller**: President of Bergman & Beving InfoTrans
- **Mats Petersson**: Vice President of Logistics, Bergman & Beving InfoTrans
Appendix 2: Interview Guide

**Info om forskningsprojektet**
1. Ge en kort introduktion till forskningsprojektet.
   . Gränssnitt Logistik – Strategi
   . Fokus på varuägande företag
   . Logistikens del i strategin

**Bakgrund Intervjupersonen**
2. Vilket är ditt ansvarsområde samt arbetsuppgifter?
   . Vem rapporterar du till?
   . Vilka rapporterar till dig?
3. Hur länge har du haft din nuvarande position?
4. Har du tidigare haft andra uppgifter inom företaget?
5. Vilken är din tidigare bakgrund?

**Bakgrund företaget**
6. Hur ser er organisation ut?
   . Koncernnivå
   . Produktbolag, Affärsområde motsv.
   . Funktioner (Marknad, Logistik, Produktion mm.)
7. Vad anser du är ert produktutbud och/eller serviceerbjudande?
8. Vilka är de viktigaste aktörerna i ert företags omgivning?
   . Leverantörer
   . Kunder
   . Övriga samarbetspartners
   . Konkurrenter
9. Hur har er verksamhet förändrats de senaste tio åren?
   . Företaget?
   . Branschen/Marknaden?
   . Logistiken?
10. Hur ser ni på framtiden?
   . Företaget?
   . Branschen/Marknaden?
   . Logistiken?

**Strategi**

11. Vilken är ert företags strategi?
   . Hur har företagets strategi skapats?
   . Har du haft någon roll i företagets strategibildning? På vilket sätt?
   . Har företagets strategiska inriktning förändrats mycket över tiden?

12. Finns det några viktiga händelser som förändrat företagets strategi? Exemplifiera!
   . Internt/inom företaget?
   . Externt/på marknaden?

13. Har Logistik som funktion påverkat företagets strategi?
   . Hur då?
   . När?
   . Exemplifiera!

14. Hur ser ni på era konkurrenter?
   . Har de en liknande strategisk inriktning som ni eller skiljer ni er åt?
   . Vad konkurrerar de med?

**Logistik**

15. Vilket är logistikinnehållet i ert produktutbud och/eller serviceerbjudande?
   . Utgör logistik en stor kostnadsandel? (Kan detta kvantifieras?)
   . Ser kunderna logistiken som en viktig del av ert erbjudande? Hur visar det sig?

16. På vilket sätt utför ni er logistik? (exemplifiera!)
   . Struktur (Centraliserad/Decentraliserad)
   . Processer och aktiviteter
   . IT
17. Var tas initiativ till förändringar inom logistik?
   
   . Logistik?
   . Marknad?
   . Centralt?

18. Var fattas beslut som rör logistik?
   
   . Centralt?
   . Lokalt?

19. Har utvecklingen inom er logistik på något sätt förändrat företagets strategi?
   
   . När och hur?
   . I vilken riktning?

20. Har Logistik varit inblandade inför t.ex. förvärv?
   
   . När och hur?

**Marknad**

21. Vilken är relationen mellan Logistik och Marknad internt på företaget?
   
   . Arbetar ni tvärfunktionellt? (Team/Projekt)

22. Vilka krav ställer era kunder på logistiken?
   
   . Hur kommuniceras kundernas krav till er logistikfunktion?
   . Har kundernas krav på logistiken förändrats?
   . Är kraven lika höga från alla kunder eller är skillnaderna mellan dem stora?

23. Marknadsför företaget sina produkter med hjälp av logistiken?

**Konkreta exempel**

24. Kan du genom något konkret exempel beskriva hur diskussionen/förändringar genomförts som påverkar såväl marknads- som logistikfunktionen?

Exempel på förändringar:
   
   . Specifikt för varje intervju/företag
**DISSEMINATIONS FROM THE INTERNATIONAL GRADUATE SCHOOL
OF MANAGEMENT AND INDUSTRIAL ENGINEERING**

No. 92

Editor: The Head of the IMIE, Linköpings universitet, SE-581 83 Linköping, Sweden

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Author</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1996</td>
<td>Engevall, Stefan</td>
<td>Cost Allocation in Distribution Planning, No. 1, Licentiate Thesis</td>
</tr>
<tr>
<td>2</td>
<td>1996</td>
<td>Lindström, Jörgen</td>
<td>Chefers användning av kommunikationsteknik, No. 2, Licentiate Thesis</td>
</tr>
<tr>
<td>5</td>
<td>1997</td>
<td>Tell, Fredrik</td>
<td>Knowledge and Justification - Exploring the Knowledge Based Firm, No. 5, Licentiate Thesis</td>
</tr>
<tr>
<td>6</td>
<td>1997</td>
<td>Nilsson, Mikael</td>
<td>Quality Principles in R &amp; D - An exploratory study of two processes, No. 6, Licentiate Thesis</td>
</tr>
<tr>
<td>7</td>
<td>1997</td>
<td>Berglund, Magnus</td>
<td>Third-party Logistics Providers - Towards an Conceptual Strategic Model, No. 7, Licentiate Thesis</td>
</tr>
<tr>
<td>9</td>
<td>1998</td>
<td>Augustsson, Magdalena</td>
<td>IT Outsourcing Relationships - A Transaction Cost Analysis of Two Cases, No. 9, Licentiate Thesis</td>
</tr>
<tr>
<td>11</td>
<td>1998</td>
<td>Bröte, Staffan</td>
<td>Disassembly Systems - Process Analysis and Strategic Considerations, No.11, Licentiate Thesis</td>
</tr>
<tr>
<td>12</td>
<td>1998</td>
<td>Tjäder, Jimmy</td>
<td>Projektledaren &amp; planen - en studie av projektledning i tre installations- och systemutvecklingsprojekt, No.12, Licentiate Thesis</td>
</tr>
</tbody>
</table>

Söderlund, Jonas: Globala Tider - om deadlines och kunskapsintegration i komplex utvecklingsprojekt, No.15, Licentiate Thesis


Säfsten, Kristina: Requirements and Strategic Preconditions for Efficient Assembly – A Theoretical analysis, No. 17, Licentiate Thesis

Tomicic, Marie: En ledningsgrupps kognitiva struktur - homogenitet, heterogenitet och förändring. No. 18, Licentiate Thesis


Alvehus, Martin: A Lagrangian Relaxation Approach to Production Scheduling. No. 20, 1999, Licentiate Thesis


Lindström, Jörgen: Does Distance Matters? On Geographical Dispersion in Organisations, No. 24, IMIE Dissertation

Persson, Jan: Production Planning and Scheduling in Refinery Industry No. 25, Licentiate Thesis

Lakemond, Nicolette: Supplier Coordination in Product Development Projects The case of Tetra Brik, No. 26, Licentiate Thesis

Kroslid, Dag: In Search of Quality Management – Rethinking and Reinterpreting No. 27, 1999, IMIE Dissertation

Elg, Mattias: Exploring Quality Improvement Activities in New Product Development. No. 28, Licentiate Thesis


Fang, Tony: Chinese Culture and Chinese Business Negotiating Style No. 31, IMIE Dissertation

Björkegren, Charlotte: Learning for the Next Project – Bearers and Barries in Knowledge Transfer within an Organisation, No. 32, Licentiate Thesis


Tjäder, Jimmy: Systemimplementering i praktiken – En studie av logiker i fyra projekter, No. 34, IMIE Dissertation

Skottheim, Joakim: Recycling in a Contradictory Environment, No. 35, Licentiate Thesis

Tell, Fredrik: Organizational Capabilities – A study of the manufacturers of power transmission equipment 1878-1990, No. 36, IMIE Dissertation

Askenäs, Linda: Affärssystemet – en studie om teknikens aktiva och passiva roll i en organisation, No. 37, Licentiate Thesis

Grundström, Christina: The many faces of standards and phases of standardisation in product development – Findings from explorative case studies involving software, No. 38, Licentiate Thesis

Söderlund, Jonas: Time-limited and Complex Interaction, No. 39, IMIE Dissertation

Persson, Fredrik: Simulation Modelling, Validation and Analysis of Supply Chains, No. 40, Licentiate Thesis

Magnusson, Thomas: ECO-Design and Product Innovation – Managing incremental and radical change for environmental compliance, No. 41, Licentiate Thesis

Bengtsson, Jens: Essays on Valuation of Manufacturing Flexibility – An option pricing theory approach, No. 42, Licentiate Thesis

Berglund, Magnus: Strategic Positioning of the Emerging Third-Party Logistics Providers, No. 43, IMIE Dissertations

Antoni, Marc: Inter-Project Learning – a Quality Perspective, No. 44, Licentiate Thesis

Erlandsson, Per: Governmental Grants in the Early Development of New Technology Based Firms, No. 45, Licentiate Thesis

Hallström, Anders: The Retailer’s Role in Car Distribution, No. 46, Licentiate Thesis
Nehler, Henrik: Activity-Based Costing – En kvantitativ studie kring spridning, användning, utformning och implementering i svensk verkstadsindustri, No. 47, Licentiate Thesis


Johansson, Glenn: Environmental performance requirements in product development – An exploratory study of two development projects, No. 49, IMIE Dissertation

Tomicic, Marie: Reaching Agreement in a Management Team – a Social Influences Perspective, No. 50, IMIE Dissertation

Rehme, Jakob: Sales coordination in multinational corporations – Development and management of key account programmes, No. 51, IMIE Dissertation

Lakemond, Nicolette: Managing across organisations – Intra- and interorganisational aspects of supplier involvement in product development projects, No. 52, IMIE Dissertation

Elg, Mattias: Performance measures and managerial work – A modified behavior setting approach to the study of usage of performance measures in managerial meetings, No. 53, IMIE Dissertation

Bröte, Staffan: Towards Market Driven Manufacturing Systems Design, No. 54, IMIE Dissertation

Rudberg, Martin: Manufacturing Strategy: Linking Competitive Priorities, Decision Categories and Manufacturing Networks, No. 55, IMIE Dissertation

West, Martin: Flexibility and Productivity: Two fundamental Properties of Production Processes in International Manufacturing Networks, No. 56, IMIE Dissertation


Norelius, Hans: Merge in Transit, No. 58, Licentiate Thesis

Öhrwall Rönnbäck, Anna: Interorganisational IT Support for Collaborative Product Development, No. 59, IMIE Dissertation

Persson, Jan: Production Scheduling and Shipment Planning at Oil Refineries: Optimization Based Methods, No. 60, IMIE Dissertation

Engevall, Stefan: Cost Allocation in some routing problems – A game theoretic approach? No. 61, IMIE Dissertation

Aldin, Niklas: The Strategic Interplay between marketing and logistics – Changing requirements and new possibilities, No. 62, Licentiate Thesis
<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>2002</td>
<td>Rapp, Cecilia: Exploring the sustainability of improvement activities – the long-term development of a suggestion scheme, No. 63, Licentiate Thesis</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>2002</td>
<td>Sundström, Per: Effectiveness in innovation – A study of software development projects, No. 64, Licentiate Thesis</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>2002</td>
<td>Frohn, Cecilia: Collective Competence in an interdisciplinary project context, No. 66, Licentiate Thesis</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>2002</td>
<td>Persson, Fredrik: Discrete event Simulation of Supply Chains – Modelling, Validation and Analysis, No.69, IMIE Dissertation</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>2003</td>
<td>Antoni, Marc: Learning between Projects - in Product Development Contexts, No. 71, IMIE Dissertation</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>2003</td>
<td>Bengtsson, Jens: Valuation of Production Flexibility and Supply Contracts-A Real Options Approach, No. 72, IMIE Dissertation</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>2003</td>
<td>Magnusson, Thomas: Managerial Challenges in Environmental Innovation - case studies in the electrical equipment and automotive sectors, No. 73, IMIE Dissertation</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>2003</td>
<td>Johansson, Pontus: Manufacturing strategy perspectives on industrial services, No. 74, Licentiate Thesis</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>2003</td>
<td>Lindskog, Magnus: Changing to third party logistics, No. 75, Licentiate thesis</td>
<td></td>
</tr>
</tbody>
</table>
The thesis was not printed

Kollberg, Beata: Exploring the Use of Balanced Scorecards in a Swedish Health Care Organization, No. 78, Licentiate Thesis


Askenäs, Linda: The Roles of IT - Studies of organising when implementing and using enterprise systems, No. 80, IMIE Dissertation

Windahl, Charlotta: Towards Integrated Solutions - Alfa Laval and the Wastewater industry No. 81, Licentiate Thesis

Norlén, Andreas: Oskärlighet och § 36 avtalslagen, No. 82, IMIE Dissertation


Öberg, Christina: On Customers in Mergers & Acquisitions, No. 84, Licentiate Thesis

Andersson, Pierre: The Business of Integrated Solutions, No. 85, Licentiate Thesis

Selldin, Erik: Supply chain design – Conceptual models and empirical analyses, No. 86, IMIE Dissertation

Hallström, Anders: Car Distribution Organization – Strategic Issues in Four Configurations, No. 87, IMIE Dissertation

Nehler, Henrik: Activity-Based Costing – avbildning, integration & nytta, No. 88, IMIE Dissertation


Henningsson, Markus: Retail Trade Demands on Distributors – Strategic and Operational Implications, No. 90, Licentiate Thesis

Kohn, Christofer: Centralisation of Distribution Systems and its Environmental Effects, No. 91, Licentiate Thesis