Logistics-based Competition

-A Business Model Approach

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Abstract

Logistics is increasingly becoming recognised as a source of competitive advantage, both in practice and in academia. The possible strategic impact of logistics makes it important to gain deeper insight into the role of logistics in the strategy of the firm. There is however a considerable research gap between the quite abstract strategy theory and logistics research. A possible tool to use in bridging this gap is identified in business model research. Therefore, the purpose of this dissertation is to describe and analyse logistics-based competition using a business model approach, a topic not handled in earlier research. This purpose entails investigating the role of logistics in the strategy of the firm by identifying a number of business model components which together constitute a logistics-based business model.

Theoretically, the dissertation departs from strategic management and more specifically from the two opposing strategy theoretical perspectives the resource-based view of the firm (RBV) and the industrial organisation school of thought (I/O). From this foundation, the theoretical framework is further built upon with logistics- and business model research leading to a model of analysis that eventually evolves into one of the main outcomes of the dissertation: a logistics-based business model.

The methodology used is that of multiple case studies of largely qualitative character. The cases represent trading firms which all display long-term profitable growth, a consistency in their growth, and they all have a, by the management, outspoken focus on logistics. The cases have been analysed using a pattern-matching approach.

A key deliverable from this research is the logistics-based business model, a model consisting of five components: strategy, position, offering, activities and organisation, and resources. The logistics-based business model makes possible a description and analysis of the role of logistics in the strategy of the firm leading to the identification of specific characteristics of the business models of firms competing on logistics. A few of the results from this research are:

- A logistics-based business model requires a synthesis of RBV and I/O.
- Control over the logistics resources is a distinctive capability in a logistics-based business model.
- Logistics strategy cannot be understood in terms of degree of integration only as much of the current logistics strategy research suggests.
Hybrid logistics-strategies can involve lean processes and agile assortment with standardisation as an enabler.

The domain of control of a logistics-based business model stretches beyond the domain of a traditional logistics strategy.

A single logistics-platform may support multiple offerings.

For managers, the logistics-based business model is possible to use as a tool in business development.
Sammanfattning


Teoretiskt tar avhandlingen avstamp i strategiteorin och mer specifikt i de två motpolerna resursbaserad teori (the resource-based view of the firm, RBV) och positioneringsskolan (the industrial organisation school of thought, I/O). Från denna grund byggs det teoretiska ramverket upp med logistik- och affärsmodellforskning vilket leder till en analysmodell som slutligen utvecklas till en av avhandlingens huvudleverabler: en logistikbaserad affärsmodell.

Metodologiskt bygger avhandlingen på huvudsakligen kvalitativa multipla fallstudier. Fallen representerar handelsföretag som samtliga uppvisar långsiktigt hållbar lönsam tillväxt, en likformig tillväxt och ett av ledningen uttalat fokus på logistik. Fallstudierna har analyserats genom en så kallad pattern-matching-ansats.

Ett viktigt resultat av avhandlingen är den logistikbaserade affärsmodellen, en modell som består av fem komponenter: strategi, position, erbjudande, aktiviteter och organisation, och resurser. Den logistikbaserade affärsmodellen möjliggör en beskrivning och analys av logistikens roll i företagets strategi vilket leder till identifieringen av karakteristika för företag som konkurrerar med sin logistik. Några av resultaten är:

- En logistikbaserad affärsmodell kräver en syntes av RBV och I/O.
- Kontroll över logistikresurserna är en s.k. distinctive capability i en logistikbaserad affärsmodell.
- Logistikstrategi kan inte förstås enbart i termer av integration.
- Hybridstrategier kan genom standardisering kombinera resurssnåla processer med ett flexibelt sortiment.
Det system (domain of control) som en logistikbaserad affärsmodell omfattar sträcker sig bortom systemet för en traditionell logistikstrategi.

En logistikplattform kan användas för att stödja multipla erbjudanden.

För praktiker innebär den logistikbaserade affärsmodellen ett möjligt redskap att använda i företagets affärsutveckling.
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1 Introduction

The purpose of this dissertation is to describe and analyse logistics-based competition using a business model approach, a topic not handled in earlier research.

1.1 Towards logistics-based competition

During the last years, the view of logistics has changed from a view of logistics as an area for cost savings to a view of logistics as an enhancer of the product or service offering, (Mentzer et al., 2004). The impact of logistics and supply chain management on firm performance has also been well established, (Tracey et al., 2007). However, despite this increasingly recognised importance of logistics there has been little effort put into building a theory of the role of logistics in the firm (Mentzer et al., 2004) and there is a recognised need for more research into this role of logistics, (Olavarrieta and Ellinger, 1997).

Most research on logistics strategy has turned its focus towards operations themselves, in isolation, and has hence failed to link logistics with strategy. Examples of this can be seen in the Bowersox and Daugherty (1987) typology in which three distinct logistics strategies are identified, each involving a differing degree of operational integration, i.e. integration in the flow of goods and information within the business and the corporation and with up- and downstream supply chain partners. The Bowersox and Daugherty typology has found use also during recent years; see e.g. (Closs and Clinton, 1997; McGinnis and Kohn, 2002).

Stock (1997) suggests that logistics research stands to benefit from borrowing theory from other disciplines. By borrowing theory from the discipline of strategic management it could be possible to get a more complete picture of the role of logistics in the strategy of the firm. Contributions towards this can be seen in Olavarrieta and Ellinger (1997) taking on a resource-based view of logistics and in Mentzer et al. (2004) laying the foundations for a unified theory of logistics. This shift in logistics strategy research makes possible a move from a transaction-based to a value-based (Abrahamsson, 2007) view of logistics where the latter view incorporates logistics considered as a platform and a resource-base supporting the strategy of the firm, (Abrahamsson et al., 2003). When being value-based, logistics is used not only to create profitability through e.g. efficient processes but also to support growth by being flexible enough to support different strategies and adding value to the physical product, (Abrahamsson, 2007).
Empirically, there are some examples of firms that compete successfully with strategies with considerable logistics-content and that can be argued to pursue value-based rather than transaction-based logistics. These examples can be seen in firms such as Dell, H&M and Inditex, the latter more commonly known through its subsidiary Zara.

Dell’s operations are characterised by excellence in manufacturing and logistics; transparency and fixed lead-times to customers allow Dell to be aggressive in sales and marketing. H&M pursues a strategy with a considerable focus on economies of scale. In such a strategy logistics plays an important role as an enabler of those economies of scale. In their expansion, H&M usually expands to regions neighbouring the ones where the concern is already present. In that manner, the logistics operations of the neighbouring region may be used until the new region can reach economies of scale on its own. The Spanish clothing retailer Inditex manages to respond to changes in demand quicker than the competition by the means of a transparent supply chain with an order to delivery cycle measured in days rather than months which is the case for many of their competitors, (Ferdows et al., 2004).

Common for Dell, H&M and Inditex, is the active role of operations and especially logistics in their business models; excellence in logistics enables the strategic moves of these firms. The low stock levels and high transparency of Dell’s operations allows for the introduction of e.g. a new type of processor practically overnight whereas the competition first needs to sell out their already produced computers carrying a stock of obsolete processors. The large scale of the logistics operations of H&M allows for competition on price through economies of scale. Inditex uses its competence in logistics to expand its business into new markets. With a base in the apparel industry, the Spanish company has recently moved into the furniture market by the introduction of the Zara Home concept pursuing the same rapid response logistics concept in this new market as in the market for clothes. There are of course also other aspects behind the successes of these firms; they have not succeeded due to logistics alone. Logistics nevertheless plays an important role behind their success, as a driver and enabler of their strategies, see (Kihlén, 2005).

Despite the recognition of the important role for logistics in firms such as Dell, H&M and Inditex there is no explanation available to the role of logistics in their strategies. In the theory there seems to be a watershed between logistics and strategy. This has had as effect that there is considerable research into logistics operations as such but not into the strategic role of logistics. From the other perspective, the perspective of strategic management, logistics and operations in general, seems to be handled in a manner in which the specifics of logistics, compared to other operations and their specifics, are not taken into account. Operations are often simply seen as a series of activities which may be performed by any firm at any time. If not so, operations are seen as enabled by some set of resources which in turn are not handled at much depth.
The role of logistics in the strategy of the firm

Taking a strategy theoretical perspective on firms competing on logistics, such as Dell, H&M and Inditex reveals two main explanations of the role logistics plays in their strategies.

A first possible explanation is represented by Porter (1980; 1985; 1996) and the industrial organisation school of thought (I/O) who argues that strategy rests upon unique activities, whose selection is based on a sought position by the firm on the market. To outperform the rivals one should deliberately choose a different set of activities than those of the competition and thereby deliver a unique mix of value. In the notion of it being possible to choose which activities to pursue lies an assumption that the knowledge and skills behind activities can be bought on a market.

The second possible explanation of the success of firms such as Dell, H&M and Inditex remains to be found in the resource-based view of the firm (RBV) according to which a sustainable competitive advantage has its origins in resources internal to the firm. Proponents of RBV argue that a firm consists of bundles of resources, see e.g. (Penrose, 1959; Wernerfelt, 1984). Of those resources, a few can be identified as distinctive capabilities (Day, 1994), which constitute the foundation for a sustainable competitive advantage for the firm (Barney, 1991).

In the licentiate thesis preceding this dissertation, two wholesalers of industrial goods, Ahlsell and B&B Tools1, were studied from the perspectives of I/O and RBV respectively. These two firms display growth under sustained profitability and have an outspoken focus on logistics in their strategies.

An acquisition strategy enabled by logistics operations – the case of Ahlsell

Ahlsell is a wholesale concern consisting of five divisions: Plumbing/Heating, Electrical, Refrigeration, Tools and DIY. Sales are conducted on the Nordic market, both in fully owned stores and via the Internet.

What is characteristic for Ahlsell is its central logistics platform. During the 1980’s Ahlsell had around 50 regional warehouses throughout Sweden which was the market in focus for the company back then. The costs of operations were considered fairly high which combined with a market characterised by competition on price resulted in poor profitability. However, in 1987 a new owner, Trelleborg, entered the scene and decided to centralise the logistics function in order to reach cost reductions. Consequently, a central warehouse in Hallsberg was founded a few years later, in 1990. The first years of running the central warehouse were quite turbulent operationally and coincided with the implementation of a new IT-system controlling the physical flows of the company.

1 Please note that at the time the licentiate thesis was presented in 2005, B&B Tools AB carried the name Bergman & Beving AB.
After the first chaotic years of running the new platform the company executives realised that the new logistics platform in use was by far more efficient than the operations of the competition. Since the market that the firm acted upon was seen as very mature with little possibility of organic growth it was decided that the company should pursue an acquisition strategy. At that time, the company was number four or five in several of the served market segments and the management believed that they needed to be number one or two to reach the volumes needed for good profitability. The key to the acquisitions was identified in the efficient operations within the firm.

As a result, during the years 1996-2003 alone, Ahlsell made 18 acquisitions. In the acquisitions cost savings are reached through the synergy effects coming from the centralisation and thus 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. The CEO of Ahlsell, Göran Näsholm, exemplifies with the acquisition of Tibnor, a company that at the time it was acquired 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 reached. Näsholm argues that strategically, Ahlsell uses logistics as a means to create an efficient corporation.

**Synergies reached within a wide portfolio of businesses – the case of B&B Tools**

B&B Tools, previously known as Bergman & Beving, serves the industrial and construction sectors of the Nordic market with tools, consumables and components, and is thus in many aspects a competitor to the previously discussed Ahlsell.

The concern consists of a wide array of subsidiaries, e.g. Luna, Skydda, Essve, Grunda and Gigant. The different subsidiaries have different market characteristics and thus customer requirements. Within the concern, logistics operations are concentrated to a separate company, B&B Tools Services, a company which sells logistics and IT-services to the other subsidiaries within the group as well as a few external customers; e.g. Team Sportia, a sports retail chain.

The history of B&B Tools is characterised by the concern having its roots in a wide variety of businesses. One consequence of this is that B&B Tools has two central warehouses in Sweden, one in Alingsäss and one in Ulricehamn; the two warehouses are situated 80 kilometres apart. Although the two warehouses are physically separated, there is considerable coordination through e.g. consolidation of flows. The two warehouses also share IT-systems and are specialised to handle different types of goods. The customers never need to notice that the warehouses are separated and can even receive consolidated shipments when ordering from different product companies within the B&B Tools group.
The centralised responsibility for IT and logistics in B&B Tools Services has enabled the product companies to tailor their offering to their respective market segments yet allowing for considerable synergies in the operations. The company thus manages to integrate a decentralised group of product companies into one centralised logistics platform.

**Similar markets – two different logistics approaches**

In terms of strategy theory, the cases of Ahlsell and B&B Tools 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.”

*(Translated from Swedish by the author)*

Anders Möller, president of B&B Tools Services commenting on the historical roots of the group’s logistics operations

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.”

*(Translated from Swedish by the author)*

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, they must be reactive 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 research also shows that Ahlsell and B&B Tools use their resources in logistics for the same purpose, to grow profitably, but in different ways. 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 platform for logistics and administration. B&B Tools 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, B&B Tools 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).

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 these 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."

(Translated from Swedish by the author)

Anders Möller, president of B&B Tools Services

The gap between operations and strategy

In the licentiate thesis preceding this doctoral dissertation it was concluded that the resource-based view of the firm (the inside-out perspective) provides an appropriate description of the role of logistics in the strategy of the firm. Porter (1980, 1985) on the other hand, coming from the outside-in perspective, implies that activities can be bought on a market. In Kihlén (2005) it is however argued that the logistics activities pursued by firms competing on logistics may be difficult to buy on a market since they are founded on difficult-to-imitate distinctive capabilities in logistics. As an example, a logistics distinctive capability could be Wal-Mart’s distribution system (Stalk Jr. et al., 1992), whose complexity makes it difficult to imitate.

It was also concluded that neither the industrial organisation school of thought of Porter nor the resource-based view of the firm succeed to describe the operationalisation of strategies with large logistics content. In other words, current strategy theory may provide explanations to what firms are doing but not how they are doing it. The latter question, the how-question, is of course of considerable relevance for practitioners. In the licentiate thesis a broad theoretical stance was
taken in the industrial organisation school of thought (I/O) as well as the resource-based view of the firm (RBV). It was concluded that there is a considerable gap between the more abstract strategy theory and logistics research where the latter is closer to the operations of the firm, see Figure 1.

A possibility to start bridging this gap was identified in business model research. The latter takes a similar theoretical stance as had been taken in the licentiate thesis, i.e. in I/O and RBV.

1.2 The promise of business models

A promising stream of research handling the how’s behind strategy is the research into business models. Business models as a concept is to a large extent seen as a product of the Internet hype during the late 1990s when the term was frequently used and misused. However, business models do have a history, and have been known as archetypes, configurations, schools, gestalts and in some cases even as strategies and business ideas, (Kindström, 2005). Most use of the term and concept of business models in research of today remains to be found in the interface between management and IT, e.g. in E-business. Hence, the application of a business model approach in a logistics context is novel.

The business model concept refers to the logic and functioning of the firm (Tikkanen et al., 2005) and is subsequently a possible tool to use in describing the interplay between operations and strategy and hence connect the activities and processes of logistics with strategy. Afuah (2004) states that a business model “is the set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value.” (p. 9) This possibility of a business model to aid in linking the activities of the firm with the strategy means that the business model can be used as a tool to describe and
analyse the role of those activities, and of those processes in which the activities are pursued, in the strategy of the firm.

In the business model definition of Afuah (2004) is inherent the two opposing schools of thought in strategy theory; the resource-based view (RBV) and industrial organisation (I/O), discussed earlier. This duality is characteristic for business model literature, taking a more holistic view of strategy and operations and thus acknowledging that there may be several possible theoretical explanations behind why some firms succeed and others do not. This simultaneous validity of both the resource-based view of the firm and industrial organisation was observed in the licentiate thesis (Kihlén, 2005) in line with what also Kindström (2003) argues. Important to note as regards the current discussion on business models is that it takes into consideration the actual operations of the firm. This means that research into business models to a larger extent than current strategy theory can aid in describing and analysing the role of logistics in the strategy of the firm, e.g. the organisational belonging and the domain of responsibility for logistics.

The two perspectives of I/O and RBV are opposing each other and are seen as being incompatible. However, in business model research, the two schools must be brought together. I would argue that the complex reality cannot be understood taking only the perspective of one of these two schools of thought, support for which can be found in business model literature, see e.g. (Hedman and Kalling, 2003; Afuah, 2004; Kindström, 2005). This is illustrated in Figure 2 showing how two schools of thought (I) need to be slightly adapted (II) to enable a combination of the two (III).

Figure 2. The integration of non-compatible theory

An example of such necessary adaptations is the simultaneous acknowledgement of the inside-out and outside-in approach in the creation of strategy content.
Osterwalder et al. (2005) state that there is no unison regarding what one means when discussing business models. Some authors discuss business models as an abstract overarching concept that can describe all businesses; others discuss classes of business models each explaining the business models of a category of businesses, whereas others discuss a company-specific business model, e.g. the business model of Dell. Osterwalder et al. make a distinction between these three levels, see Figure 3.

In this classification, the business model definitions discussed belong to the highest conceptual level, the overarching business model concept. At the second level Osterwalder et al. place generic business models that contain common characteristics, e.g. business models in a homogeneous industry. At a third level, the instance level, Osterwalder et al. place firm specific business models, here exemplified by Dell, Amazon and eBay. The choice of companies makes evident that Osterwalder et al., as most researchers in this area, come from an e-business perspective.

What Figure 3 also illustrates is that a business model consists of a number of components. There is however no unison what concerns which these components are. Suggestions as regards which components a business model consists of have been proposed, see e.g. (Kindström, 2005; Osterwalder et al., 2005; Shafer et al., 2005). The differences that can be observed between different authors are mainly about the number of components rather than which area the components span. At the most overarching level, most business models span the operative platforms of the company, the market positions, as well as the offering linking these two areas together. Differences among different authors regards e.g. if the following-up of the business model with KPI's and if the strategy of the firm should be seen as business model components or not.
Firms that to a large extent compete on logistics can be said to pursue logistics-based business models. Those are the firms that are of interest in this dissertation. It is here important to note that there of course never is one single explanation behind a firm’s success. For companies as those discussed earlier in this chapter; Dell, H&M and Inditex; technology or product design could be equally or more important than logistics.

Set in relation to Figure 3, this research is concerned with a specific business model type, the logistics-based business model. The logistics-based business model is here defined as the business model of a firm in which the management sees logistics as an important factor to consider behind the strategy of the firm, i.e. a firm for which logistics is important in the business development.

The previous discussion also reveals that at the most generic level, a business model can be understood as a set of components which together depict the logic and functioning of the firm; this is the view used in this dissertation.

The business model concept is often discussed in relation to strategy. Since there are many opposing views and definitions of strategy and the business model concept spans a wide array of opposing views of strategy the closest one may come to a definition of strategy when discussing the strategy in relation to the business model concept is Mintzberg’s (1987b) notion of “strategy as plan”; this is further discussed in section 3.1.

### 1.3 Contribution and relevance of the research

The theoretical contribution to the field of logistics and the relevance of this research consists of the formulation and application of a business model in a logistics context, and hence of contributing towards the bridging of the theoretical gap between strategy theory and logistics research. The need for more research into the role of logistics in the strategy is called for by e.g. (Olavarrieta and Ellinger, 1997; Mentzer et al., 2004).

The current strategy oriented logistics research has to a large extent never left the operations-level and discusses logistics strategies in terms of degree of integration between functions, business units and channel partners rather than as part of the business strategy, see e.g. Bowersox and Daugherty (1987) and McGinnis and Kohn (2002). Hence, instead of as earlier research approaching the role of logistics in the strategy from a logistics perspective, this research approaches the role of logistics in the strategy from a strategic management perspective, and more precisely from a business model perspective. This dissertation thus aims to contribute to the body of logistics research by bringing in theory from other disciplines, i.e. strategic management and business model research. The need for such borrowing-in of theory from other disciplines is also argued for by Stock (1997). Furthermore, this use of a business model in a logistics context is novel; current research in the area focuses on E-business, see e.g. (Hedman and Kalling, 2003; Kindström, 2005).
The body of strategy-oriented logistics research that nevertheless has had a strategic management approach to logistics predominantly comes from the outside-in approach to strategy, the industrial organisation school of thought. By applying a business model incorporating both the inside-out and outside-in approaches to strategy content it might as a result be possible to get a more complete picture of logistics-based competition than what has been possible in earlier research.

The practical relevance of this research lies in contributing towards a better understanding of the role of logistics in the strategy of the firm through the use of a business model. This is called for by the increasing importance of logistics in the competitiveness of firms, see e.g. (Abrahamsson et al., 2003; Mentzer et al., 2004). The business model may be used as a practical tool in the business development of firms pursuing or aiming at pursuing logistics-based competition and employing logistics-based business models. Currently available strategy research is too abstract to incorporate logistics operations and hence aid managers in pursuing logistics-based competition.

1.4 Purpose and research tasks

The previous discussion reveals that there is a need for more insight into what links operations, and more specifically logistics operations, and strategy. It has also been concluded that a business model is a promising tool in attaining these linkages, hence the purpose of this dissertation:

*The purpose of this dissertation is to describe and analyse logistics-based competition using a business model approach.*

More specifically, this purpose entails an empirical description of logistics-based competition and an analysis with a pattern-matching approach; the latter is described in more detail in section 2.2.4. From the purpose and the preceding discussion two research tasks may be formulated. The first research task addresses the issues that were handled in the licentiate thesis and which are further elaborated upon in the dissertation. The second research task handles the identification of the components of a logistics-based business model.

The two research tasks are:

1. **What is the role of logistics in the strategy of the firm?**
2. **Which are the components in a logistics-based business model?**
Seen together, the research tasks handle the role of logistics in the strategy of the firm and the illustration thereof in a business model. Figure 4 illustrates the logic that links the initial research idea and the research tasks.

Figure 4. The logic linking the initial research idea and the research tasks

The research was initiated by observations of logistics-based competition (depicted by box A in Figure 4). To further investigate logistics-based competition, the licentiate thesis focused on the role of logistics in the strategy of the firm (B). This led to the identification of a research gap between strategy and operations; a gap which can be bridged by using a business model approach and identify the components of a logistics-based business model (C) and the resulting logistics-based business model (D). This, in turn, can be used to investigate the role of logistics in the strategy of the firm (the arrow from D to B). The dotted arrow from D to A depicts that logistics-based competition follows from a logistics-based business model.

1.5 Definitions of supply chain management and logistics

Logistics, as discussed in the previous sections and in the examples of Dell, H&M and Inditex, comprises all functions of the firm; logistics has an integrating role for the different functions in the firm. In this dissertation logistics is used interchangeably with logistics management, in both cases referring to the definition of logistics management by The Council of Supply Chain Management Professionals, CSCMP.
CSCMP defines supply chain management as:

“Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers and customers. In essence, supply chain management integrates supply and demand management within and across companies.”
(cscmp.org)

Logistics management in turn, builds definition-wise on the just mentioned definition of supply chain management:

“Logistics management is that part of supply chain management 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.” (ibid)

Following the definition of logistics by CSCMP, logistics in this dissertation entails more than the logistics function in the firm. Logistics is a part of supply chain management but it is not clear from the definitions by CSCMP exactly at what level logistics becomes supply chain management. In their discussion of the definitions, the use of the words “logistics management activities typically include…” (cscmp.org) and “to varying degrees the logistics function also includes…” (ibid) leave room for interpretation. In this dissertation, logistics and logistics management include the aspects in the definition of logistics management by CSCMP but may also at times include aspects that might definition-wise fall under supply chain management, e.g. the cooperation by one firm with other supply chain parties.

1.6 Structure of the dissertation

The structure of this dissertation is illustrated in Figure 5. After this first chapter introducing the study, its purpose and research tasks, methodological considerations follow in chapter 2.

In chapter 3, the theoretical framework is presented taking its stance in strategic management and continuing with the development of strategic management into business model research. Thereafter follows the identification of five business model components which in turn are filled with a logistics-content. The synthesised theoretical framework constitutes the models of analysis presented in chapter 4.

In chapters 5 to 7 the cases of Bama, Clas Ohlson and Dustin are presented and analysed following the structure of the model of analysis. There is hence a lower-level analysis conducted parallel with the presentation of the empirical data.
A higher-level analysis then follows in chapter 8 further investigating the role of logistics in the strategy of the firm as well as the logistics-based business model and its constituent components. Lastly, the conclusions as well as suggestions for future research are presented in chapter 9.

**Figure 5. The structure of the dissertation**

**A note and reader’s guide for the practitioner**

For the practitioner, the cases together with the lower-level analysis made in parallel with the case presentations can be read as stand-alone chapters. For insight into the logistics-based business model it is recommended to also read chapters 8 and 9 and preferably also chapter 4, and possibly also chapter 3, for insights into the theoretical background to the model of analysis.

The cases studied in the dissertation all represent trading firms. Those readers coming from a manufacturing-background may nevertheless find the dissertation worthwhile reading. The theoretical foundations are broader than the cases in the sense that the theoretical framework is not limited to trading firms. Further, it is well possible that the results too are transferable to a manufacturing environment although further testing of the results is needed before it can be scientifically proven that this is the case.
2 Methodology

2.1 Methodological approach

The methodological approach in this dissertation is that of qualitative case studies influenced by a systems approach.

Qualitative case studies

A qualitative methodology is often appropriate in research in management and business administration (Gummesson, 1991) and it is also the dominating approach in my research environment. Often, the terms qualitative and case studies are used interchangeably (Eisenhardt, 1989). However, a case study may involve both quantitative and qualitative data and may even consist of one of the types of data only. This research concerns complex business organisations and involves data of both quantitative and the qualitative nature. However, the qualitative empirical evidence is dominating and the analysis too is qualitative.

According to Yin (1994) the type of questions asked in a research project determines the preferred choice of methodology. He argues that a case study approach, together with experiment and history, is preferable when one asks questions of the types “how” and “why” or when one asks exploratory “what”-questions. The first research task in this dissertation is an exploratory “what”-question why, as a consequence, the case study approach is appropriate in seeking its answer. Yin does not elaborate over “which”-questions, as in the second research task in this dissertation. In essence, the second research task is however closely intertwined with the first question. The second research task entails more than simply the identification of the components of a logistics-based business model and is to a large extent about exploring the operations of the firm (with a focus on logistics). Eisenhardt (1989) argues that the case study approach is appropriate when one “focuses on understanding the dynamics present in single settings.” (p. 534) and when one approaches a new topic area. This research is concerned with the dynamic present in firms competing on logistics and hence employing logistics-based business models. The application of a business model in a logistics setting means entering a new topic area why the approach of an exploratory case study can be seen as fruitful.
The systems approach

Dominating in logistics research is the systems approach, see e.g. (Churchman, 1968), according to which the whole may be greater (or lesser) than the sum of its parts. Systems-thinking has influenced the research in this dissertation. The systems approach and systems thinking are useful in approaching business model research since business models, like systems, consist of components which interact and add up to a whole which is greater than their sum. A system can be delimited from its environment, however not isolated, (Aronsson, 2000). The boundary between the system and its environment may be extended indefinitely, in a logistics context this means that the system under study could be expanded from the single warehouse to the whole supply chain or supply network. In this research, the business model constitutes the system under study. As a consequence, the business model components constitute the system components. The business model may or may not coincide with the legal firm. The business model can in instances cover parts of other supply chain parties than the focal firm. As a result, it is in this dissertation the model of analysis that determines the system boundaries in the studied cases.

According to Arbnor and Bjerke (1994) there are three basic approaches to research in business; the system approach as used in this research, the analytical approach and the actor’s approach. The system approach differs from the analytical approach in that in the analytical approach, the whole is seen as the sum of its parts. In a business model, the different components should be in consistency and also, if possible, reinforce one another, thus making the sum of the business model more than simply the sum of its constituent components. The actor’s approach lastly, emphasises the individual and that reality is a social construction, (ibid). I cannot discard of that this research has been influenced by personal beliefs and interpretations on both my behalf and on the behalf of people in my research environment as well as the respondents in the case companies. I have attempted to minimise such influences, see section 2.3, but nevertheless one should bear in mind that qualitative case study research can never reach the same level of objectivity as a controlled physical experiment in a laboratory environment.

2.2 The research process

The research process leading to this doctoral dissertation started in 2003 and led, in a first step, to a licentiate thesis (Kihlén, 2005). The licentiate thesis built on observations of logistics-based competition. In an attempt to clarify the links between logistics and strategy, the purpose of the licentiate thesis was to “describe and analyse the role of logistics in the strategy of the firm” (p. 9). A theoretical stance was taken in logistics research as well as strategy theory. A gap between strategy theory and logistics research was identified and it was further suggested that business model research, used in e.g. e-business research, would be possible to transfer to logistics research in order to further build on the link between operations and strategy.
The licentiate thesis can be seen as the starting point of this latter part of the process towards the doctoral dissertation. Although being the starting point of this research, the licentiate thesis is not a part of the doctoral dissertation. The theoretical frame of reference from the licentiate thesis has been extended into that of this dissertation and in the dissertation, a new set of empirical cases has been put together.

In the doctoral dissertation, the theoretical framework has been extended with theory on business models, leading to the identification of five business model components which are further discussed and developed into a model of analysis. The latter was applied to the cases of Bama-Gruppen AS, Clas Ohlson AB and Dustin AB through both single case analyses presented in parallel with the case descriptions and a further simultaneous analysis of all three cases. The model of analysis, refined and filled with more content by the empirical data, translates into a logistics-based business model, which constitutes the main outcome of the dissertation. The process of both the licentiate thesis and the doctoral dissertation is illustrated in Figure 6. In the following sections, the process of the doctoral dissertation will be described in more detail.

2.2.1 Theoretical foundations

The licentiate thesis took a theoretical stance in logistics research and strategy theory. In the former area, logistics research on the relation between logistics and strategy was used. In the latter area, the two opposing schools of thought, the resource-based view of the firm (RBV) and industrial organisation (or the positioning school of thought) (I/O), were handled. One conclusion in the licentiate thesis was that the resource-based view of the firm, or the inside-out approach to strategy, was purposeful in understanding the role of logistics in the strategy of the firm but that it is necessary to also take into account the positioning perspective, or the outside-in approach to strategy. It was also concluded that there exists a theoretical gap between logistics and the more abstract strategy theory and that business model research may be a possible link between the two areas.

In the doctoral dissertation the theoretical framework has been extended with business model theory in order to enable a bridging of the theoretical gap between strategy theory and logistics. Previously, business model research has primarily had an E-business-focus.
As stated, business model research often builds on the strategy content-dimension of I/O and RBV. As a starting-point for that part of the theoretical framework that handles business models, a doctoral reading course on business models was used. Further, database searches on business models as well as referrals from the found articles helped in giving an overview of current research in the area.

Business model research is not yet a fully established research area and there is diversity as regards which the components of a business model are and how each component is to be termed. Therefore, a synthesis of business model research has been made in the course of this dissertation. This was done in order to reach an understanding of the business model concept and to formulate a business model which could be used as a model of analysis.

Not all authors use the term business model although they conduct research which could be termed business model research. An example of the use of another term is configuration as used by Miller and Whitney (1999). In identifying the components of the model of analysis it was therefore not possible to use a set procedure. Similar classifications and identifications of business model components as that made in the synthesis in this dissertation have however been made in e.g. Shafer et al. (2005) and in Osterwalder et al. (2005). These authors have however had different foci, see further in section 3.2.4.

The identification of the business model components was made by sorting the components identified in earlier research into groups having similar characteristics, see Table 5 in the theoretical frame of reference. The identification of the different components has also been discussed at a seminar in the Marketing Logistics Research Group to which the author belongs.

Finally, since this research is concerned with logistics-based business models, the generic components identified needed to be supplied with a logistics-content. Therefore, in the theoretical framework, each identified component has been complemented with logistics research in related areas in order to make possible a logistics-content of the components. The logistics-content is further enhanced through the empirical data in the cases.

### 2.2.2 Selection of cases

The doctoral dissertation consists of three primary data cases: Bama-Gruppen AS, Clas Ohlson AB and Dustin AB. The selected cases have the following common characteristics:

- They display sustained and stable growth and profitability and, hence definition-wise have successful business models.
- The growth is coherent, i.e. the expansion of the firm is made in a uniform manner over time.
- They have a, by the management, outspoken focus on logistics.
The three cases have long histories of profitable growth which consistently is higher than that of their respective industry average. The sustained profitability and growth is also proof that the business models of these firms are successful. Further, the expansion made by these firms is coherent, following a logic dictated by the chosen business models. Lastly, the management of the firms point at logistics as being a very important factor behind the profitability and the growth. The choice of cases can thus be argued to have been made by theoretical sampling (Eisenhardt and Graebner, 2007) since they do offer the opportunity to illuminate the role of logistics in the strategy of firms that do compete on logistics. Another aspect as regards selection of cases that should be taken into account is the matter of access to the case companies. All three selected case companies provided the research group with considerable access as regards respondents’ time as well as observations at the companies’ facilities and company information material. The only limitation in this respect was the company policy of Clas Ohlson which only allowed interviews with the CEO and the vice president of logistics.

**Bama-Gruppen AS**

Bama-Gruppen AS is a Norwegian concern that trades and produces fruit, vegetables, processed food products, flowers and other products with a limited shelf-life. The Bama group is owned by the founding family Nergaard (34%), and the grocery groups NorgesGruppen (46%) and Rema 1000 (20%). The latter two also constitute the main customers of the group.

Bama has displayed profitable growth during a large number of years. In 1996 the turnover was NOK 1.5 billion and in 2005 it was NOK 5.6 billion. The profit margin during the last financial year was 5.8% and there are about 1,700 employees within the concern. Table 1 illustrates the turnover- and profitability development of Bama.

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating income (thousand NOK)</th>
<th>Change from previous year (%)</th>
<th>Profit margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>4 474 900</td>
<td>9.05</td>
<td>4.2</td>
</tr>
<tr>
<td>2003</td>
<td>4 787 300</td>
<td>6.98</td>
<td>5.0</td>
</tr>
<tr>
<td>2004</td>
<td>4 950 400</td>
<td>3.41</td>
<td>5.1</td>
</tr>
<tr>
<td>2005</td>
<td>5 637 100</td>
<td>13.87</td>
<td>5.8</td>
</tr>
</tbody>
</table>

The group has no major competitors since the customer-base to a large extent is made up by its owners in NorgesGruppen and Rema 1000. In 2005, NorgesGruppen had a market share of 36.7% of the Norwegian market whereas Rema 1000 controlled 17.2% of the market. The competition is primarily made up by the two chains Coop and ICA.
**Clas Ohlson AB**

Clas Ohlson AB is a Swedish company founded in 1918 as a mail-order business in the market for technical handbooks. The assortment has since been extended to include a broad range of do-it-yourself products, household products, computer- and mobile phone accessories, etc. The headquarters as well as the central warehouse of the company remain in Insjön where the firm originally began its operations.

Business is today conducted via traditional mail-order, the Internet and physical stores. The latter constitute the vast majority of the sales and the sales via mail-order and the Internet equals one of the larger stores. There are in total 65 stores (December 2006) with a growth rate of about 15-20 stores per year. Clas Ohlson had an annual turnover of 3.6 billion SEK in 2005, a growth by 20.77% compared to the preceding financial year and a profit margin of 12.81% (the financial year 2005-06). In total, there are approximately 1,600 employees in Sweden, 550 in Norway and 210 in Finland. The turnover- and profitability development of Clas Ohlson is shown in Table 2.

**Table 2. The turnover- and profitability development of Clas Ohlson**

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<tbody>
<tr>
<td>Operating income (thousand SEK)</td>
<td>3 568 600</td>
<td>2 954 800</td>
<td>2 509 500</td>
<td>2 130 800</td>
</tr>
<tr>
<td>Change from previous year (%)</td>
<td>20.77</td>
<td>17.74</td>
<td>17.77</td>
<td>23.03</td>
</tr>
<tr>
<td>Profit margin (%)</td>
<td>13.8</td>
<td>14.4</td>
<td>14.5</td>
<td>15.6</td>
</tr>
</tbody>
</table>

The two main competitors, in terms of assortment (as identified by Clas Ohlson in the annual report 2005-06), are Jula and Biltema.

**Dustin AB**

Dustin AB is a Swedish retailer in IT products and home electronics. The concern has two subsidiaries: Dustin Partner AB and Dustin Home AB. This is a division into the main products and customer segments. Hardware-related sales to business customers are conducted through Dustin whereas software licenses are sold through Dustin Partner. Lastly, sales to consumers are conducted through Dustin Home. The latter has an annual growth rate of 60-70%.

The annual turnover of the concern was in 2005 (September 2004 – August 2005) 2.2 billion SEK, an increase by 14.41% compared to the previous year and there are approximately 160 employees whereas the profit margin of last financial year was 7.31%, see Table 3.
Dustin conducts all sales via the Internet or equivalent (telephone, facsimile) and has no physical stores. This is also the case for their largest direct competitor, InWarehouse.

### 2.2.3 Data collection

The data collection for the case studies has been made through semi-structured interviews with respondents on mainly top-management level, i.e. the operative management group although not necessarily the board of the firm, in the studied organisations; for a complete list of respondents, see Appendix 1. This choice of respondents was made since the model of analysis, being a business model, is appropriately addressed and handled in discussion with those having the most profound insight in the business model of each case company. It is thus assumed that the top management is likely to have this insight.

All interviews and the transcriptions of them have been electronically archived. The interviews have been complemented with other empirical data such as annual reports, brochures, leaflets, web sites etc.

The data collection at Bama-Gruppen AS was conducted during two two-day visits at the company headquarters in Oslo, Norway. A total of six interviews with five respondents were conducted. Further, visits to a select number of stores within NorgesGruppen, Bama’s largest customer, were made as well as observations at the two Oslo terminals of the company.

At Clas Ohlson AB, two interviews have been conducted on one occasion at the headquarters of the company in Insjön, Sweden. The respondents that were accessible were the CEO of the company and the vice president of logistics. Due to company policy, no more interviews were possible to conduct at Clas Ohlson; the two interviews conducted were however extensive and were also complemented by observations at the central warehouse of the company and at the main store situated by the headquarters.

The empirical data on Dustin AB was collected at the headquarters and at the central warehouse of the company, both situated in Stockholm, Sweden. During in total three visits, seven interviews were conducted with top-management representatives as well as the former main owner and founder of the company. Observations have also been made at the central warehouse.

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**Table 3. The turnover- and profitability development of Dustin**

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<tbody>
<tr>
<td>Operating income (thousand SEK)</td>
<td>2 172 806</td>
<td>1 899 185</td>
<td>1 798 168</td>
<td>1 669 593</td>
</tr>
<tr>
<td>Change from previous year (%)</td>
<td>14.41</td>
<td>5.62</td>
<td>7.70</td>
<td>11.10</td>
</tr>
<tr>
<td>Profit margin (%)</td>
<td>7.31</td>
<td>3.78</td>
<td>4.01</td>
<td>4.31</td>
</tr>
</tbody>
</table>
In total 15 interviews were conducted of which some have been followed up via telephone or e-mail when seen as necessary for clarification. The research has a top-management perspective why this number of interviews was seen as sufficient in that it covered the accessible top-management in all three cases.

The interviews were made in cooperation with another researcher in the research group, Erik Sandberg. Therefore, the interview guide used covers a larger area than what was needed for this specific dissertation. The interviews have all been transcribed by the author followed by the writing of the case studies. First after the cases had been written were they compared and discussed together with the other researcher in order to avoid factual errors and in order to enrich the cases with data missed during the writing of the first case draft.

2.2.4 Analysis

As Eisenhardt (1989) and Yin (1994) point out, the analysis of case studies is the least codified part of case study research. I see the analysis as the condensation of the empirical data into recognisable patterns that can be compared with and complement or contrast existing theory.

The main strategy used in the analysis is that of pattern matching. According to Yin (1994) this is one of the most desirable strategies for case study analysis. The logic of pattern matching builds on matching a predicted pattern (theory) with an empirically based pattern. In this dissertation the predicted pattern lies in the theory behind the model of analysis, i.e. the theory building up the business model presented in chapter 4. The analysis thus extends and builds on that theory as well as reveals misfits where and if present.

The analysis is performed in two steps, a first step which is made within the three separate case descriptions, keeping the analysis close to the empirical data, and a second step at a higher level of abstraction conducted for all three cases simultaneously. The first step leads to a refinement of the model of analysis through the case descriptions and the analysis presented in parallel with the former. The second step, conducted in chapter 8, leads to answers to the research tasks. As pointed out by Eisenhardt (1989) data collection and analysis frequently overlap in case study research. In this research, this is also made evident through the case descriptions in that they also contain part of the analysis. The analysis process, from the model of analysis originating from the theoretical framework to the conclusions of the dissertation, is illustrated in Figure 7.

![Figure 7. The analysis process](image-url)
2.3 Research quality

In quantitative research there are fairly accepted procedures for judging research quality. Such procedures are rare in qualitative case study research. Yin (1994) has however adapted four tests mainly used in quantitative research for the use in qualitative (or quantitative) case study research. The four tests are:

1. Construct validity
2. Internal validity
3. External validity
4. Reliability

Construct validity is about measuring that what is intended to be measured. Subsequently, the construct validity is mainly a concern for the researcher in planning and pursuing the data collection. Yin (1994) suggests the use of multiple sources of evidence, to avoid bias, and the establishment of a chain of evidence, making the case trustworthy, in order to enhance the construct validity. Furthermore, the review of the case report by key informants aids in avoiding misunderstandings on the researchers behalf, (ibid). In order to ensure the construct validity in this research, these three case study tactics, as recommended by Yin, have been used: First, the use of multiple sources of evidence by interviewing several persons at each company using the same interview guide. Second, the tactic of establishing a chain of evidence has been used. This has been made by letting the research be guided by the purpose and research tasks and the consequent model of analysis derived from the theoretical framework. The model of analysis laid the foundation for the data collection and the analysis that followed. Third, the respondents have been given the opportunity to review the cases to ensure accuracy. In addition to the review of the cases by the respondents, the cases have also been reviewed by a colleague, Erik Sandberg, together with whom the empirical data was collected. The resulting construct validity can thus be argued to be high.

The internal validity is applicable to explanatory or causal studies only and not for descriptive or exploratory case studies, (Yin, 1994). This measure of quality handles the causal relationship of whether event x led to event y making certain that not another factor, say z, actually caused y. This research is to a large extent built on interviews, and thus relies on the respondents being able to describe and explain causal relationships in their reality. Having several respondents in each case study improves the internal validity in that the same questions are asked to several persons; this is the case in this research. Further, in doing pattern matching, the causal relationships in the case under study can be matched (or found to deviate from) the theory and the other cases. The theory can thus improve the internal validity when its predictions coincide with the empirically based patterns and if it does not coincide it can aid in the formulation of rival explanations of causal patterns. Also this tactic has been used in this research. Further, the
internal validity has also been improved through the guidance by my supervisors as well as other expertise as will be further discussed in the end of this section.

The external validity is a fundamental issue for the research design in case study research and handles within which domain the research findings are applicable, i.e. the possibility and domain of generalisation, (Yin, 1994). In discussing external validity and case studies, one often encounters the debate on generalisations based on only one or a few cases. From my point of view, the debate often has an unfortunate quantitative character with a focus on statistical generalisation, i.e. a focus on the number of cases studied. Instead, I am of the opinion that the possibility to generalise from only one or a few cases lies in the profound understanding of the case(s) the researcher may reach. If the characteristics of one case can be assumed to be replicated elsewhere in society a sound foundation for a generalisation may be built. Normann (1970) argues similarly:

“If you have a good descriptive or analytic language by means of which you can really grasp the interaction between various parts of the system and the important characteristics of the system, the possibilities to generalize also from very few cases, or even one single case, may be reasonably good. Such a generalization may be of a particular character; it might be possible to generalize a statement of the type “a system of type A and a system of type B together comprise a mechanism which tends to function in a particular way.” On the other hand one cannot make any generalizations about how common these types of systems and interaction patterns are. But the possibilities to generalise from one single case are founded in the comprehensiveness of the measurements which makes it possible to reach a fundamental understanding of the structure, process and driving forces rather than a superficial establishment of correlation or cause-effect relationships.”


Eisenhardt (1989) argues that although there is not an ideal number of cases, “a number between 4 and 10 usually works well.” (p. 545). I would argue that Eisenhardt in this case misses to point at the difference between statistical and analytical generalisation. Generalisation in case studies are not made for large populations, instead an understanding for the complexities in one or a few cases builds the ground on which the researcher may analytically generalise to other similar cases and to theory. In Eisenhardt and Graebner (2007) the difference is made more clear as it is pointed out that case study research can have as a purpose “to develop theory, not to test it” (p. 27). This would be in line with the analytical generalisation as discussed by Yin (1994). Yin is however rather vague about the actual meaning of analytical generalisation as also observed by Easton (2003). I am of the opinion that Gummesson (1991) complements and extends the discussion of Yin and that statistical generalisation can not be achieved in case study research.
Lastly, the reliability is concerned with the possibility for another researcher to conduct a new data collection leading to an analysis with the same results as the current, (Yin, 1994). Thus, a high reliability means eliminating errors and biases in a study. According to Yin, this can be achieved by a structured methodology well documented in e.g. a case study protocol. The reliability has been ensured by following an interview guide in the collection of data, using open questions allowing for the interviewees to expand the discussion, and also letting the interviewees review the written cases and in doing so avoiding misinterpretations on my behalf.

The research has of course been conducted under the guidance of numerous people in my research environment. The people most closely involved in the research have been selected based on their complementing expertise. My supervisor, Prof. Mats Abrahamsson, has provided expertise in the field of logistics and my assistant supervisor, Dr. Daniel Kindström, has provided complementing expertise in the field of business models. Towards the end of the research process two seminars have been held to provide constructive criticism aimed at improving the quality of the dissertation. The first seminar was held internally at Linköping University in May 2007 and was chaired by Dr. Henrik Nehler coming from a background in business administration. The second seminar was held in August 2007 and was chaired by Dr. Helena Forslund from Växjö University coming from a background in logistics. My supervisors and the chair persons on the seminars complement each other with their different fields of research as well as a broad experience as regards methodology. The guidance provided throughout this structured process has greatly improved the quality of the research conducted.
3 Theoretical framework

Business models do not stem from one single theoretical perspective. Instead, they are holistic and may span several perspectives, sometimes partly opposing each other. This theoretical framework is intended to lay the foundation for a logistics-based business model. In doing this, stance is taken in strategy theory and the two strategy theoretical perspectives of industrial organisation (I/O) and the resource-based view of the firm (RBV).

The structure and content of the theoretical framework is illustrated in Figure 8 in which the starting point in strategy theory and the two strategy theoretical perspectives can be observed at the top. The two perspectives are brought together in a thereafter following discussion on business models. This discussion, in turn, leads to the identification of a number of business model components, the identification of which is the result of a literature review.

The set of business model components illustrated in Figure 8 is a generic set of business model components. However, there may of course be instances when these components should be divided into a number of sub-components. In the latter part of the theoretical framework, adaptation of the business model components for the purpose of a logistics-based business model will be discussed. It is important in this instance to bear in mind that business models as a concept, when described and understood in detail, are firm-specific models describing how a firm is to achieve its goals. To pursue an entirely generic discussion on this matter is thus not possible. Theory always needs adaptation to be used in practice. For business models, this is indeed the case.
3.1 A departure in strategy theory

Unfortunately, or fortunately, there is no one theory of strategy. This relatively young area of research includes diverse views on what determines a firm’s competitive advantage. Research into strategy, or strategic management, has its origins in the 1960s. An early definition of strategy is found in Chandler (1962) defining strategy as “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” (p. 13) Most important in the seminal work of Chandler is the notion that the organisational structure of the firm follows from the formulated strategy. The strategy itself is formulated as a response to opportunities observed in the outside environment of the firm. In the carrying out of the strategy and the following structural changes the managers have a key role, according to Chandler.
Another important contribution in the area is found in Learned et al. (1969) defining strategy as “the pattern of objectives, purposes, or goals and major policies and plans for achieving these goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is or is to be” (p. 15). Most important in the work of Learned et al. is the division of strategy into two distinctive parts: formulation and implementation. This view of strategy has later been criticised by e.g. Mintzberg and Waters (1985) pointing at the emergentness of strategies and that strategy could be seen as either deliberate or emergent and in reality as a combination of the two. With formulation, Learned et al. mean the bringing together of four strategy components: (i) the market opportunity, (ii) the firm competence or resources, (iii) the managers’ personal values and aspirations and (iv) the obligations to segments of society other than the shareholders. Also introduced in Learned et al. (1969) is the well-known SWOT-analysis as a practical tool according to which a firm’s strategy should be based on an analysis of the firm-internal strengths and weaknesses as well as the firm-external opportunities and threats.

A with Chandler and Learned et al. contemporary contributor to the field of strategic management was Igor Ansoff. In Ansoff (1965) he presents a view of strategy as consisting of four components: product-market scope, growth vector (the direction of change in the firm’s product-market scope), competitive advantage and synergy, (Hoskisson et al., 1999).

There is hence a significant number of definitions of the term strategy. The early definitions of strategy incorporates the notion of strategy as being a plan, see e.g. Chandler (1962). This idea, which is very common in the literature, does however not acknowledge that strategy may also be emergent, see (Mintzberg and Waters, 1985). Mintzberg and Waters argue that strategy is a pattern that evolves over time as a result of a stream of actions, deliberate as well as emergent, see Figure 9.

![Figure 9. Types of strategies (Mintzberg and Waters, 1985, p. 258)](image-url)
These different forms of strategy and different ways to comprehend strategy can also be seen in the five definitions of strategy presented by Mintzberg (1987b):

- **Strategy as plan** means that the strategy is formulated in advance to the actions to which it applies and is consciously and purposefully developed. Hence, strategy in this sense works as a guideline.
- **Strategy as ploy** can be seen as a sub group of the notion of strategy as plan. Strategy as ploy is about making strategic manoeuvres in order to outwit the competition.
- **Strategy as pattern** incorporates the assumption 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, intended or not. The resulting strategy, by this notion, can only be identified after it has been in action as a pattern of deliberate as well as emergent actions.
- **Strategy as position** is a view that strategy is about finding a match between the organisation and its surrounding environment.
- **Strategy as perspective** is to an organisation what personality is to a person. This means that strategy is a perspective shared by the members of an organisation.

What is being focused upon in this dissertation as regards strategy is the strategy content, or the “what of strategy”, see e.g. (de Wit et al., 1998). In the content-dimension of strategy, there are largely two opposing schools of thought; industrial organisation and the resource-based view of the firm.

Porter, coming from the industrial organisation 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 notion of the firm searching a positioning on the market, a position that is supported by a set of activities. Taking on the resource-based view of the firm one encounters more difficulty in reaching a definition of the term strategy. In RBV, the term strategy is not commonly used in the debate. The discussion is instead held around the concept of a sustained competitive advantage. Barney (1991) states 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 worth to note that the term strategy is used in the definition of sustained competitive advantage, however not handled further by the author. However, the definition of strategy is avoided in that the sustained competitive advantage is traced back to resources of the firm without handling the term strategy specifically.
In this dissertation the industrial organisation school of thought and the resource-based view are combined. This makes it difficult to use one single definition of strategy since most definitions come from the I/O-school of thought whereas one within RBV more often discussed a sustained competitive advantage. However, from a business model perspective, a strategy must always be seen as a plan (see Mintzberg (1987b)) since the business model in itself is a plan or blueprint for the conducting of the business; this view of strategy is therefore adopted in this dissertation. This does however not mean that one cannot acknowledge that the plan continuously needs to be changed due to emergent aspects affecting the originally intended strategy and resulting in a pattern that deviates from what might have been intended.

The two partly opposing schools of thought I/O and RBV will be discussed further in the following sections.

### 3.1.1 Industrial organisation

If the early strategy theory focused primarily on firm-internal aspects, the 1980s meant a shift of focus towards the firm-external environment with well-known proponents such as Porter (1980; 1985) in the industrial organisation school of thought, I/O. Porter took stance in the structure-conduct-performance paradigm (S-C-P), see e.g. Bain (1956; 1968), which focused on an industry-level analysis of competitive advantage. According to Porter (1980), the competitive advantage of a firm is based on the five competitive forces: 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 10. Hence, the competitive advantage of a single firm depends on both the specific industry the firm is in, and the position the firm has in that industry, i.e. there is an industry effect and a positioning effect.
To attain a certain position in an industry, the firm must be different from the competition in some respect. In industrial organisation it is common to describe the single firm as a value chain, which was proposed by Porter in the mid 1980s, see Figure 11. The value chain entangles 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.
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. Early industrial organisation research argued that a firm may choose among two basic generic strategies, low cost or differentiation. The characteristics of the activities in the value chain are crucial, since they drive the ability of the firm to produce products or services of low cost or differentiation. The activities pursued do, of course, depend on each other and make up activity systems, see Porter (1996). Put into an activity system, the activities may support and reinforce each other. Porter argues that “the competitive value of individual activities cannot be separated from the whole” (p. 72)

The industrial organisation school of thought has found extensive use in logistics research, see e.g. Persson (1991). If the earlier discussed value chain describes the organisation of activities within one firm, the value system describes the organisation of activities within a network of firms, see Figure 12.

![Figure 12. The Value System (Porter, 1985, p. 35)](image)

This close connection to the thoughts behind supply chain management may partly explain the popularity of I/O among logistics scholars.

### 3.1.2 The resource-based view of the firm

In the early 1990s there was a renewed interest of the work by Penrose (1959) and the resource-based view of the firm. According to this school of thought, the explanation of a firm’s competitive advantage remains to be found in firm-internal factors, such as resources. This shift of focus in the research has been referred to as swings of a pendulum by Hoskisson et al. (1999), referring to strategy researchers’ focus on firm internal factors in the 1960s, on the external environment in the 1980s and yet again on the firm internal aspects in the 1990s. The later development of resource-based theory came about as a criticism against the external focus of industrial organisation and hence because of its 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. This theory builds on the 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 (1984) defined resources as “those (tangible and intangible) assets which are tied semi-permanently to the firm” (p. 172). Examples of resources, as seen by Wernerfelt, are brand names, capital, efficient procedures, in-house knowledge of technology, employment of skilled personnel and machinery.

**Resources that enable a sustainable competitive advantage**

A firm possesses a large number of resources. Not all of those fulfil the requirements that enable them to deliver a sustainable competitive advantage for the firm. In the preceding discussion was shown that according to Wernerfelt (1984), resources are assets, which in turn could be either tangible or intangible. Another commonly used term in resource-based theory is capabilities, see e.g. Stalk Jr. et al. (1992). Olavarrieta and Ellinger (1997) view resources as a wide term, incorporating three components: *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 resources.

- **Assets** are stocks of factors, which are owned or controlled by the firm. Examples of logistics-related assets could be warehouses, IT-infrastructure and transportation fleets.

- **Olavarrieta and Ellinger use the definition of capabilities presented by Day (1994), according to whom “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 commonly used example of a logistics-based capability is Wal-Mart’s cross-docking distribution system; see e.g. Stalk et al. (1992).
Barney (1991) argues that in order 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 exploits 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 nor imperfectly imitable.”

(Barney, 1991, pp. 105-106)

According to Barney, resources are **valuable** when they enable a firm to implement a strategy that improves its efficiency and effectiveness. 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 rivals to replicate the resource. The causes of imperfect imitability can be history dependent, due to causal ambiguity, or social complexity (ibid). 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, (ibid). If a resource could be substituted by another resource in order to pursue the very same strategy one has a situation of **substitutability**, (ibid). 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.

Similar to the resource-discussion of Barney (1991), Day (1994) pursues a discussion on capabilities. Day uses the term distinctive capability of a capability that allows the firm to reach a sustainable competitive advantage.
Such a distinctive capability must possess the following characteristics:

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

(Day, 1994)

If capabilities are found in a firm, or business unit, then those capabilities that span corporations are sometimes referred to as core competencies. The core competence, from the perspective of Prahalad and Hamel (1990), can be seen as the collective learning in the firm. They state that “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.” (p. 82) According to Prahalad and Hamel, three key conditions 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 13 illustrates the connections between core competencies and end products in the diversified corporation, as seen by Prahalad and Hamel.
Based on a corporation’s core competencies there are core products. An example could be Canon and their expertise in precision mechanics, fine optics and microelectronics, (ibid). These core competences are translated into a number of core products. In the case of Canon these are small optical units dependent on both precision mechanics and microelectronics. The different business units within Canon subsequently take advantage of these core products for as diverse end products as cameras and copiers.

**From resources to a sustainable competitive advantage**

Apparently there is a large bundle of definitions and terms to be used for resources that enable a sustained competitive advantage. The link from those resources to a sustainable competitive advantage as seen by Barney is illustrated in Figure 14.

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**Figure 13. Competencies as the roots of competitiveness (Prahalad and Hamel, 1990, p. 81)**

**Figure 14. The relationship between resource heterogeneity and immobility, value, rareness, imperfect imitability and substitutability and sustained competitive advantage (Barney, 1991, p. 112)**
Day (1994) brings together the terms assets, capabilities, core competence and distinctive capabilities, see Figure 15, where the distinctive capabilities are what links the operations of the firm with its position(s) of advantage.

**Figure 15. Sources of competitive advantage and superior performance (Day, 1994, p. 40)**

The resources of the firm are divided into business assets, capabilities of the business, and, at an aggregated level, core competencies of the corporation. From these resources can be extracted a number of distinctive capabilities, which result in positions of advantage on the market, or a sustainable competitive advantage. As Figure 15 illustrates, if a distinctive capability spans several lines of business in a corporation, Day (1994) terms it a core competence. In this dissertation, those resources that lead to a sustainable competitive advantage are defined as distinctive capabilities, in line with Day (1994) and Olavarrieta and Ellinger (1997).

### 3.2 Business models

Business models as a concept is to a large extent seen as a product of the Internet hype during the late 1990s. However, business models do have a history and have been known as archetypes, configurations, schools, gestalts and in some cases even as strategies and business ideas, (Kindström, 2005). Most use of the term and concept of business models in the research of today remains to be found in the interface between management and IT, e.g. in e-business. The previously presented perspectives on strategy and competitive advantage, RBV and I/O, may be united in the business model concept (Hedman and Kalling, 2003). The business model concept is thus more holistic to its nature than traditional strategy theory in that it incorporates views that at first sight might appear incompatible.
3.2.1 The scope of the business model concept

Although using the term configuration instead of business model, Miller and Whitney (1999) summarise the scope of the business model concept by describing its role in the competitive advantage of the firm:

“One company can copy another’s strategy. It can reverse engineer its technology and benchmark its systems. But it cannot copy the way strategy, technology, systems and routines are configured into a thematic, synergetic whole. It is this complex configuration among the parts that constitutes the most vital source of competitive advantage.”

(Miller and Whitney, 1999, p. 5)

The configuration, or the business model, is thus the complete set of a strategy and the activities, resources and any other aspects that enable that strategy.

Business model definitions

As already stated in chapter 1, a business model is in this dissertation understood as a set of components which together depict the logic and functioning of the firm. This view of business models is generic and can also be seen as a synthesis of the collective research on business models.

Afuah (2004) states that a business model “is the set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value.” (p. 9) In the business model definition of Afuah (2004) is inherent the two opposing schools of thought in strategy theory discussed earlier in this theoretical framework; the resource-based view and industrial organisation. This simultaneous validity of both the resource-based view of the firm and industrial organisation was observed in the licentiate thesis (Kihlén, 2005) in line with Kindström (2003).

Amit and Zott (2001) studied the business model concept in an E-business setting and concluded that no single entrepreneurship or strategic management theory can explain value creation in E-business but that a more holistic view of the theory, set together in a business model, provides explanations to the studied phenomenon. Amit and Zott thus also view the business model concept as a means to integrate theories that traditionally are seen as incompatible. They define a business model as follows: “A business model depicts the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities.” (p. 511) This holistic view of business models is also argued for by Tikkanen et al. (2005) stating that “a business model can be conceptualized as the sum of material, objectively existing structures and processes as well as intangible, cognitive meaning structures at the level of the business organization.” (p. 790) Magretta (2002) states that “a business model’s great strength as a planning tool is that it focuses attention on how all the elements of the system fit into a
working whole.” (p. 90) The technology focus of Amit and Zott is also found in Chesbrough and Rosenbloom (2002). They see the business model as a “focusing device that mediates between technology development and economic value creation” (p. 532). They further argue that the functions that a business model is to fulfil are to:

- “articulate the value proposition, i.e. the value created for users by the offering based on the technology;
- identify a market segment, i.e. the users to whom the technology is useful and for what purpose and specify the revenue generation mechanism(s) for the firm;
- define the structure of the value chain within the firm required to create and distribute the offering and determine the complementary assets needed to support the firm’s position in this chain;
- estimate the cost structure and profit potential of producing the offering, given the value proposition and value chain structure chosen;
- describe the position of the firm within the value network linking suppliers and customers, including identification of potential complementors and competitors;
- formulate the competitive strategy by which the innovating firm will gain and hold advantage over rivals.”

(Chesbrough and Rosenbloom, 2002, pp. 533-534)

Chesbrough and Rosenbloom’s notion of a business model is clearly influenced by industrial organisation from which they bring in their terminology. This may be due to the fact that they discuss business models in the context of technological innovations, thus the resources or core competence behind the technological innovation as such are already in place per definition since the innovation already exists. What Chesbrough and Rosenbloom also argue for is the idea that business models evolve over time, resting on the aspect of emergentness introduced by Mintzberg and Waters (1985). Returning to Miller and Whitney (1999) and their configurations, they too discuss the evolving of business models, or configurations which is the term they use. Miller and Whitney argue that configurations are often not built in a rational fashion; they are rather the products of a mix of chance, insight, inspiration and simple trial and error. Configurations, as defined by Miller and Whitney, are “constellations of organizational elements that are pulled together by a unifying scheme, such as unequalled service or pioneering invention.” (pp. 5-6) There are two constellations:

- The first constellation is termed “the core” and consists of the mission, the means and the market. The means could be resources required by the mission. (ibid)
- The second constellation incorporates the systems, processes and structures that are needed to support the core. (ibid)
Important as regards these constellations is that they need to reinforce each other. The authors argue that building configurations involves two aspects: first to make choices as regards what the firms does and how it goes about to do that, and second, to make certain that the things that the firm does reinforce each other. This idea of reinforcement is in line with Porter (1996) who argues that the unique activities that should make up a firms strategy must support and reinforce each other through fitting together in an activity system.

**Business models are not strategy**

There are indeed many similarities between business models and strategy. Both terms involve a focus on a firm’s performance. Afuah (2004) discusses the difference between strategy and business models from the perspective of what differs strategy from operational effectiveness. Taking stance in the I/O school of thought and its discussion of strategy as opposed to operational effectiveness, Porter (1996) argues that strategy is about performing different activities from those of the competition, whereas operational effectiveness is about performing similar activities as the competition, however in a better way. Afuah (2004) argues that both strategy and operational effectiveness are critical to the success of the firm and both aspects are included in the business model concept since business models are about “which activities a firm performs, how it performs them and when it performs them so as to earn a profit” (p. 12). I find this difference valid in many aspects; however, there are instances when one could argue that operational effectiveness indeed is strategy. It all depends on how the operational effectiveness is used to gain a competitive advantage. An example can be seen in Kihlén (2005) of a firm using its operational effectiveness in logistics not only to lower costs or improve service levels but also to pursue an acquisition strategy in which the logistics costs of the acquired firms are lowered to such an extent that the acquisitions as such are fully financed.

Another difference between strategy and business models as argued for by Afuah is the implementation. A strategy may often state which activities a firm is to perform but rarely how these activities are to be performed. This is a strength of the business model concept which also includes the operationalisation of the strategy, that is e.g. how to perform certain activities.

Also Osterwalder (2004) discusses the difference between business models and strategy and argues that the strategy and the business model handle similar issues but on different business layers. He sees the business model as “the strategy’s implementation into a conceptual blueprint of the company’s money earning logic.” (p. 17)

One can thus conclude that the business model concept spans the entire business as regards both physical and immaterial aspects. The concept further acknowledges both external positions and internal resources as important components. This is thus an extension of strategy in that the business model concept also regards the realisation-aspects of the strategy. In the next section the business model's constituent parts, the business model components will be handled as well as how they fit together.
3.2.2 What business models look like

A business model in its most generic form can be seen in Kindström (2005) who identifies three general dimensions, or components, in a business model: the internal factors, the external environment and the offering, see Figure 16. This categorisation of the parts of a business model is inspired by Eriksson (1990) and Normann (1975). It should here be noted that Eriksson and Normann use the term business idea rather than business model. In his later work however, Normann make use of the term business model, see Normann (2001).

Figure 16. The three general dimensions of a business model (Kindström, 2005, p. 64)

The external environment of the business model, Kindström argues, handles the market position of the firm, the position of the firm relative to customers and competitors. Thus, the external environment in the business model builds theoretically on I/O, see e.g. (Porter, 1980; 1985; 1991). The internal factors of the business model can, according to Kindström, be theoretically handled by the resource-based view of the firm (RBV), see e.g. (Penrose, 1959; Wernerfelt, 1984; Barney, 1991). Kindström here uses the term operative platforms, which denotes the internal environment of the firm, including factors such as different functions, processes and their constituent activities. Finally, the interface between the internal factors, the operative platform and the market position (the external environment in Figure 16) of the firm is by Kindström termed the offering, influenced by Normann (1975; 2001). One should here note that Normann does not address a simple exchange of money for goods (or services) when discussing the term offering. What is meant is a way to configure a process and an actor constellation. Normann argues that “the offering is a reconfiguration of a whole process of value creation, so that the process – rather than the physical product – is optimised in terms of relevant actors, asset availability and asset costs.” (Normann, 2001, p. 115)
From my point of view, the business model presented by Kindström (2005) is a very useful generic model. However, to be used by practitioners it needs to be further refined. This is also acknowledged by Kindström, who states that it is possible to have a finer granulation of the business model, as described in the three dimensions. A further detailed illustration of a business model is proposed by Afuah (2004), see Figure 17. The external factors discussed by Kindström are here expressed as *industry factors* and *positions*, the internal factors are discussed as *resources* and *activities*. Further, *costs* are extracted as a separate component.

![Diagram](image.png)

*Figure 17. Components of a business model (Afuah, 2004, p. 10)*

When scrutinising the model of Afuah one can identify the I/O school of thought through the industry factors, the positions and the activities performed in the firm. Also the RBV-perspective is taken into account through the resources as depicted in Figure 17. Apart from the industry factors and the firm-specific factors Afuah also adds costs as an element in the business model. The reason behind this is that since all activities, regardless if the firm pursues a low-cost or a differentiation strategy using the terminology of Porter (1985), cause costs. Since profit is the difference between revenues and costs, Afuah argues that costs should be a part of a business model.

Hedman and Kalling (2003) suggest an even more detailed business model, see Figure 18. They are in their model inspired by Porter (1991) discussing a longitudinal as well as a cross-sectional perspective of the business model. With the longitudinal perspective is meant the development of a strategy over time, whereas the cross-sectional perspective addresses the firm’s choice of strategy given its position relative to suppliers, customers, competitors and the firm’s resources and activities.
As is illustrated in Figure 18, Hedman and Kalling use both RBV and I/O in constructing their business model. On the market level they take stance in the five forces of Porter (1980), on the offering level and the activity and organisational levels they seek support in the generic strategies and the value chain from Porter (1985). However, on the resource level support is instead sought in the resource-based view of the firm, traditionally seen as opposed to industrial organisation.

A term close to the business model concept is “the theory of the business”, see Drucker (1994). The theory of the business is according to Drucker, the assumptions around which a business is built. That is assumptions about the market, i.e. the customers and the competitors and their respective values and behaviours. It is also assumptions about the company itself, its strengths and weaknesses. Drucker argues that the theory of the business, or the business model in this dissertation’s terminology, is vital for the firm’s success. However, the theory of the business must be constantly challenged. Since the environment continually evolves, so must the theory of the business. Drucker argues that the reason behind the failures of many large corporations, e.g. GM’s decline starting in the 1970s, depend on the firms not realising and adapting to changes in their environments. Since there needs to be a fit between the environment and the business, the business will fail if it does not adapt to these changing circumstances. In the case of GM, their failure was due to them not adapting to the car market moving from being rather homogeneous to being fragmented into different volatile lifestyle segments. GM’s production philosophy with long-runs of similar cars did thus not fit the market expectations.
Drucker (1994) argues that there are four specifications of a valid, and thereby successful, theory of the business:

(i) The assumptions about the environment, mission and core competencies must fit reality.

(ii) The assumptions in all three areas have to fit one another.

(iii) The theory of the business must be known and understood throughout the organisation.

(iv) The theory of the business has to be tested constantly.

(Drucker, 1994, pp. 100-101)

The continuous testing of the theory of the business connects with the analogy of the business model as a recipe. A recipe must undergo long runs of testing before the right ingredients and the right amounts of them are set. This is also argued for by Kraemer et al. (2000) stating that a business model may be simple in concept, exemplified through Dell’s direct model, although difficult in execution. They argue that it has taken Dell 15 years to achieve their present skills in executing the direct model. This is also acknowledged by the founder of Dell, see Dell (1999). What is also worth to note as regards Drucker’s discussion on the theory of the business is the notion of fit between the elements in the theory as well as the fit between the theory, or the model and its environment.

3.2.3 Fit between the business model components

It is argued that a fit between the business model components is necessary for the functioning of the same, (Magretta, 2002). However, in business model literature, little is said about what fit actually is. The importance of fit between the firm and its environment as well as between its structure and processes is argued for by e.g. the contingency theorists (Burns and Stalker, 1961; Lawrence and Lorsch, 1969). Miller (1992) terms these two types of fit environmental fit and internal fit. With internal fit, Miller puts forward three aspects: fit among variables of structure, fit between structure and process and fit among variables of process. However, this is done without defining what fit is in other terms than those of there being a positive correlation between variables, e.g. between structural formalisation and specialised management.
Porter (1996) discusses strategic fit between activities in the firm and argues that competitive advantage can come from the way activities in the firm fit and reinforce one another. Porter (1996) defines three orders of fit:

- “First-order fit is simple consistency between each activity (function) and the overall strategy” (p. 71)
- “Second-order fit occurs when activities are reinforcing” (ibid.)
- “Third-order fit goes beyond activity reinforcement to what I call optimization of effort.” (p. 72)

To exemplify the types of fit, first-order fit can be observed in a firm that pursues a low-cost strategy and thus performs activities (or functions) with a focus on low costs, for example low-cost country sourcing for a company that competes on price.

Porter uses an example from the soap manufacturer Neutrogena for second-order fit. Neutrogena has agreements with luxury hotels that are interested in offering their guests a soap recommended by dermatologists. In exchange for being able to offer the guests Neutrogena soap, the hotels agree to accept Neutrogena packaging for the soap instead of packaging carrying the hotel logo. When the customers have tried Neutrogena at a luxury hotel they are more likely to ask their dermatologist or drugstore about it. As an effect, the Neutrogena marketing activities at the hotels reinforce the medical marketing activities, lowering the total marketing costs.

Third-order fit is about information exchange across activities and functions, eliminating redundancy and minimizing wasted effort. Porter exemplifies third-order fit with the clothing company The Gap, which considers product availability in the stores a critical success factor. This can be achieved by keeping in-store inventories but The Gap has decided to keep the availability high by daily re-stocking from central warehouses. The frequent restocking minimizes the stock levels in the stores allowing for a high turn-over rate and is also advantageous for the short product life cycles of The Gap which is only six to eight weeks.

For all three types of fit, Porter argues that “the whole matters more than any individual part. Competitive advantage grows out of the entire system of activities”. (p. 73) If the positioning of the firm rests upon activities with second- and third-order fit, the competitive advantage is sustainable, (ibid). However, he also argues that it is difficult to achieve such fit since it requires “the integration of decisions and actions across many independent subunits.” (p. 74) He argues that it is more difficult for a competitor to imitate “an array of interlocked activities” (ibid) than a particular approach of the sales-force or product features.

The holistic view of activities and functions and their interconnectedness make it fruitful to draw parallels between the fit between business model components and Porter’s (1996) fit between activities and functions. The lack of definition of fit in the business model literature could have its roots in a view of fit as simple consistency in the business model components, something that
is rather intuitive. Looking at the business model components from the perspectives of not only this first-order fit but also second- and third-order fit can thus be fruitful.

### 3.2.4 The business model components

The business model research presented and discussed in the previous sections can be said to describe businesses on different levels of aggregation and from different perspectives. To some extent, the different descriptions also reveal what a business model consists of. In order to be able to further discuss what a logistics-based business model can consist of, one needs to bring order into which the components of a business model are.

When discussing components of a business model it is also important to note that there is a diversity of types of components. The complex nature of the business model concept forces such diverse areas as value proposition and organisation to both be handled as components despite their vast differences as terms.

Shafer et al. (2005) have recognised the wide variety of available business model definitions and their outcome in terms of different business model components. In a review of 12 different business model definitions they identified 42 different business model components. Using an affinity diagram (Pyzdek, 2003) they categorised those components that had been mentioned by at least two authors resulting in the four clusters of components shown in Figure 19.

![Components of a Business Model](image)

Figure 19. Components of a business model (Shafer et al., 2005, p. 202)

Worth to note in the categorisation by Shafer et al. (2005) is the large number of components handled. The large number of components also leads to considerable overlaps between components. Other authors attempting similar exercises have found a lesser number of
components. One such classification was made by Osterwalder et al. (2005) identifying nine different components, or building blocks as they term them, see Table 4. As a level above the building blocks, Osterwalder et al. present, although do not discuss, the pillars of a business model, see Table 4.

Table 4. Nine business model building blocks (Osterwalder et al., 2005, p. 18)

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Business Model Building Block</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Product</td>
<td>Value Proposition</td>
<td>Gives an overall view of a company's bundle of products and services.</td>
</tr>
<tr>
<td>Customer Interface</td>
<td>Target Customer</td>
<td>Describes the segments of customers a company wants to offer value to.</td>
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<tr>
<td></td>
<td>Distribution Channel</td>
<td>Describes the various means of the company to get in touch with its customers.</td>
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<tr>
<td></td>
<td>Relationship</td>
<td>Explains the kind of links a company establishes between itself and its different customer segments.</td>
</tr>
<tr>
<td>Infrastructure Management</td>
<td>Value Configuration</td>
<td>Describes the arrangement of activities and resources.</td>
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<tr>
<td></td>
<td>Core Competency</td>
<td>Outlines the competencies necessary to execute the company's business model.</td>
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<tr>
<td></td>
<td>Partner Network</td>
<td>Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialise value.</td>
</tr>
<tr>
<td>Financial Aspects</td>
<td>Cost Structure</td>
<td>Sums up the monetary consequences of the means employed in the business model.</td>
</tr>
<tr>
<td></td>
<td>Revenue Model</td>
<td>Describes the way a company makes money through a variety of revenue flows.</td>
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</tbody>
</table>

The term building block as a collection of business model components used by Osterwalder et al. is slightly confusing since quite a few of the building blocks mentioned do coincide fully with some of the business model components that they are to gather. Behind each building block is the mentioning of similar business model components by at least two authors in the literature review conducted by Osterwalder et al. I hence propose that the building blocks discussed by Osterwalder et al. may just as well be seen as business model components since a higher level of aggregation, placed between the component-level and the level of a full business model, is not purposeful.

The clustering of components made by Shafer et al. (2005) resulted in a very large number of separate components and the ditto by Osterwalder et al. (2005) is to a large extent focused upon e-business. In order to reach a manageable number of components applicable in a wider scope of businesses, I too have surveyed the business model components discussed in the literature attempting to synthesise the current research into business models. This classification is different from earlier ones in that it does not only include e-business oriented research but also research into concepts that are close to, if not even coinciding, business models, such as configurations, see Miller and Whitney (1999). Also included is Porter (1991) who does not explicitly discuss business models but touches upon the area by presenting a theory of strategy closely related to the business model concept which has also been recognised by Tikkanen et al. (2005). The classification is shown in Table 5.
Table 5. Business model components

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</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>Formulating the competitive strategy</td>
<td>Market positions</td>
<td>How do we make money in this business?</td>
<td>Mission (core)</td>
<td>Position</td>
<td>Strategy and structure</td>
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<tr>
<td>Position</td>
<td>Forms (The activities that the firm pursues must be consistent with the position of the firm on the market)</td>
<td>Transaction structure (The parties that participate in the exchange and the way in which these parties are linked, and the order in which exchanges take place)</td>
<td>Identification of market segment</td>
<td>Customers</td>
<td>Market positions</td>
<td>Who is the customer?</td>
<td>Market (core)</td>
<td>Position</td>
<td>Business network</td>
<td></td>
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</tr>
<tr>
<td>Industry factors (The activities pursued may influence the competitive forces and vice versa)</td>
<td>Describing the position of the firm within the value network</td>
<td>Competitors</td>
<td>Industry structure (five forces)</td>
<td>Strategy and structure</td>
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<tr>
<td>Offering</td>
<td>Transaction content (The goods or information that are being exchanged, and the resources and capabilities that are required to enable the exchange)</td>
<td>Articulation of value proposition</td>
<td>Offering</td>
<td>Offering</td>
<td>What does the customer value stream value?</td>
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<tr>
<td>Activities and Organisation</td>
<td>Transaction content (The goods or information that are being exchanged, and the resources and capabilities that are required to enable the exchange)</td>
<td>Defining the structure of the value chain within the firm</td>
<td>Activities and organisation</td>
<td>Operative platforms</td>
<td>Logistics stream</td>
<td>Means (core)</td>
<td>Administrative system</td>
<td>Operations</td>
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</tr>
<tr>
<td>Resources</td>
<td>Transaction content (The goods or information that are being exchanged, and the resources and capabilities that are required to enable the exchange)</td>
<td>Supply of factor and production inputs</td>
<td>Resources</td>
<td>Operative platforms</td>
<td>Value stream</td>
<td>Means (core)</td>
<td>Drivers (Structural determinants of differences in the cost or buyer value of activities or groups of activities)</td>
<td>Operations</td>
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<tr>
<td>Cost and Revenue</td>
<td>Transaction governance (The ways in which flows of information, resources, and goods are controlled by the relevant parties; it also includes the legal form of organization and the incentives for the participants in transactions)</td>
<td>Estimating the cost structure and profit potential</td>
<td>What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?</td>
<td>Revenue stream</td>
<td>Finance and accounting</td>
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</table>
The business model components presented in Table 5 have been identified through comparison of the contributions of the different presented authors and classification of those business model components mentioned by one or several of them. Closer scrutiny of the table reveals that components are at instances overlapping. The components extracted are:

- strategy,
- position,
- offering,
- activities and organisation,
- resources, and
- cost and revenue

The *strategy*-component frames the business model in that it states what the business model is to fulfil. Hence, strategy could be argued not to be a component of the business model, rather a prerequisite since the business model is an operationalisation of the strategy.

The *position*-component states which position on the market and within the value system, and hence the position relative to other actors in the supply chain, the firm is to take. In that position the firm must present an *offering*. The offering cannot be produced without appropriate *activities* which take place within, or outside of, the *organisation*. The activities pursued are a result of *resources* making the activities possible to pursue.

Lastly, the unison functioning of all these components must be financially viable, i.e. the firm must be profitable, hence the *cost and revenue* component. However, it can be argued that the latter should not be called a component of the business model. It is not a component necessary for the design or execution of the business model but the business model must nevertheless be possible to follow-up. Of the reviewed sources in Table 5, six out of twelve consider cost and revenue or equivalent a component. In this dissertation the stand is taken that the following-up of the business model and its performance is of importance although not a working part in designing or executing the business model. This is why strategy in the remainder of this dissertation will be considered a component whereas cost and revenue will not.

Not included in the categorisation although discussed by some authors, see e.g. (Porter, 1991; Hedman and Kalling, 2003), is the longitudinal component of business models, i.e. the change of a business model over time. Other authors discuss such components as distinct models, change models, see e.g. Linder and Cantrell (2000). Also Osterwalder et al. (2005) have chosen to leave the longitudinal dimension out of the business model discussion, without depreciating the importance of such change models.
Also important to note as regards the categorisation is that it is not explicitly directed towards business models with a large logistics-content, it is instead generic. I am of the opinion that there cannot be constructed a finite once-for-all set of business model components. As the competitive landscape changes, so do the business models and their constituent components. However, it is sensible to narrow down the business model discussion to an area such as logistics in order to reach a higher degree of focus on the situation specific aspects in such a model. In the next section, a business model with logistics content will be proposed. This model is not the definite logistics-based business model, only a suggested and reasonable model that can aid in the description and analysis of firms competing on logistics today, i.e. a model of analysis.

### 3.3 The business model components and their logistics-content

The business model concept takes focus away from the traditional view of strategy being divided into corporate strategy, business level strategy and functional strategies. Since logistics definition-wise crosses functional boundaries, or at least ought to, a translation of the strategy into business model components, showing little regard to functional boundaries, that are to fit together into a greater profitable whole, is well suited for logistics.

The discussion on business models in this theoretical framework has so far been focused on a conceptual level. A number of definitions have been presented and discussed and from those definitions have followed components that belong in a business model. The discussion has thus been held at the top conceptual level in the classification by Osterwalder et al. (2005), see Figure 20.

![Figure 20. Business model concept hierarchy (Osterwalder et al., 2005, p. 9)](image-url)
Theory also handles different business model types but in those instances only IT- or e-business related types. In many cases when different types of business models are discussed it is actually only a part of a business model type that is being discussed. An example of this could be online auctions; online auctions do not constitute a type of business model, rather a type of revenue model, which in turn could be part of a complete business model. The discussion in this section will also be held at a conceptual level, discussing the logistics-based type of business model. In doing this, the components of a logistics-based business model will be described and discussed from a logistics perspective. The components in question were derived in the previous section through a literature review and are: strategy, position, offering, activities and organisation and resources. Of these components, position and resources will not be handled in depth here since they have already been thoroughly discussed in the sections 3.1.1 and 3.1.2.

3.3.1 Strategy

Setting the definitions of strategy discussed in section 3.1 in relation to the idea of a business model as an analytical tool to develop the business, the early definition of Chandler (1962) seems to have stood the test of time well. A business model describes the firm and its actions as they are pursued, or thought to be pursued. The notion of strategy as a plan hence fits well.

The business model concept can be said to incorporate the view of different forms of strategy (deliberate and emergent) proposed by Mintzberg and Waters. There may thus be an intended strategy in a business model which is different from the realised strategy a few years later. This change during the years may be of different causes; adaptations along the way as parts of the strategy is not realised and as new input is given from emergent strategy. However, acknowledging the difference between what is intended and what is realised does not change the fact that a business model must consist of an intended strategy, may it be realised or not.

Both the notions of strategy as plan and strategy as position put forward by Mintzberg (1987a) also emerge as close to the business model concept. The former notion, strategy as plan, was previously discussed since this is the view of strategy put forward by Chandler (1962). The latter notion, strategy as position, is also argued for by Porter (1996), he does however discuss the creation of a position rather than the choice of a position. Mintzberg, on the other hand discusses position only as it being about finding a match between the organisation and its surrounding environment. This latter view is more in line with a business model perspective since it does not exclude the resource-based perspective which does not handle the creation of positions explicitly, rather the choice of the same. Also important to note as regards strategy used in a business model setting is that the strategy of a firm contains more than that which directly affects the business model. The plans for a firm’s geographical expansion may for example not be directly visible in the business model of the firm although a part of the strategy.
Relating logistics to strategy

Traditionally, logistics research related to strategy has had an industrial organisation approach. The reason for this might be that the industrial organisation school of thought having been the most influential strategy theoretical perspective during most of the years during which there has been logistics research. During the first era of the resource-based view, the 1950s, logistics management research was in its infancy.

One further characteristic of strategy-related logistics research is that it has mainly focused on only the logistics activities and processes and less on the link between operations and business strategy. The focus has hence been directed more towards logistics fulfilling strategic objectives rather than being a driving force behind strategic shifts. An example of this view is the Bowersox and Daugherty typology which is a qualitative typology identifying three distinct logistics strategies:

(i) The *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 *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 *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)

This view of logistics and logistics strategy is somewhat limited in that it focuses entirely on coordination and integration of functions, business units and in the long run also organisations (companies). These are of course important elements of logistics. However, as logistics strategies, these strategies do not contribute to the understanding of the role of logistics within the firm and in the strategy of the firm. As opposed to e.g. the generic strategies of Porter (1980), the logistics strategies proposed by Bowersox and Daugherty do not focus on, or link logistics to, the intended outcomes as regards organisational performance, i.e. above average returns from cost leadership or differentiation. The typology of Bowersox and Daugherty has been built on further since its inception by several researchers, see e.g. (Kohn et al., 1990; McGinnis and Kohn, 1993; Closs and Clinton, 1997; Kohn and McGinnis, 1997b; Kohn and McGinnis, 1997a; McGinnis and Kohn, 2002), all following the same view of logistics strategy as being a determinant of the degree of integration between organisations and/or organisational sub units.
Logistics strategy

In recent years, there have however been developments towards seeing that the logistics strategy should comprehend more than integration, without depreciating the value of integration, see e.g. (Stock et al., 1999). One way to view logistics strategy is through the notions lean and agile. Christopher (2000) suggests the two terms agile and lean when describing and understanding the characteristics of logistics in firms competing on logistics. According to Christopher, the key to remaining competitive in a volatile market is agility. An agile organisation is characterised by a high degree of flexibility and manoeuvrability. Christopher defines agility as “the ability of an organisation to respond rapidly to changes in demand, both in terms of volume and variety” (p. 38). An agile approach is thus sought when the variation in demand is considerable and where there are many different varieties of the products on offer. The routes to agility, according to Christopher, include four factors.

First, the firm needs 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.

Agility may be set into relation to leanness, which is about “doing more with less” (Christopher, 2000, p. 37). When demand is predictable and the requirements on variety are low and the volumes are high, a lean approach is more appropriate. Behind a lean approach can be found approaches such as lean manufacturing (Womack et al., 1991) striving towards the elimination of waste. The waste to be eliminated includes over-production, waiting time, transportation, processing, inventory, motion and scrap. This approach is also known as the Toyota production system (TPS). Christopher (2000) argues that many firms attempt a lean approach when they should rather attempt an agile approach, i.e. in situations that are too volatile for a lean approach. The choice of an appropriate approach is illustrated in Figure 21. An agile approach is thus most appropriate when volumes are low and the variety and the variability of demand is high, whereas a lean approach is more appropriate when volumes are high and the variety of products is low in a stable and predictable environment.
"Agility" is needed in less predictable environments where demand is volatile and the requirement for variety is high.

"Lean" works best in high volume, low variety and predictable environments.

The choice between agility and leanness can purposefully be related to the industrial organisation school of thought in that agility may be a source of differentiation whereas leanness is a source of low costs. However, the picture becomes more complex taking into account that logistics is about processes, which most of the time cross firm boundaries, building up network-like supply chains. Christopher (2000) introduces that one single supply chain can consist of agile as well as lean parts, terming this a hybrid strategy. At the same time it may be assumed that the aforementioned supply chain is to support one market position. Subsequently, a lean strategy may be needed in parts of a supply chain supporting a position of differentiation. The divider between the agile and lean parts of the supply chain are according to Christopher the de-coupling point at which a strategic inventory buffers between the lean and agile parts of the supply chain, see Figure 22.

![Figure 21. Agile or lean (Christopher, 2000, p. 39)](image)

![Figure 22. The de-coupling point (Christopher, 2005, p. 121)](image)
The de-coupling point is the point in the supply chain where real demand is known. Upstream from the de-coupling point the processes should be driven by forecasts, whereas downstream they should be driven by real demand. Hence, upstream focus is on leanness and efficiency, whereas downstream focus is on agility and effectiveness. The two parts of the supply chain are divided by a strategic inventory carrying goods in as generic a form as possible. Christopher here refers to the concept of *postponement*, i.e. delaying the final configuration of a product as much as possible. An example of this can be that a consumer gets a set of different national electric plugs delivered with an electronic product, such as a printer, making it possible for the manufacturer to keep one article in stock for a large number of national markets. Postponement has three major advantages: first, it results in fewer stock-keeping units; second, it gives greater flexibility since the same modules or platforms may be used for a variety of end-products; third, it makes forecasting easier since there are fewer variations in aggregated demand, (ibid).

Similar to Christopher’s discussion on agility and leanness are the discussions held by Fisher (1997) and Persson (1991). Fisher differs between *functional products* and *innovative products*, the former being predictable in demand and the latter being unpredictable in demand. The functional products should then be handled in an efficient supply chain whereas the innovative products should be handled in a supply chain characterised by responsiveness, see Figure 23.

![Figure 23. Matching supply chains with products (Fisher, 1997, p. 109)](image)

Persson (1991) reasons similarly and introduces the concept of *materials flow segment*. The reason behind introducing yet another term is that strategic management often handles logistics aspects incorrectly. A major flaw, Persson argues, in many attempts to linking logistics strategy to corporate strategy is the unit of analysis. From a strategy point of view, a business is often described as a number of strategic business areas. These business areas are defined so that they can pursue a single strategy. This 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 is not the most appropriate for the formulation of a logistics strategy. A logistics strategy should instead be formulated at the materials flow level (ibid). Products in the same materials flow segment have the same competitive environment and have similar requirements as far as logistics is concerned.

Persson (1991) states that the importance of logistics at the materials flow segment level is determined by two aspects:

(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 logistics is to be pursued, see Figure 24.

In essence, Christopher’s agility and leanness could be paired with Fisher’s responsive and efficient and Persson’s performance and cost. Despite the recognition of the strategic importance of logistics and the different purposes it needs to fulfil depending on the product- and flow type, not all firms are able to achieve an effective strategic utilisation of logistics. Abrahamsson (2007) identifies four steps in the development of logistics, from transaction-based to value-based, as illustrated in Figure 25, and thereby gives a closer look of what characterises those firms which over time have moved from transaction-based to value-based logistics.
Figure 25. Development from transaction based to value based logistics (Abrahamsson 2007, p. 10)

According to Abrahamsson, step A is characterised by specialised functions, e.g. warehousing and transportation. In step B, higher requirements are put on logistics regarding costs. The result is a centralisation of the logistics functions and the achievement of economies of scale in logistics. One possible negative effect of the centralisation and the thereof following standardisation of activities is the lack of flexibility and inability to offer differentiated logistics services. The need for flexibility leads firms to take step C, focusing on economies of scope. The last step, D, is by Abrahamsson termed value based logistics and can be seen as similar to the notion of agility discussed by Christopher (2000). Characteristic for this step is not only the accomplishment of economies of scale and scope but also economies of integration achieved through close cooperation throughout the supply chain.

**Following-up on the performance**

A business model must be financed and make a profit; of course this also applies to a logistics-based business model. In section 3.2.4 the cost-and-revenue-aspects of a business model were discussed and it was concluded that in this dissertation, cost and revenue is not seen as a separate business model component, but that the following-up on the performance of the business model is nevertheless important. This is why the following-up on the performance of the business model is handled within the strategy-component in this research.

Tikkanen et al. (2005) term one of their business model components finance and accounting and do not specifically handle the costs and revenues generated by the business model. Instead, they discuss the sourcing of external capital and the financial reporting. Afuah (2004), on the other hand, sees cost and revenue as a component which shows on the profitability of a working business model. This is in line with Chesbrough and Rosenbloom (2002) who discuss the cost
structure and profit potential of a business model as the economic result of producing an offering, given a specific value proposition and value chain structure.

I here follow Afuah (2004) and Chesbrough and Rosenbloom (2002) and leave the funding and reporting-issues out of the discussion. The cost and revenue aspects as they are understood in this dissertation are thus handled within the strategy component and encompass the following-up of the business model. They incorporate which types of KPI’s that are being employed and in the longer run the profitability of the business model.

Taking a look on the cost-side, there is a number of cost-drivers. First, there are costs associated with possessing resources, both for tangible and intangible resources, (Afuah, 2004). Second, there are also costs associated with the industry and the firm’s position within that industry due to e.g. bargaining power between seller and buyer, (ibid). Third, there are costs associated with pursuing activities, (ibid). Afuah suggests the use of activity-based costing (ABC) for the measurement of these different costs. Chesbrough and Rosenbloom (2002) are not as specific in how costs are to be measured and handled. From a logistics-perspective, activity-based costing is promising and there is considerable research into using and adapting ABC to a logistics context, see e.g. (Pohlen and La Londe, 1994; Abrahamsson and Aronsson, 1999; Pohlen, 2005). Considering that a business model spans the entire business, incorporating both strategy and operations, it is important that metrics used to measure cost and performance of logistics connect logistics to the strategy. Traditional logistics metrics set focus on operations and often neglect this bigger picture. The Forrester effect popularised through the management training tool “The Beer Game” shows which dramatic effects sub optimisation in logistic may result in. Thus there is a need to use metrics which aid in measuring logistics at a global rather than local level in the firm in order to avoid sub-optimisation. As previously has been discussed, a firm displaying operative excellence may have opted for local inefficiencies in order to reach global efficiency and effectiveness. This must of course also be taken into account when measuring and following up the performance of the firm and its business model.

However, many of the measures used by firms today to measure global performance are financial measures. Logistics-related measures are normally kept low in the organisation, measuring single activities or parts of flows. The drawback with the financial measures is that they measure the performance of yesterday rather than that of tomorrow, (Holmberg, 2000). This does of course not imply that financial measures are not of importance, they are naturally necessary for calculating both cost and revenue, but they need to be accompanied by other metrics as well.
The Global Logistics Research Team at Michigan State University in their study on World Class Logistics (1995), argue that the measurement of logistics in world class firms have three characteristics:

First, world class firms are able to measure functional performance on a both broader and deeper basis than other firms. The portfolio of measures used by these firms is broad and there is a strong focus on letting decisions be guided by the measures.

Second, apart from the functional measures, world class firms employ a range of process-oriented measures. Process- and supply chain performance are in focus just as much as functional measures. In the process measures there is a strong focus on customer orientation. Hence, it is recognised that the only important consideration in measuring supply chain performance is the ability to satisfy the customer.

Third, world class firms compare their measures, both internally and externally. Internally this comparison is made so as to for example excel in comparison to last year's performance. Externally, comparisons are made through benchmarking.

3.3.2 Position

From the perspective of the industrial organisation school of thought (Porter, 1980), position can be argued to be the core of strategy. From a business model perspective, the company’s position on the market and in the value system is of importance to the business model. However, just as important is the resource-side of the company.

The company’s position on the market can be described and understood by using the five competitive forces of Porter, discussed at more length in section 3.1.1. The five forces take into account the threat of new entrants on the market, the threat of substitute products or services and the rivalry among existing firms on the market and the bargaining power of both suppliers and customers.

From a logistics-perspective it is of interest to further discuss the relations with the suppliers and the customers, i.e. the relations that are handled on a daily operational basis as the flows of goods and information are coordinated. That is to say that for logistics, organisational issues pass the borders of the firm and concern also the operations of cooperating partners up- and downstream the supply chain. Chow et al. (1995) suggest that a way to achieve greater integration within a supply chain is to expand the scope of responsibilities for the logistics organisation. A way to do this is to enable information exchange and control over organisational borders.
Chow et al. (1995, p. 293) further suggest five variables that describe the relationship between two organisations in a supply chain:

- “Supply-chain formality is the degree to which norms governing transactions between the organisations are made explicit;

- Supply-chain intensity is the level of resource investment that an organisation has in its relationship with another organisation;

- Supply chain frequency is the amount of contact between the organisations;

- Supply-chain standardization is the degree of similarity in the resources or procedures used;

- Supply-chain reciprocity is the degree of symmetry in the relationship.”

This set of variables gives a richer picture of the type of inter-organisational relation there is between a focal company and its suppliers and customers respectively than is possible to achieve using only the competitive forces of Porter (1980) and hence help to enrich the picture of these relations from a logistics-perspective.

### 3.3.3 Offering

The offering is what links the firm with its market. Normann (2001) defines offerings as “artefacts designed to more effectively enable and organize value co-production” (p. 114). The value co-production occurs through activities, or clusters of activities. These may be unbundled and yet again bundled in new configurations in terms of place, where the activities are performed, time (when they are performed), actors (who performs the activities) and actor constellations (which set of actors that performs the activities). A typical example of this unbundling and bundling of activities in logistics-terms is postponement which can occur e.g. in time when the customer decides on the country specific electric plug to be used with for example a laser printer and thus enabling the producer to keep one stock keeping unit (SKU) instead of several for different country markets. In terms of unbundling and bundling this postponement leads to new configurations in terms of place, time and actors.

Kindström (2005) interprets the offering as the exchange that takes place between the market position dimension (external environment) and the operative platform dimension (internal factors) in a business model, see section 3.2.2. Also Hedman and Kalling (2003) use the term offering in their proposed business model referring to both Normann and the generic strategies of Porter (1985) arguing that an offering is built upon a generic strategy. From a business model perspective one can hence see the offering as the mediating device between the firm and its market. From a logistics perspective this would include the flow of goods as well as information between the firm and its customers.
The importance for the firm to understand the offering is implicitly pointed at by Ferdows et al. (2004) discussing the case of Zara, quoting Amancio Ortega, the company’s founder:

“To be successful, you need to have five fingers touching the factory and five touching the customer.” (p. 106)

In practice, Zara has translated these words of wisdom into a very responsive supply chain with an ability to move from design to production to sales in the stores in only 15 days. There are, according to Ferdows et al. (pp. 106-107), three key elements in this strategy:

- “Close the communication loop”
- “Stick to a rhythm across the entire supply chain”
- “Leverage your capital assets to increase supply chain flexibility”

The communication loop is closed by keeping the transparency of the supply chain high. For example, the Zara store managers have handheld computers that allow them to relay ideas as regards new designs based on customer requests directly to the designers of Zara together with information on sales trends. The products in the stores are kept in limited supply with regular replenishment of small batches of new items allowing for fast introduction of new designs. There are separate product families at Zara: women’s, men’s and children’s clothing. The three groups are run separately in that a single Zara store may be in contact with three different market specialists at the Zara headquarters, one for each group. Zara acknowledges that this is more expensive than consolidating the three groups but the speed of information exchange is in this way kept high, which weighs up the increased costs, (ibid).

Zara maintains a high level of control over their supply chain which includes sticking closely to a rhythm across the entire chain, (ibid). In practice, this means that there are set days twice weekly for when stores in specific regions may place their orders to the headquarters. That rhythm continues in the deliveries to the stores which are also made at a set time, often by air. The shipments to the stores are 98.9% accurate making controls in the stores unnecessary and since the clothes are delivered on racks rather than folded in boxes and are pre-tagged with price-labels they can be displayed in the stores immediately, (ibid). All these practices cost money but also enable very low stock-levels throughout the supply chain justifying the higher costs.

Unlike most of their competitors, Zara has a high degree of vertical integration, owning a large proportion of the factories where their products are made. The factories are often run in single shifts which allows for fast ramping up of the capacity when needed. The rhythm kept throughout the supply chain naturally affect also the factories where the lead-time is kept constant and where increased demand is met with increased capacity through e.g. temporary staff. This allows for fast reaction to changes in trends and eliminates the risks of obsolete stock. For simple garments with stable and predictable demand, such as plain t-shirts, the production is however outsourced to low-cost countries. This leveraging of assets makes it possible for Zara to
respond for changes in demand quicker than the competition. At the same time, since the lead-times are so short from production to sales, the company can operate with negative working capital, (ibid).

These three principles cannot in full be associated with constituting the offering between the company and their customers in the case of Zara. They do however serve as an example of how the exchange between the firm and its customers may be configured from a logistics-perspective.

### 3.3.4 Activities and organisation

The term organisation comes from the Greek word *organon* meaning tool. The study of organisations is very closely related to general strategy research since the organisation as such often is the tool with which the strategy is to be realised. Since the dawn of research into organisations with important contributors such as Smith, Taylor, Fayol and Weber much has happened. Since then, the contribution of the individual human being to the failure or success of an organisation has been brought to our attention. Also the interdependencies between entities within and external to the organisation have been highlighted. In recent years, information technology has found its role as an influential part of organisations.

Research into the role of logistics in the organisation often takes stance in the flow orientated nature of logistics. The problem that then arises is the tension between the traditional functional organisation and the organisation of logistics. There are different schools that have addressed this challenge; Persson (1997) identifies three approaches or design strategies for logistics: the one-way approach, the life-cycle approach and the contingency approach. These three approaches have also been identified by Chow et al. (1995).

The one way approach is more than one approach, Persson here addresses all views of there being a single way to organise logistics regardless of firm characteristics and industry context. The one way approach usually includes the appointment of a logistics manager at close proximity to the CEO. Also common in the one way approach according to Persson is the notion of the matrix organisation being well suited for successful organising of logistics. A second approach is the life cycle approach, arguing that logistics should be organised depending on the stage of logistics development the firm is in (ibid).

**The contingency approach to logistics organisation**

One further approach identified by Persson (1997) is the contingency approach. The contingency approach has its roots in Burns and Stalker (1961), Galbraith (1973) and Lawrence and Lorsch (1969). This approach has been popularly used in logistics research, see e.g. (Chow et al., 1995; Normman, 1995; 1997; Pfohl and Zöllner, 1997). A reason behind the popularity of the contingency approach to organisation in logistics research could be the dependability between different variables, such as product character, production processes, etc. This dependability is familiar for logistics researchers, often taking on a systems-perspective due to the systemic
character of logistics. 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 many firms, logistics is organised into a department similar to departments such as production or marketing. The flow-oriented nature of logistics then makes evident some problems with a functional division into departments. Contingency factors may help elevate such problems and make possible solutions to them.

According to Norrman (1995), 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. Set into a business model-perspective, the contingency approach to the organisation of logistics appears promising. It has been argued that a successful business model must continuously adapt to its environment, see e.g. Drucker (1994). This continuous adaptation could be favourably described and analysed as far as the organisation of logistics is concerned using the contingency approach, which has the inherent assumption that the organisation must adapt to a changing context.

Contingency Factors

There are of course a large number of contingency factors that may affect how a firm is to organise itself. In a logistics context, coordination is an important aspect and Persson (1997) suggests three main contingency factors that influence the organisation of logistics based on the central aspect of logistics coordination. These are:

- **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.

Persson argues that these three factors influence the patterns in logistics coordination. Persson argues that an organisation with low logistics task predictability and few logistics decision elements ought to 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 also 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) argue 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. As discussed earlier, 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. 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.

Persson (1997) and Pfohl and Zöllner (1997) highlight a number of contingency factors that affect the organisation of logistics. Their focus is mainly directed towards the producing company and they do not handle information technology as an example of a factor affecting the organisational structure, a factor that could not be easily observed by the early contingency theorists. Information technology is however handled by Chow et al. (1995, pp. 300-302) presenting five different contingency factors:

- **Strategy** is seen as a contingency factor since it aids in explaining the relationship between structure and performance. A cost-leadership strategy could lead to requirements on cost-minimisation in the logistics organisation, which in turn could be realised through e.g. centralisation.

- **Environmental uncertainty**, i.e. “the extent to which outcomes are unpredictable” (p. 300) affects the logistics organisation in that a larger degree of flexibility is needed which in turn leads to that the logistics processes cannot be as formalised as would otherwise be the case.
Environmental heterogeneity, i.e. “the degree of complexity in the firm’s environment (e.g. markets, products, suppliers, logistics suppliers and customers)” (p. 301) is linked to the environmental complexity. With increasing heterogeneity comes increasing complexity and it is less likely that standard procedures can be used in the operations.

Importance of logistics regards how important logistics is to the larger picture of the business. If for example the ratio of logistics costs to total costs is high, this implies that logistics and its organisation is of great importance to the performance of the organisation.

Information technology is an important tool for logistics and Chow et al. argues that there is a “degree of simultaneity in the choice of information technology and the organizational arrangements.” (p. 302)

There are no doubt numerous other factors that have an influence apart from those presented by (Chow et al., 1995; Persson, 1997; Pfohl and Zöllner, 1997), a fact that is inherent in the basic assumptions of the contingency approach is that different entities within as well as external to an organisation affect each other.

Organising logistics

Apart from these different factors determining the organisational outcome one must define how an organisation is to be described. Common terminology used in doing this are terms such as centralisation, degree of formalisation, departmentalisation etc. Chow et al. (1995) suggest a framework for describing logistics organisation based on the following properties:

- Centralisation
- Span of control
- Scope
- Formalisation

Centralisation is an organisational property which may be understood as either a property as regards distribution of power or as regards the extent to which decisions are made centrally in the organisation or not. Within logistics research, the term proximity to top management is commonly used (ibid). One reason behind this may be that logistics is a relatively new field of research and a close proximity to top management enhances the importance of the field (ibid). Proposed by Chow et al. is a two-dimensional description of the degree of centralisation. The first dimension is concentration, meaning “the extent to which the power to make logistics decisions is concentrated in the organisation.” (p. 288) By using this definition one is able to describe organisations in which the decision making authority as regards logistics is concentrated even if this concentration is located at a low level in the organisation. The second dimension is related to the term proximity to the top, namely “the hierarchical distance between logistics decision-makers and senior executives who make more “global” decisions on an organization-wide basis” (p. 288). This second
dimension thus eliminates the drawback of the term concentration, which does not cover the aspect of how close to the top-management logistics decisions are made.

The terms *span of control* and *scope* are properties which easily could be mixed up. Chow et al define them as follows. *Span of control* is defined as “the number of subordinates who report to a single superior.” (p. 289) whereas *scope* is defined as “the degree to which logistics activities are grouped together in the same organization or organizational sub-unit” (p. 289). Obviously, the term span of control, then, has a meaning only when it is set into relation with the overall size of the organisation currently being researched.

The definition of *formalisation* suggested by Chow et al. is “the degree to which goals, rules, policies and procedures for logistics activities are precisely and explicitly formulated”. (p. 289)

This definition is in line with what the organisational sciences suggest.

Apart from these organisational properties Chow et al. also discuss *integration*, which they view as a product or outcome of an organisational structure rather than a property of it. Integration is per definition important when discussing logistics organisation, especially when considering also the organisation of inter-firm relations through e.g. supply chain management. Also Lawrence and Lorsch (1969) discuss the relations between different organisational subunits and they use the terms *differentiation* and *integration*. Differentiation is then seen as a difference in the orientation (cognitive and emotional) between the managers of different functional departments whereas integration handles the level of collaboration and unity of effort between the departments.

The discussion pursued in this section has given us variables to describe organisations. Further, a number of contingency factors have been presented, which affect the different organisational properties. However, inherent in the contingency approach is also that one must acknowledge that the specific situation may involve completely new sets of contingency factors affecting the organisation of logistics.

**Three types of logistics**

To exemplify which types of logistics that can be the outcome of the different ways of organising logistics that have been discussed so far in this section, Abrahamsson et al. (2003) provide a classification of logistics into three different types.

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 trading 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 6 summarises the characteristics of a logistics platform, or type three logistics, and what differs it from logistics of type one and two.
Table 6. 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></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>Priorities in Logistics</strong></td>
<td></td>
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<tr>
<td></td>
<td><strong>Structure and Organisation</strong></td>
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<td></td>
</tr>
<tr>
<td></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 Standardised processes with adaptions to market segments</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></td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Operational flexibility, e.g. The ability speed operations on a 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)

### 3.3.5 Resources

In order for an organisation to be able to perform a certain set of activities, the organisation must control the appropriate resources. The concept of resources, the different types of resources there are and their impact on the competitive advantage of the firm is discussed in depth in section 3.1.2. As stated in section 3.3.1, logistics research with a strategy-focus has traditionally had an industrial organisation approach to the role of logistics in the strategy. Olavarrieta and Ellinger (1997) argue that logistics as a function in the firm is often excluded from the strategic agenda and is viewed upon as a separate entity or cost centre which is clearly separated from the other functions of the firm. They further claim that logistics could meet the criteria of a distinctive capability; i.e. being valuable, scarce and difficult and costly to imitate or substitute (see section 3.1.2); and thus give the firm a sustainable competitive advantage.
Despite logistics being a valuable possible source of a sustainable competitive advantage, only few firms do compete on logistics. Olavarrieta and Ellinger argue that the scarcity of logistics-based competition depends on two factors. First, to be able to use logistics as a distinctive capability one needs to be able to integrate a complex combination of physical assets, organisational routines, skills and knowledge. Second, since logistics takes place in processes crossing organisational boundaries, such competition requires close inter-organisational cooperation. A positive resulting effect of these characteristics of logistics-based competition is that it is difficult to imitate or substitute since it requires profound understanding and ability to put into action, complex systems of tangible and intangible assets within and outside of the firm boundaries. Olavarrieta and Ellinger (1997) take stance in Day (1994) in which distinctive capabilities are seen as those capabilities that do contribute to the competitive advantage of the firm, see Figure 26.

In Figure 26 it can also be observed that a distinction is made between assets, distinctive capabilities and core capabilities. Assets are according to Olavarrieta and Ellinger either tangible or intangible, “but have the characteristic of being “visible” resources” (p 563) The core capabilities are capabilities at corporate-level, comparable with Hamel and Prahalad’s (1990) term core competence. The distinctive capabilities as presented by Olavarrieta and Ellinger; outside-in capabilities, spanning capabilities and inside-out capabilities do span the value chain of the firm but are not very specific as regards which the distinctive logistics capabilities can be.
Mentzer et al. (2004), on the other hand, presents a framework for an attempt towards a unified theory of logistics, see Figure 27, partly based on the resource-based view of the firm. Mentzer et al. suggest that the logistics resources may be divided into tangible (e.g. plants and equipment) and intangible (e.g. relationships and corporate culture) resources. As argued for by Olavarrieta and Ellinger (1997), not all resources constitute a competitive advantage for the firm and Mentzer et al. hence propose that there is a number of logistics capabilities emanating from the resources of the firm, see Figure 27.

**Figure 27. A unified theory of logistics (Mentzer et al., 2004, p. 610)**

Mentzer et al. use the term capabilities rather than distinctive capabilities in contrast to Olavarrieta and Ellinger. It can be argued that only a share of the logistics capabilities as presented in Figure 27 constitute distinctive capabilities for a specific firm. The unified theory of logistics by Mentzer et al. and the distinctive capabilities of Olavarrieta and Ellinger do however provide a foundation in that they suggest a basic characteristic of logistics distinctive capabilities. Common for all presented capabilities by both Mentzer et al. and Olavarrieta and Ellinger is that they are flow-oriented in that they span the whole, or part of, the flow from the suppliers to the customers of the firm.
4 Model of analysis

The theoretical framework led to the identification of five components in a business model. Returning to the purpose which is “to describe and analyse logistics-based competition using a business model approach”, these components need to be placed in a context of logistics-based competition in order to enable the further investigation of a logistics-based business model. This will be done through the analysis in which the empirical cases will contribute to describing and analysing the role of logistics in the strategy of the firm. There are two research tasks resulting from the purpose:

1. **What is the role of logistics in the strategy of the firm?**
2. **Which are the components in a logistics-based business model?**

Figure 28, below, illustrates the logic leading to the research tasks, as also presented in chapter 1; they will be discussed in the following.
Observations of logistics-based competition (A in Figure 28) initiated this research. The licentiate thesis investigated the role of logistics in the strategy of the firm (B) and in the doctoral dissertation, the findings in the licentiate thesis are further built upon to provide an answer to research task one. When research task one was investigated in the licentiate thesis a gap was identified between logistics and strategy as discussed in Chapter 1. The gap between operations and strategy needs to be bridged by means of the logistics-based business model components (C). This will be done by further extending the analysis in the licentiate thesis, relating the role of logistics to theory in strategic management using both the industrial organisation school of thought and the resource-based view of the firm unified through business model research. This is done in research task two through the identification of the logistics-based business model components. Together, the business model components constitute a logistics-based business model. A business model in the form of a model of analysis is presented in this chapter, see Figure 29, which is further refined through the empirical data and through the analysis.

Through the use of the logistics-based business model it will be possible to return to the initial research idea and look into logistics-based competition and the role of logistics in the strategy of the firm. As a consequence, the sequential logic presented in chapter 1 is also followed in the analysis and conclusions of this dissertation although at this point, the research is approached in the sequence C&D-A&B, answering the research tasks in the order 2 and 1, instead of as in chapter 1 in the sequence A&B-C&D, see Figure 28.

Throughout the remainder of this dissertation the model of analysis will be refined and eventually evolve into a logistics-based business model. The theoretical review leading to the identification of the five business model components in the theoretical framework is based on non-logistics literature, i.e. literature in strategic management with a bias towards e-business due to the historical development of business models from this research stream. The five components identified do span the domain of a business model in line with other business models presented in the theoretical framework. The empirical data and the analysis may however lead to the division of one or several of the components, merger between components, or the removal of one or several of the components.
The model of analysis in Figure 29 represents a general idea of a business model at a conceptual level. The firm (the dotted box in the figure) pursues certain activities within and outside of the own legal organisation. This means that the operations of the firm, whether they are conducted in-house or are being purchased externally, are part of the business model and fall within the activities-and-organisation-component. The activities and the organisation of them are enabled by a number of resources. The firm is thereby able to create an offering towards the market and the firm’s position on that market. The scope of management, from resources to offering and position via activities and organisation, shall fit within the strategy of the firm. In the figure, the firm and the market are written in italics in order to show that they are not components in themselves; the different components are written in bold text. In the following, the content of these components will be briefly described, based on the theoretical framework, introducing the analysis conducted in parallel with the case presentations and the final analysis found in chapter 8.

Strategy

The strategy-component as handled in business model research is much in line with Chandler’s (1962) notion of strategy as a plan. Even though it can be acknowledged that there may be considerable emergent (Mintzberg and Waters, 1985) aspects of a running business model, the business model as such is to a large extent the blueprint of the money-earning logic (Osterwalder, 2004) of the company as it is planned to look today. Hence, the strategy as expressed in the
business model must be formulated as a plan notwithstanding that it will be influenced by emergent aspects.

From a logistics-perspective, strategy has traditionally been handled within operations, not taking the whole firm into consideration, and has thus not to any larger extent stretched into the field of strategic management. Logistics strategy research has instead expressed logistics strategies as degree of integration as discussed in chapter 1. This has resulted in various classifications of logistics strategies where the most advanced levels of logistics strategy have been reached when the firm’s operations are closely integrated internally as well as with external parties up- and downstream the supply chain, see e.g. McGinnis and Kohn (2002).

There are however some examples of logistics strategy research that has made inroads towards strategic management and either of the two strategy theoretical schools of thought; industrial organisation and the resource-based view of the firm, commonly termed the outside-in and inside-out perspectives. Logistics strategy research taking stance in the outside-in perspective can be seen in e.g. Persson (1991) and research using the inside-out perspective can be seen in e.g. Olavarrieta and Ellinger (1997) and in Mentzer et al. (2004). When pursuing a business-model-approach, logistics strategy research should take both these perspectives into account.

In practice, the logistics strategy of the firm is about choosing between efficiency and effectiveness. Persson (1991) expresses this as a choice between cost- and performance-oriented logistics. Similar reasoning can be seen in more recent research too, see e.g. Christopher (2005) expressing the logistics strategy in terms of leaniness and agility. Tying on to strategic management and the outside-in approach to strategy, a lean approach to logistics corresponds with a cost-focus whereas an agile approach corresponds with differentiation through a high customer service level. At the same time, the firm must possess or control resources that enable the execution of agile and lean logistics respectively.

It can as a result be argued, that in order to get a more complete picture of the strategy-component in a logistics-based business model, a holistic approach incorporating both the inside-out and outside-in perspectives is needed. Further, the firm’s execution of logistics activities and processes, in a lean or an agile manner and their fit with the position of the firm, as well as the resources enabling the execution of them, need to be taken into consideration.

**Position**

Position is as a term closely associated with the outside-in approach to strategy and the five forces by Porter (1980). This also largely how it is being used in a business model setting, see e.g. Afuah (2004). In that respect, the position of the firm handles the potential entrants to the market, the threat of substitute products or services, the bargaining power of the suppliers and the buyers and the rivalry among the existing firms on the market.
In a logistics-based business model, the traditional approach to the position-components is of course still valid. However, since operations are brought into focus in a logistics-based business model, the relations with the up- and down-stream supply chain parties, i.e. the suppliers and the customers, must be described in more detail. The five variables suggested by Chow et al. (1995, p. 293) and repeated below can serve this purpose:

- **Supply-chain formality** is the degree to which norms governing transactions between the organisations are made explicit;
- **Supply-chain intensity** is the level of resource investment that an organisation has in its relationship with another organisation;
- **Supply chain frequency** is the amount of contact between the organisations;
- **Supply-chain standardization** is the degree of similarity in the resources or procedures used;
- **Supply-chain reciprocity** is the degree of symmetry in the relationship.”

To conclude, the position of the firm in a logistics-based business model needs not only be described and understood at the overarching level (as in Porter’s five forces) but also as regards the operative linkages with up- and downstream supply chain parties.

**Offering**

The offering, see e.g. Normann (2001), constitutes the exchange that takes place between the market position dimension (external environment) and the operative platform dimension (internal factors) in a business model, see Kindström (2005). That is to say that the offering can be seen as a mediating device between the firm and its market and i.e. customers.

Taking this reasoning to the level of operations and logistics, the offering should include a discussion on the flow of goods as well as information between the firm and its customers. That is to say that one should investigate the firm’s sales channel and the operative platform supporting that channel as well as the interface towards the customer in the market, be it a store, a website etc. in order to attain a more complete picture of the offering-component.

**Activities and organisation**

Activities and organisation is a component encompassing all the operations conducted within the firm as well as those operations that are conducted by external parties. This is an important distinction since for the functioning of the business model, all activities and processes involved in the operations count, may they be conducted externally or internally. Otherwise the business model will fail. This was also illustrated in the model of analysis in Figure 29.

To describe and understand the organisation of logistics, the contingency approach to the organisation of logistics is in popular use, see e.g. Persson (1997) and Pfohl and Zöllner (1997). This approach acknowledges that there is a multitude of factors that affect how logistics should
be organised and that there is not one single one-size-for-all solution to the problem of organising logistics. Relevant contingency factors can be e.g. the logistics task predictability, the number of logistics decision elements and the existence of autonomous logistics decision areas; see further in section 3.3.4. A logistics-based business model, as any other business model, consists of a number of components that are to fit and work together. In order to describe and explain how the firm’s logistics organisation fits together with the operations of other supply chain parties one must hence find a language to describe such organisations. Chow et al. (1995) suggest a set of variables that can be used for this purpose:

- Centralisation
- Span of control
- Scope
- Formalisation

The different variables are described in more detail in section 3.3.4. Using these variables, there is a language of description available to identify patterns in the cases to contrast with theory.

**Resources**

A firm must possess or control a number of resources in order to be able to conduct its operations. A few resources can be seen as being distinctive capabilities and therefore contribute to the competitive advantage of the firm. For a firm competing on logistics and thus employing a logistics-based business model, logistics resources should be pivotal and thus constitute such distinctive capabilities. According to Barney (1991) a resource must fulfil the following requirements, as already stated in section 3.1.2, in order to contribute to the competitive advantage of the firm:

(i) “it must be valuable, in the sense that it exploits 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 nor imperfectly imitable.”

(Barney, 1991, pp. 105-106)

Taking stance in the resource-based view of the firm, using e.g. the VRIN-variables, the logistics resources of a firm may be analysed.
The scope of the cases and the analysis

The model of analysis proposed in this chapter and illustrated in Figure 29 delimits the research as regards breadth of the cases and the analysis.

What is not visible in the model of analysis is the level of abstraction and the depth of details as regards each business model component. A business model spans strategy and operations, two areas between which the theoretical step may be large. Theoretically, the model has been built with a basis in strategy theory, i.e. from a rather high level of abstraction. Nonetheless, logistics, which is a major concern of the model, is to a high degree operative. In chapter 1 was discussed the business model concept hierarchy of Osterwalder et al. (2005) according to which the business model of a specific firm can be placed at an instance level whereas a business model type, such as a logistics-based business model, is a business model at a conceptual level in the hierarchy. This division is used in determining the theoretical- and empirical depth of this research, see Figure 30. Since this research takes stance in strategy theory, it cannot theoretically span the entire distance from strategy theory to the performing of logistics activities without loss of focus. Therefore, the dissertation has a theoretical depth as illustrated in Figure 30 covering strategy theory, business model research and logistics strategy. The latter area, logistics strategy is in firms operationalised through different logistics concepts, such as postponement, which are covered empirically through the studied cases in which the depth covers also the main logistics-related processes conducted in the studied companies.

![Figure 30. Spanning the area of research, based on Osterwalder et al. (2005, p. 9)]

The area of investigation is thus spanned through the proposed business model (Figure 29) and the discussion of the theoretical and empirical depth of the business model (Figure 30).
5 The Bama Case

Bama was founded in 1886 and is today a group of businesses, Bama Gruppen AS, that trade and produce fruit, vegetables, processed products, flowers and other products with a limited shelf-life. The headquarters are situated in Oslo, Norway, and the subsidiaries are spread throughout the country. The group also has limited operations in Sweden through its subsidiary Nordic Lunch and in the Netherlands on the supply-side of the operations through having half the ownership in Nature’s Pride, an importer of exotic fruits and vegetables. The Bama group is controlled by the founding family Nergaard (34%) and the grocery groups NorgesGruppen (46%) and Rema 1000 (20%).

Bama is organised into five divisions; Grocery, Horeca, Flowers, Industry and KPS. Apart from these five divisions, there are central support and service functions for IT, finance, HR and marketing.

The grocery division supplies mainly NorgesGruppen and Rema 1000, with fruit, vegetables and flowers. Horeca is short for hotels, restaurants and catering, and the division supplies fruits and vegetables to customers as diverse as both canteens and gourmet restaurants. The flower division supplies flowers to supermarkets, kiosks and petrol stations as well as to the franchise chain Floriss. The industry division supplies the other Bama divisions with an assortment of products such as salad mixes and vegetable snacks. Lastly, the KPS division with KPS being short for kiosks, petrol stations and service shops, supplies such businesses with fruit and vegetables. The different divisions are supplied by a shared supply function, or business: Bama Trading. The Bama organisation is illustrated in Figure 31.

![Figure 31. The Bama Group](image-url)
The Bama Group has grown under sustained profitability during a large number of years. In 1996 the annual turnover was NOK 1.5 billion and in 2005 it had grown to NOK 5.6 billion, see Table 7. The operating margin during the last financial year was 5.8% and there are about 1,700 employees within the group.

Table 7. The turnover and profitability development of Bama 2002-2005

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income (thousand NOK)</td>
<td>5 637 100</td>
<td>4 950 400</td>
<td>4 787 300</td>
<td>4 474 900</td>
</tr>
<tr>
<td>Change from previous year (%)</td>
<td>13.87</td>
<td>3.41</td>
<td>6.98</td>
<td>9.05</td>
</tr>
<tr>
<td>Profit margin (%)</td>
<td>5.8</td>
<td>5.1</td>
<td>5.0</td>
<td>4.2</td>
</tr>
</tbody>
</table>

In this case description, the Bama Group will be handled. Not all divisions will be handled in detail however; of the divisions, the Grocery division and the part thereof serving NorgesGruppen will be focused upon mostly. The grocery division accounts for 62% of the total turnover of Bama. The grocery division is, in turn, divided into Gode Grossister serving NorgesGruppen and BaRe serving Rema 1000. BaRe is a joint venture which is owned by both Bama and Rema 1000; each owner has a 50% stake in BaRe.

5.1 Strategy

According to Svein-Egil Hoberg, company director, the vision of Bama is:

“to be, and to be experienced as, the best supplier and cooperating partner by the customers.”

Presentation at Stora Logistikdagen, Stockholm, the 24 October 2006

(Translated from Norwegian by the author)

In order to attain this goal and vision, Bama shall…

“…develop itself as the best marketing organisation and the most efficient supplier of products with limited shelf life on the Norwegian market.”

“…be the growth leader on the Norwegian market and shall see to that Bama’s customers on the grocery and service markets reach over proportional market shares in fruit, vegetables, and flowers.”

“…by the customers be seen as their best advisor.”

(ibid)
The outlined efforts have given results; Terje Woldsnæs, operating director, points out that Bama has been awarded for being the best supplier of NorgesGruppen during the last two consecutive years. Being further specific than as outlined above, Hoberg points at areas which need to be focused upon in order for Bama to reach the set goals: The company shall act so as to…

- …develop the fruit and vegetable category in the grocery chains.
- …develop new products in the category.
- …achieve over proportional growth for the customers.
- …guarantee profitability for the customers.
- …develop specific chain concepts for all customer segments.
- …focus on the entire value chain.

Figure 32 illustrates this sought role and position of Bama between the producers and the retailers.

2,500 Norwegian producers
40% Norwegian, 60% Import

8,500 Destinations

Efficient operations

Supplier development
Marketing differentiated per customer segment

Figure 32. The strategic position of Bama, presentation by Svein-Egil Hoberg at Stora Logistikdagen in Stockholm, 24 October 2006

The operations are very much in focus strategically and according to Hoberg, Bama strives towards developing the most efficient supply system for products with limited shelf-life from the producers all the way to the customer which must always remain in focus.
Bama Trading

The focus on the customer is also emphasised by Øyvind Briså, head of Bama Trading. He states that the essence of Bama’s strategy lies in the creation of profitability for the customers. He states:

“We must have satisfied customers that have high profitability on our products. We want to be developers of the fruit and vegetables category. The profitability follows from that.”

(Translated from Norwegian by the author)

The strategy of Bama Trading follows from the Bama strategy. Briså outlines it as:

“Bama Trading must be the supplier that is there when the sun is shining, when it is raining or snowing, and when there is a storm, upholding the quality. We must present new alternative products that can drive the growth of our customers’ sales, and we must control the chain from the suppliers to our customers.”

(Translated from Norwegian by the author)

Focus on the entire supply chain – profitable customers make a profitable Bama

Worth to note as regards the strategy of Bama is the outspoken focus on the entire supply chain. Traditionally, strategies are formulated at the instance of market- or product strategies (Persson, 1991) and hence lack a focus on the effects of that strategy on the physical flow of products; in Bama this is not the case. Svein-Egil Hoberg argues that Bama envisions developing the most efficient supply system for products with limited shelf-life from the producers all the way to the customer.

The focus on the entire supply chain does to some extent remove focus from a specific market or product; in terms of generic strategies (Porter, 1980) Bama competes both on price and quality. The Bend-it concept for bananas and other fruits focuses on products of the highest possible quality with a premium added to the price. Simultaneously, Bama offers products under the brand name “first price” at a lower price. In the inter-organisational coordination between the suppliers, Bama Trading, the distribution centres and e.g. NorgesGruppen, logistics is used to achieve cooperation in line with an information strategy, see (Bowersox and Daugherty, 1987).

Bama seeks to extend the season for their products to cover the whole year. In practice, this means that Bama must source specific fruits and vegetables from different countries or grow the products locally in green houses, as is the case for strawberries during the winter season, depending on the season. This requires a large degree of agility in the sourcing process at Bama Trading and in the ability of the distribution centres to shift from one country of origin to another. The shifts are demanding as regards traceability since Bama has high requirements on that every single product must be possible to trace back all the way to the producer. The shifts are also demanding as regards pricing. When the season and the country of origin shifts, so does
the price of the product; in order to make these shifts as smooth price-wise as possible, central funds are used to smoothen-out the price changes.

The high requirements on Bama to keep low prices lead to a constant search for making the operations as lean (cf. Christopher (2000)) as possible. At the same time, the changes in season and weather conditions put high requirements on agility (ibid). The resulting logistics strategy of Bama is thus a hybrid strategy with both lean and agile elements.

5.1.1 The strategy of Bama is a balance act

The concern management has two to three yearly one-day-retreats during which strategy is being discussed according to Öyvind Briså. At the same time, the strategy of Bama is very much defined by the strategies of the company’s customers and main owners alike. The large owners NorgesGruppen and Rema 1000 are, as has been stated, also customers of the group. Briså describes this situation as:

“Our strategies are closely connected to our customers. We mirror the customers’ thoughts and ideas and try to give them input for how to develop our relationship further. It is a balance act to offer our competing owners what they want, so that they feel that we help them to 100%. At the same time we must develop and bring our own company forward. This is quite a demanding balance from time to time.”

(Translated from Norwegian by the author)

Also Terje Woldsnes emphasises the focus on the customers:

“Our strategy to achieve our vision has been to create good profitability for our customers and always, in everything we do, be focused on this. Everything we do is with concern for our customers. Of course we should also be aware of our own profitability, but above all it is our customers’ profitability that is in focus for us. That has been our largest success factor.”

(Translated from Norwegian by the author)

The naturally large influence over Bama that NorgesGruppen and Rema 1000 can achieve has led to effects for the Bama supply chain. Downstream the supply chain, in the stores of e.g. NorgesGruppen, Bama is closely integrated with the customers in line with an information strategy (Bowersox and Daugherty, 1987) as discussed earlier.

The technology level is however not very high as regards operations; orders from the store are normally transmitted electronically through EDI but are made manually. There is no use of Vendor Managed Inventory (VMI), Point of Sales Data (POS), etc. The reason why orders are entered manually is mainly that fruit and vegetables are normally not sold in discrete packages. The use of the latter is however on the increase but has not yet led to the stores using any of the mentioned logistics concepts.
At a strategic level there is also considerable integration throughout the supply chain of Bama. The sales consultants and key account managers of Bama work closely with the chains to plan for e.g. sales campaigns around national holidays. The sales consultants influence which products that are displayed and especially promoted in the stores also depending on availability.

On the supply side to the stores, the close integration achieved through the ownership relations has led to a profit sharing model based on open books between Bama and their main customers. This does promote the efficient use of resources. Towards the owners and customers alike, NorgesGruppen and Rema 1000, there is as a consequence a considerable focus on interfaces, c.f. Abrahamsson (2006). This type of integration, i.e. at a higher level than integration as regards the flow of goods and information, is not taken into account by traditional logistics strategy research, see e.g. (Bowersox and Daugherty, 1987; McGinnis and Kohn, 2002).

5.1.2 Following-up on the performance

The strategy of Bama, as discussed up till now in this chapter, needs to be followed-up. This will be handled in the following.

**Following-up on the supply-side (Trading)**

Öyvind Briså sees sales and the sales development together with Trading’s contribution to the overhead costs as the most important KPI's in his work on the supply side. He argues that the costs are always under control and these are reported once a week and at each revision which is made every second month. One further area of interest to Briså is the deliveries to the DC’s. Trading strives towards being able to supply the DC’s with 100% of what is being ordered. According to Terje Woldsnes, the distribution centres of NorgesGruppen buy about 95% of their total sales from Trading. Briså argues that even though he is responsible for a procurement organisation, the cost side is not in focus as regards KPI’s. He states:

“Procurement is difficult to measure. Buy something and I can guarantee you that I can get a better deal. The last buy can always be made better. We have seventy or eighty varieties of pears in our assortment. How can we measure and benchmark their prices? There are seldom comparable products. There are however occasions when the suppliers turn us down; then we have pushed them too hard.”

(Translated from Norwegian by the author)

**Following-up on the sales-side**

On the sales-side, Jan Hammarström closely follows volume and profitability development, throughout the working-day if necessary. Every fifteen minutes there is updated data available via Excel spreadsheets generated through OLFI. Each Key Account Manager follows the same data for each separate chain of stores and reports this to Hammarström on a weekly basis.
There are also standardised reports sent from the chains of stores to Bama each week. These reports include information on the development of the fruit and vegetable category in e.g. the Kiwi-chain and even trace this data back to single Bama sales consultants. Hammarström states:

“Based on the available data we continuously measure whether we achieve over proportional growth in the respective stores. We thus work with the flow of goods on a daily basis.”

(Translated from Norwegian by the author)

Decentralised responsibility for the daily business

The Bama organisation is centralised as regards supply. However, the sales organisation is as regards profit centres very decentralised. This profit-centre orientation may be problematic, Svein-Egil Hoberg argues. For example, bonuses are based on the costs of the respective units which may result in sub-optimisation. Hoberg believes that something needs to be done about this but emphasises that despite this, Bama has a history of many years of profitable growth.

There are historical reasons behind the decentralised profit centres, manifested through the physical distribution centres. Most of the distribution centres were previously run and owned by their current managers who today are either minority owners of their distribution centre or employed by Bama.

It is the ownership in Bama that enables NorgesGruppen to place such hard requirements on Bama and from a theoretical perspective, this relation between NorgesGruppen, Bama and Gartnerhallen enable a considerable degree of integration and minimisation of transaction costs.

The costs that arise throughout the Bama supply chain are closely monitored. Through LORRY, each shipment has a specific ID number to which all costs associated with that shipment are associated. It is thus quite unproblematic for Bama to show on the actual costs for each shipment and present exact cost calculations to NorgesGruppen. The cost calculations are hence very much process-oriented which is in line with what is suggested characterises world class firms according to the The Global Logistics Research Team at Michigan State University (1995). According to Øyvind Briså it is however difficult to compare the internal measures of Bama with external parts through e.g. benchmarking, which is suggested by the Michigan team, due to the very specific characteristics of Bama’s products which have prices that differ over the day. This can be contrasted to e.g. groceries which normally get their price levels adjusted twice yearly.

5.2 Position

Bama is placed as an intermediary between the producers of fruit and vegetables and the major food chains in Norway. According to Pål Sandberg, Logistics Manager, about 40% of the turnover of Bama is represented by products produced in Norway. The 60% that is being imported comes from all over the world. The Bama supply chain is depicted in Figure 33 and will
in the following be described as well as discussed from a theoretical perspective of Porter’s (1980) five forces as well as in terms of integration (Chow et al., 1995) in the supply chain.

![Diagram of Bama's supply chain](image)

The suppliers of Bama can be divided into two groups: Norwegian and Foreign. The Norwegian suppliers are organised in the producer-owned organisation Gartnerhallen, with which Bama has a very close cooperation. On the import-side there is more volatility although Bama Trading strives towards keeping long-term relationships with the foreign producers.

The integration (Chow et al., 1995) on the supply-side differs from that on the demand-side, where a closer integration is achieved. The suppliers range from large international players such as Dole, the banana producer, to smaller plantations. This results in different relations-characteristics for each supplier and group of suppliers, e.g. the Norwegian-based suppliers.

### Domestic supply

The supplier market in Norway is, in the case of Bama, completely dominated by the producer-owned organisation Gartnerhallen, with which Bama has a very close cooperation. One of the two largest customers and largest owner of Bama, NorgesGruppen, has an agreement with Gartnerhallen to market a yearly agreed volume of products. The price is however never agreed in advance. This agreement has however as effect that the price paid for the Norwegian produce is slightly higher than it could be according to Øyvind Briså.

Gartnerhallen and Bama were previously two independent units and also the two major actors in fruit and vegetables in Norway. Bama was market-oriented and Gartnerhallen was producer-oriented. In 1997 a long-term cooperation agreement was signed between Gartnerhallen, Bama and NorgesGruppen. Previously, Gartnerhallen had their own sales organisation, something that since the cooperation began has been taken over by Bama whereas Gartnerhallen has taken over the responsibility for supply of Norwegian produce to Bama and NorgesGruppen.

### Import

Bama sources imported products from all over the world. Depending on season, a certain product may be sourced from many different countries. It is within Bama’s strategy to extend the season for many of their products to cover the whole year.

Øyvind Briså argues that on the import-side there is at times over-production and in general a buyer’s market. The selection of suppliers on the import-side is based on historical quality,
precision in deliveries and, for third-world countries, on working conditions. In general, Bama has long-term cooperation with the suppliers on the import-side. According to Briså, Bama is seen as a demanding but attractive customer due to the stability and long-term business that can be attained. He states:

“Bama has taken responsibility and been working seriously with the supplier relations for many years now and our customers trust us for this. We have long term relations with our suppliers. This makes us fulfil certain goals better than our competitors. We are there every day, the suppliers knows that and they are working together with us, they know that our requirements are among the hardest in Europe and accept is because they know that we will be there also next year. It is a collaboration we have. It would be impossible to manage a development if you can not be there the next coming year as well.”

(Translated from Norwegian by the author)

Trading strives towards involving the suppliers and linking them closer to the customers and their needs. Briså continues:

“We want to give back to the suppliers some of the predictability and long term view we have been given from our customers. This makes it possible for them [the suppliers] to also develop themselves. This is a part of our working philosophy — we work with a long term horizon…So we try to get them as close as possible to the stores so that they can understand how their products are sold and give them a sense of how their products are developing; so that they can better understand why they should act in a specific manner.”

(Translated from Norwegian by the author)

An example of a long-term supplier to Bama is Dole, a banana supplier. Together with Dole, Bama has developed a premium banana called Bend-it. The Bend-it-banana was introduced in 2005 to celebrate the 100th anniversary of Banan-Matthiesen’s (the founder of Bama) first imported crate of bananas. The goal set for the Bend-it banana was that it was to be the best banana in the world which resulted in a rigorous search for bananas that could uphold very high requirements. Together, Bama and Dole found plantations in Costa Rica that could answer to the requirements. However, a number of tropical storms as well as flooding damaged the bananas and the campaign. This resulted in a joint effort between Bama and Dole to save the campaign and find another source of bananas that could meet the set quality standards. Alternative producers were in the end found in Honduras, Ecuador and Colombia.

Even though the situation in 2005 was extreme with Bama-standards, coinciding with the biggest marketing campaign in the company’s history, Bama Trading continuously experiences disturbances that must be handled flexibly. The business of Bama is very much dependent on the weather conditions, something that is impossible to control and predict in the long term.
According to Briså, there is routine within Trading to handle changes in e.g. the weather:

“...the buyers always need to think in alternative solutions. This is also an example of why it is difficult to measure the activities of Trading in terms of costs. If the weather conditions are bad, one must accept alternative products of less quality at higher prices than the original product.”

(Translated from Norwegian by the author)

The set target for the sales increase of 20% by the Bend-it campaign was not reached but considering the difficult situation the resulting increase of 15% is seen as satisfactory by the Bama executives.

**Bama and the competition**

At the level of Bama in the supply chain there is little direct competition on the retail-side since the customer-base of Bama is made up primarily by Bama’s main owners. There are, as previously mentioned, two major customers of Bama: NorgesGruppen and Rema 1000. These two companies are also represented as the first and third largest owners behind Bama. NorgesGruppen and Rema 1000 are, in turn, competitors on the Norwegian market making the business of Bama a balance-act. Öyvind Briså states:

“As regards the customers, we are much defined in Bama and in Bama Trading. We grow together with our customers and hence attempt to make them grow. On the retail-side it is very stable as regards customer-base whereas there is more volatility on the Horeca-side.”

(Translated from Norwegian by the author)

One could argue that the role of Bama in the supply chain is unjustified and that the grocery chains served by Bama could increase their vertical integration by not only owning Bama but also integrating it fully into their organisations which would mean splitting Bama up considering the competitive situation between NorgesGruppen and Rema 1000. However, Jan Hammarström argues that the role of Bama in the supply chain is justified by their product- and market knowledge and their resources in handling fruit and vegetables. He estimates that the prices that the customers of Bama pay today could be lowered by 10-15% if Bama handled only the physical distribution of the products. But that would also mean that the customers would need to handle the administration and the development, something that the customers have no resources to do. He states:

“The customers have thousands of articles. They do not have a chance to keep their competence in all product categories. As long as we drive the development on fruits and vegetables we can survive as the Bama Group AS.”

(Translated from Norwegian by the author)
Potential entrants to the market

The fruit and vegetable market is a rather mature market and it is difficult to enter it without making acquisitions. The threats of new actors entering the market are seen as indirect threats. At the level of Bama in the supply chain, there are no possible new entrants on the Norwegian market. However, there are nevertheless potential and real competition to be faced through new retail chains entering the market, grocery chains which in turn have their own supply of fruit and vegetables. An example of such an entrance can be seen in Lidl, the German grocery chain that entered the Norwegian market a few years ago. Since Lidl to a large extent competes on price, Bama and their Norwegian competitors answered to this threat by launching or focusing more on their low price product ranges. In Bama’s case this meant promoting their “First price” range of products. However, Svein-Egil Hoberg states that the threat from Lidl was over estimated by both Bama and their competitors. It seemed as if the Norwegian market after-all was and is fairly quality conscious and the customers are prepared to pay a considerable extra for premium products.

Substitute products

According to Svein-Egil Hoberg, the current world-wide health trend is very favourable for Bama. There are thus no threatening substitute products outside the fruit and vegetable range in sight. The relation is rather the other way around with fruit and vegetables being substitute products for e.g. sweets and snacks. The substitute products can instead be found inside the fruit and vegetable range of products. Examples can be seen in ready cut and washed mini carrots, ready-made fruit salads, etc. Bama places much effort on being able to offer such products and Bama Trading continuously observes new market trends world-wide in grocery chains at the forefront of the market development, e.g. Marks and Spencer and Tesco in the United Kingdom.

The customers

At the level of Bama’s customers there is, according to Terje Woldnes, tough competition but not as tough as one could expect. NorgesGruppen has increased their market share during the last couple of years. Coop on the other hand has reached a standstill and the Swedish chain ICA is on the decrease. From the customer-side, Bama is continuously being evaluated on a daily basis. The customers evaluate the service level, the price levels and the product quality. If the prices are seen as too high, Woldnes contacts Trading for a dialogue in order to identify the reasons behind Bama having a higher price than the competition in order to find ways to lower the price levels. Overall, there is a considerable focus on what happens in the stores.
Svein-Egil Hoberg states:

“Something that means very much for our success is what happens out in the stores. That is the moment of truth, what our products look like out in the stores. We are working closely together with the stores when it comes to exposure and quality. That is extremely important for us. We can be world champions to get products from the suppliers, but if it looks bad out in the stores it does not help.”

(Translated from Norwegian by the author)

Also Jan Hammarström emphasises this close dialogue with the customers:

“We work closely together with assortment manager at NorgesGruppen and we [Gode Grossister, Bama] come up with the suggestions on assortment strategies for the chains and how to implement them. Thus, via the assortment manager at NorgesGruppen we take an active part in the strategy making concerning fruits and vegetables in the different chains… It is important for us to be considered as the best collaboration partner. This is what we are measured on and judged on by our customers every year. We go into each relation and ask: what concepts do you want to implement in your stores? What role should the fruit and vegetables concept play in your stores? Then we sit down and describe the concept and the business goals such as growth and average purchase rate also come into the picture. Our business is then measured against how well these targets are reached. So our sales business is thus measured on what goes out from the customers' stores, not what we sell to the stores.”

(Translated from Norwegian by the author)

The two major customers of Bama are also, as has already been stated, two of the in total three owners of the group. Naturally, this leads to a considerable negotiating power and Bama continuously have tough negotiations with the customers/owners. On the Horeca-side there is no ownership-relation why the variations in this customer portfolio are greater.

Using the terminology of Chow et al. (1995) the relationships between Bama and the owners/customers NorgesGruppen and Rema 1000 are characterised by high formalisation, intensity, frequency, standardisation and reciprocity. The ownership over Bama has resulted in much formalised terms of business between Bama and NorgesGruppen and Rema 1000. The business terms are negotiated on a yearly basis. The intensity is, as a result of the ownership structure very high. This can also be said for the frequency which involves daily visits to the larger stores by the Bama sales consultants. There is an outspoken focus on making the supply chain more and more efficient, which includes standardising the procedures used between the different supply chain parties. However, this is also counteracted by the large volatility on the supply-side with specific products being sourced from different parts of the world depending on season. Lastly, as regards the reciprocity, this is high to the extent that Bama negotiates its profit margins with its customers and owners alike. However, there is of course an imbalance in power in that it is with
the owners that the negotiations are pursued. One further aspect of interest to note is that Bama has centralised many of its functions at the same rate as the customers have centralised their functions, e.g. procurement.

Due to the integration through ownership with the main customers, NorgesGruppen and Rema 1000, most of the competitive effort of Bama is directed towards the customers of the customers, i.e. the consumers. Towards the consumers Bama competes largely on quality. There is a low-price assortment on offer called “First Price” but Bama is most known because of their premium quality products in e.g. the “Bend-it” assortment. As stated earlier in this section, new entrants on the market competing mainly on price have not succeeded. According to Svein-Egil Hoberg, the Norwegian consumers are prepared to pay a premium for high quality fruit and vegetables and are also prepared to pay a premium for value added services such as preboiling of potatoes and washing and cutting of salads.

5.3 Offering

Bama has moved from being an independent trading company in fruit and vegetables to covering the whole supply chain through partnership with Gartnerhallen on the domestic supply-side and through the owners NorgesGruppen and Rema 1000 on the demand-side.

Three different sales channels

The flow of products into Bama Trading is divided into three different sales channels: NorgesGruppen, BaRe (Rema 1000) and Horeca. There are different offerings and thus pricing policies for these different customer segments.

Depending on the country of origin, Norway or abroad, there are different pricing policies. For the Norwegian produce, Bama Trading is instructed to cover the costs only. On imported produce the prices are calculated so as to contribute to the overhead costs of Bama and at the same time offer competitive prices. The grocery chains, e.g. NorgesGruppen and Rema 1000, that Bama supplies, continuously monitors the prices and service levels. Towards the customer NorgesGruppen, Terje Woldsnes is in a constant dialogue with the category manager for fruit and vegetables at NorgesGruppen. Together, they plan for the future and campaigns suitable for national holidays etc. The dialogue with NorgesGruppen also involves Jan Hammarström who is responsible for sales and marketing. Therefore, Hammarström and Woldsnes work closely together.

Selecting the assortment

There was a time when the buyers decided on which products the company was to market. Today, this is made mainly the other way around. Terje Woldsnes emphasises that decisions on the offerings to the customers are very market-oriented. Nowadays, Sales make requests to Trading on what they see that the market seeks. However, the people at Trading are travelling
around the world visiting suppliers and observe what the current trends are at e.g. Sainsbury’s and Tesco and hence have a considerable influence on Sales too. Woldsnes states that there is a constant two-way dialogue between Sales and Trading on what to offer the customers.

For Bama Trading there should ideally be fewer products in the Bama assortment. Öyvind Briså states that there is much cost hidden in a wide assortment but that as long as the wide assortment combined with the freedom of choice for the customers result in above average growth the positive aspects to the wide assortment dominate.

In comparison with the discount-price competitors, such as Lidl, Bama has a large assortment. According to Svein-Egil Hoberg, there are normally an assortment in fruit and vegetables of maybe 50 or 60 varieties in a discount store whereas Bama offers more than 400 different products in larger stores.

**Extending the season and increasing the “share of stomach”**

One major challenge for Bama at the moment lies in extending the seasons for specific fruits and vegetables to cover the full year. From previous experience, Bama sees that extending the season for a product means increasing sales without cannibalising on the remaining assortment. Recently Bama has extended the season for strawberries to cover the full year by growing strawberries in Norwegian green houses during the winter season. Jan Hammarström argues that the extension of the seasons for different products increases sales:

“They [Trading] are constantly aware of our need for good quality products. They know that if we can acquire high quality oranges in August, September and October, we are able to double the sales of oranges that period. The whole Bama organisation has a focus on how to create good results at our customers. It is quality, quality and quality that matters.”

*(Translated from Norwegian by the author)*

According to Svein-Egil Hoberg there is a potential for growth in the market for fruit and vegetables. The company runs a campaign called “Five a day” (Translated from Norwegian by the author) attempting to get the Norwegian consumers to eat at least five servings of fruit or vegetables per day. Today, the average Norwegian consumes two to three servings per day. There is thus a potential to increase Bama’s “share of stomach” Hoberg states. He also argues that there is a potential for growth in doing more for the customer through e.g. cutting the salad, washing the carrots, or preboiling the potatoes and similar value adding activities.

In order to stay competitive towards both discount- and upper range competitors, Bama offers products at two different price levels: Premium and First Price. The Premium products are of the highest quality, even sizes and packed and sold in small packages. The First Price products are of the same quality but the separate fruits or vegetables may be of varying size and they are sold in packages of many.
One operative platform

The three different sales channels are all being served by Bama Trading on the supply-side. In business model terminology, Bama thus has one operative platform (Kindström, 2005) that supports three different offerings (ibid). This is not entirely true however; the operative platform is common as regards the supply function, Bama Trading, but after Bama Trading follows three different sets of distribution centres, one for each sales channel. The one operative platform up till then though, allows for economies of scale on the supply-side. Svein-Egil Hoberg argues:

“To manage the total flows and try to achieve economies of scale, that is what characterise the central administration. The big volume effects are achieved in purchasing and transports. If we take for example oranges we have 50% of the Norwegian market. This means volume advantages when considering purchasing, but also in transportation prices. These advantages do not our separate companies have, they are created through the Trading organisation.”

(Translated from Norwegian by the author)

One of the reasons behind this is that the different sales channels have different requirements as regards products. Another reason is that there is a recognised need for focus on each separate business. Previously, Horeca was part of NorgesGruppen and thus made use of the same distribution centres. It was not until Horeca was separated from NorgesGruppen that an increase in sales for Horeca could be realised. Horeca was until then only seen as a side-business that did not deserve the same focus as the main business in NorgesGruppen. Jan Hammarström states:

“When the Horeca division was handled by people at the Grocery division, they did not manage to get it to grow. It is necessary to have special competence in the different market segments. That is I believe one of the reasons for why Bama is successful today. We have divided our business into different market segments. It is quite another thing to work against Rema 1000 than against NorgesGruppen, because Rema 1000 has chosen to position itself in a different way.”

(Translated from Norwegian by the author)

One should here note that even though the three different sales channels make use of different distribution centres, these are often co-located. This enables economies of scale to nevertheless be achieved.

The Bama offerings as configurations

Normann’s (2001) notion of offerings consisting of activities that can be unbundled and bundled in different configurations in striving towards enabling and organising co-production involves describing these offerings in terms of place, time, actors and actor constellations, see section 3.3.3.

There is, as has been stated, a growth in processed fruit and vegetables, such as ready-cut salads, preboiled potatoes, washed carrots, etc. For these products Bama takes over activities that were
previously performed by the consumer. This results in a change in place, time and
actor to perform the activities of preparing the products. This value adding service is seen as a
growing concern for Bama.

For the traditional products, the non-processed products, the time and place of specific activities
is quite unproblematic. What is of interest to note is that Bama claims to take a more active role
throughout the supply chain than many of their competitors. In Normann’s terminology it is of
interest to note that at the level of the grocery stores in the supply chain, Bama takes
responsibility for many of those activities which could be performed in-house by the stores.
Hence, the actors and actor constellations differ from the competition. The close integration with
the stores, with the sales consultants having a considerable influence on what to sell and how to
sell it means that the sales consultants are actors within the walls of the customer.

5.4 Activities and organisation

The Bama group consists of a large number of fully as well as partly owned companies. Overall,
the group is organised into five divisions and the responsibility for the divisions is split between
the members of the management group of four people which also shares responsibility for
functional aspects such as IT, finance and property.

The organisational structure

The concern management is headed by the CEO Rune Flaen who is also directly responsible for
Rema 1000 and the industry division. Further members of the concern management group are
Öyvind Briså, Svein-Egil Hoberg and Odd Lindstad Johansen. Briså is head of Bama Trading,
Hoberg is responsible for IT and NorgesGruppen and Lindstad Johansen is responsible for
Finance, Property and Horeca; see Figure 34.

![Figure 34. The Bama Concern Management](image-url)
There is also an extended concern management group in which all the divisional managers are represented. This group meets only two or three times per year and there is much independence for the managers of the different divisions. Öyvind Briså argues that the organisation is characterised by a large degree of both freedom to make own decisions and responsibility for those decisions. He states:

“As long as everyone shows positive results they may mind their own business. The distribution centre managers are responsible for their own profitability. As long as they deliver, there is no ground for interference. We are organised based on responsibility for results.”

(Translated from Norwegian by the author)

In the following, the different parts of the Bama organisation will be discussed following the flow of goods through the organisation to serve the customer NorgesGruppen.

**Bama Trading**

Bama Trading handles the inbound flow of goods to Bama. The responsibility of Trading starts at the site of the producer and ends when the products have been sold in the stores of the different chains. The local DC’s are however responsible for the flow from the DC to the store but in case of returns, these fall under the responsibility of Trading. There is, as a result, a shared responsibility during parts of the flow.

Öyvind Briså is responsible for Bama Trading. Pål Sandberg; Logistics Manager, responsible for the terminals; reports directly to Briså. There are also people responsible for Import, Norwegian produce and nine product-responsible in areas such as Bananas and Potatoes. The person responsible for Import reports to Briså as regards all imported goods except bananas. Potatoes and bananas are the largest product groups which has had as an effect that those two product managers report directly to Briså. Within Trading, there are also people responsible for sales to the three different flows; NorgesGruppen, Rema 1000 and Horeca.

The Trading organisation is thus fairly flat with most managers reporting directly to Briså. The managers at Trading meet with Briså once a week to discuss the last week’s sales and lay out forecasts and plans for the three upcoming weeks.

On the supply-side, economies of scale are sought as regards buying and transportation. Normally, the volume of goods bought is increased beyond actual customer orders to fill a whole truck of 26 pallets. Since there is a lead time of about one week for goods from e.g. southern Europe, there is time for Trading to sell the surplus goods before it arrives in Norway. Since the terminals are fairly limited as regards storage capacity there is not room for as much speculation as Briså sees as optimal. Jan Hammarström sees the economies of scale that are possible to reach through collecting all procurement in Trading at the same time as the marketing may be specific for each division as a major advantage for Bama.
Bama Trading is normally responsible for the transport to Norway except from Latin America. The Argentinean apple suppliers normally hire large vessels themselves and the banana suppliers often have their own fleets. There are however no general agreements between Bama and their forwarders but there are some stable relationships. For example, Bama cooperates with NorCargo, which is a major distributor of fish-products from Norway to southern Europe which is a good match with Bama since NorCargo can carry fruit and vegetables for Bama on the return to Norway.

The terminals

The two terminals in Oslo are part of Bama Trading. Today, 30-35% of the goods flow passes through the terminals according to Svein-Egil Hoberg. Most of the inbound flow is hence directed directly towards the distribution centres. Recently, Bama acquired a lot in Økern, Oslo, where the company plans to build a new main terminal. When the terminal has been finished Hoberg believes that maybe 80% of the inbound goods flow will pass it.

The two Oslo terminals are located close to each other, one in the same building as the Bama headquarters and one in an adjacent building. In the future, when the new terminal has been built, the two terminals will become one. Due to lack of storage space, there is little speculation and in-advance buying of products made by Trading. The vast majority of the flow is customer order driven and the products procured in excess of real customer orders are normally sold in transit from the producer to the terminal.

Pål Sandberg is responsible for the terminal operations and the agreements with the forwarders for the transport to the distribution centres. In total, there are about 90 employees at the two Oslo terminals. The terminals serve three flows of goods: NorgesGruppen; Bare, which is a joint venture between Bama and Rema 1000 serving Rema 1000 with fruit and vegetables; and Horeca. In total, the Oslo terminals handle 300,000 load units per week which translates into 200 units per working hour.

Handling of the goods at the terminals

When the goods arrives at the terminal it is checked as regards quality and quantity and labelled with the address of a destination, a distribution terminal. If a shipment is to be split between several terminals this is also handled in the labelling process. Sometimes, a number of pallets need to be split for destinations with less volume. Such pallets are taken to a designated area for picking. The process of entering the pallets in the warehouse and labelling them with the correct destination is controlled by LORRY, a computer system supporting the supply-side of Bama’s operations. If there are pallets in the shipment that are not yet sold, these are marked for storing in the warehouse.
Once the pallets have been labelled, they are taken directly to a designated area for each destination, i.e. each distribution centre. The next movement of the pallets is made as they are loaded onto the truck destined for the respective distribution centre. As the freight documents are printed, an e-mail is automatically sent to the distribution centre confirming that the delivery is in transit.

The demand-side – NorgesGruppen

NorgesGruppen is the largest owner of Bama and also one of the largest customers. The company is represented on the Norwegian market through six different chains: Kiwi, Spar, Meny, Joker, Ultra and Mix. There is also a wholesale-unit in the concern: Asko. The annual turnover of NorgesGruppen is 32 billion NOK (2005) resulting in a market share of 36.7% on the Norwegian grocery market. There are about 1,900 stores and 800 kiosks associated with NorgesGruppen.

At Bama Trading there are, as already stated, product managers responsible for different groups of products, e.g. bananas. This means that the same person is responsible for the procurement of bananas to NorgesGruppen, Rema 1000 and Horeca. However, at the distribution centres the flow of products is split into three flows. Each of the different divisions has different requirements on the products. For example, for Horeca the avocados supplied must be ripe so that they can be used immediately whereas that is not the case for the same product supplied to the grocery chains where instead requirements on long time frames for best before dates are higher.

Previously, NorgesGruppen and Horeca was the same company. Back then, 80% of the turnover was accounted for by the retail chains and 20% by Horeca Terje Woldsnes explains. It was then decided to split the company in two in order to enable a better focus on Horeca which was treated as a secondary business, as discussed earlier in this chapter. Woldsnes argues that it may seem inappropriate to split the rather homogeneous flow of goods into three flows which is the result of separate operations of NorgesGruppen, Rema 1000 and Horeca but that it is important in order to achieve enough focus on each part of the concern.

On the demand-side of the operations, Terje Woldsnes is responsible for the sales to the distribution centres serving NorgesGruppen. His responsibility covers the flow of goods from the distribution centres to the delivery at the stores of NorgesGruppen. He thus takes over the responsibility from Trading and leaves the responsibility to Marketing at the stores.

There is close cooperation between Terje Woldsnes and Jan Hammarström who is responsible for marketing within Bama. If there is a dip identified in the sales of a certain product or product group, Woldsnes and Hammarström discuss which action to take.
The distribution centres of NorgesGruppen

There are in total 15 distribution centres for NorgesGruppen of which several are co-located with distribution centres for Rema 1000 and Horeca. All of NorgesGruppen’s distribution centres are fully owned subsidiaries of Bama. This is not the case for the concern’s remaining distribution centres which in some cases are partly owned by their local managers.

Previously, the managers of the local distribution centres had more independence than today. The previous local responsibility for marketing and sales is now centralised. Today, the distribution centre managers are given an assortment, a buying price and a selling price to conform to. One of the reasons behind this centralisation of the sales and marketing functions is that the customers of Bama have themselves become more centralised during the years. In order to work under the same conditions as the customers, also Bama saw a need to centralise these functions. According to Svein-Egil Hoberg there is extensive informal communication between the different distribution centres through e.g. visits for inspiration to improvements. There are also 8-10 two-day general assemblies per year in Oslo for the managers of the distribution centres.

From the distribution centres the stores are normally supplied six times per week. The frequent distribution accounts for considerable costs. Terje Woldsnes states that in the distribution centres and their transports to the stores, personnel and transportation account for 75% of the total costs. In comparison to many other products offered by NorgesGruppen, fruit and vegetables require rather frequent deliveries. This is sometimes problematic when consolidation is sought with for example grocery products which are normally supplied to the stores twice weekly only.

The chains place their order to the distribution centres via EDI. There is however no use of VMI or any similar solution. The reason for this is that many of Bama’s products are sold by weight which makes it more difficult to use a VMI-solution than is the case with products in discrete units. The price-levels for fruit and vegetables are more volatile than those of other products. New prices are sent to the stores once a week but on the supply side of Bama, Trading encounters prices that may change by the hour. In contrast, the prices for groceries are normally changed twice yearly.

Bama actively takes considerable responsibility for the fruit and vegetables category in the retail chains. Within NorgesGruppen there are several chains, such as Meny-Ultra, Kiwi, Spar and Joker. Each of these chains has a Key Account Manager at Bama and the larger stores receive daily visits from Bama’s sales consultants whereas smaller stores may be visited once weekly. From the Key Account Managers, electronic newsletters are sent to the chains with information on seasons, prices, focus areas, etc.
Bama from a contingency-perspective

Taking a contingency view of the Bama organisation reveals a number of characteristics that have affected the organisational design of the group. In this analysis, the case will be discussed taking a stance from the contingency factors presented by Persson (1997). Persson presents three factors: logistics task predictability, number of logistics decision elements and autonomous logistics decision areas. Contingency factors affecting the logistics organisation are also discussed by e.g. Pfahl and Zöllner (1997), see section 3.3.4.

The logistics task predictability at Bama, i.e. the extent of production to stock, is very low. Since the terminals in Oslo have very little excess warehousing capacity, there is also little room for speculations as regards future demand. Another factor affecting this is of course the short life-span of the products. As a manager at Bama states:

“We sell products that are about to die.”

(Translated from Norwegian by the author)

The vast majority of the flow is as a result of this customer-order driven.

The number of logistics decision elements; i.e. the size of the organisation, the number of different products and the complexity of the products; is very high at Bama. The products cannot normally be argued to be complex but the organisation is nevertheless large and so is the number of products on offer. Svein-Egil Hoberg states that a discount competitor normally carries an assortment in fruit and vegetables of maybe 50 or 60 varieties whereas Bama offers more than 400 different products in larger stores. The organisational complexity has its roots in the history behind Bama. The distribution centres of today’s organisation were previously independent actors. Further, the ownership structure with the owners of Bama also being the customers adds to the complexity; especially since the owners in turn are competitors.

Considering the number of autonomous logistics decision areas; i.e. the existence of separate product groups in terms of technology, market or location; there is in Bama a division into three sales channels and hence markets. Synergies and economies of scale are sought on the supply-side of the operations; however, from the point when the flow of products enters the distribution centres, the flow is split into three: NorgesGruppen, Rema 1000 and Horeca.

Persson (1997) argues that if the above factors influence and hence determine the patterns in logistics coordination in the organisation. The low logistics task predictability at Bama would suggest that the organisation should be coordinated by the means of informal and functional mechanisms rather than mechanisms of flow oriented character. On the other hand, the large number of logistics decision elements point in another direction and calls for flow-oriented coordination. The existence of autonomous logistic decision areas, as in the case of Bama, would according to Persson suggest that there is need for coordination beyond that possible within a divisionalised organisation.
The organisational structure

The terms centralisation, span of control, scope and formalisation can be used when describing and understanding logistics organisations, see Chow et al. (1995). Centralisation can, in turn, be split into the components concentration and proximity to the top, see section 3.3.4.

Bama is a divisionalised organisation with the different sales channels as divisors. The picture is however rather complex with the responsibility for e.g. IT and supply being centralised. Put simply, the sales organisation is decentralised and the administrative systems as well as the physical distribution to the point of the distribution centres are under centralised control. The power to make logistics decisions is as a result concentrated to Bama Trading controlling the flow to the point of the distribution centres. From the distribution centres to the stores, the responsibility is however delegated to the distribution centre managers. For the first part of the physical flow of products, the proximity to the top is very small with Øyvind Briså, head of Bama Trading, being a member of the management group of Bama. This proximity to the top also concerns the information flow and hence the IT-systems OLF and LORRY being under the control of another member of the management group, Svein-Egil Hoberg. The delegated responsibility for the last part of the physical flow of goods is argued for by Briså:

“As long as everyone shows positive results they may mind their own business. The distribution centre managers are responsible for their own profitability. As long as they deliver, there is no ground for interference. We are organised based on responsibility for results.”

(Translated from Norwegian by the author)

Continuing using the terminology of Chow et al. (1995), the span of control for Briså as responsible for the operations of Trading, is fairly high. The Trading organisation is very flat and most managers within Trading report directly to Briså. Both the span of control and the scope of the logistics organisation of Bama may however be argued to low respectively scattered since the responsibility for the distribution from the distribution centres to the stores is decentralised.

Also the formalisation of the logistics organisation of the company presents an unclear picture. Looking at the operations at the main terminals in Oslo, the work is highly formalised with set procedures and processes. Upstream in the supply chain it is however more volatile with a high degree of flexibility depending on season, weather conditions, etc. Pål Sandberg, logistics manager, sees it as impossible to depict the incoming flow of goods to the main terminals since this flow of goods changes from day to day.
5.5 Resources

The Trading organisation and the terminals with their supporting IT-infrastructure are paramount for Bama to manage their three sales channels effectively. Behind the competitive advantage of a firm are resources (Barney, 2001) and distinctive capabilities (Day, 1994; Olavarrieta and Ellinger, 1997) that enable a competitive advantage. From a logistics-perspective, there are two resources that together reinforce the business model of Bama; the supply function in Trading and the business support systems OLFI and LORRY. As was discussed in section 3.1.2, a resource must be valuable, rare, imperfectly imitable and not easily substituted; see (Barney, 1991).

Trading

Öyvind Briså believes that in relation to the competition (on the supply side); Bama has a solid reputation of being a serious long-term actor. In general, the fruit and vegetable market in Norway has a rather bad reputation, Briså argues. He states:

“I believe that our long-term commitment makes it possible for us to fulfil our goals better than the competition fulfils their goals. We are there every day and that is well known among the producers. We also have the strictest requirements as regards product quality in the whole of Europe and the suppliers accept that since they know that we will be there the next year, and the year after that too.”

(Translated from Norwegian by the author)

There are quite specific requirements as regards the staff at Bama Trading. The personnel need very specific product knowledge as well as language knowledge. The main concern according to Briså is however to find people with a certain level of business savvy. The product knowledge can be developed internally.

For Bama, the expertise in fruit and vegetables can be argued to be a very valuable resource and could also be argued to be an important factor behind the company’s success. However, in this dissertation, the focus is directed towards the role of logistics. Nevertheless is it important to note that the expertise in fruit and vegetables within Bama Trading is a prerequisite for the organisation being able to perform any operations at all.

Taking a resource-perspective of Trading and their operations the following characteristics can be identified. The in-house knowledge of the products sold which result in the ability to source products of the highest quality is a valuable resource that is both rare and imperfectly imitable. The in-house knowledge is considered so specific that no previous training can prepare the staff for their job as regards product knowledge. When new employees are recruited, business knowledge together with language skills are sought. Product knowledge is instead acquired on the job. At the level of the operations of Trading, the IT systems OLFI and LORRY aid in the information sharing throughout the Bama supply chain; this will be handled in the next section.
At a strategic level however, there is also a large degree of information sharing between e.g. NorgesGruppen and Trading, making information management (Mentzer et al., 2004) an important capability for Bama.

The IT infrastructure

There are two IT-systems in use in the concern: OLFI and LORRY. These two systems are in part connected but further and more automatic integration is sought by Bama. LORRY is the main system used by Bama Trading to handle the flow of goods from producers to the distribution centres. OLFI is short for Order, Lager (Warehousing), Fakturering (Invoicing) and Inköp (Supply) and handles the customer orders from the retailers and thus coordinates the flow of goods from the distribution centres to the stores. Both OLFI and LORRY have been developed internally and are managed centrally and accessed through thin clients at the different Bama sites. This is an advantage, says Svein-Egil Hoberg, since changes in the IT system then become effective throughout the system immediately. Bama has set very strict requirements as regards traceability; it is possible to track all information as regards a single shipment from the shop back to the producer within two hours.

Currently, an investment in a new IT-system is being considered. According to Briså, the current system is not bad, it is much better than many other systems he has experienced in other companies:

“I can sit here and see how our sales are developing with updated figures every fifteen minutes. Through today’s system we know exactly where we are. It is however a bit cumbersome to use and it is no doubt possible to improve it.”

(Translated from Norwegian by the author)

The problems identified in the current systems OLFI and LORRY are mainly that it requires some manual interference to get the two systems to communicate with each other and that the organisation in some respect has outgrown the current systems. Since the implementation of the internally developed OLFI and LORRY systems, Bama has grown manifold. Pål Sandberg recalls that when LORRY was first implemented, Bama had a turnover of 2-300 million NOK, today the turnover is more than 4,000 million NOK and the same IT systems are being used and manage this larger flow of information.

Among the advantages identified in the systems can be mentioned that costs are exactly allocated to each shipment making price and cost calculations very exact. The system is also fully centralised making all changes effective throughout the system immediately.
The OLFI and LORRY systems are used so as to enable transparency from the point of origin to the customers. This information management capability (Mentzer et al., 2004) contribute to the competitive advantage of Bama. Svein-Egil Hoberg argues that the fact that Bama develops and runs the IT-systems in-house, has been an important advantage for the concern:

“We have been very focused on that we shall own the information and manage the systems. If we let this go I believe we will become more vulnerable strategically.”

(Translated from Norwegian by the author)

5.6 Summarising the Bama business model components

The business model components discussed in sections 5.1 to 5.5 are summarised as regards their characteristics in Table 8 below.

Table 8. The business model of Bama

<table>
<thead>
<tr>
<th>Component</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>There are considerable requirements on both agility (changes in season and weather) and leaness (price pressure) on Bama’s operations.</td>
</tr>
<tr>
<td>Position</td>
<td>The integration within the value chain is high due to the ownership relations. Towards the customers and owners alike there is considerable price pressure and thus competition on price but towards the end customer the competition is largely on quality although an assortment that competes on price is also available.</td>
</tr>
<tr>
<td>Offering</td>
<td>Three offerings (NorgesGruppen, Rema 1000, and Horeca) supported by one operative platform as regards supply however separate operative platforms as regards distribution.</td>
</tr>
<tr>
<td>Activities and organisation</td>
<td>Responsibility for IT and logistics is highly centralised. However, from the point of the distribution centres the responsibility is decentralised and further split into three separate sales channels.</td>
</tr>
<tr>
<td>Resources</td>
<td>The knowledge and flexibility within Trading as well as the close control over the physical as well as information flow through OLFI and LORRY contribute to the competitive advantage of Bama.</td>
</tr>
</tbody>
</table>
6 The Clas Ohlson Case

Clas Ohlson AB, carrying the founder’s name, is a Swedish company founded in 1918 as a mail-order business selling technical handbooks. The assortment has since been expanded to incorporate a broad range of do-it-yourself products, household products, computer- and mobile phone accessories, etc. The total number of products on offer is about 15,000. The headquarters as well as the central warehouse of the company remain in Insjön where the firm was founded.

The original mail-order business has now expanded into also including physical stores and business over the Internet. The decision to open stores in addition to the previous mail-order business was formed during the 1980’s. Clas Ohlson then had a CEO who had previously worked at IKEA, Håkan Thulén. Drawing parallels between the two companies, Thulén suggested that Clas Ohlson should try to open a store. The first store was in the shopping mall Gallerian in central Stockholm. Since then, the number of stores has increased to in total 65 stores (December 2006) in Sweden, Finland and Norway. Expansion into the United Kingdom will take place in 2008 and the current growth rate in number of stores is 15-20 per annum.

Today, Clas Ohlson is listed on the OMX Nordic Exchange and has an annual turnover of 3.6 billion SEK (the financial year 2005-06), see Table 9. In total, there are approximately 1,600 employees in Sweden, 550 in Norway and 210 in Finland. The number of Swedish stores is 30 whereas there are 20 stores in Norway and 9 stores in Finland.

Table 9. The turnover and profitability development of Clas Ohlson 2002-2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income (thousand SEK)</td>
<td>3 568 600</td>
<td>2 954 800</td>
<td>2 509 500</td>
<td>2 130 800</td>
</tr>
<tr>
<td>Change from previous year (%)</td>
<td>20.77</td>
<td>17.74</td>
<td>17.77</td>
<td>23.03</td>
</tr>
<tr>
<td>Profit margin (%)</td>
<td>13.8</td>
<td>14.4</td>
<td>14.5</td>
<td>15.6</td>
</tr>
</tbody>
</table>
6.1 Strategy

The original business statement of the founder, Clas Ohlson himself, was:

“We must sell dependable products at low prices and the right quality according to need.”

(Clas Ohlson, 1895-1979)

This statement remains up to date also in modern time. Today, the business concept of Clas Ohlson is to:

“…sell do-it-yourself items at competitive prices in stores and by mail order and the Internet.
We aim to operate with good product quality and a high level of service.”

(Clas Ohlson annual report 2005-06, p. 8)

According to Gert Karnberger, CEO, there is a focus on maintaining the high growth and profitability of Clas Ohlson. The set growth targets are:

- Growth rate of 15%
- Operating margin of 13-15%
- Private label products should constitute 25% of the sales

The growth should be achieved through both increasing sales in existing stores and through geographical expansion. Karnberger states that during 2007, as many as 15-20 stores will be opened. This means stepping up the expansion rate from 12-15 stores per year the previous year. The current growth rate exceeds the set goal for the concern’s growth as Clas Ohlson grew by 21% during the financial year 2005-06. At the same time, the profit margin should remain at 13-15%. A new goal of Clas Ohlson is that private labels shall make up 25% of the turnover within three years. At the moment, private brands account for 12-13% of sales.

6.1.1 Set targets in three focus areas

In order to attain the stated growth and profitability goals, the concern continues to put effort into the three focal areas of product range, logistics and sales channels.

Product range

The company intends to keep the product range broad and attractive. The product range of Clas Ohlson includes 15,000 different products of which 10-15% is renewed each year. The main catalogue published once yearly covers 12,000 products. The company sees it as important to offer exactly the same range in all sales channels; i.e. in the stores, in the mail-order catalogue and on the Internet.
During the last years, the sales of Clas Ohlson private brands, CO/TECH and Coline, has increased and there is now, as stated, a set target of private brands making up 25% of the turnover.

**Logistics**

The target for the service level of Clas Ohlson is set to be 98%, i.e. customers should receive at least 98% of the items ordered in the first delivery. A service level of 98.0% was reached during the last financial year and that was an improvement from a service level of 96.6% the previous year.

Another key performance indicator with set target levels is the annual rate of stock turnover. This KPI should be 6-7 times in the central warehouse in Insjön and 8-10 times in the stores. In the warehouse, the turnover rate for the financial year 2005-06 was 6.4 times from having been 6.7 times the year before. An explanation behind the decrease is the increase in the sales of Clas Ohlson private labels which require larger purchases at a time than is the case with the supply of other brands. The turnover rate for the stores averaged 6.0 times in 2005-06 with the largest stores meeting the target of 8-10 times a year.

**Sales channels**

There are three main sales channels: the mail-order catalogue, the Internet portal and the stores. Between the sales channels, there is complete transparency with identical prices per country and a possibility for the customer to receive after sales support from all channels irrespective of which channel that has been used for the initial purchase.

The relative turnover from the mail-order and Internet channels is on a decrease as the geographical coverage of the physical stores is steadily increasing. However, Gert Karnberger sees it as important to keep all sales channels.

**6.1.2 Balancing costs and service levels**

Taking a strategy theoretical perspective of Clas Ohlson, reveals a company that possesses a distinctive capability (Day, 1994) in its control over and combination of IT-systems, its cost-conscious expansion and its operative platform manifested through the central warehouse in Insjön. The activities performed in the operations of the concern do to a large extent reinforce each other in terms of activity systems (Porter, 1996). Examples can be seen in the interplay between the stores and the warehouse; the operations in the warehouse enable cost efficiency also in the stores by labelling and packing the products for their locally destined shelves.

Clas Ohlson pursues a strategy that is not easily described in terms of cost-focus or differentiation (Porter, 1980). As regards price-levels, the company does not offer the lowest prices on the market; they do however offer competitive prices. The products on offer are not of the highest quality possible; they are however of good quality.
Lean supply

There is a number of factors affecting how logistics operations are pursued by Clas Ohlson. The products on offer typically come from major manufacturers in the Far East requiring long planning horizons and large volumes. The large volume is a requirement that becomes easier for Clas Ohlson to meet as the concern grows. The set target of 25% of sales made up by private label products puts further requirements on large volumes. Due to the customer specific orders that private labels lead to, the manufacturers require very large order volumes for such items. This is also reflected in the decreasing turnover rate at the central warehouse.

On the supply-side of the operations, there is a considerable cost-focus. Large orders, allowing for economies of scale, are made with agents or trading houses representing Clas Ohlson at the major suppliers in the Far East. The company does not have any in-house representation in the sourcing countries. According to Karnberger, it is to doubt if in-house representation would lower the costs of sourcing further. He states that it is possible that the company might open up offices abroad in the future but that these in any case would have to compete with external agents and trading houses in order to ensure that costs are kept low.

Agile distribution

On the distribution-side of the operations the focus is more on service levels. Products are shipped to the stores as well as to the mail-order and Internet customers on a daily basis. At a surcharge, it is possible for the Internet and mail-order customers to place rush-orders which are picked, packed and sent at the day of the order being placed. The operations at the central warehouse are thus fully customer-order driven in an agile (Christopher, 2000) manner whereas the supply-side is run in a more lean manner (ibid). Using the terminology of Christopher, it can be observed that Clas Ohlson pursues a hybrid strategy with the central warehouse acting as the de-coupling point. However, due to the limitations set by the cost-efficient supply, limits are set as to how agile Clas Ohlson can be on the supply-side.

The long planning-horizons on the supply-side sets limits for the service-levels on the distribution-side. If for example, a product presented in the catalogue is out of stock mid-season and is not to be kept for next years catalogue it may not be possible to satisfy the customer. A product that is planned for removal is marked in the Raindance system so that the staff at Supply can make appropriate decisions when such stock-outs do occur. Alternative solutions are to keep the product in the assortment for longer and thus place an extra order with the supplier or to offer a replacement product earlier than planned.

The differences between the supply- and distribution sides of the Clas Ohlson operations can also be described using the terminology of Abrahamsson (2007). On the supply-side, the operations are transaction-based with a focus on economies of scale through the procurement of large quantities in the Far East and consolidation to a central warehouse. On the distribution-side
on the other hand, there is a focus on close integration with the stores allowing for economies of integration (Håkansson and Persson, 2004). The latter can be exemplified by the store-specific labelling of products in the warehouse making the store operations more cost-effective at little cost to the whole system. Clas Ohlson’s full ownership of the stores makes the integration easier to pull through. Throughout the flow of goods, the information flow is handled by Raindance and from a logistics-strategy perspective, the integration between the central warehouse and the customers can be argued to be in line with an information strategy (Bowersox and Daugherty, 1987).

6.1.3 Following-up on the performance

Clas Ohlson has grown profitably during a long period of time. There is a high degree of cost consciousness in the organisation which means that growth is not sought if it cannot be achieved under profitability. Rolf Andersson expresses that the stock market often expects growth and seems less interested in the bottom line:

“We argue that we do not live off growth, but off the bottom line.”

(Translated from Swedish by the author.)

Gert Karnberger recalls that the concern once, in the mid 1990s, sought turnover rather than profits which resulted in a temporary decline of profits. As a result, a saying was formulated within the firm:

“It is easier to make a pass on what one does not have than to part from what one already has acquired.

One should ask the question: What would you have done if you had to pay for it yourself?
This is maybe a difficult question when one calculates the investment in a central warehouse, but still.”

(Translated from Swedish by the author.)

Profitable growth is very much in focus within Clas Ohlson. The concern’s expansion is fully financed internally and it is seen as a great strength that the CEO Gert Karnberger can comment to the press that the new warehouse or the expansion into a new region has been financed by “a withdrawal from the account”. The long term profitability, it is argued, has been the result of a high degree of cost-consciousness within the organisation. Growth is not sought unless it can be achieved under profitability. Therefore, the stock market’s high expectations on growth, sometimes rather than profitability, is met by some scepticism within the company.

The gross profit of Clas Ohlson is 13-15%. There is no direct competitor but those competitors that compete on parts of the assortment normally have profit margins of only 3-5% according to Gert Karnberger.
Raindance provides up-to-date KPI’s

The following up of both cost and revenue is made via the concern wide business support system Raindance. The IT-systems are very much in focus in the concern, as will be further discussed in section 6.5. The importance of Raindance is emphasised by Gert Karnberger who points out that he has the same access to the computer system wherever in the concern he is and he continuously follows up how the sales figures look. The sales are also reported to the press once a month since for a trading company like Clas Ohlson, the sales figures give quite a solid indication on how high the profits are. Within Raindance, one can follow the sales at a concern wide aggregated level both in current and historical time. The same transparency is available for single stores and data is also available concerning sales per day or even hour. Gert Karnberger follows this on an aggregated level but does not follow up on the sales of single products. Once a month, a report on the sales figures for the preceding month is circulated.

The breadth and depth of the following up on KPI’s is in line with what world class firms do according to the Global Logistics Research Team at Michigan State University in the World Class Logistics study (1995).

Continuous evaluation of the concern’s largest investment – the central warehouse

The central warehouse represents a major investment and causes considerable although necessary costs. Rolf Andersson points out that many people see warehouses as something negative but argues that the Clas Ohlson central warehouse is run like a terminal building at an airport. The comparison with an airport is also made by Gert Karnberger:

“We do not consider the products in the central warehouse as a cost. Inventory is obviously not very exciting and analysts do not get very thrilled when talking about inventory, but we argue that the central warehouse should be seen as a terminal – at Arlanda they handle people and here we handle goods…The turnover rate is more than six times per year, i.e. more often than once every second month and in the stores the turnover is between 8 and 10 times. Thus, the whole company is based very much on the flows of material.”

(Translated from Swedish by the author.)

Karnberger sees the warehouse as a heavy and very important investment and further states:

“It is definitely the heaviest of our investments. The negative impact on our result is however higher from choosing the wrong market or establishing a store in the wrong place even though a store in itself is not a large investment.”

(Translated from Swedish by the author.)

The costs of the central warehouse are followed up as the ratio between the total cost for the warehouse, i.e. depreciation and cost of running the warehouse, and the total turnover of the concern. As long as that ratio is kept steady or decreasing, costs are seen as being under control.
A similar ratio is calculated between the staff costs for the central warehouse and the total turnover. It is however avoided to narrow this down to single employees. A few costs are excluded from these calculations and those are the costs for improving the working conditions in the warehouse. Recently, an investment of 40 million SEK has been made into safer working environment in the warehouse. Rolf Andersson argues that within the board of directors there is an understanding that investments in the central warehouse are necessary as the concern expands:

“I have to acknowledge that when it comes to the enlargement of the central warehouse, the board of directors is well aware of that this requires large investments…if we do not extend we will not be able to continue to grow. And since we are skilled at warehousing, TPL solutions is a more expensive choice in the long run.”

(Translated from Swedish by the author.)

6.2 Position

The majority of the manufacturers behind the products of Clas Ohlson are situated in the Far East. As intermediary between Clas Ohlson and the manufacturers; a supplier, an agent or a trading house; is often used. As regards competition, the position of Clas Ohlson is fairly unique. Through the wide assortment of the company, there is no competitor that covers the same assortment. There are however niche competitors for different parts of the assortment. The customers are, as Gert Karnberger states “ordinary people”. When new markets are entered it is seen as important not to attempt to change consumer behaviour.

Figure 35 illustrates the supply chain of Clas Ohlson and this will be further discussed in the following. Taking a stance in Porter’s (1980) five competitive forces, the position of Clas Ohlson will be discussed. The integration with up- and downstream actors in the Clas Ohlson supply chain will also be handled.

![Figure 35. Clas Ohlson’s supply chain](image)

The manufacturers and the suppliers

As stated, a majority of the manufacturers behind Clas Ohlson’s assortment are present in the Far East. The company rarely buys products directly from the manufacturers; instead, intermediaries are used as suppliers. There are in total approximately 800 suppliers in 30 different countries. The majority of the suppliers however, are situated in Sweden making up 59% of the total volume of goods purchased (2005-06). Also the goods procured in Sweden comes from the Far East to a
large extent since the Swedish suppliers are trading companies or agents with import rights or type approvals for the products. The direct purchasing from Asia makes up 38% of the volume but the total volume of Asian products makes up 55% of the total volume purchased.

The largest supplier is a Hong Kong-based trading house accounting for 14% of the total purchases. The ten largest suppliers together make up 41% of the purchases and the fastest growing purchasing market is China.

In relation to their Asian suppliers, Clas Ohlson is a small company. In order to be able to buy from the larger Chinese manufacturers one must be prepared to buy very large quantities. The rapid growth of Clas Ohlson during the last years has thus continuously improved the negotiating position for Clas Ohlson in relation to the suppliers.

Looking upstream in the supply chain in terms of integration (Chow et al., 1995), there is close cooperation with a number of suppliers (trading houses and agents) and also close cooperation with a number of manufacturers at a strategic level regarding e.g. discussions on future products currently being developed by the manufacturers. In terms of formalisation, intensity, frequency, standardisation and reciprocity, the relationships between Clas Ohlson and the different agents and trading houses differs. Overall however, the size of Clas Ohlson in relation to the suppliers and the increase in private labels (requiring larger order volumes) make the frequency of contact lower since few and large orders are placed at the manufacturers. With the long-term cooperating partners, for example the Hong-Kong-based trading house discussed earlier, the formalisation, intensity, frequency, standardisation and reciprocity are all high.

**Clas Ohlson and their competition**

Due to the breadth of the Clas Ohlson product assortment, there are no direct competitors. Instead, Clas Ohlson faces competition from different companies for different parts of the assortment. The closest competitors assortment-wise are Bitlema and Jula which are two companies with considerable breadth in their assortment. Other competitors are found among retailers in construction and installation equipment such as Silvan, K-Rauta and Bauhaus. Also hypermarkets, e.g. Coop Forum, are identified as competitors. A niche player in electronics is Teknikmagasinet, a company which, like Clas Ohlson, has as a strategy to establish stores in inner-city locations. The Teknik Magasinet stores are however very small and most of the assortment is kept behind a service desk. Since the assortment of Clas Ohlson is so broad and does not match the assortments that are continuously analysed by consumer research institutes, it is difficult to state any market share. However, the company sees an increase in their total sales to a region when a store is opened even though the mail-order and Internet sales go down. Hence, market share is gained through the geographical expansion.
The current market trend is that the retail chains keep taking market shares from independent retailers mostly due to lower prices and more aggressive marketing campaigns. Most chains locate their stores in peripheral locations, unlike Clas Ohlson.

According to Statistics Sweden (http://www.scb.se) the Swedish retailing grew by 7.6% during 2005. During the financial year 2005-06, Clas Ohlson’s Swedish sales grew by 15% compared to the competition’s average growth of 4%. Also in Finland and Norway Clas Ohlson grows faster than the retailing sectors as a whole. In Finland retailing grew by 5.1% during 2005 and in Norway the growth was 3.9%. Clas Ohlson grew by 110% in Finland and 21% in Norway during the financial year 2005-06. The very large growth in these two countries is to a large extent explained by the company’s recent entrance on the two markets.

Potential entrants to the market

The market trend in all of Europe as regards the types of products that Clas Ohlson sells is that major chains take market shares from the smaller actors. As the chains reach a stage at which the growth in the domestic market slows down, they often look abroad for expansion opportunities. Clas Ohlson has through similar reasoning entered the Norwegian and Finnish markets and plans to enter the United Kingdom. Subsequently, the potential entrants on the markets of Clas Ohlson are found among larger foreign chains. Examples identified by Clas Ohlson are the German chains Bauhaus and Hornbach which have entered the Scandinavian markets during recent years (Clas Ohlson annual report 2005/2006).

The products and their substitutes

The assortment of Clas Ohlson is constantly renewed. There is however no intention to be the first movers in any given product segment. The products on offer have always been on offer by a competitor before Clas Ohlson decides to take it into the assortment. Rolf Andersson states:

“We are not first with the latest – let the others [the competitors] take care of the children’s diseases; then we enter the market.”

(Translated from Swedish by the author.)

The customers

The majority of Clas Ohlson’s customers are private individuals rather than professional users. There is a breadth in the customer base in terms of age and gender. According to Gert Karnberger there has been a conscious focus on increasing the number of female customers by broadening the assortment towards this customer group. Similar efforts have been made to cover a younger people by e.g. promoting mobile phone accessories.

Clas Ohlson approaches the customers with a very wide assortment, a high level of customer service and fairly low, although not the lowest, prices. The price pressure on the market can be said to be high, and one way for Clas Ohlson and their competitors to meet the bargaining power
of the customers is to increase the share of private brands, which Clas Ohlson also does. The private brands minimises the number of actors in the supply chain and thus increases the margins of Clas Ohlson at the same time as it makes the consumer market less transparent by offering products that are sometimes difficult to compare against the competitors’ products.

Regarding integration (Chow et al., 1995) downstream in the supply chain this cannot be fruitfully discussed as regards the customers, i.e. the consumers. Towards the intermediary, the stores, the integration is however high. There is a large degree of formalisation with exact reporting and ordering procedures taking place on a daily basis. The intensity is also high with a high degree of resource investment in the stores (natural since they are in-house). The frequency of contact is also high, with continuous updating on the sales via Raindance, which also accommodates for the integration being standardised between the headquarters and the stores.

6.3 Offering

The offering (see e.g. Normann (2001) and Kindström (2005)) can be seen as the exchange between the firm and its environment. In the case of Clas Ohlson, there are several sales channels that link the firm with its environment, the market. Depending on how one sees it, there are two or three channels in total. Sales over the Internet or mail-order sales can be seen as one (or two) channels. The dominating and fastest growing sales channel is however the physical stores.

The same prices are used for all channels within each country. The reason for this is that it is seen as important that the customer recognises all channels as one Clas Ohlson. If one chooses to return an item bought in a physical store, this must be possible to do also via the mail order sales channel and vice versa. Rolf Andersson expresses this as:

“Oh there is one company with several channels that cooperate.”

(Translated from Swedish by the author.)

Clas Ohlson also carries the entire assortment in all stores. That is to say that all stores carry all the items presented in the main catalogue and also the items in the present campaign. There is one campaign per month accompanied by a small catalogue complementing the main catalogue.

According to Rolf Andersson, vice president of logistics, the products chosen to be displayed on the start page of the Clas Ohlson portal, see Figure 36, are chosen so that the customer is encouraged to click further and explore the rest of the assortment. In the stores, the planning is similar, with mobile phone accessories at the far end of the store since those products attract many customers which then must pass the rest of the Clas Ohlson assortment. Rolf Andersson compares this with the placement of dairy products in a supermarket.
The assortment is renewed on an annual basis through the release of the new Clas Ohlson catalogue in August each year. Normally, about 1,600 new products are added to the assortment but a similar number of products are removed, making the total number of products relatively unchanged at approximately 12,000 products.

In terms of Normann’s (2001) configurations expressed as place, time, actors and actor constellations, the Clas Ohlson offering can be seen as a fairly traditional mail-order business with the exception that the existence of stores make possible multiple interfaces to the customers’ at the latter’s choice.

**The responsibility for pricing lies with Supply**

The pricing policy of Clas Ohlson is that the products must be perceived as bringing good value for the money but there is no ambition to offer the lowest price on the market. The competition on price is complemented with high quality and a generous customer service policy. Gert Karnberger explains the company’s offering:

“*Our prices should be competitive. The total price on what you buy shall be lower than if you buy it in the specialist trade. But we have no strategy or ambition that we shall always offer the lowest price. Our customers should experience that it is “good value for money” to buy from us. We should compete in all areas; the quality, the customers’ needs, a generous service and return policy etc. Focusing on only price is very simple, but it will not help in the long run.*”

*(Translated from Swedish by the author.)*

The product managers at Supply are responsible for both negotiating the prices with the suppliers and setting the prices in the catalogue. In Norway and Finland however, the catalogue prices are set locally since it is difficult for Swedish buyers to have in-depth knowledge of the market characteristics in these countries.
The pricing policy is that all customers, both hobby users and professional users, should regard the products as good value for money. The prices are set for one year at a time, in June ahead of the publication of the annual Clas Ohlson catalogue in August. There are separate complementing catalogues for boat, mobile phone and computer accessories and the prices are set at the time of the printing of the respective catalogues. The work with the main catalogue begins in February under the responsibility of Supply. There is a catalogue section within the in-house advertising agency that is responsible for the printing of the catalogue.

The making of the catalogue starts with analysing which 50 pages of the last catalogue were contributing the least to the bottom line and which 100 pages were contributing the most. There may be considerable changes from year to year as market trends change.

When a product is taken out of the catalogue it gets an attribute in Raindance. The stores are always supplied with a pull-system except when they are first opened. When Supply sees that a product that is to be taken out of the assortment should be ordered from the supplier according to Raindance, they manually decide if it should be bought, bought at reduced quantity, if a replacement product is to be taken in earlier, or if the product should be terminated altogether.

In the latest catalogue, 1,650 new products were added to the assortment which means that approximately the same number of products were taken out. Of the latter, about 700 products were still in stock at the printing of the new catalogue. That is too few to allow for a nationwide sale. However, since normally no returns from the stores are accepted there are sales of remaining items. Those sales are always uniform with the same price in all stores, set by Supply.

The products are classified as A-, B-, or C-articles. The A-articles are placed at eye-height in the stores so as to attract the eye of the customer. B- and C-articles are placed at a lower height. There are however A-articles that are not exposed specifically but that sell in great volumes in any case, e.g. DVD-disks.

The Internet- and mail-order sales channels account for 3% of total sales which is about the size of one of the larger stores. There has been a decline in the turnover via Internet and mail-order of about 10-15% during a number of years until recently when it has stabilized at the current level. Despite the decline, Gert Karnberger sees the Internet- and mail-order sales channels as vital for the company. It should be possible for a customer to buy a product from one sales channel and return it via another channel. Further, the customer service function in Insjön is also a support function for the stores. The stores have a hotline to customer service to use when they get customer requests that they cannot respond to.
## 6.4 Activities and organisation

The headquarters of Clas Ohlson are concentrated to Insjön where the functions Supply, Marketing, Sales, Finance, Administration, Customer Service and the concern management are placed. Also present in Insjön is the central warehouse supplying both mail-order and Internet customers and the stores with products. The Clas Ohlson organisation is illustrated in Figure 37.

![Figure 37. The Clas Ohlson organisation](image)

The company has a flat organisation and there is considerable independence for the different country units. The Norwegian and Finnish business units have their own HR and Finance functions. The CEO, Gert Karnberger, was until recently directly responsible for Supply and he emphasises that Clas Ohlson is a company that puts much emphasis on the supply side. He states:

> "The idea with this type of company is to buy products and sell them at a slightly higher price. That is what it is all about."

*(Translated from Swedish by the author,)*

The sales organisations are similar in all three countries where the concern is present. Before, there was a Swedish vice president of sales but now there are three business units: Sweden, Norway and Finland. This has been done in order to achieve a similar structure for all countries where Clas Ohlson is present.
Decision-making

The management group of the company meets once a month to discuss both reporting issues and planning for the future. According to Rolf Andersson, vice president of logistics, these meetings are normally planned to take place during a full working day so that no one shall need to come in late or leave early due to other obligations.

Decisions of major magnitude are made at the board level. The board of directors and the senior management meet for a strategy meeting each spring which is followed by a formal board meeting in March each year at which the strategy for the upcoming financial year is decided upon. The employees of Clas Ohlson have considerable freedom to make their own decisions; there are no manuals explaining different processes in detail. Gert Karnberger states,

“*What we do should be characterised by simplicity and professionalism. We have very high requirements on people having a degree of business savvy, on all levels. There are no set manuals. All our employees make lots of good and bad decisions in their private lives and we want them to take that with them into the company. Within Clas Ohlson, we all have a right to make mistakes but at the same time we have no tolerance as regards bad conduct. This has led to an organisation with high self esteem and confidence. I think that the worst thing one could have is a scared organisation.*”

(Translated from Swedish by the author.)

As regards internal communication there is a philosophy in Clas Ohlson that

“*We talk with each other rather than to each other.*”

(Translated from Swedish by the author.)

At the same time as personal communication is put forward, the concern makes use of IT too for communication, but Gert Karnberger believes that the use of the IT-infrastructure does not make the organisation less personal. The stores and the headquarters are also connected via a video conference system to use for information and education.

A supply-focused organisation

As stated earlier, the supply function is focused upon in the company. It consists of approximately 60 staff divided into five groups: computer accessories and photography, electrical products and mobile phones, hardware and storage and home and household. A purchasing manager heads each of the groups consisting of product managers, technical personnel and purchasing administrators. The responsibility for selection of products as well as pricing belongs to the product managers and there are in total twelve product managers.
Even though Supply is divided into five different groups, the products on offer are divided in four different product areas. Hence, there is an overlap between the groups at Supply and the product areas which are: Tools, Home & Storage, Electrical & Electronics and Hobby & Household.

There is no local representation of Clas Ohlson in the sourcing countries. Gert Karnberger states that it is possible that the company opens local offices in the future but in that case they will always be expected to compete with external trading firms. The advantage of local representation would be that Clas Ohlson in that way has better control of issues regarding corporate social responsibility (CSR).

**The central warehouse**

The responsibility of the central warehouse in Insjön covers all operations between the arrival of the goods at the warehouse to the delivery to Internet- and mail-order customers or the arrival of the products at the right time at the Clas Ohlson stores.

The warehouse has a total capacity of 54,000 pallets. This capacity is according to Rolf Andersson, vice president of logistics, sufficient for most of 2007 but it is questionable if it is enough for the Christmas 2007. If, or rather when, the capacity constraints are reached, the option to make use of third party logistics providers is open. In 2004, before the latest expansion of the central warehouse, the logistics provider Wilson AB in Gothenburg was used. Most of Clas Ohlson’s goods arrive to Sweden in Gothenburg and Wilson let the flow of products that they stored connect to the flow of Posten AB, also used by Clas Ohlson. This cross-docking solution made it possible to let the stores be unaffected by the use of a third party logistics provider. This is important since there are tight time schedules for the deliveries to the stores, normally 30 minutes during the early morning.

The original central warehouse of Clas Ohlson was placed in the same building as today’s headquarters. That warehouse was not built to accommodate for bulk deliveries to stores so when Clas Ohlson began to open stores a new warehouse needed to be projected. Rolf Andersson was one of the people behind the project. Initially a number of possible sites for the new warehouse were visited and evaluated. Finally, Insjön was selected as the preferred location on request from the Clas Ohlson-family. The reason behind choosing Insjön was that the family sees that the company has obligations towards the people of Insjön as regards job safety. Further, the financial analyses made, showed that the extra cost of transporting the goods from the main port in Gothenburg, to which most of the company’s goods arrives, to the stores via Insjön was fairly small. Once the goods is loaded onto trailers, a few extra miles do not add much cost, Rolf Andersson argues.
The new warehouse was finished in 1995 and had a capacity to deliver to ten stores as well as the mail-order customers. The first couple of months meant a lot of turbulence with problems with equipment and IT-systems Rolf Andersson recalls. The problems were solved and the expansion of Clas Ohlson continued, and already in 1997 the warehouse had reached its capacity constraints. Plans for expansion of the warehouse were made and in 1999 the warehouse was ready to supply in total 25 stores. However, at the same time it was decided to speed up the rate of store openings which led to the warehouse once again meeting its capacity constraints in 2001.

This time, the company had to rent a warehouse in nearby Borlänge to meet the higher requirements. It was then decided to expand the warehouse once again, this time to reach a capacity of 90 stores. The previous expansions of the warehouse had meant expanding traditional warehouse space without adding new technology. This time it was decided to build a computer controlled warehouse with automatic trucks. Today’s delivery capacity is the intended capacity of 90 stores but Rolf Andersson doubts that it will be possible to store products for as many as 90 stores. The reason is that the products themselves become more voluminous. An example can be seen in memory chips for e.g. digital cameras which themselves become smaller and smaller but are nevertheless sold in even larger boxes due to large instruction booklets in many different languages. Also, within three years the ratio of private brands should reach 25% from today’s 12-13%. For the warehouse this means larger volumes to store. Instead of a few pallets of Bosch drilling machines from a warehouse in Europe delivered frequently to Insjön, private brands will mean full container loads of private brand drilling machines sent from China.

All deliveries to the stores are made via the central warehouse except on those occasions when a third party logistics provider has acted as intermediary. However, in those cases the delivery has nevertheless been cross-docked on the way to the store in order to leave the latter unaffected. The stores normally have very little storage space why deliveries from different suppliers directly to the stores would not be possible to handle locally. Hence, bulk deliveries from the warehouse with the goods packed and marked for easy handling locally is necessary for the smooth running of the store operations.

The stores are connected with the headquarters via Raindance. There are two servers, one at the headquarters and one in the central warehouse. Every night the sales of all the stores are uploaded to the warehouse where picking orders are made for all those items that have reached their order point. The warehouse system automatically makes an optimisation of the picking orders so that larger handling units are picked in the automated part of the warehouse, whereas smaller units are picked in other ways, e.g. manually. When the staff at the warehouse arrive in the morning the picking lists are already printed or uploaded to the truck computers.
For each store there is a specific bay in a sorting area in the central warehouse. That means that when a new store is opened, an extra bay is also opened in the central warehouse. Some years ago, it was considered a special occasion when this occurred, but nowadays it is routine, Rolf Andersson points out:

"Ten years ago it was a great stir, but nowadays we are used to it and it happens almost unnoticed. Of course it generates one extra address to deliver to, but otherwise it passes almost unnoticed in the organisation."

(Translated from Swedish by the author.)

Previously, all picked goods was placed in designated areas in the warehouse but due to the increasing volumes the goods is now loaded directly onto trucks. For the flow to Swedish stores, designated trailers for each of Postens major hubs are placed at different bays at the central warehouse. There is one trailer loaded with goods to the Finnish stores departing for the ferry from Stockholm to Åbo once a day. The goods in then sorted and spread to the Finnish stores from Åbo. For the Norwegian flow DHL constantly has one trailer for loading in Insjön which is taken to DHL’s hub in Borlänge for sorting to the different Norwegian stores.

The performance of the warehouse is continuously monitored in Raindance. Rolf Andersson follows up on the number of order lines, lead times, etc. Rolf Andersson focuses on the long term development of the warehouse. There is also a warehouse manager responsible for the daily operations and there are four managers responsible for different parts of the warehouse; incoming goods, mail-order distribution and the distribution to the stores. The latter area is divided responsibility-wise between two persons due to the large number of stores. In total there are about 20 people with responsibility for staff including team leaders. Once a week there is a meeting in at the warehouse discussing the operations.

The logistics knowledge in the organisation is maintained and developed through courses held by external logistics consultancies and through knowledge transfer and exchange with other companies, such as Ahlsell, Stadium, Mekonomen and the major Swedish mail-order companies.

The stores

There are two store concepts within Clas Ohlson, medium and large. The normal size is large which means that the store is about 1,500 square metres to cover a market of about 60,000 potential customers. The medium-sized stores are of course smaller and require a market size of between 30,000 and 60,000 potential customers. It is required that all stores carry the entire Clas Ohlson assortment so the difference between large and medium sized stores is only the size and consequently the number of employees.

The goods arriving at the stores does so in the same order as it should be placed on the shelves in order to allow for the shortest possible route for the staff at the store when putting the products on display. The labels for the products printed at the warehouse even contain information about
on which shelf in the store the product should be placed. The time-schedule for placing the 
products on the store shelves is quite tight since this is always done before opening hours in 
order to keep the way through the store clear for the customers and to allow the staff to service 
customers at all times. According to Rolf Andersson, this differs Clas Ohlson from many of the 
competitors where one, as a customer, may find staff unloading pallets in the stores during 
opening hours:

“We have constantly been working with this since 95-96, so for us it is nothing new. It is 
simply a part of the daily business. And I guess that is one of the reasons for why the 
customers enjoy our stores.”

(Translated from Swedish by the author.)

A contingency-view of Clas Ohlson

According to Persson (1997) there are three main contingency factors affecting the way logistics 
should be organised: logistics task predictability, number of logistics decision elements and autonomous logistics 
decision areas. It is here of interest to note that most of these factors suggest an industrial setting. 
One could then argue that the setting of a trading company can be seen as similar as the 
industrial setting with the operations conducted in the warehouse, where applicable, as the 
production.

The logistics task predictability, i.e. the extent of production to stock, could for Clas Ohlson be 
seen as very low since the flow through the central warehouse is fully customer order driven, 
either trough real customer orders via mail-order or the Internet, or from last day’s sales in the 
stores. However, since the operations in the warehouse do not differ much depending on type of 
product, the logistics task predictability can at the same time be seen as very high. This would, 
according to Persson, suggest that the logistics organisation should be organised and coordinated 
by mechanisms of a flow-oriented character.

The number of logistics decision elements, i.e. the number of products and their complexity in 
terms of number of components, is very high in terms of number of products. In the Clas 
Ohlson assortment there are 15,000 products. This would, following Persson, also call for larger 
flow-orientation as regards the logistics organisation.

The number of autonomous logistics decision areas measures the existence of separate product 
groups in terms of technology, market or location. For Clas Ohlson, there are three country 
markets; Sweden, Norway and Finland; which all have slightly different characteristics. For 
example, the transports to Finland are consolidated for shipping by sea and then split up into 
different destinations locally in Finland. However, the most differing decision area as regards 
logistics is the mail-order flow of products differing from the flows to the stores in that the 
shipments are small and in large numbers. The existence of autonomous logistics decision areas
would, according to Persson, suggest that the flow orientation of the logistics organisation should increase.

The characteristics of the Clas Ohlson-operations point in the direction of a large degree of flow orientation of the logistics organisation. This is also the case within Clas Ohlson; the logistics operations are basically controlled by the management of the central warehouse and do not require coordination between different functions.

The organisational structure

Chow et al. (1995) suggests the terms centralisation, span of control, scope and formalisation to be used in describing logistics organisations. The term centralisation can, in turn, be divided into two: concentration and proximity to the top. When a logistics organisation is concentrated this suggests that the decision making authority is concentrated in the organisation. What the term concentration does not reveal is whether the logistics decision maker is in the top management of the firm or not.

Looking at the Clas Ohlson organisation from the perspective of Chow et al.’s terms concentration and proximity to the top reveals an organisation with a large degree of concentration as regards logistics. The logistics decision making authority is concentrated to the central warehouse function where the vice president of logistics, Rolf Andersson, is responsible for the long-term logistics decisions and to whom the warehouse manager reports. The proximity to the top is small with Rolf Andersson being a member of the management group of the concern.

The span of control of the logistics organisation concerns the number of people that report to a single superior and the scope concerns the extent to which the logistics activities are grouped together in the same organisation or organisational sub-unit. The logistics operations of Clas Ohlson are very much concentrated to the central warehouse and its manager. The distribution to the stores is handled by external actors. Both the concentration and the scope of the logistics operations of Clas Ohlson are thus high.

The formalisation of the logistics operations, i.e. the degree to which the operations are precisely and explicitly formulated, can be argued to be high at Clas Ohlson. The daily operations, the order-to-delivery process for supplying the stores or the mail-order-customers, follow set procedures. However, there are no set manuals for “everything”.

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6.5 Resources

For a trading company such as Clas Ohlson, the idea behind the company is quite simple, Gert Karnberger argues:

“The idea with this type of company is to buy products and sell them at a slightly higher price. That is what it is all about.”

(Translated from Swedish by the author.)

Consequently, control over the costs of operations becomes important to remain competitive. This is also achieved in comparison with the competition. Clas Ohlson has a gross profit margin of 13-15% whereas those competitors that compete on parts of the assortment normally have profit margins of only 3-5%.

The close cost-control can be observed in the expansion of the concern; opening of new stores is fairly routine at Clas Ohlson. Normally, each new store establishment is profitable within a year. The cost-efficient operations of the central warehouse are important enablers for the expansion. Key in the performance of these operations is the IT system Raindance which is also used in following-up on the performance.

Expansion

Clas Ohlson has grown rapidly during recent years; between the years 2001 and 2006, the turnover has more than doubled. This growth has been achieved organically through increased sales in existing stores and foremost through the opening of new stores. Because of this focus on growth there is a department at the Clas Ohlson headquarters with responsibility for expansion. Also in Norway there is a department focusing on expansion. In Finland there is no such department and Gert Karnberger argues that the Finnish part of the company now has reached a level of maturity that does not require any major management resources as regards expansion why the department Expansion in Insjön now may focus on the new target market: the United Kingdom.

In the geographical expansion, Gert Karnberger emphasises that Clas Ohlson does not want to change customer behaviour since that is too costly. Instead, the company intends to enter markets which match the current offering of Clas Ohlson and that allow for synergies and economies of scale on the supply side. Supply is hence actively involved in the expansion process by probing new markets as regards customer behaviour and analysis of the competition as well as the price levels on the new market. First when that analysis is done does one go further to examine wage levels, property prices, etc. If the first analysis does not show on possibilities of profitability, the new market is left. The current choice of expanding into the United Kingdom does not, Gert Karnberger argues, mean that Clas Ohlson has decided not to enter other countries. The United Kingdom is simply considered the most favourable market at the moment.
When the expansion into the UK has reached a level of maturity and hence does not require as much management attention from Sweden, a new country will be entered. This does however not mean that the expansion in the UK is finished at that point in time. At the moment, the expansion in Sweden, Norway and Finland continues.

The opening of a single store is made as a project with an appointed project team. The employees apply for working in such a project team and the team members come from the stores, from the headquarters and from the central warehouse. Each group consists of about nine people including the project leader and work for about ten weeks from initial plans to the opening of the store.

Each new store costs 12-14 million SEK. The project team, the new store employees and the marketing of the store opening cost in total about 3 million SEK. The new store employees are taken in about two months prior to the opening and start of their service with two weeks of training at the Clas Ohlson headquarters. The investments in store interiors, computers etc. sum up to about 5 million SEK. About the same amount is spent on the in-store stock. The openings made in Sweden as well as the last openings in Finland are profitable within a year of opening. That means that all the start-up costs have been carried as well as wages, rents and depreciations. The geographical expansion of Clas Ohlson would not have been possible without the existing stores being very profitable. Gert Karnberger states,

“One must not grow so fast that one cannot handle the existing operations properly. It is the care you put into the existing operations that enable the growth.”

(Translated from Swedish by the author.)

The expansion is fairly much routine within the concern. Gert Karnberger recalls opening five new stores within five weeks recently. Also Rolf Andersson emphasises the routine behind opening new stores. He recalls that the first opening caused big celebration at the central warehouse but that recent openings pass almost unnoticed.

The geographical expansion into the United Kingdom is seen as quite unproblematic by Andersson. He states that the deliveries to the UK will be very much like today’s deliveries to Trondheim in Norway or Kopio in Finland, i.e. day-two delivery.

When a store is first opened, the project team responsible for the opening receives a shipment of one sample of all products on offer. This sample product is then used to measure how many products that fit into its designated placement in the store. The project group has also access to guidelines based on previous store openings as regards how many of each product that there should be in a store of a specific size in a region with a certain number of inhabitants. The number they arrive at for each single product is called “b-max” and is hence the maximum number of products of each sort that will be placed in the store.
Based on “b-max” the staff at the central warehouse calculates an appropriate order point for each product. This is calculated on the basis of a certain level of safety stock depending on the distance from the central warehouse. Further, the order point is dependent on the warehouse preferring to handle a certain number of units at a time of the specific product. For example, charcoal is normally handled as full pallets. Apart from full pallets, Clas Ohlson divides what fit on a pallet into three handling levels; warehouse package, multiple-unit package and the single sales package to be displayed in the store. The warehouse management strives towards making the stores accept deliveries of at least multiple-unit package. There is however capacity to deliver single units of items not only to mail-order and Internet customers but also to the stores.

The central warehouse

The central warehouse plays an important role in the cost efficient daily operations of Clas Ohlson. The warehouse is responsible for all operations from the arrival of the goods at the warehouse gates to the delivery of the products to the stores or the mail-order or Internet customers. All goods sold by the concern is handled in the central warehouse but there have been occasions when a third party has been used due to internal capacity constraints.

There is capacity to deliver to in total 90 stores from the warehouse. Today, there are in total 59 stores. During 2005-06, the warehouse received 165,000 pallets and 1,764 containers with goods. This translated into 4.6 million order lines to the stores. There are 75 people working with incoming goods and there are 130 people supplying the stores. The lead-time from order to delivery at the individual store is normally one day.

The central warehouse also plays a significant part in the geographical expansion of the concern. The expansion has gone from being a major occurrence in the warehouse to being a routine. Rolf Andersson used to be responsible for daily operations in the warehouse, something that is now being handled by a warehouse manager so that Andersson may concentrate on the long-term development of the operations.

Just as the stores, the daily operations at the warehouse are followed-up in Raindance. It is also via Raindance that the stores place their orders to the warehouse after each opening day. Orders are generated for each item in the respective store that has reached its pre-calculated order point.

The warehouse management actively cooperates with other mail-order companies as regards logistics development. Courses are also bought from logistics consultancies to ensure that there is in-house knowledge of the latest developments in the area.
Raindance

The IT-system Raindance is a platform developed by WM-data AB. However, most of the development made on that platform has been made internally at Clas Ohlson according to Gert Karnberger. In the annual report 2005/2006 the importance of the IT-systems is emphasised:

“We have been working to develop IT systems intended to support our operation for many years. These systems make it easier to handle ordering, delivery, replenishing, picking and final delivery of the goods. Our priority has always been to make use of modern technology to improve the efficiency with which both goods and information is handled. All systems affecting the handling of goods are fully integrated, that is to say the information is only registered once and is displayed in real time.”

As described earlier, Raindance aids in the operations in the warehouse by each night seeing to that picking list are printed for all those items that have reached their order points in the Clas Ohlson stores. Before the lists are being printed, an automatic optimisation of the picking is made and items which will be needed during the coming day are moved closer to the exits of the computer controlled part of the warehouse.

Apart from these automatic orders from the stores, the orders from Internet and mail-order customers are entered into the system. Internet orders are made directly into Raindance but every order is checked by staff at customer service in order to identify fake orders. Telephone orders are typed directly into Raindance by the sales staff. It is also possible to enter rush orders. These must be made before 12 noon and Clas Ohlson guarantees that those orders are dispatched the same day. For those orders, an extra optimisation for picking is made during the day. All other orders await the scheduled optimisation during the night.

The running of the order to delivery process is not the only task of Raindance. It is also used to follow-up on the performance of the operations. For example, there are sensors in the entrances of all stores and every evening the number of visitors is entered into Raindance for following-up. During 2005 there were 38 million visitors in the stores which translated into 19 million receipts. The average receipt in a store sums up to 250 SEK including VAT.

Resources that contribute to the competitive advantage of Clas Ohlson

In comparison to the competition, the profit margin of Clas Ohlson is well ahead. The competition is largely based on price, making the cost of operations and the following-up of the same important.

From a resource-based perspective (see e.g. Olavarrieta and Ellinger (1997)), the close control of the operations through Raindance; the cost-efficiency in the expansion, in which logistics and the central warehouse plays an important role; and the cost-efficient daily running as well as long-term development of the central warehouse constitute important resources for Clas Ohlson. The
Raindance platform and the technology used in the central warehouse are in themselves neither rare nor imperfectly imitable or impossible to substitute with equivalent solutions (see e.g. Barney (1991)). One could however argue that these resources are valuable since they have required substantial investments and lead to improvements of the efficiency and effectiveness of the organisation. Instead, it is rather the combination of these resources and the profound understanding of what drives costs and competitive advantage in the operations that constitute the resources that contribute to the competitive advantage in the case of Clas Ohlson, i.e. the distinctive capabilities of the firm (Day, 1994; Olavarrieta and Ellinger, 1997). The importance of Raindance and the continuous information sharing makes information management (Mentzer et al., 2004) an important logistics capability for Clas Ohlson.

### 6.6 Summarising the Clas Ohlson business model components

In the sections 6.1 to 6.5 the components of the Clas Ohlson business model were discussed separately; the components are summarised in Table 10.

<table>
<thead>
<tr>
<th>Component</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>Clas Ohlson has no clear-cut generic strategy and competes partly on price, partly on quality, and on a high customer service. The logistics strategy shows on a hybrid strategy with lean supply and agile distribution.</td>
</tr>
<tr>
<td>Position</td>
<td>Towards the suppliers there is a transaction-based approach to the relations. Through ownership, Clas Ohlson has a close integration of the operations towards the stores.</td>
</tr>
<tr>
<td>Offering</td>
<td>Clas Ohlson has several sales channels (stores, mail-order, Internet) but basically the same offering in all channels with complete transparency between the different sales channels on the customer's behalf. There is however one operative platform supporting all channels.</td>
</tr>
<tr>
<td>Activities and organisation</td>
<td>Responsibility for IT, and logistics is highly centralised.</td>
</tr>
<tr>
<td>Resources</td>
<td>The close control of the operations through the IT-system Raindance, the cost-efficiency in expansion of which the central warehouse is an important part, together with the daily operations in the warehouse, contribute to the competitive advantage of Clas Ohlson.</td>
</tr>
</tbody>
</table>
7 The Dustin Case

Dustin AB is a Swedish retailer in IT products and home electronics founded in 1984 by Bo and Ulla Lundevall. Since 2006 a majority of the shares (80%) is controlled by Altor Equity Partners AB and the founders remain owners of 20% of the concern. The concern Dustin AB has two subsidiaries: Dustin Partner AB and Dustin Home AB, see Figure 38. This is a division into the main product groups and customer segments. Hardware-related sales to business customers is made through Dustin, software licenses are sold through Dustin Partner and sales to consumers is conducted through Dustin Home.

Dustin Partner will shortly be dissolved and integrated into Dustin. There are historical reasons why Dustin Partner exists. When Dustin started up with sales of software licences in Sweden, Microsoft, one of the company’s major suppliers of software, demanded that sales are not to be conducted via Dustin since this firm was classified as a mail-order company. These requirements have now been lifted why a merger between Dustin and Dustin Partner is possible.

Dustin Home was founded in 2004 as an effort to penetrate the consumer market. Earlier, consumers were able to buy products from Dustin but this was not actively promoted by the company. Now this market segment is actively targeted and enjoys sales increases of 60-70% per annum.

The annual turnover of the concern was in 2005 (September 2004 – August 2005) 2.2 billion SEK, see Table 11, and there are approximately 160 employees. The number of products on offer exceeds 65,000 and due to the fast development of the computer industry there are approximately 100 new products added on a daily basis although the total number of products on offer remains relatively unchanged.
Table 11. The turnover and profitability development of Dustin 2002-2005

<table>
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</thead>
<tbody>
<tr>
<td>Operating income (thousand SEK)</td>
<td>1 669 593</td>
<td>1 798 168</td>
<td>1 899 185</td>
<td>2 172 806</td>
</tr>
<tr>
<td>Change from previous year (%)</td>
<td>11.10</td>
<td>7.70</td>
<td>5.62</td>
<td>14.41</td>
</tr>
<tr>
<td>Profit margin (%)</td>
<td>4.31</td>
<td>4.01</td>
<td>3.78</td>
<td>7.31</td>
</tr>
</tbody>
</table>

7.1 Strategy

Dustin has gone from being a pure mail-order company to conducting 70% of the sales via the Internet today. Bo Lundevall, one of the founders of Dustin, states that the original plan at the time of the founding of the company was to:

“supply the customers with IT-products, originally only software, in a fast and efficient manner. Profitability was also important, we did not want to offer the lowest prices but the customer should feel satisfied.”

(Translated from Swedish by the author)

This strategy remains also today although a focus on growth has been added through the new owners. In a press release, the strategy of the new owners is outlined by Harald Mix, partner in Altor Equity Partners:

"Dustin has had impressive growth and strong profitability for many years. It is important for us to build on the business model and the unique corporate culture that has made Dustin successful, with strong customer focus, high service level and rapid and secure deliveries. In cooperation with management, we will now take Dustin to the next level. The strategy is for growth, organically and through acquisition, and to expand geographic presence”

(Press release by Altor Equity Partners AB, Stockholm, 7 august 2006)

Dustin has grown also historically, but the pace is now increasing. Per-Anders Barhag, COO, recalls that previously, the company refrained from expanding its cost base in terms of number of employees as long as possible. Only when it was impossible for the current staff to cope were new employees taken in. In that manner, Dustin has been very efficient as an organisation but has still managed a yearly growth of 10%. Dustin is thus an example of a company that manages to grow under sustained profitability in a market that is characterised by fierce competition and low profit margins.

From the perspective of generic strategies (Porter, 1980), Dustin competes on a market which puts high requirements on price. However, the focus of Dustin is also directed towards keeping a high customer service, making the strategic position one of competition on both low costs and high customer service.
A planned strategy

Strategy can be seen from a number of different angles. Mintzberg (1987b) presents five possible views of strategy: strategy as plan, ploy, pattern, position or perspective. It can be argued that from a business model-perspective, strategy is a plan, an intended strategy. Of course, the intended strategy may not be fully realised but it nevertheless has the form of a plan if it is to be a part of a business model since business models are about “the strategy’s implementation into a conceptual blueprint of the company’s money earning logic.” (Osterwalder, 2004, p. 17)

Dustin’s strategy shows on consistency over time, from Lundevall’s original strategy to the current strategy of the firm, which indicates that the strategy is a plan that continuously is being fine-tuned. No major changes in the strategy of the firm have been made over time. The managers at Dustin discuss the company and its strategy in terms of modules. Such as supply model or pricing model. This thinking is very much in line with the business model approach to strategy.

7.1.1 Growth in both the consumer- and business markets

According to Andreas Ståhl, CEO, the strategy of Dustin is to...

“…continue to be the leading actor in the concern’s current market segments.”

(Translated from Swedish by the author)

Growing in the consumer market

From late 2004, the concern is present on the consumer market via Dustin Home. This market will, according to Andreas Ståhl, be penetrated further. This will be done by being the most reliable supplier on the market. No attempt is made to be the cheapest supplier. As Andreas Ståhl states:

“Everyone can compete on price. But the customer must return too and then it doesn’t help being the cheapest. One must also be reliable, have good customer service and handle returns in a fair way and so on.”

(Translated from Swedish by the author)

According to Bo Lundevall, Dustin Home was started after the manufacturers had promoted the idea of Dustin entering the consumer market. Dustin had long hesitated to take this step due to laws and regulations and also because of the expected different behaviour from consumers in relation to business-customers in terms of payments, complaints, returns, etc. Dustin hence gave the manufacturers an ultimatum that all returns from the consumer market were to be accepted at no cost to Dustin. This requirement was quite harsh since IT-products cannot normally be sent back once the package has been opened. The manufacturers did however accept this and the outcome of Dustin Home is positive. The number of returns is also very low according to Bo Lundevall. The returns made are in fact a source of important information regarding consumer
behaviour, Bo Lundevall states. He recalls the starting up of Dustin Home in 2004 and that at that time, the consumer market for photo inkjet printers was growing rapidly:

“After Christmas I think we had ten returns of HP photo inkjet printers from people who obviously had used the printers to print all Christmas photos before sending the machines back to us. However, we accepted the returns and sent the printers back to HP.

A few months later it turned out that out of these ten customers, seven had returned to us to buy even larger printers, also from HP. They did not chose another retailer than us and they did not choose an OKI-printer instead of an HP-one but for some reason they were not quite satisfied the first time they bought from us…

…I do however think that these customers will certainly recommend Dustin to others.”

(Translated from Swedish by the author)

Dustin entering the consumer market through Dustin Home may seem like a big step to take but behind the scenes, the operations have not caused much disturbance. The operative platform was already in place since Dustin Home uses the same resources as Dustin and Dustin Partner. The Dustin Home portal simply collects its data from the same Dacsa database as the other businesses in the concern. At the warehouse, the Dustin Home orders are only recognised on their differing logo on the packing list. The Bama and Clas Ohlson cases are examples of firms that use one operative platform for several offerings. This step by Dustin into the consumer market is in that respect similar.

**The business-to-business market**

On the B2B-side there are three main customer groups: small and medium sized businesses (SMB), enterprise customers and the public sector. Andreas Ståhl states that these three customer groups will be targeted more actively than has been the case historically.

Altor Equity partners have used a management consultancy to examine the expansion opportunities for Dustin on the business-to-business market. According to their study, Dustin already supplies all Swedish enterprise customers with IT-products. This is however at the aggregation of VAT-numbers and not all work sites of those enterprises. According to Per-Anders Barhag, much opportunity to expand into these customers remains. Apart from increasing the share of wallet of these large enterprise customers, a geographical expansion to more customers is planned for the Nordic region.

In the SMB-segment expansion is planned by hiring key account managers that each will be responsible for about 300 customers. This more active marketing is new for Dustin. At present, about 75% of sales are made via Internet and there will be attempts to increase sales over the telephone since this will increase the interaction with the customers. One further way to reach the customers is the annual fair Dustin Digital Expo on which the manufacturers display their
products to Dustin’s customers. This is a cost efficient way of marketing since the suppliers finance the fair.

A large proportion of the future expansion is expected to be made abroad. The geographical expansion outlined by the new owners is now being planned for the Nordic countries. The growth target is according to Per-Anders Barhag, COO, set to be 2.6 billion SEK in three years.

**A cost-conscious growth**

Dustin has displayed considerable growth during the years. Until now, the growth has been in the current main market: the business-to-business market in Sweden. In 2004, Dustin also entered into the consumer market where a growth rate of 60-70% is currently being achieved. As already stated, there are plans to further the expansion by growing also geographically.

In the stated strategy of Dustin, the original strategy as well as the current strategy, there is much focus directed towards the operative processes of the firm. Speed, efficiency, customer focus and a high service level are paramount to Dustin. Per-Anders Barhag states that until now, the growth of Dustin has been very cost-conscious. The company has not expanded its cost-base in terms of new employees until it has become unavoidable. Now, the growth pace increases and it is expected that the costs will increase more in relation to the growth than has been the case until now. According to Andreas Ståhl, an important factor behind the close cost control is structure:

> “I believe a competitive advantage for us is that we are a well structured company. With a well structured company one can make money on most things. If you are not well structured or do not know what you are doing, or are going to do, it normally does not look good at the bottom line result, no matter how good the business idea is.”

*(Translated from Swedish by the author)*

At an overarching level, Dustin has thus been and is very lean in their operations. This has resulted in a very cost-conscious yearly growth of about 10%. There is an understanding in the organisation that the future growth through deeper penetration of the current business customers, an increase in the consumer market and a geographical expansion, will not be possible to make in an as cost efficient way as the previous growth. For example, the geographical expansion will probably only be possible through acquisitions which will result in costs for integrating the acquired firms’ operative platforms into the Dustin platform. There will hence be a shift towards a more agile (Christopher, 2000) approach to the growth of the company.

**7.1.2 A balance between cost and service levels**

Logistics is a balance-act between cost and service-level, something that is well understood in the organisation of Dustin. Logistics is not seen as an area for cost minimisation. Instead, logistics is seen as an area that may increase sales through e.g. availability. Bo Lundevall emphasises that one must not be afraid of keeping items in stock since availability sells.
The operations of Dustin are lean (see e.g. Christopher (2000)); the processes are simple, secure and thought-through as described earlier in this chapter. The operations of the warehouse are also followed up so that the ratio of logistics costs of the total operating costs is kept at a low level. The insight and access of Dustin into the databases of their main suppliers and the integration with customers through the web portals are in line with an information strategy (Bowersox and Daugherty, 1987).

At the same time Dustin manages to be very agile (ibid) towards the changing customer demands. The demands as regards IT products change rapidly and products may become obsolete at a fast pace. Dustin manages to follow any changes in customer demands by keeping arms-length relations with the distributors which supply the Dustin warehouse three times a day and take the risks associated with keeping products in stock, also at the Dustin premises. Examples of this transferred risk backwards in the supply chain can be seen in the so-called price protection schemes. Through these schemes Dustin has agreements with the suppliers that if a product remains unsold at the shelves of Dustin for such a long time that the price levels have sunk the difference between current price and the price paid by Dustin is credited to Dustin by the distributor. This is very much in line with what Abrahamsson (2007) discusses as a power- and transaction-based logic of managing the supply chain.

7.1.3 Following-up on the performance

Dustin is present in a low-margin market, something that by the management is met by a cost-consciousness as well as a focus on economies of scale. It is believed that it is only through making a little money on a large number of transactions that the company can make money. The company has grown profitably for a long period of time. In the future, as outlined in the previous sections, the expansion will increase dramatically which is expected to cost more than the earlier expansion. Previously, expansion of the operative platform was made as late as possible in order to avoid costs and now the recruitment of 30 new sales staff is planned for the next two-year period. According to Per-Anders Barhag, COO, the set target is to more than double the turnover within three years which cannot be done organically only. According to Andreas Ståhl, these highly increased growth targets are especially challenging in the IT-business. This since the price levels are on a steady decrease meaning that one must increase the sales in terms of numbers of units just to keep the turnover unchanged.

The daily business is followed-up in Dacsa

The performance of the company can be followed by all staff through Dacsa. Earlier, when Bo Lundevall was CEO, there was a model used called 10-10-4. According to this model there should be an annual turnover growth rate of 10%, a profit increase of 10% and 4% profit margin. This model was a way for the management to leave the details to the staff since everyone knew which the targets were and could translate this into what needed to be done in their unit. For the
management this meant that they could monitor the big picture. If the gross profit remained within targets that was a sign that there were no problems with the pricing model or the supply model whereas if the profit margin did not meet the set target one could penetrate further to see which costs that were too high.

The growth targets have changed since Bo Lundevall was CEO but the active use of Dacsa to follow-up on the performance of the concern is still prevailing. The organisation is very sales-oriented and both the COO and the CEO have backgrounds from Sales why the sales targets are continuously followed-up by many of the managers. Another important KPI is the capital tied up in the warehouse. This is followed-up not only because of its cost-impact but also for practical reasons. During the last years there has been an increase in sales of voluminous products, such as flat-screen television sets, which takes its toll on warehouse space.

The deep penetration of Dacsa, making it possible to follow up all parts of the organisation at all time, e.g. looking into today’s revenue and cost of goods sold of laser printers, eliminates a common problem with financial measures. According to Holmberg (2000) a drawback with financial measures is that they measure the performance of yesterday rather than tomorrow. The manner in which Dustin follows up the performance is very much in line with the three characteristics of world class logistics as defined by The Global Logistics Research Team at Michigan State University in the World Class Logistics study (1995). According to this study, the world class firms employ measuring systems with three characteristics: (i) functional performance is measured at both a broad and a deep level and there is a strong focus on letting decisions be guided by the measures, (ii) a range of process-based measurements and not only functional measurements are employed and (iii) the measures are compared, both internally and externally, e.g. in comparison to last year’s performance or through external benchmarking.

In the case of Dustin there is a large depth in the measuring activities. If deviations from the profitability goals are identified, it is possible to follow these up down to the supply and sales of a single product out of a total product assortment of 65,000 products. The processes in the warehouse are continuously being measured through the stock turnover rate. The physical process of the company is however short and covers only one function, the warehouse, making functional measures adequate as regards the physical flow. The measures are continuously followed up in comparison to historical performance as well as future growth and profitability targets. Through cooperation with Growth for Knowledge Sverige AB (GfK), comparisons with the competition as regards growth are possible.

This view of KPI’s and characteristics of the KPI’s used, being aimed at both broad and deep measures was observed also in the cases of Bama and Clas Ohlson. At Dustin however, the set targets for the KPI’s and furthermore, the knowledge of the targets throughout the organisation, make the KPI’s key in running the organisation. The distinctive capabilities found in the close
control over the flow of goods and information through Dacsa and the central warehouse are important in enabling the following up of the operations via the KPI’s.

### 7.2 Position

There are numerous manufacturers of IT products acting on a global market. Dustin cooperates with the manufacturers but places almost all orders via distributors. On the customer-side there is a range of customers, from private households buying home electronics from Dustin Home, to small and medium sized businesses (SMB) and large enterprises procuring IT-products from Dustin and Dustin Partner. Taking a view of Dustin and its surrounding actors from a Porter five forces perspective, see e.g. Porter (1980) and in terms of integration, see e.g. (Chow et al., 1995), a number of observations may be made. The supply chain of Dustin is illustrated in Figure 39 and will be closer discussed in the following.

![Figure 39. Dustin's supply chain](image)

**The manufacturers**

As stated, only a small fraction of the products are sourced directly from the manufacturers. However, Dustin cooperates with the manufacturers as regards sales forecasts, training of sales staff in new products, fairs, etc. An example of the latter is the annual Dustin Digital Expo, a fair open to the public where Dustin presents the product range in cooperation with the suppliers. The suppliers finance the fair and the only cost for Dustin is the cost of their own staff. On a regular basis, smaller fairs and presentations are arranged by the manufacturers at the Dustin headquarters. In the same manner, the manufacturers finance the training of the sales staff by arranging product information events on the manufacturer’s respective product ranges.

The cooperation with the manufacturer HP results in e.g. a kickback-scheme which means that Dustin receives a bonus, a kickback, from HP when sales of HP-products exceeds a certain agreed level. According to Lars Lundevall, vice president of procurement, the size of Dustin makes the company an attractive partner for the manufacturers. He states that when a manufacturer, e.g. HP, looks at the Swedish market a total possible sales forecast is made. This volume may then be split among the distributors acting on the Swedish market but since the products sold involve a considerable financial risk for HP, the distributors are not trusted with large volumes. According to Bo Lundevall, especially US-manufacturers are very risk sensitive as regards the financial risk in large volume transactions. Dustin is however AAA-ranked by Dun & Bradstreet allowing for a credit of at least 50 million SEK. Therefore, the manufacturers can
reach volumes on the Swedish market by cooperating directly with Dustin rather than the distributors which Dustin nevertheless sources from.

**The distributors**

Dustin has approximately 110 distributors of which about 60 are active. The remainder of the distributors are only used occasionally to procure products that are seldom requested, e.g. some specialised software that a larger customer requests. There are four distributors that account for most of the volume: Computer 2000, Ingram Micro, Scribona and GNT. With these distributors Dustin has a close cooperation and share access to their stock levels and prices online.

Between one and two new distributors are added to the Dustin portfolio each month. According to Lars Lundevall, equally many contracts are terminated in order to keep the total number of distributors at a reasonable level. When a new distributor is added, their financial credibility is checked together with their customer base. Dustin uses only distributors that are not retailers themselves. Further, it is required by Dustin that the distributors are members of Elkretsen, a service organisation controlled by the electrical and electronic trade associations in Sweden arranging the fulfilment of the producer responsibility as regards electrical and electronic waste. If the distributors are not members of Elkretsen, the responsibility of the waste falls on Dustin. Also required by Dustin is that all deliveries made are included in the price of the product.

It is also required by Dustin that the distributors agree to so-called price protection of the products bought by Dustin. Since the price levels of IT-products change rapidly, Dustin does not want to risk depreciation of the stock. Therefore, the distributors must agree to compensate Dustin for the depreciation. In return, Dustin agrees to buy fairly large volumes.

Also with the distributors Dustin has schemes similar to the kickback-scheme with the manufacturer HP. When Dustin exceeds a set goal for the volume procured from a certain distributor for a period of one month, Dustin receives a bonus on the volume exceeding the set volume.

Recently, Dustin has, as discussed in earlier sections, began to actively haggle with the distributors. There is a goal set of haggling for an amount of 10 million SEK per year. However, when the scheme began in September, a total sum of 4.9 million SEK was reached during the first month.

**The upstream relationship**

Dustin’s access to the stock levels and price levels via the Internet as well as the regulated price-protection schemes etc., the relation between Dustin and their suppliers can be said to be very *formalised* (Chow et al., 1995). This close integration as well as the large amount of contact with the suppliers due to the frequent deliveries makes both the *intensity* and *frequency* very high. The close IT-integration with the suppliers also makes the *standardisation* high. The *reciprocity* in the
relationship between Dustin and its suppliers is indeed inclined towards an advantageous position for Dustin. The simultaneous access to stock levels and price levels from the larger suppliers together with the tactic of haggling indicate this.

**Dustin and their competitors**

According to Andreas Ståhl, CEO, Dustin has approximately 50% of the market for IT-products in the Swedish B2B-segment. The second largest player on the market is InWarehouse with an annual turnover of 613 million SEK (January – December 2005 according to (Affärsvärdering)) which is about one quarter of the size of Dustin. Andreas Ståhl states that there are only a few major actors followed by quite a large number of Internet-retailers with a turnover round 150-200 million SEK. There are also quite a few very small firms since the barriers of entry for opening an Internet shop are very low. Only few reach the volumes necessary in order to become profitable.

The market for IT products grows rapidly but the cost per unit is steadily decreasing. This is why the volume must increase for Dustin just in order to keep the turnover from falling. Andreas Ståhl argues that what differs Dustin from much of the competition is the volume and the efficiency in their operations. Hence, also within the industry, Dustin competes on its size. Economies of scale have become a prerequisite to have a chance to make money in the market of IT products. Ståhl states:

> “Our large volumes give us a cost advantage as regards the price we pay for the products. We also reach economies of scale in our operations. It is quite easy to increase the flow of products through the organisation without increasing the costs.”

(Translated from Swedish by the author)

It is however not mainly on price that Dustin competes. As stated earlier in this chapter, the customers are prepared to pay a premium for the reliability of Dustin. In that manner, Dustin can be seen as differentiated although present on a market where price, i.e. competition on low costs, never is unimportant.

Dustin also recognises the competition from the large IT-retailers, such as Elgiganten, Siba, Onoff and MediaMarkt. A few of them are now opening on the Internet too and so are the more specialised firms, often small, that add value through working with installations etc. Andreas Ståhl estimates that everybody will be on the Internet in the long run but that the very small actors will either disappear or be acquired by larger players. The position of Dustin is believed to be rather favourable. The large volumes make Dustin the most profitable retailer in Sweden and still, the Swedish market is too small to be very attractive for any of the major international firms. There are however no retailers of Dustin’s size in Finland, Norway, or Denmark which Dustin plans to enter.
Potential entrants to the market

The E-commerce market for IT-products has virtually no barriers of entry and there should hence be a constant threat of new potential entrants on the market. It is also the case that a large number of companies enter the market at any point in time. At Dustin, most entrants are considered as no threats at all since the market requires large volumes in order to reach profitability which is why the new companies entering the market rarely succeed. It is however seen as more threatening that the smaller short-lived companies competing aggressively on price damage the image of E-commerce, giving it an image of distrust when the smaller companies do not manage to deliver. One could thus argue that there is a considerable barrier of entry in the fact that one as a company needs high volumes to remain on the market.

The products and their substitutes

The product range of Dustin and their competition is under constant development. Every day, about 100 new products are added to the assortment. Dustin is not tied up by product specific processes of any sort and does not even the risk of obsolete stock of unwanted products since this responsibility has been transferred to the suppliers. Hence, any substitute products are routinely included in the Dustin assortment.

The customers

Today, Dustin is present both on the consumer market and on the business-to-business market. The latter market is by Dustin divided into small and medium sized businesses, large enterprises and the public sector.

On the consumer market, Dustin Home has a current yearly growth rate of 60-70% according to Stefan von Stein. This rapid growth was not quite expected by the management. Andreas Ståhl comments:

“Dustin Home that was started recently has gone extremely well, considerably better than we thought… A reason for this could be that we sponsored the TV program Idol, which has given us access to a new customer group. This market has been there, but has not been open for us, so now we have to adjust ourselves and take care of that market.”

(Translated from Swedish by the author)

For the business-to-business market Dustin uses the services of Growth for Knowledge Sverige AB (GfK) to follow up the market share. There is also a close dialogue with the manufacturers regarding their growth and growth targets. Stefan von Stein states that if the manufacturers increase sales with 100% Dustin aims to increase at least 120%. This could translate into an even higher growth in certain areas and a decrease in others. The future growth will be reached both through increasing the market penetration and by expanding geographically.
The customers of Dustin do possess a certain bargaining power. Through price comparison web sites such as Pricerunner.se, the market is extremely transparent and price comparisons with the competition are easily made. Dustin does however not compete completely on price since most customers of the company are prepared to pay a little extra for the reliability that Dustin represents. The premium that the customers are willing to pay is constantly fine-tuned as the sales of specific product groups are constantly being followed-up. A site like Pricerunner.se is also used by Dustin in order to see which price position Dustin has relative to the competition. Stefan von Stein, vice president of marketing states:

“In general, we can charge a slightly higher price than the competition. If we choose the exact price level as some competitor, there are usually others who place themselves slightly under us. If we offer the lowest price, we take all sales.”

(Translated from Swedish by the author)

Most of Dustin’s sales are made via the web portals making the relation with the customer as regards information exchange, very formalised (Chow et al., 1995). The platform on which the portals are built is a major investment for Dustin which would imply a high intensity in the relationships with the customers. However, since there is a very large number of customers, the marginal cost per customer is very small. The frequency of information exchange between Dustin and their customers is fully dependent on the amount of business between them. As Dustin now intends to move from merely receiving orders from their customers to work more actively on the sales- and marketing side the frequency will increase. The standardisation is very high as regards the relations with the customers today since most contact is made via the Internet. The reciprocity in the relationships with the customers is difficult to describe due to the large number of customers.

7.3 Offering

In 1984, when Dustin was founded, it was a mail order company receiving its orders via mail, telephone or facsimile. Today, more than 75% of sales in terms of turnover is made over the Internet on any of the company’s three portals: dustin.se, dustinhome.se and dustinpartner.se, see Figure 40 for the Dustin portal. The Dustin Home portal is made slightly more colourful in its layout in order to attract consumers but too much graphics is avoided in order to keep the web simple and efficient.
The Dustin portal is used by professional buyers as a procurement tool. Between 9 am and 4 pm, there are about 3,000 people visiting the portal at any point in time and around the clock there are normally never less than 100 visitors. The buying behaviour differs between the portals with higher activity on Dustin Home in the evenings than is the case for Dustin and Dustin Partner.

Three portals and one database
The different portals have different offerings but are connected to one single database. Both Dustin and Dustin Home are, as already mentioned, connected to price comparison web sites such as Pricerunner. Since the two companies have slightly different pricing policies with the prices of Dustin being slightly higher than those of Dustin Home for e.g. home electronics they appear at different positions in the listings of Pricerunner.

On a daily basis, about 100 new products are added to the Dustin portals and about the same number of products is removed. Within Marketing, there is one person responsible for each product group, e.g. network products. The product responsible chooses which products to have on offer and also which products that are to be presented on the main web page of each product group and not only on sub pages. The products that are promoted in this manner are chosen because of their availability among other aspects. If quality standards are not met, when there are many returns, the product is immediately lifted from the web site.

Until now, Dustin has mainly been known as a hardware and software supplier and not as a supplier of surrounding services. Dustin also offers surrounding services like competitors such as Atea, but this has never been actively promoted by Dustin. This is now changing as Dustin approaches the business-to-business market with e.g. key account managers which will attempt to increase the share of wallet with existing customers.
Prices are set by Supply

Lars Lundevall, vice president of supply, is responsible for both buying the products on offer and pricing them. This makes Supply responsible for the gross profit of the concern. His most important KPI’s are the gross profit and the capital tied up. The latter he monitors four times a day and in case the warehouse is cramped he decreases the supply. This is of course a balance act he argues, since the availability affects the sales figures.

The pricing policy of Dustin is not to be the low-cost retailer. Instead, Dustin shall be chosen as a supplier due to their reliability. On the cost-side, Dustin is fairly aggressive towards the distributors. There are in total approximately 110 distributors but the vast part of the products sold is procured from four major distributors. Dustin has online access to the stock levels as well as the prices at all these four distributors and uses this knowledge to negotiate for the best price at all times. The buyers are also encouraged to haggle with the distributors. There is a goal of lowering the prices by haggling at 10 million SEK a year.

The resulting gross profit is continuously monitored by Lars Lundevall and the other managers. If deviations are observed, Lars Lundevall discusses this with the appropriate product manager at Supply. Often the deviations occur when there is a promotion campaign for a certain product justifying the temporarily low margins on a specific product or product group.

The offering as a link between Dustin and the market

In linking the firm with its market or markets, the offering (see e.g. Normann (2001)) plays a fundamental role. In the case of Dustin there are several offerings as there are also several markets. Through the three web portals dustin.se, dustinpartner.se and dustinhome.se three different interfaces, two to the business market and one to the consumer market can be identified. These three portals also have different offerings in that the bundling of products as well as the price levels, payment conditions and shipping conditions differ. Interesting to note is that there is one single operative platform serving the three portals. This single operative platform is manifested through the single Dacsa system, the one central warehouse and the one supply function.

According to Kindström (2005), the offering can be seen as the exchange that takes place between the market position dimension (external environment) and the operative platform dimension (internal factors) in a business model. In the case of Dustin it is thus the exchange of information, goods and money between Dustin and its customers. The web portals are the interfaces of these transactions.

Normann (2001) sees offerings as artefacts that enable and organise value co-production. The value co-production takes place through activities or clusters of activities that can be unbundled and bundled in different configurations in terms of place, time, actors and actor constellations. In these terms, Dustin has one single offering, since the place, time, actors and actor constellations are
basically the same for every customer and every transaction. The processes behind the operations of Dustin are highly standardised. However, in comparison with other businesses, the division of roles along the supply chain differs in the case of Dustin. Due to a favourable negotiation position it is possible offer generous return policies for the end-customers at the suppliers risk as well as price-protection towards the suppliers.

7.4 Activities and organisation

Historically, the Dustin organisation, with its background as a family business, did not have clearly stated job descriptions and clear areas of responsibility for the management.

The organisational structure

In recent time much has happened within the Dustin organisation. The new main owner has engaged the firm on a programme towards what is believed to be a more clear organisational structure and division of responsibility; Figure 41 illustrates the Dustin organisation.

![Figure 41. The Dustin organisation](image)

Each function; Sales, Supply, Marketing, Logistics and HR; now have clearly formulated action plans with set goals. It is the responsibility of each vice president to ensure that action plans are formulated in accordance to the goals of the company and also implemented. The action plans are followed up by the chief operating officer (COO).

The CEO, the vice president of finance and the COO constitute the concern management group. The concern management group together with the vice presidents of Sales, Supply, Marketing, Logistics and HR; constitute the operative management group. The IT-manager reports directly to the CEO but is neither part of the concern management group nor the operative management
group. The operative management group meets once a week to discuss matters concerning several parts of the company.

Sales is divided into separate units for the concern’s three business units: Dustin, Dustin Home and Dustin Partner. That is to say that there are different sales people for the three business units. For Supply and Marketing, the responsibility is mainly divided into product groups rather than customer groups, or business units. In the case of Logistics and HR everyone has their organisational belonging in Dustin. Hence, although there is a clear organisational belonging to one of the business units for each and every employee in the concern this does not imply that each and every employee works for one of the business units only. Many functions are shared between the business units and those employees working in these areas belong organisationally to Dustin. An example could be the warehouse where the personnel work with orders for all business units and only see which of the three business units they are working for at the moment by the logo on the picking order. In procurement, there is according to Andreas Ståhl, an overlap in assortment of maybe 70 or 80% between the business units why the same staff buys products for all three business units. In the following, the responsibilities of Sales, Supply, Marketing and Logistics will be discussed.

Sales

Sales is under the responsibility of Jonas Pircher. He answers for the sales of both, Dustin, Dustin Home and Dustin Partner. As stated earlier, Dustin Partner will be integrated into Dustin shortly. However, the sales staff responsible for selling software licenses will also in the future remain specialised in that field rather than also taking on sales of hardware due to their expertise in the field.

Until now, the sales department has mainly passively received orders from the customers. According to Per-Anders Barhag, only the group of sales staff working towards enterprise customers has had a proactive role earlier.

In the close future Dustin will also approach SMB-customers in a proactive way, using key account managers, which are internally also called campaign sellers. This staff will approach customers with between 50 and 300 employees and attempt to create an active relation with them. According to Jonas Pircher, focus will be on creating value for these customers in order not to sell on price only. Competitors like Atea, already have an active focus on surrounding services towards the customers. Also Dustin has such services in the portfolio but has not actively promoted them. This increased focus on SMB-customers will, according to Per-Anders Barhag, mean that the number of employees within this group will increase from about 20 to 50 people within three years.
Jonas Pircher follows up the achievements of the department by continuously following the sales figures for all channels used, i.e. mail, telephone, facsimile and Internet. This is also what he reports in the weekly meetings of the operative management group.

**Supply**

Supply, under Lars Lundevall, is responsible for selecting and negotiating with suppliers, buying and setting the prices on the items on sale. Since Supply both negotiates the cost of goods and the final price to the customers they are in practice responsible for the gross profit margin of Dustin. The gross profit margin concern wide should average 16% but can for single items vary a lot and sum up to about 60% for high-margin items.

Lars Lundevall continuously monitors the gross profit margin for each product group. If deviations are observed, these are followed up together with the respective product responsible. He also monitors the stock levels, the capital tied up; mostly for practical reasons since the warehouse space is limited. This has been further actualised when sales have gone up and voluminous products, such as flat screen television sets, have increased in popularity. Recently, Lundevall has also begun to monitor the total sum haggled by the department. These figures are also reported on the weekly meetings of the operative management group.

The cooperation is close between Supply and Marketing and discussions are held as regards prices, bundling of products, promotion of slow-moving items, etc. Both Supply and Marketing work closely with the manufacturers but regarding different issues.

**Marketing**

Stefan von Stein is responsible for the marketing department which can be said to consist of three parts; the product managers, the marketing managers and layout.

The eight product managers are each responsible for a group of products. The product groups are e.g. PC’s, Photo, etc. The four marketing managers choose which products to promote guided by the overall marketing strategy set by Stefan von Stein. To exemplify the division of responsibility von Stein explains that the product manager of PC’s chooses which PC’s to promote on the web but is guided by a decision by him and the marketing managers that HP is the manufacturer that should be in focus at a certain point in time. There is a close dialogue between the product managers and Supply. If Supply identifies that there are slow movers in the warehouse, Marketing is notified of this and can take appropriate action. As stated earlier, all sales activities are handled by the sales department. However, 70% of sales are made over the Internet and it is the marketing department that is responsible for running the web and choosing which products that are to be promoted there.
In practice this is made as follows:

1. A new product is chosen by a product manager at Marketing. There are in total eight product managers, each responsible for a group of products, e.g. PC’s or network products.

2. The product manager launches the new product on the Dustin portals by filling in a web form with product data, uploading photos from the manufacturer’s web site, etc. These forms are prepared with relevant data entry cells depending on the type of product being launched, e.g. a VDU which requires data as regards size, resolution, etc.

3. For each product, there is a predefined gross profit margin set by Supply, it could e.g. be an 18-margin or a 15-margin, Lars Lundevall exemplifies. When all the product data has been entered, together with a price, by Marketing, the person responsible for the product group at Supply will fine-tune the price level. This can also include the suggestion from Supply that the product should be bundled with an accessory in order to increase the margin and in order to make it more difficult to compare Dustin’s prices with those of the competition.

The release of a new product is thus a cooperation between Supply and Marketing. Stefan von Stein emphasises the importance of the cooperation between the two departments:

“We have a good dialogue and collaboration with Supply. Historically Supply has been sitting together with us in Marketing. One could say that the design we have requires that we have meetings at least once a month with purchasers, product managers and marketing people. Even the sales personnel are participating on these meetings so that they become informed on what will be sold the next coming months.”

(Translated from Swedish by the author)

The daily contact is also considerable, von Stein argues:

“A product manager speaks to a purchaser ten times every day. It is a very close collaboration; it is definitely not we and them, but a team. If you break down the functions operationally, it is suddenly a product manager, a market area manager and a purchaser that work in teams, even if we do not physically sit together.”

(Translated from Swedish by the author)

Lastly, within Marketing there is also Layout that handles the graphic design of both web-based and printed material. Each week, about 15 different productions are made, in e.g. computer magazines, newspapers and commercial web sites. Once a month, the main catalogue is printed in until now 680,000 issues. This is now being changed so that there are differentiated catalogues to different target groups; one addressed catalogue to current customers and one catalogue that focuses more on presenting the company Dustin that is being distributed via newspapers etc.
There is a production web in use for the publication of the catalogue. This web helps to organise the work of the product managers choosing which products and product information to publish, Supply setting the prices and Layout making the graphic design. The different productions are followed up as regards their effect by for example using unique telephone numbers in different ads.

There is also administrative staff within Marketing that handle product fairs, television commercials, sponsoring, etc. Historically, all web programming was made in-house. Two years ago, it was outsourced to Dacsa. It is now however being in-sourced again to increase the control.

Stefan von Stein continuously follows up the sales figures and the impact of the different productions. The product managers dig deep into the information as regards for example specific network products whereas Stefan von Stein investigates at a generic level, looking at for example the product group network. The market share is also being followed up and Stefan von Stein reports this at the weekly meetings of the operative management group.

**Logistics**

Logistics, or the warehouse operations, lie under Fredrik Carlsson, vice president of logistics. The main responsibility of the warehouse is that all received orders during any weekday are to be picked, packed and available for the last pick-up from Posten by 7 pm every day. Also, all goods received during the day shall be entered into Dacsa, and consequently be available for picking, by 5 pm every day.

A consequent responsibility of Fredrik Carlsson is thus to plan for sufficient capacity in the warehouse. There are about 40 employees of Dustin in the warehouse, about 10 full time staff from external companies such as Adecco and Manpower and temporary staff from Academic Work, the latter to meet the peaks in the workload.

The warehouse is fully manual as regards picking and packing; the only automation there is regards the information flow through Dacsa which also ensures the accuracy in the manual operations by notifying the staff when the picked and/or packed items do not match those on the order. The communication with Dacsa is handled via barcode readers.

According to Fredrik Carlsson, picking operations require very little training. After one shift in the warehouse, a picker knows the job. For packing, however, more training and also a short packing course is needed.

Being a trading firm, the main process for Dustin is the order-to-delivery process, which is supported by processes and activities as regards supply, marketing, HR, etc. A large part of the order-to-delivery process takes place in the warehouse.
In the following, the order-to-delivery process is described briefly:

1. The customer places an order via the Internet, telephone, facsimile, or e-mail. Since only one database is used for the entire operations of Dustin, the customer may see online or can be told directly over the phone if the requested product is in stock or not. For products not in stock, the distributors are contacted immediately for a confirmed delivery date.

2. All orders placed via the Internet are checked manually by a web-group in order to avoid fraud. The staff working with this judge based on their experience. Suspicious orders are followed up manually by calling the customer.

3. A packing list of the approved order is printed in the warehouse. The packing lists are automatically printed with the appropriate logo of Dustin, Dustin Home, or Dustin Partner.

4. The order is picked manually into a plastic container and is left at a packing station. The order pickers work with trolleys only and make all picking manually.

5. A packer packs the order and shoots off each item with a bar code reader. If the incorrect item has been picked or if the number of items does not match that in the order, Dacsa will not approve dispatch of the order. For further security, all packages leaving the packing station are being filmed by a web camera to ensure that the correct items have been packed and dispatched in cases of theft along the way to the customer.

6. When the order is complete and approved by Dacsa, an address label is automatically printed for the packer to put on the package. The printing of the address label triggers the dispatch of an e-mail to the customer confirming the delivery of the order. In the e-mail, a link to a web site on which the package can be traced is included.

7. As soon as the address label is printed, the invoice is also printed; this is however sent in a separate envelope by standard mail. For consumers payment is either made in advance via direct payment, credit or debit card or at delivery of the goods.

8. The packer puts the package in a cage supplied by Posten AB who collects goods at the central warehouse about eight times per day. Each truck leaving the warehouse gets a security seal approved by both the driver and the Dustin staff.

9. The order is delivered to the customer the next day, or two days later for order north of Sundsvall and on Gotland. Orders with delivery address Stockholm can be delivered the same day if the order is placed early. In order to enable the latter, Dustin sorts all packages in the groups Stockholm and non-Stockholm before dispatch to the terminals of Posten AB.
For the running of all these operations in the warehouse, Fredrik Carlsson is given a yearly budget which can be exceeded if necessary due to increased volumes of goods sold. The KPI’s followed by Fredrik Carlsson regard number of faulty deliveries, the completion of receiving and sending goods on a daily basis and the level of sick leave among the warehouse staff. These KPI’s are also reported on the meetings of the operative management group. Another issue currently being discussed on these meetings is the overall capacity of the warehouse since the expected increase in sales in the future cannot be met with the current warehouse facilities. Carlsson sees the tasks of the warehouse as quite straightforward:

“Until now no larger changes have been needed here at the warehouse. Comparing to for example the marketing department our growth has caused larger changes there. For example, they must continuously come up with new things for how to become more aggressive in the marketing, find new customers etc… Here [at the warehouse] the growth just simply means that we have to work a little bit faster. We are like a shovel wheel that goes on and on and we just have to adjust our work after how much we have to do. It does not require any larger changes so far… As long as I solve the task in satisfactory way I am left in peace, but if I do not, I am sure there will come down a pointer.”

(Translated from Swedish by the author)

At the same time, Carlsson stresses the importance of the operations in the warehouse:

“Perhaps I am self-righteous, but it [the logistics] is the most important thing… I mean, imagine buying a new car and the seller can be pretty skilled and nice salesman and then when you drive away the car does not work. We can not sit here and promise that we deliver in time if we do not do it. All functions in the company are important, but we have indeed a very important function in the whole chain.”

(Translated from Swedish by the author)

This is also confirmed by the vice president of sales, Jonas Pircher:

“Our competitors can not be compared to our warehouse, neither in size or speed. And the whole logistics system really… If you compare our warehouse with our competitors’, you find a huge difference in delivery times.”

(Translated from Swedish by the author)

A contingency-view of Dustin

From a contingency perspective there are a number of characteristics that have affected the way in which Dustin is organised. According to Persson (1997) there are three main contingency factors that affect the organisational design: logistics task predictability, number of logistics decision elements and autonomous logistics decision areas. It is here interesting to note that most of these factors suggest an industrial setting. One could of course argue that the setting of a trading company in
some respect can be seen as similar as the industrial setting with the operations conducted in the warehouse, where applicable, as the production.

The logistics task predictability handles the extent of production to stock. If taking the view suggested, seeing the warehousing operations of Dustin as the production of an industrial organisation, the production of Dustin is fully customer order driven. This would, according to Persson, suggest that the logistics organisation should be organised by mechanisms of informal and functional rather than flow-oriented character. However, for Dustin, the logistics task predictability can simultaneously be seen as very high since the logistics operations conducted in-house are similar for all products flowing through the company with few exceptions such as rush orders. This would suggest an increased flow orientation of the logistics organisation.

The number of logistics decision elements regards the number of products and their complexity in terms of number of components. For Dustin the number of products is indeed high with an assortment of 65,000. The number of logistics decision elements is thus high which according to Persson would call for a high degree of flow orientation.

The number of autonomous logistics decision areas is a measurement of the existence of separate product groups in terms of technology, market, or location. For Dustin, selling IT-products on the consumer and business markets in Sweden there are few autonomous logistics decision areas. The number will however increase in the future as more markets which may have differing requirements are entered. With an increase in the number of autonomous logistics decision areas the need for extensive coordination of logistics increases beyond what could be possible in a divisionalised organisation.

Hence, the characteristics of Dustin and its operations point in different directions as regards how logistics should be organised. The logistics task predictability is the one parameter that does not suggest a flow-oriented organisation. The validity of this suggestion could however be doubted since the logistics tasks performed in the operations of Dustin are indeed homogeneous and in that respect highly predictable. In short, the operations of Dustin handle a wide variety of products and what the actual content of the products delivered is of little interest for the logistics. The exception from this is the increase in voluminous products such as flat screen TV’s which in Dustin’s present condition with rather limited warehousing space causes some problems.

The organisational structure

Chow et al. (1995) uses the terms centralisation, span of control, scope and formalisation in describing logistics organisations.

The term centralisation can favourably be divided into two: concentration and proximity to the top. If a logistics organisation is concentrated this suggests that the decision making authority is
concentrated in the organisation. What the term concentration does not reveal is if the logistics decision maker is in the top management of the firm or not.

Dustin does not have a logistics manager as the term would be used in many other organisations. The vice president of logistics is at Dustin responsible for the operations of the warehouse. This responsibility entails that all received orders during any weekday are to be picked, packed and available for the last pick-up from Posten by 7 pm every day. Also, all goods received during the day shall be entered into Dacsa and consequently be available for picking, by 5 pm every day. A consequent responsibility of Fredrik Carlsson is thus to plan for sufficient capacity in the warehouse. The decisions of the vice president of logistics are hence not so much about logistics as they are about staffing and the internal operations of the warehouse.

Decisions regarding stock levels are made by the vice president of supply who follows the stock levels closely in order to use the limited warehouse space efficiently. Major decisions regarding logistics are made by the operative management group which meets once a week. The logistics decisions are, as a result, concentrated to a group of people although not to an individual. The resulting proximity to the top is close.

Span of control and scope are properties which easily could be mixed up. Chow et al suggest that span of control is defined as “the number of subordinates who report to a single superior.” (p. 289) and that scope is defined as “the degree to which logistics activities are grouped together in the same organization or organizational sub-unit” (ibid). The warehouse at Dustin, as an organisational subunit, displays considerable span of control since there is only one manager in the warehouse, the vice president of logistics to whom all 40 employees report. As regards the scope, all logistics activities performed by the company Dustin are performed in the warehouse.

Formalisation is about “the degree to which goals, rules, policies and procedures for logistics activities are precisely and explicitly formulated” (Chow et al., 1995, p. 289). At Dustin, all operative processes are highly formalised. The warehousing operations, i.e. all physical activities performed, follow the same procedure for all orders. The administrative processes are also rather formalised and differ only slightly for different sales channels. As an example, all orders made via the Internet are manually checked in order to avoid fraud. For orders made over the phone, this is not the case. There are also differences regarding payment routines for different customers. Due to the formalised processes one can also argue that the organisation is integrated from a flow-perspective.

**7.5 Resources**

Dustin needs a number of resources to enable the activities and processes described in previous parts of this chapter. As a trading firm, Dustin has two main physical resources in its business support system Dacsa and its central warehouse. These two resources are emphasised by the managers at Dustin.
For a resource to result in a sustainable competitive advantage for the firm, it must be *valuable, rare, imperfectly imitable and not easily substituted* with anything strategically equivalent that in turn is neither rare nor imperfectly imitable; see e.g. (Barney, 1991).

**Dacsa**

Dacsa constitutes the main IT-system used by Dustin complemented by Hogia, for book keeping and a few off the shelf Microsoft applications. The development of the enterprise software by the company Dacsa is, according to Andreas Ståhl, run following requests and requirements from the IT-department of Dustin. Internally, the development of Dacsa is sometimes held back, as Andreas Ståhl states:

> “There is a difference between nice to have and need to have.”

(Translated from Swedish by the author)

The company sees it as important to be in control of the software. The Dustin portal is integrated into Dacsa. Bo Lundevall sees Dacsa as a strong competitive advantage:

> “Dacsa means a lot. It is one system that everyone uses and where everyone may follow up the performance of the firm. In that way we can check up on each other and for example see what is happening in the warehouse.”

(Translated from Swedish by the author)

However, as Bo Lundevall states,

> “Dacsa itself is only an empty box. One has to fill it with something. Only to fill the product pages surely means about 4,000 man hours. Some firms fill their pages automatically but with a corresponding quality. If you do not work with the system, it is a dead system. Systems are just tools. The staff must use the tools in the right way.”

> “Our web page is probably not as exciting as many others. It is however built with logistics in mind. When a product is entered into the system it’s up there in real time. More advanced web pages steal time. It is not the coolest web around but it sells stuff. It is also very easy to scale up when needed.”

(Translated from Swedish by the author)

Dacsa, the business support system of Dustin is thus in itself not a resource that constitutes as sustainable competitive advantage. What however could be argued to constitute a resource that leads to a sustainable competitive advantage is the knowledge of Dacsa and Dustin’s control over the development of Dacsa. Being from the beginning developed exclusively for Dustin by Dustin staff, Dacsa offers exactly what the organisation needs. Stefan von Stein, vice president of marketing, states:
“We have not so much looked at what an enterprise software can do and adapted ourselves to that. We have looked at what we want an enterprise software to do and have seen to that the software has done just that.”

(Translated from Swedish by the author)

The control over the information systems by the company is seen as important. As an example can be seen that the programming of the Dustin web was outsourced a few years ago but that it is now insourced again since the management felt that they lost part of the control over an important part of the operations.

To conclude, the Dacsa system as such is not a resource that leads to a sustainable competitive advantage. The knowledge about the system is however such a resource. The knowledge about Dacsa is an intangible resource of great value to Dustin. At the surface, the system as such is easily imitated, or rather possible to simply buy, by the competition. The competition can however not buy the knowledge and the company-specific adaptation of the system which has taken place during a number of years. A lot of the knowledge is tacit and hence very difficult to imitate and the complexity of the system makes it difficult to substitute.

The central warehouse

The central warehouse of Dustin, placed by the headquarters in Stockholm, handles the entire flow of products. According to Bo Lundevall it has been seen as important to remain in control of the flow in order to ensure high quality. A few years ago, Bo Lundevall recalls, a distributor offered to deliver a set of 50 laptop computers directly to one of Dustin’s customers. Unfortunately, the wrong model was delivered, something that the customer discovered after having unpacked them all. In order to avoid such situations, all products now pass Dustin’s own warehouse where the company considers the processes to be secure and efficient.

Per-Anders Barhag argues that Dustin is different from the competition in terms of relative amount of sales over the Internet. Since sales over the Internet requires less staff the relative importance of the staff working in the warehouse increases.

Barhag also sees that the large volumes favour economies of scale, both in the product prices on the supply-side and in the operations of the company. Lastly, he emphasises that he finds the processes of Dustin thought-trough and exemplifies that it is impossible to make a delivery from the warehouse without registering it correctly in Dacsa.

Fredrik Carlsson, the vice president of logistics, sees the task of the warehouse as rather straightforward. The main responsibility for Carlsson and the warehouse is to see to that all orders that enter the Dacsa system during the day are ready to be delivered by Posten at 19 pm. All incoming goods must likewise be available in Dacsa and the physical warehouse by 5 pm. The main concern behind attaining these tasks is capacity, or staffing.
Fredrik Carlsson says:

“For me, the concept is clear. When the volumes increase I simply add more staff.”

(Translated from Swedish by the author)

The managers at Dustin all agree that the warehouse is a vital part of the company. However, they also agree that the operations conducted in the warehouse are fairly simple. Temporary staff is according to Bo Lundevall partly used because the duties in the warehouse to some extent are tedious and therefore are better performed as a part-time work for e.g. students, i.e. a transfer-job rather than a long-term job.

Hence, the operations of the warehouse are not very complex. It is rather the control of the warehouse and its operations, and the fact that the entire goods flow passes it ensuring quality that leads to a competitive advantage. Also the Dacsa system and the warehouse depend on each other, reinforcing one another. The design of the processes in Dacsa and the warehouse has however emerged over time with the founder Bo Lundevall as the main architect. Barhag comments:

“Bo is the one who has designed many of the routines we have today. He has been everywhere in the company. Less in recent years, but still. Previously he had my role one could argue, but also owner and CEO... Many of the functions we have created in Dacsa have caused new processes in our business. Without thinking so much we have created new functions in Dacsa since Bo has wanted to keep control on a new figure. This has in turn led to that new jobs have been created and so we have been hiring new staff... But no one has ever been sitting and drawing-up product flows etc, I have never seen that.”

(Translated from Swedish by the author)

Dustin can be argued to have a distinctive capability in its information management (Mentzer et al., 2004), the control over the flow of information and hence on what occurs in the physical flow of goods through the warehouse. This could imply that instead of seeing the physical resources in e.g. a distribution system as a distinctive capability (see e.g. Olavarrieta and Ellinger (1997)) one could argue that the more important resource and a distinctive capability is the control over these physical logistics resources.
7.6 Summarising the Dustin business model components

In the sections 7.1 to 7.5 the different business model components have been discussed; these will be briefly summarised in Table 12 below.

*Table 12. The business model of Dustin*

<table>
<thead>
<tr>
<th>Component</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>The logistics solution shows lean characteristics in the activities and process dimension and agile characteristics in the assortment dimension.</td>
</tr>
<tr>
<td>Position</td>
<td>The hybrid strategy (lean and agile) enables Dustin to compete both on price to some extent and customer service. The relation to the suppliers is transactions-based and at arms-length, however with close integration as regards information sharing. Towards the customers the relation is transaction-based too. However, currently focus is directed towards customer relations with e.g. the appointment of KAM:s.</td>
</tr>
<tr>
<td>Offering</td>
<td>Three offerings (the different web portals) supported by one operative platform (the Dacs system and the central warehouse).</td>
</tr>
<tr>
<td>Activities and organisation</td>
<td>The operative organisation of Dustin is very integrated from a flow oriented perspective with Supply being involved throughout the the entire flow. Decisions as regards logistics and IT are centralised, so is the physical flow of goods.</td>
</tr>
<tr>
<td>Resources</td>
<td>The control over the physical flow through the warehouse and the information flow through Dacs contribute to the competitive advantage of the firm.</td>
</tr>
</tbody>
</table>
Towards a logistics-based business model

This analysis chapter consists of two main parts. First, the characteristics gained from the descriptions and analyses of the separate cases, and their business model components, are further built upon into a refined logistics-based business model taking stance in the model of analysis presented in chapter 4. Second, the case characteristics are discussed and analysed as regards the resulting role of logistics in the strategy of the firm in cases of logistics-based competition.

Before discussing and analysing the cases as a whole, some similarities and differences between the Bama, Clas Ohlson and Dustin cases will be discussed in order to provide a brief description of the setting from which the results of the analysis are derived.

Relative to the Dustin case, Bama and Clas Ohlson both have much longer histories as companies. Bama was founded in 1886 and Clas Ohlson in 1918 whereas Dustin was founded as late as in 1984. This difference in the age of the organisations means that Bama and Clas Ohlson to a greater extent have had to change their business models in the course of time as the context, e.g. the market, has changed. It can thus be suggested that Bama and Clas Ohlson, with their long histories, are less clear cases as regards their business models since they carry a larger baggage of history-dependent idiosyncrasies than does Dustin. Reflecting on the case descriptions in the previous chapters this is also made evident, mainly through the history-dependent more complex organisational as well as ownership structure of Bama. The case of Clas Ohlson on the other hand, is not as complex in this respect, mainly due to the fact that there is a very modern history behind today’s Clas Ohlson. The latter has largely been created during the last two decades during which the geographical expansion of the concern and the move from mail-order business to also retailing has occurred.

Bama has its roots in a large number of businesses and also today, there is considerable part-ownership of e.g. distribution centres by e.g. their local management. The growth historically, has to a large extent been achieved through acquisitions. It is also through the ownership of Bama by NorgesGruppen and Rema 1000 that a large, stable and growing customer base has been achieved. Further, the ownership relations throughout the Bama supply chain, from the point of origin as regards Norwegian produce and from the point of Bama Trading for imports, through to the stores, has enabled close inter-organisational integration both at a strategic and at an operative level. Clas Ohlson on the other hand, has grown organically only. All the stores are fully owned and also fully internally financed. A large proportion of all operations are performed in-
house and this has also made the close integration with the stores possible. Dustin too has grown entirely organically. However, this is about to change since the planned expansion geographically is considered impossible without acquisitions according to the management of the firm.

8.1 The logistics-based business model

In chapter 4, the theoretical framework was synthesised into a model of analysis as illustrated in Figure 42. The model visualises the business model of a firm and presents five main components of such a model, namely: strategy, position, offering, activities and organisation and resources.

![Figure 42. Model of analysis](image)

In this chapter, the cases of Bama, Clas Ohlson and Dustin will aid in the further refinement of the business model, making each business model component richer in description, in order to specifically display the characteristics of a logistics-based business model. The perspective will be lifted from the content of the separate business models to a discussion of the generic logistics-based business model. In the following, the different components will be further discussed with a stance taken in the analysis conducted alongside the case descriptions in the chapters 5 through to 7.

8.1.1 Strategy

The translation of a business strategy into a logistics strategy is to a large extent a choice of approaching logistics in a lean and/or in an agile manner. Christopher (2000) suggests this view of logistics and I would argue that this coincides with Fisher’s (1997) division into efficient and responsive and Persson’s (1991) division into low cost and differentiation.
Despite the differences in types of operations, products and markets, Bama and Clas Ohlson and Dustin resemble each other at an overarching level on the options in logistics strategy in that they combine lean and agile characteristics into hybrid logistics strategies (see e.g. Christopher (2000) instead of seeing logistics as an area for either cost reductions or service maximisation solely. As will also be discussed in section 8.2.1, the hybrid strategies employed by a firm pursuing a logistics-based business model may not only be lean and agile for different flows or for different parts of the supply chain respectively but also combine a lean flow-dimension with an agile assortment-dimension.

Taking the perspective of traditional logistics strategy research, all three cases display a high level of advancement to a so-called information strategy (Bowersox and Daugherty, 1987; McGinnis and Kohn, 2002). This could indicate that the traditional logistics research needs to be extended with a view of logistics going beyond the information strategy as being the most advanced form of logistics strategy. The cooperation at not only an operative level but also at a strategic level with other supply chain parties is for example not sufficiently handled in previous logistics strategy research. As will also be discussed in section 8.2.1, the domain of control by the firms under study expands beyond that discussed in earlier logistics strategy research. In the chapters 5 to 7, the terminology of Chow et al. (1995) was applied to the relations by the studied firms with other supply chain parties. The terminology used by Chow et al. covers aspects as regards the internal organisation of logistics. It does however not entail that the domain of control for logistics may span also other supply chain actors.

The strategies employed by the case companies are closely followed-up. The IT-systems used by the companies play central roles in the following-up of the business models through the measurement of KPI’s. In line with the Global Logistics Research Team at Michigan State University in the World Class Logistics study (1995), the KPI’s of both Bama, Clas Ohlson and Dustin are characterised by spanning both the breadth (in terms of spanning whole processes) and depth (close to the operations) of the companies’ operations. Here it also emerges that these firms view their systems under control as larger than the organisational boundaries of the legal firm. For Bama, as an example, the profitability of the customers is measured since it is strongly believed that if the customers are profitable, the profitability follows for Bama.

8.1.2 Position

In the studied cases the position by the firm on the market as well as in the supply chain is characterised by a fit, i.e. a consistency, with the strategy of the firm. The relation to other supply chain parties is transaction-based when the focus is on low costs and lean operations whereas there is a more relations-based cooperation when there are high requirements on agility. The relations-based relationships are conducted not only at an operative level but also at a strategic level. At Bama this can be exemplified with the fact that Bama has changed its organisational structure so that it matches the way the larger customers are organised, with a large degree of
centralisation in the interfaces between the two parties. That means close cooperation between the sales and marketing manager at Bama and the category manager at the customer’s as well as between the sales consultants at Bama and the staff in the customer’s stores.

As a result, it can be seen as fruitful to describe and understand the relationship between two supply chain actors at two levels: the strategic level and the operative level. Chow et al. (1995) suggests describing these relations using the terms formalisation, intensity, frequency, standardisation and reciprocity. Set in relation to the cases, cooperation at a strategic as well as operative level can result in high levels as regards all these factors.

What Chow et al. does not discuss is the degree of adaptation by the organisation in relation to other supply chain actors. For example, the adaptation by Bama of its organisation to the customers’ organisations by centralising the sales function since there is a trend on the customer-side to centralise the supply functions. This fit between the supply chain actors as regards organisational structure can be termed symmetry.

### 8.1.3 Offering

The offering (Normann, 2001) can be seen the exchange that takes place between the market position dimension (external environment) and the operative platform dimension (internal factors) in a business model, (Kindström, 2005). Normann (2001) defines offerings as “artefacts designed to more effectively enable and organize value co-production” (p. 114) which take place through activities or clusters of activities that can be bundled and unbundled in different configurations. The configurations can be described in terms of place (where the activities are performed), time (when they are performed), actors (who performs the activities) and actor constellations (which set of actors that performs the activities).

The application of Normann’s terminology on the cases in chapters 5 to 7 revealed a set of different configurations. The case specific configurations are of little importance for the findings in this research. What however is an interesting common denominator in all three cases is that they support multiple offerings with single operative platforms. The actual content of these multiple offerings or the operative platforms differs between the cases. Clas Ohlson has a central supply function and a central warehouse that support offerings towards both customers in the Clas Ohlson stores, mail-order- and Internet customers. Bama has a central supply function in Bama Trading but has split the operations into three different distribution networks for the two large customers NorgesGruppen and Rema 1000 and the customer segment Horeca. The different distribution networks do however share resources when possible by e.g. sharing the same physical facilities. Dustin has one operative platform in the IT-system Dacsa and the central warehouse and uses this platform for the three different portals Dustin.se, Dustinpartner.se and Dustinhome.se.
This support of multiple offerings with a single operative platform is not explicitly handled by Normann and could be a specific characteristic of a logistics-based business model.

**8.1.4 Activities and organisation**

As discussed in section 3.3.4, the contingency approach to logistics organisation has gained considerable recognition in logistics research. Examples were seen in e.g. Persson (1997) and Pfohl and Zöllner (1997). Contingency factors may be specific for each and every environment and earlier research provides multiple sets of factors that affect the organisation of logistics, such as the set of factors presented by Persson (1997):

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

Other factors could be the environmental relations, the product line, the production technology or the size of the organisation (Pfohl and Zöllner, 1997) or the strategy, the environmental uncertainty, the environmental heterogeneity, the importance of logistics or information technology (Chow et al., 1995).

There is hence some heterogeneity in the contingency factors and most research to date as regards these issues concentrate on manufacturing firms which has also affected the set of factors presented here. Nevertheless, the analysis has shown that the contingency approach to logistics organisation and the contingency factors that result in different suggested organisational configurations are to a large extent valid also for these studied cases of trading firms competing on logistics.

As regards decision-making the logistics organisations in the Bama-, Clas Ohlson- and Dustin cases are all centralised. Hence, the cases display a high degree of centralisation of the logistics responsibility in relation to the business system, in line with type three logistics as suggested by Abrahamsson et al. (2003).

The cases do however differ in terms of the degree of centralisation of the physical flow. Bama has three parallel networks of distribution centres for the distribution to NorgesGruppen, Rema 1000 and Horeca whereas the supply function is centralised. Currently, plans are made for a new main terminal in Oslo which will have capacity to allow for a larger degree of centralisation as regards the physical flow too. The Clas Ohlson case on the other hand shows a firm in which both decision making and the physical flow of goods is centralised and so is the case also in Dustin.

The terms span of control and scope as suggested by Chow et al. (1995) indicate “the number of subordinates that report to a single superior” (p. 289) in the logistics organisation and “the degree to which logistics activities are grouped together in the same organization or organizational sub-
unit” (ibid). In the studied cases, the span of control and the scope are in general high with the exception of the decentralised distribution system of Bama (specific for each of the customers NorgesGruppen and Rema 1000 and the customer group Horeca).

What the terms span of control and scope do not reveal is the involvement by the firm and the logistics organisation in activities and processes in other organisations, in the supplier and customer organisations. This domain of control of the logistics-based business model, reaching into the organisations of the supply chain partners at the operative as well as the strategic level, was discussed earlier in this chapter as regards logistics strategy. In the cases studied in this research, the companies have extended their domain into the neighbouring organisations where it has been seen as possible and necessary. The most notable example is, as has been stated, the active role of Bama through the Bama sales consultants. One further example is the cooperation of Dustin and also Clas Ohlson not only with the suppliers but also with the manufacturers one step further upstream in the supply chain.

The formalisation is very high in all cases, also this time with the exception of Bama which has a complex and volatile market situation to handle in their upstream relationships which are highly affected by seasons and the weather situation. At Clas Ohlson, it is argued, there is a large degree of freedom and few set procedures. However, as regards e.g. the order to delivery process, the procedure is very much set. One could hence conclude that these firms have highly formalised procedures where possible and necessary. Only in instances of unforeseeable occurrences are there no set procedures.

An aspect worth to note is that the organisational boundaries tend not to limit the decision-making authority in any of the cases. The supply functions set the prices for the sales functions in all three cases. In the Bama case, the responsibility for the assortment in the customer stores is placed with Bama to a large extent. It is the sales consultants of Bama that determine how the products should be displayed and promoted at the customers’ sites.

As a result, one can describe and understand the organisations in the studied cases as very integrated in the dimension of the physical flow of products. The functional borders seem to matter little in these organisations. This can be exemplified by the previously discussed fact that Supply (or equivalent) is responsible for pricing in all three cases, requiring little borders between Supply and Marketing and Sales; this is illustrated in Figure 43.

![Figure 43. The organisations are integrated from a flow-perspective](image)
8.1.5 Resources

A common denominator in all three cases is the central role of IT and logistics which is also to expect depending on how the cases have been chosen. The resource that leads to a sustainable competitive advantage however, are not the IT-systems or logistics solutions as such, it is rather the close and detailed control the companies have over both the information- and goods flows. Hence, the information management as a logistics capability (Mentzer et al., 2004) seems to be of very large importance for the studied firms as will be further discussed in section 8.2.2.

In all three cases, the IT-systems used have to a large extent been developed internally. It is argued that the high degree of involvement from the company as regards the IT-development has enabled the companies to remain in control over the logistics processes and that it is the necessary physical processes that have dictated the design of the IT-systems and not the other way around. In the case of Dustin, the focus on the development of IT-systems has even resulted in a spin-off company in Dacsa, as a supplier of business support systems. At Clas Ohlson and Bama, there is a reliance on external vendors however with a large degree of involvement by company-internal staff in the development. The resulting large degree of control has as an effect that the studied firms rarely need to make trade-offs as regards e.g. KPI’s. The control over the IT-systems and their adaptation to the processes conducted in the operations make possible the extraction of sought KPI’s. That is to say that in the studied cases one can measure what one wishes to measure.

The logistics solutions used in e.g. the central warehouses are thought-through and in instances very simple. As an example, in the Bama distribution centres, the order points for the different products are determined by visual inspection since fruit and vegetables are, to a large extent, not sold in discrete packages. As a contrast, in the Clas Ohlson warehouse, state of the art computer controlled warehousing systems are used. The latter is a recent investment; earlier investments in warehousing equipment have been used for more traditional solutions. It is only recently that the management of Clas Ohlson has seen that the volumes of goods allow for investment in more advanced equipment. In the Dustin warehouse, all picking is made manually but the physical flow of goods is closely integrated with the IT-system ensuring secure processes. For example, a photo is made of each open package allowing for backtracking in cases of theft, etc.

These resources, the IT-systems and the physical resources in e.g. the central warehouses will be further discussed and analysed in section 8.2.2. It can be argued that these resources in themselves cannot be termed distinctive capabilities (Day, 1994) but that the control over the resources can be argued to be just that. One can thus suggest that the close control over the processes, both information flow and physical processes, is a distinctive capability in all three cases.
8.1.6 The logistics-based business model

The analysis of the cases Bama, Clas Ohlson and Dustin has led to the identification of certain characteristics of a logistics-based business model, see Figure 44.

Despite the three companies being in very different industries, the business models bear a lot of resemblance at a generic level.

**Strategy**

- Logistics is not seen as a tool for cost-minimisation or service-maximisation only. Instead, in all cases different forms of hybrid logistics strategies with both lean and agile components for either different parts of the flow or for different dimensions of the flow are being employed. Such a hybrid strategy can combine an agile assortment with lean activities and processes.

- The level of logistics-development is high in all cases. Following traditional logistics strategy classifications the companies pursue information strategies, i.e. logistics is used to achieve interorganisational cooperation and collaboration. However, close integration information-wise is not always sought, depending on the logistics strategy.

- Logistics enables the competition on both cost and service levels in all three cases. None of the studied firms competes on *either* cost or service.
The strategy is followed-up with KPI’s that are being measured at breadth and in depth in real time. This means that the management always has access to an up to date array of KPI’s.

**Position**

- The chosen logistics strategy determines the type of relation the company has with other actors in the supply chain in terms of relations-based or transaction-based cooperation. There is a symmetry, a fit, between the own organisation and other organisations in the supply chain. An example of the latter could be the centralisation of the sales function in response to the centralisation of the supply function by a major customer.

**Offering**

- Different offerings are made for different markets or different product groups. These multiple offerings are supported and enabled by one single operative platform.

**Activities and organisation**

- The business model rather than the organisational structure determines the division of responsibility in the cases and there is a high degree of integration in the flow-dimension in the organisations. In practice, this means that there e.g. are little or no functional borders allowing Marketing to get involved in Supply and vice versa.

- Control over logistics and IT is centralised in all cases thereby minimising the risks of sub-optimisation in those areas.

**Resources**

- Control over the processes, physical processes as well as information flows, with centralised control of logistics and IT is an important resource in all cases.

- The business support software and control over its functionality and development is an important tool to remain in control of the operative processes of the organisation.

Equipped with the knowledge gained through the logistics-based business model it is possible to further investigate logistics-based competition and more specifically the role of logistics in the strategy of the firm.
8.2 The role of logistics in the strategy of the firm

To a large extent, a business model is the operationalisation of a business strategy. As discussed earlier, Tikkanen et al. (2005) view the business model concept as something that describes the logic and functioning of the firm. Afuah (2004) states that a business model “is the set of which activities a firm performs, how it performs them and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value.” (p. 9)

In the outset of this dissertation it was therefore suggested that a business model can aid in furthering the understanding of the role of operations performed, in this case logistics, in the strategy of the firm. This will be discussed in the following sections building structurally on the logic illustrated in Figure 45.

First, the relation between the business strategy and the logistics strategy will be discussed. Second, the relation between the logistics strategy and the logistics resources will be handled. In the cases studied; the logistics structure, the logistics processes in terms of both physical flows and information flows through e.g. IT-systems and the division of responsibility along the supply chain and the consequent domain of control for each supply chain party; have emerged as important aspects to consider as regards logistics resources.

Figure 45. The role of logistics in the strategy of the firm
8.2.1 The logistics strategy in relation to the business strategy

A traditional view of logistics entails a logistics strategy as a functional strategy and a result of the business strategy. Previous research on logistics strategies accordingly handles the logistics strategy content as a pure *outcome of*, rather than as an entity that can also provide *input for*, the business strategy.

The logistics strategy is traditionally seen as degree of integration

The focus in earlier logistics strategy research has been directed towards the advancement in logistics in terms of e.g. functional or interorganisational integration or technological advancement in order to fulfil a business strategy. The logistics strategy research emanating from the Bowersox and Daugherty (1987) article on “Emerging patterns of logistical organisation”; see e.g. McGinnis and Kohn (1993; 1997 a, b; 2002) and Closs and Clinton (1997); views logistics strategy as an entity that can be measured in terms of *degree of integration*. Lacking in this research is the interplay between the logistics strategy and the intended outcome of the actions of the organisation, i.e. the business strategy.

All three cases in this research display characteristics that in terms of the degree of integration between functions internally and interorganisationally are considerable. Examples of the close internal integration is the, in all three cases employed, corporate-wide IT-systems. Further examples can be seen in the close integration between the supply and marketing functions in Clas Ohlson and in Dustin.

Worth to note however is that the close integration interorganisationally, with parties up- or downstream the supply chain, is not at all times sought. For example, Dustin keeps the relations between themselves and the distributors at arm’s length with haggling made whenever possible at the same time as close integration is achieved information-wise with access into the stock-levels of the distributors by the buyers at Dustin.

The logistics strategy in terms of strategy content

There are however examples of research that does connect logistics with the intended outcome, i.e. logistics strategy research with more of a content-focus. Persson (1991) discusses logistics strategies taking a stance in the generic strategies of Porter (1980; 1985). Similar approaches are used by Fisher (1997) and Christopher (2000; 2005). Persson (1991) argues that logistics can be either performance- or cost oriented. Fisher (1997), on the other hand, states that the supply chain can be either responsive or efficient. Lastly, Christopher (2000; 2005) makes a similar division into agile and lean supply chains. This dissertation confirms that the division into agile and lean logistics (or similar terminology) is indeed a fruitful way in which to formulate logistics strategies at a generic level.
Common for the discussed content-orientated logistics strategy research is that it mainly takes on the perspective of the outside-in, or industrial organisation, approach to strategy. That is to say, the possibility of logistics being a driver and enabler behind the business- or corporate strategies is not considered at length, as was also the case with the previously discussed integration oriented logistics strategy research. Evidence of logistics playing an important role in the content of the business strategy was put forward in the licentiate thesis (Kihlén, 2005) as discussed in section 1.1 and such a view of the role of logistics in the strategy of the firm is also proposed to be further explored by Olavarrieta and Ellinger (1997) and Mentzer et al. (2004).

This inside-out-view of logistics provides explanations to how the logistics strategy and indeed also the business strategy may be influenced by operative development. The emergentness as discussed by Mintzberg and Waters (1985) is influenced not only by external factors but also by changes in the operations of the firm. The two schools of thought, RBV and I/O, hence need to be seen in unison, which is made possible using a business model approach to the study of the role of logistics in the strategy of the firm. This also implies that the classic notion that structure follows from strategy (Chandler, 1962) can be partly questioned since there seems to be a simultaneous validity in the inside-out and outside-in approaches to strategy. In practice, managers view the strategy formation process as formulation followed by implementation, in line with Learned et al. (1969), but along the way there are emergent factors, such as operative development, that affect the outcome of the strategy. In firms pursuing logistics-based business models the operative development play an important role and the managers must thus be especially sensitive to those factors. This will be further elaborated upon in section 8.2.2. in discussing the logistics-resources.

**Hybrid logistics strategies**

The generic logistics strategy needs not to be homogeneous for an entire business. Christopher (2000) terms different combinations of generic strategies hybrid strategies and argues that different markets (and i.e. flows) may be approached with different generic logistics strategies. Similarly, Persson (1991) makes a division into different materials flows and argues that the logistics strategy must be adapted to the requirements in each flow. Christopher further makes a division into different parts of the company’s supply chain. A lean approach may then be appropriate for that (upstream) part of the supply chain where the activities performed are planned based on forecasts, whereas an agile approach is suitable (downstream) beyond the decoupling point, where demand is known and visible. These two parts should accordingly be connected with a buffer in terms of a strategic inventory in an as generic form as possible through e.g. postponement.
To sum up, Christopher (2000) discusses hybrid strategies and does so for two different scenarios:

- There can be a need for a hybrid strategy in a mixed portfolio of products and markets depending on what characterises the demand for those different products on those different markets.

- A hybrid strategy can also be necessary for different parts of the supply chain. Far up in the supply chain where demand is driven by forecasts, a lean strategy is needed, whereas further down the supply chain, where demand is driven by real visible demand, an agile approach might be more appropriate.

The cases in this research show that it can be advantageous to make the division into lean and agile parts of a hybrid strategy in other dimensions in addition to those argued for by Christopher. Looking at Dustin’s strategy for example, this is a hybrid strategy of another sort. The strategy is not split between different parts of the Dustin flow; see part 1 of Figure 46. Neither is it split for different markets or different product groups as in part 2 of the figure. Instead, Dustin manages to be agile in terms of assortment and lean in terms of activities, see part 3 of Figure 46.

![Figure 46. A hybrid logistics strategy that differs from those identified by Christopher (2000; 2005)](image)
Also in the Bama case, the agile characteristics were found in the assortment whereas the more lean characteristics were found in the processes. In the Clas Ohlson case however, the more traditional view of a hybrid strategy with lean supply to a decoupling point and agile distribution after that point was observed. As a result, whereas Clas Ohlson fits the categorisation by Christopher (2000), Bama and Dustin display simultaneous lean and agile characteristics throughout the supply chain as depicted in Figure 47. The characteristics of Bama and Dustin as illustrated in Figure 47 combining agility and leaness in the same flow simultaneously are not handled by Christopher.

A common denominator behind these lean processes handling a varying assortment, found in the studied cases, is standardisation. The set standardised procedure in e.g. the order-to-delivery processes are aimed at contributing to the efficiency of the operations while simultaneously offering a high degree of flexibility. The latter can be seen in e.g. Bama’s preparedness towards sudden weather-changes affecting from which regions fruit can be sourced and in Dustin’s ability to adapt to changing demand quickly by access to the distributors’ stock levels as well as the possibility of Dustin to return unsold items of out-of-date-products to the distributors or manufacturers.

\[\text{AGILE} \quad \text{LEAN}\]

\[\text{Hi} \quad \text{Lo} \quad \text{Variety/Variability} \quad \text{Volume} \quad \text{Hi} \]

*Figure 47. An agile and lean logistics strategy, adaption of (Christopher, 2000, p. 39)*

The fit between the logistics strategy and the business strategy has traditionally been that of matching a lean approach to logistics to a cost focused strategy and an agile approach to logistics to a differentiation strategy. That approach is not very disputable, however, Porter (1980; 1985) points at the dangers of neither having a cost focus nor being differentiated, i.e. to be “stuck in the middle”. The cases in this dissertation however, show examples of firms that indeed compete on price sensitive markets and do so by keeping prices low although not being the lowest on the
market at the same time as a very high customer service is being offered. It seems as if the operations of these firms enable them to compete both on price and service levels. Is being stuck in the middle not so bad after all?

8.2.2 The logistics resources

As discussed in section 8.2.1, the logistics resources play important roles in the strategies of the cases under study.

The distinctive capability is the control over the logistics resources

In the cases logistics resources were identified at two levels. At the operations-level, the resources identified were the operations conducted within the physical logistics processes in the studied firms, e.g. the order-to-delivery processes in the central warehouses and the IT-systems used to support and drive those processes. However, the operations as such are by the companies seen as quite unproblematic and it is argued that most of the processes, if not all, are possible to outsource. What is seen as essential though is the control over the processes, both the physical processes and the information flows, at an overarching level.

Set in relation to what is required by a resource to constitute a competitive advantage for the firm, cf. Barney (1991), the control of the resources is what could be termed a resource that leads to a sustainable competitive advantage, in this dissertation termed a distinctive capability (Day, 1994); this is illustrated in Table 13 in terms of the so-called VRIN-variables.

<table>
<thead>
<tr>
<th></th>
<th>The physical resources</th>
<th>The IT-systems</th>
<th>The control over the resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rare</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Imperfect</td>
<td>History dependent</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Imitability</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Causal ambiguity</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Social complexity</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Not possible to substitute</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The physical resources; i.e. the central warehouses of the case companies, the distribution structures, the technical warehousing equipment, etc.; are in all studied cases seen as investments that improve the efficiency and effectiveness of the operations and are as a consequence valuable. However, these resources are not seen as very rare. Clas Ohlson, for example, cooperates with other mail-order companies in selecting the most suitable equipment. Since all of the physical equipment is readily available on the market it is not very difficult to imitate for those companies.
that have the financial resources to do that. Lastly, as regards the last VRIN-variable, the physical resources are not possible to substitute with some other resource that fulfils the same requirements.

When it comes to the IT-systems used by the studied firms, these too are valuable in that they constitute heavy investments that lead to improved efficiency and effectiveness. They cannot be argued to be rare since there is a considerable market with firms offering equivalent software solutions. It is however not possible to substitute the IT-systems used by anything else than an IT-system. What, as resources regards, differs the IT-systems used from the physical resources is that there is considerable history dependent inimitability behind their development. The IT-systems in all three cases have to a large extent been developed internally and have also evolved gradually over the years constantly being fine-tuned in line with the operational and strategic requirements.

Subsequent to the reasoning about the physical resources and the IT-systems, it can be argued that the control of these resources constitutes a distinctive capability. The close control that the studied firms have over their IT-systems and the physical processes is indeed valuable. For example, Dustin’s close control of the operations makes it possible to turn the stock more than 50 times per year which translates into high profitability. This capability is also rare in that most of the competition is unable to keep the cost of operations as low as the studied firms manage to. As a capability, the close control of the operations has not been created overnight. The capability has evolved over time through constantly attempting to improve the operations and the IT-systems. This makes it difficult to imitate due to the history dependent inimitability. Lastly, the control over the operations can hardly be substituted by something else.

Naturally, one cannot argue that the firms under study possess a capability in terms of control of the operations and the IT-systems that is so unique that there is no competitor that is near having a similar capability. However, the studied firms do perform exceedingly well in comparison with the competition.

In previous research focusing on the resource-side of strategy and the role of logistics puts emphasis on the physical resources and logistics solutions behind the competitive advantage of a firm. An often cited example is that of Wal Mart’s cross docking solution, see e.g. Olavarrieta and Ellinger (1997). This research implies that it is rather the control over the resources that is of importance. The actual execution of the processes may indeed be performed externally to the firm even though the processes as such, and the designing of them, could be termed distinctive capabilities.

In the case of Clas Ohlson, outsourcing of logistics operations has been employed on occasions when the internal capacity has not been sufficient. Much emphasis has then been put on controlling the outsourced processes. In the case of Dustin, the logistics operations are seen as quite unproblematic and not necessary to conduct adjacent to the headquarters or even internally to the firm. Bama, with its history of acquisitions of independent wholesalers, has a decentralised
control of the physical resources but remains in control centrally by the extensive use of the IT-systems OLFI and LORRY.

**One logistics-resource-base – Multiple offerings**

The resource-bases employed by the case companies are also characterised by that they support multiple offerings. In the case of Dustin it is only the interface towards the customers, the three different Dustin portals, that differs. Behind the scenes, there is one IT-system with one single database and one single physical warehouse. For the warehouse personnel it is only the logo on the picking lists that convey via which portal the customer has placed the order. Similarly, in the case of Clas Ohlson one operative platform is used for stores, Internet- and mail order customers. Bama is the exception in that there are locally separated distribution centres for different customer segments. However, synergies are sought by co-location in the same buildings.

**The domain of control**

Traditionally, logistics is seen as a function among others within the firm. Looking back at the logistics strategy classifications popularly used in logistics strategy research, i.e. the Bowersox and Daugherty (1987) classification, there is a division into logistics integration across functions, across business units and lastly, at the most advanced level, interorganisationally. However, what is not being handled in such classifications is the integration beyond the immediate channel partner up- or down stream the supply chain and also the character of the interorganisational integration.

What can be termed the domain of control for the logistics strategy in a firm pursuing a logistics-based business model reaches beyond the immediate channel partners if necessary. Examples of this can be seen in e.g. Dustin’s collaboration with the manufacturers as regards sales forecasts although all products are procured via distributors, as intermediaries between Dustin and their suppliers. Similar collaboration is also observed in the Bama and Clas Ohlson cases. As for Bama, the integration is somewhat given due to the ownership of Bama by its customers. For Clas Ohlson, contacts are made with manufacturers upstream the supply chain although all products are procured via agents or trading houses. The collaboration with these second tier’s is not so much about operative day-to-day issues as about long-term forecasts, new product development etc.

Hence, what differs the domain of control of the case companies from the integration discussed in earlier logistics strategy research is that the integration and collaboration is pursued at a strategic level, or rather that the collaboration with second tier partners does not entail short term issues. As regards the relations to the immediate supply chain parties, e.g. the up-stream distributors, integration is not always sought at all other than in terms of operational issues. Dustin, for example, pursues active haggling with the suppliers in order to achieve short term profitability.
gains. Their relation with the first-tier suppliers is as a result far from aimed towards supply chain management as it is described in the literature.

As a result, the domain of control for a logistics-based business model could be argued to span not only the immediate supply chain parties, but also further partners up- or downstream the supply chain and then mainly at a strategic level. The relation with the immediate supply chain actors may nevertheless be transaction-based relationships at arm’s length.

**Logistics platforms**

In section 3.3.4 the three types of logistics; type one, two and three; as proposed by Abrahamsson et al. (2003) were discussed. In the most evolved type of logistics, type three, logistics is according to Abrahamsson et al. managed through a logistics platform, which is defined 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 cases studied in this research display the characteristics of firms pursuing logistics operations according to the logistics-platform-definition by Abrahamsson et al. Key aspects of a logistics platform are the logistics organisation’s central management and control of:

- the concepts for logistics operations;
- the physical structure;
- the processes and the activities; and
- the information systems

In all three cases, the management and control of logistics is centralised; there is hence a centralised responsibility of logistics in relation to the business system. This is what Chow et al. (1995) term concentration and proximity to the top.

According to Abrahamsson et al. (2003), one or several logistics concepts should form the basis of a logistics platform. Such concepts could be e.g. time-based distribution or merge-in-transit. In the cases of Clas Ohlson and Dustin, the central warehouses are pivotal. The fact that the whole flow of goods always passes the Dustin central warehouse is seen as a prerequisite for staying in complete control of the logistics processes and in the end the customer service. This is also the case in Clas Ohlson. There have however been occasions when the capacity in the central warehouse has been insufficient. In those instances, third parties have taken over specific flows
of goods and it has been seen to that the stores are not affected by such a temporary solution. Also in Bama, the control of the logistics system is centralised and there are plans to further centralise the flows too. However, there is also a belief in the importance in specialisation resulting in separate distribution channels for the three customer segments of the company. Nevertheless economies of scale are sought by e.g. co-location of the local distribution centres for the different customer segments.

The management and control of the physical structure, the processes and their constituent activities, as well as the IT-systems, is hence centralised in all the cases. It should here be emphasised that it is the management and control over these aspects that is centralised, it does not mean that all processes etc. are centralised, c.f. the Bama-case as discussed earlier. The centralised control in Bama however, makes it possible to e.g. redirect unsold goods as it is in transit. The physical structures are however fully centralised in both the Clas Ohlson and the Dustin cases.

Lastly, something that has already been stated as being much in focus in the three cases is the information systems and the continuous development of them in order to adapt them to the needed processes and not the other way around. The control of the information systems is also mentioned by Abrahamsson et al. This research does however reveal that this aspect should not be underestimated.

In their discussion on logistics platforms Abrahamsson et al. bring forward the use of the platform as a resource-base for new market positions. Such a use of the platform is observed also in the cases in this research. However, in addition to this use of the logistics platform it can be observed a use of the platform to support multiple market positions through parallel offerings. This is especially clear in the cases of Dustin and Bama. Dustin directs their efforts to three market positions through Dustin, Dustin Home and Dustin Partner. Bama acts as the only supplier of fruit and vegetables to several chains as well as hotels and restaurants. Their two main customers are also their owners as well as competitors with each other.
9 Conclusions

The conclusions in this research are twofold: First, the logistics-based business model and its constituent components, i.e. the research tasks two. Second, the description and analysis of the role of logistics in the strategy of the firm in cases of logistics-based competition, i.e. research task one. The latter part of the analysis and the conclusions is enabled by the tool that the logistics-based business model constitutes.

9.1 The logistics-based business model

The in the theoretical framework identified business model components have through the empirical data and the analysis been possible to further refine and fill with a logistics-content. The original model of analysis developed in chapter 4 has been further refined as illustrated in Figure 48 into a logistics-based business model.

![Figure 48. The logistics-based business model](image-url)
Strategy

Firms pursuing logistics-based business models do to a large extent employ hybrid logistics strategies. Christopher (2000) suggests that hybrid strategies could be used for different parts of the supply chain (up- or downstream) or for different products or markets. However as will be further discussed in section 9.2, a hybrid strategy can also mean combining lean characteristics as regards the activities and process-dimension of the supply chain with agile characteristics in the assortment-dimension, enabled by standardised processes, see Figure 49 which displays an example of a possible combination of an agile assortment with lean processes.

![Figure 49. The logistics-based business model – Strategy](image)

As regards following-up on the strategy, the characteristics of world class firms identified in the World Class Logistics study (1995) by the Global Logistics Research Team at Michigan State University were largely identified in this research. First, the KPI’s used by firms with logistics-based business models take on both broad and deep parameters. Second, process-oriented measures are just as much in focus as functional measures and there is a strong customer orientation in the measurements made. Third, measures are compared; in time, internally and externally. Interesting to note however, is that the external comparisons are not emphasised much. The extensive benchmarking suggested in the World Class Logistics study cannot be observed. The only external comparison made is that of ensuring that the firm’s growth exceeds that of the market overall. It could be so that the type of firm under study indeed is best practice and thus excels only when improving in relation to its own track record. Another possible explanation is that the logistics solutions as such need not be best practice in order to be used
successfully in the strategies of the firm. The global effectiveness and efficiency is reached without local efficiency in every operation.

To summarise the findings as regards logistics strategy:

- A hybrid logistics strategy can be pursued with a division into the dimensions *assortment* and *activities and processes*, instead of for different parts of the supply chain or for different products or markets. As a result, the flow of goods and information may be simultaneously lean and agile. This type of hybrid strategy is enabled by standardised processes.

- The importance of following-up the strategy with KPI’s that measure both broadly and deeply was confirmed in this research. Best practice-comparisons are however not made by the type of firm under study which could suggest that such comparisons are of little use for high performing firms which put focus on the customer instead of on the competition.

**Position**

In current business model literature, a position-component or equivalent is seen as an important aspect as regards the firm’s position on the market in relation to *suppliers, buyers, substitutes*, potential market *entrants* and the competition *(rivalry)*, i.e. Porter’s (1980) five forces, see Figure 50. However, for a logistics-based business model it is not only important to consider the position on the market and in the supply chain but also the relation between the firm and the other actors on the market and in the supply chain. This research has proven it valuable to take in the aspects *formalisation, intensity, frequency, standardization, reciprocity* as defined by Chow et al. (1995) when understanding the relation between the firm and its surroundings in a business model, i.e. the aspects that provide an understanding of the interfaces between the firm and its supply chain partners illustrated by the arrows in Figure 50.
One aspect that is not covered by Chow et al. but that deserves mentioning is the adaptation of the organisational structure in order to facilitate a structure corresponding to that of major customers who prefer e.g. centralised procurement, here termed *symmetry*.

**Figure 50. The logistics-based business model – Position**

- Apart from confirming the applicability of Chow et al.’s (1995) variables of description of supply chain relationships this research suggests that one could complement this with the need for companies to establish an organisational structure corresponding to that of other supply chain actors; this is termed *symmetry*.

**Offering**

Normann’s (2001) concept of the offering can be seen as the exchange that takes place between the market position dimension (external environment) and the operative platform dimension (internal factors) in a business model (Kindström, 2005). An interesting finding from an offering-perspective is the possibility to pursue multiple offerings using one operative platform, see Figure 51 in which an example is shown of one single operative platform serving three different groups of customers.
Previous research on business models does not to any larger extent discuss the characteristics of offerings. This research indicates that in logistics-based business models there is an emphasis placed on maximising the use of one operative platform by using it for multiple offerings.

Activities and organisation

In discussing the organisation of logistics the contingency approach has reached a certain level of use and recognition, see e.g. (Chow et al., 1995; Norrman, 1997; Persson, 1997; Pfohl and Zöllner, 1997). The resulting organisational outcome (for a logistics organisation) can be described using the terms centralisation, span of control, scope and formalisation, (Chow et al., 1995).

The findings in this research do not reveal any major deviations from current research on logistics contingencies and the resulting organisational requirements and structures. As far as the logistics organisations are concerned a firm with a logistics-based business model displays a high degree of centralisation of the logistics responsibility in relation to the business system, in line with type three logistics as suggested by Abrahamsson et al. (2003). The processes conducted in the logistics organisations are highly standardised however with adaptations to specific market segments.

Neither do the results in this research deviate from the terminology suggested by Chow et al. (1995). However, the terms span of control, i.e. “the number of subordinates that report to a single superior” (p. 289) and scope, i.e. “the degree to which logistics activities are grouped together in the same organization or organizational sub-unit” (ibid), are found to lack the power to explain the control firms with logistics-based business models have of other parts of the
supply chain, external to the own legal organisation. This is here termed the *domain of control* of the logistics-based business model, reaching into the organisations of the supply chain partners as will be further discussed in section 9.2 and as illustrated by the dotted box in Figure 52.

One further aspect noted in the research in this dissertation is the lack of barriers internally in organisations pursuing logistics-based business models. Such firms display close integration between the supply- and the marketing organisations, with e.g. Supply being responsible for pricing which is shown by the overlap between Supply and Marketing and Sales in Figure 52.

![Figure 52. The logistics-based business model – Activities and organisation](image)

- Earlier logistics research with a contingency approach to the organisation of logistics is largely confirmed by the findings in the dissertation. However, it is found that current terminology as regards *scope* and *span of control* of logistics can be complemented with the *domain of control* of a logistics-based business model which extends into neighbouring supply chain actors where necessary.

- Organisations with logistics-based business models tend to be *integrated* in the flow-dimension. This means that the supply and the marketing organisations are highly integrated with little barriers as regards the authority for decision-making. This also means that the logistics organisations need not market their solutions internally; instead they may focus on implementation.
Resources

A logistics-based business model is dependent on a distinctive capability in the control of the logistics resources. Resources in firms pursuing logistics-based business models are found in the distribution systems and in the IT-systems used to drive and support the physical processes. Such a firm has a thought-through distribution system and controls and follows-up the physical flow of goods with purposeful IT-systems.

However, above the distribution systems and the IT-systems lies ability to design and control and use these systems, see Figure 53. The IT-systems and the distribution systems as such cannot be argued to constitute distinctive capabilities as does the control of these resources. The resource-component of the logistics-based business model may be the component that is most suitable to use in describing and understanding the systemic nature of the business model. The activities and processes conducted, the offering(s) proposed and the position held on the market all depend on the resource-component enabling the processes needed to attain and hold the market position. The resource-component hence constitutes the foundation for the logistics-based business model.

- The IT-systems and the physical logistics resources in the distribution systems of firms with logistics-based business models are important resources. However, the resource that contributes to the sustained competitive advantage of the firm is found in the control of the IT-systems and distribution systems.
9.2 The role of logistics in the strategy of the firm

Logistics strategy research has predominantly taken a stance in the outside-in approach to strategy as regards strategy-content. Further, the term logistics strategy is often viewed at the operations-level only and expressed in terms of degree of integration.

Logistics strategy cannot be understood as degree of integration only

That view of logistics strategy (as degree of integration) does not explain the linkages between the logistics strategy and the business strategy. Much of this research emanates from the Bowersox and Daugherty (1987) typology consisting of the three logistics strategies process strategy, market strategy and information strategy. Bowersox and Daugherty identify information strategy as the most advanced form of coordination in that it involves cooperation across organisational borders. More recent logistics strategy research has the same focus, see e.g. Closs and Clinton (1997) and McGinnis and Kohn (2002). The type of firm studied in this research has reached a high level of interorganisational coordination and it can be argued that firms with logistics-based business models pursue information strategies. This could suggest that there is a need to complement the traditional logistics strategy classifications beyond the level of information exchange.

The research also shows that although there are resources and capabilities present that enable a high level of logistics advancement following the traditional logistics strategy classifications, this is not always sought by the firm. The cooperation with up- and downstream supply chain parties can be characterised by operative integration in some instances. However, at other instances close strategic cooperation with both 1st and 2nd tier supply chain parties can be reached at the same time as the operative relationship with the 1st tier has arm’s length characteristics. As a result, gains in local operative efficiency can at instances be abandoned when it is believed that the local efficiency could lower the global (company wide) efficiency and effectiveness. Such decisions require that logistics decisions are brought up to the top management level of the firm. In other words, there is a high level of recognition of the trade-off-aspects between the costs and the customer service in firms successfully competing on logistics. The domain of control, of a logistics-based business model compared to that of a traditional logistics strategy is as a result wider at the top, at the strategic level.

- Hence, this research criticises the view of the logistics strategy as being possible to describe and understand only as a degree of integration as suggested by Bowersox and Daugherty. Firms employing logistics-based business models do not necessarily seek operative integration when it comes at a high cost in terms of global effectiveness.
The domain of control of a logistics-based business model extends beyond that of a traditional logistics strategy in two dimensions. First, logistics is brought up to the top-management within the firm. Second, coordination is achieved not only with the immediate supply chain parties but also with parties further up- or downstream. This latter interaction regards largely strategic-level issues.

A logistics-based business model requires a synthesis of RBV and I/O

What also characterises a firm with a logistics-based business model is that there is a simultaneous validity of the inside-out and outside-in perspectives of strategy. Most previous research on logistics strategy has taken a stance in the industrial organisation school of thought, or the outside-in perspective of strategy, to a large extent inspired by Porter (1980, 1985). Recently however, the resource-based view of the firm, or the inside-out perspective of strategy, has gained ground, see e.g. Olavarrieta and Ellinger (1997) and Mentzer et al. (2004). A simultaneous validity of both RBV and I/O is a prerequisite for a logistics-based business model since a business model framework requires a systemic view of the firm.

The research shows that the operative development plays an important role in the strategic development of the firm and that, hence, the logistics strategy is not purely an outcome of the business strategy but also an important input in the business development. This is also in line with the findings in the licentiate thesis Kihlén (2005) on which results this dissertation builds further.

This research confirms that a systemic view of the role of logistics in the firm is needed in a logistics-based business model. This entails a simultaneous validity of the resource-based view of the firm and the industrial organisation school of thought.

Control over the logistics-resources is a distinctive capability

When discussing resources in logistics, physical resources often come first. In this research logistics resources were identified in both the operations conducted within the physical logistics processes in the firm, e.g. the order-to-delivery processes in the central warehouses and the IT-systems used to support and drive those processes. Nevertheless, the operations are seen as quite simple and as resources that are quite “bread and butter”. What can be seen as essential however is the control over those resources and this is also what constitutes a distinctive capability (Day, 1994) in the firm pursuing logistics-based competition.

A logistics-based business model involves a distinctive capability in the control of logistics resources in terms of physical processes in e.g. a central warehouse and IT-systems used to drive and support the physical processes.
A logistics platform supports multiple offerings

This importance of logistics resources and the use of logistics as a resource-base is in line with Abrahamsson et al. (2003) and their notion of a logistics platform. Abrahamsson et al. argue that a logistics platform can be an enabler and a resource-base for the firm in reaching new market positions. What is not being handled by Abrahamsson et al. is the use of a logistics platform to support multiple market positions simultaneously and i.e. support multiple offerings with one operative platform.

- This research extends on the findings by Abrahamsson et al. by recognising that a logistics platform may further be used to attain multiple market positions by being able to uphold multiple offerings with one operative platform.

Hybrid logistics strategies with standardisation as an enabler

A logistics strategy can be expressed in terms of leanness and agility, see Christopher (2000, 2005). Similar distinctions regarding choices between effectiveness and efficiency can be seen in Fisher (1997) and in Persson (1991). These authors argue that the main strategic logistics choices, using the terminology of Christopher, are about choosing between being lean or agile. Further, it is argued that the logistics strategy may be formulated as a hybrid strategy with different requirements on logistics (in terms of leanness and agility) for different materials flows or for different parts of one flow. This research confirms this view of logistics strategy.

The traditional division into a lean supply chain upstream from the de-coupling point and an agile supply chain downstream from that point can be observed in this research. However, in addition to this form of hybrid strategy, firms with logistics-based business models can display an ability to handle a very varying flow of goods as regards volume and assortment while pursuing lean processes. An enabler behind this hybrid strategy, combining a lean process with an agile assortment was identified in standardised processes which allow for a high variability in the assortment.

- This research confirms the view of logistics strategy as being a choice between agility and leanness. However, it has been found that the division of hybrid strategies may fruitfully be made for not only different flows or for different parts of a flow but also in the process-and-activities-dimension and in the assortment-dimension with a resulting effect of a supply chain which is both lean and agile simultaneously. In achieving this, standardised processes are important enablers.

Operative excellence – a balance-act between efficiency and effectiveness

Logistics is commonly measured and discussed in terms of effectiveness and efficiency, terms that are closely related to the already discussed terms agility and leanness. Effectiveness can be defined as “the extent to which goals are accomplished” (Mentzer and Konrad, 1991, p. 34). Efficiency, on the other hand, takes into account the resources used to accomplish the set goals and can be...
defined as “how well the resources expended are utilised” (p. 34). Hence, efficiency and effectiveness need to be considered simultaneously; if a goal is only partially attained, it is of little importance that the resources used to achieve what was achieved were used efficiently.

As previously discussed, there is a high awareness of the trade-offs between efficiency and effectiveness and there is an acceptance as regards local inefficiencies which contribute to global efficiency and effectiveness in firms with logistics-based business models; in essence a systemic view of the business organisations. The type of firm under study in this research displays an awareness of the trade-offs between efficiency and effectiveness and recognise that local inefficiencies are sometimes necessary in order to reach global efficiency and effectiveness. This awareness and the subsequent actions can be termed operative excellence.

If logistics-based competition may be pursued by attempting either a lean or an agile approach to logistics (or a combination of the two) and logistics is appropriately measured in terms of efficiency and effectiveness, operative excellence may be defined using these four terms. One then needs to set agility and leanness in relation to effectiveness and efficiency. The most apparent relation is seen between leanness and efficiency. These two terms are to a large extent about eliminating waste and maximising the output from a given input. Also an agile approach may be efficient but since an agile approach requires a certain extent of flexibility a high efficiency cannot always be reached, i.e. agility comes at a cost. Either an agile or a lean approach may be effective, depending on the goals set by the organisation.

From this discussion can be derived that operative excellence is not about performing excellently in each and every operation. Operative excellence is about pursuing operations with an overall strategic objective in mind, thereby avoiding costly sub-optimisation. Firms that display operative excellence are therefore highly effective, they do meet their set goals and they reach an intended level of efficiency in their operations leading to an overall efficiency. That is to say that firms that are operatively excellent may not be very efficient in a specific process, but they are highly efficient on an overarching global level. These firms display an awareness of the trade-offs made in logistics.

The step from the pure integration-view of logistics to the more holistic view as suggested here also entails moving from logistics being only about operational efficiency to logistics being part of the business strategy content and thus being considered at a global level where effectiveness and global rather than local efficiency comes into focus.

- Subsequently, operative excellence is in this dissertation defined as the ability of a firm to tailor its operations in terms of agility and leanness, accepting local inefficiencies in order to reach global efficiency and effectiveness.
9.3 Epilogue

It is time to close the books as regards this dissertation and briefly look back at, and confirm, the intended contribution and managerial implications. However, complete closure is a luxury that a researcher cannot afford. With every research result comes an array of question marks that require further scrutiny and hence call for future research. So is the case also in this dissertation.

Theoretical contribution

As already discussed in section 1.3, the contribution and relevance of this research lies primarily in the bridging of the theoretical gap between strategy and logistics. The logistics-based business model and its constituent components aid in giving a richer understanding of the role of logistics in the strategy of the firm.

The contribution is made to the field of logistics by bringing in theory from the field of strategic management which is combined with logistics research. The use of business model research in the field of logistics is novel and complements and builds further on previous logistics strategy research. The logistics-based business model and the resulting picture of the role of logistics in the strategy of the firm can be seen as further building on the research by Olavarrieta and Ellinger (1997) and Mentzer et al. (2004) by using a similar theoretical stance in strategic management although adding the business model concept as an analysis tool. The results also complement traditional operations-focused logistics strategy research, e.g. Bowersox and Daugherty (1987) and Kohn and McGinnis (1990, 1993, 1997a, b, 2002) in that this research connects the logistics strategy research with strategic management.

Managerial implications

The contribution and relevance of this research is mainly theoretical. While the findings in this dissertation aid in bridging the theoretical research gap between logistics and strategy as discussed in chapter 1 there are, as already stated, several empirical examples available of firms that do manage to pursue logistics-based competition. The gap hence seems to have been closed in practice in some firms. Hopefully, managers with such firms will view the findings in this dissertation with a certain degree of recognition and see the results as a tool to depict the role of logistics in their business strategies. Furthermore, managers may find that the logistics-based business model can be a practical tool to use in the business development of the firm in that it can aid in reaching a deeper insight into the own logistics operations and their relation to the business strategy.

Although the results cannot be generalised to be valid for all types of firms it is probable that managers from most firms that conduct trade with physical products, both trading firms and manufacturing firms, can make use of the logistics-based business model as a tool.
**Future research**

This research contributes by reaching a deeper understanding of the role of logistics in the strategy of the firm and by formulating a logistics-based business model. In the formulation of the latter five different components have been identified and explored.

As is argued for by Magretta (2002) it is important that there is a fit between the different components of a business model. The notion of fit has however not been discussed to any larger extent in business model research. The most widespread understanding of the term is simple consistency between the components. After the identification of the components of a logistics-based business model in this dissertation it is therefore suggested that the fit between the logistics-based business model components should be further explored.

Lastly, in this research trading firms have been in focus. It is likely that the results are largely applicable also for manufacturing firms but it would strengthen the empirical support for the business model if a wider variety of cases could be employed. Methodologically, it would be of interest to continue this theory generating research with an approach of theory testing through a quantitative research approach.
References


Affärsdata, http://www.affarsdata.se, an online resource distributing financial information from Swedish firms


CSCMP, http://www.cscmp.org, the official website of the Council of Supply Chain Management Professionals


Easton, G. (2003), One Case Study is Enough, *Academy of Marketing Conference Proceedings*, Aston University, The United Kingdom


194


Galbraith, J. (1973), *Designing Complex Organizations*, Addison-Wesley


Linder, J. C. and S. Cantrell (2000), So what is a business model anyway?, *Accenture Research Note*


Mintzberg, H. and J. A. Waters (1985); Of Strategies, Deliberate and Emergent; *Strategic Management Journal*, 6: 257-272


Normann, R. (1975), *Skapande företagsledning*, Arlöv, Bonnier Alba

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


Osterwalder, A. (2004), *The business model ontology - A proposition in a design science approach*, Lausanne, Universite de Lausanne


Statistics Sweden, http://www.scb.se


Appendix 1 List of Interviewees

Bama-Gruppen AS
Öyvind Briså, head of Bama Trading
Jan Hammarström, sales and marketing manager
Svein-Egil Hoberg, company director
Pål Sandberg, vice president of logistics
Terje Woldnes, operating director

Clas Ohlson AB
Rolf Andersson, vice president of logistics
Gert Karnberger, CEO

Dustin AB
Per-Anders Barhag, COO
Fredrik Carlsson, vice president of logistics
Bo Lundevall, Founder
Lars Lundevall, vice president of supply
Jonas Pircher, vice president of sales
Stefan von Stein, vice president of marketing
Andreas Ståhl, CEO
Appendix 2 Interview Guide

The interview begins with us introducing the research projects. (Slides)

The respondent

1. What is your position in the organisation?
   a. Which are your formal areas of responsibility?
   b. To whom do you report?
   c. Which persons/positions report to you?

2. Which are your areas of responsibility?
   a. The daily work – which areas does the respondent work with, what is prioritised and what is delegated?

Strategy content

3. What is the strategy of your company?
   a. The overall business strategy?
   b. Functional strategies?
   c. Collective picture of the strategies, i.e. how do they fit together?

Strategy implementation

4. How is the strategy implemented?
   a. Is the organisation and/or the processes changed in order to implement the strategies?
   b. Which are the consequences for Supply, Logistics and Marketing?
   c. What is the role of top management in the implementation?

5. How is the strategy communicated to other parts of the company?
   a. Written documents?
   b. Meetings?
   c. Set goals?
Strategic change

6. How did the company arrive at the current strategy?

7. How have the strategies evolved during the last years?
   a. Have the developments within Logistics in any way changed the company’s strategy?
   b. When and how? Examples?
   c. In which direction?

8. Which are the future priorities?
   a. Will the strategies change?
   b. How and why?
   c. Expansion? (New geographic markets? New customer groups?)

9. What drives the changes in the company’s strategies?
   a. Internally or externally driven?
   b. Continuous development?
   c. What is the influence from the flow of products?
   d. What is the influence from the organisation? (the way that it looks)
   e. How are the strategies affected by the customers and the suppliers?

10. How do you measure and evaluate your strategies?

11. How much of top management’s time is spent on business development?

12. Are there any other people involved in the business development?
   a. Which are their roles?
   b. How much is delegated as regards business development?

Position (Show slide)

13. Which are the most important actors in your environment?
   a. Suppliers?
   b. Customers?
   c. Competitors?
   d. Other?

14. What is your position?
   a. In the supply chain?
   b. On the market?

15. How has your situation changed during the last years?
   a. The company?
b. The industry/The market?
c. The logistics?

16. What is your opinion about the future development?
   a. The company?
   b. The industry/The market?
   c. The logistics?

Offering

17. What do you see as the company’s offering?
   a. When, where and how do your customers conduct business with you?
   b. Which are the interfaces between the company and your customers? (physical stores, e-business, etc.)
   c. What is your strategy as regards the assortment?

18. What is the logistics content in your offering? (not viewing logistics as transports only)
   a. Do the customers view logistics as an important part of your offering? If so, how is this expressed?
   b. Which values do you talk about with your customers? (time, availability, information, etc.)

Organisation, Processes and Activities

19. What does your organisation look like? (See slide)
   a. Concern level
   b. Business units, business areas or equivalent
   c. Functions (marketing, logistics, production etc.)

20. How is logistics organised in your company?
   a. Structure (centralised/decentralised)
   b. Processes and activities
      1. Can you describe what happens from the point in time when a customer places an order until the product has reached its final destination?
      2. Can you describe the operative logistics in terms of physical flows and information flows between suppliers and final customer via your organisation? (Graphically?)
      3. Do the physical and information flows differ between different product groups, customer groups, markets, parts of the flows etc.?
      4. Does the scope of top management’s work entail the daily flow of goods through the company?
   c. Which overarching principles form the basis for your logistics?
      1. Do these principles differ between different product groups, different physical flows or different parts of the physical flows?
   d. Do you apply any logistics concepts such as VMI, postponement, ECR, etc.?
21. Where are the logistics decisions made?
   a. Centrally/Locally
   b. Are the logistics decisions formalised, i.e. are the logistics decisions guided by a set of rules or are there considerable degrees of freedom for the individual to make his or her own decisions?

22. What kind of IT-systems do you employ and how are they utilised?
   a. Who is responsible for decisions about IT?

Resources

23. Do you consider your company to possess unique resources that are valuable in the competition on the market?
   a. Ability to coordinate activities and functions?
   b. Ability as regards business development in relation to the competition?

24. What forms the foundation on which your company’s logistics abilities are built? (everything that has got to do with the flow from supplier to customer)
   a. Is this developed internally or externally?
   b. Are your abilities in logistics unique or do you consider them easy for the competition to copy?
   c. Are there historical events (e.g. introduction of e-business, centralisation, etc.) that to a considerable extent have influenced and changed your thinking and knowledge as regards logistics?

Cost and revenue

25. How do you charge your customers for your products and/or services?
   a. Are there differences between products, markets, flows, etc.
   b. How do you set the price-levels? (Costing?)

26. With which KPI’s is your organisation followed up?
   a. Financial?
   b. Flow-oriented?
      1. What do these KPI’s cover? (the supply chain from manufacturer to final customer, the company, company functions)
      2. Do you benchmark your KPI’s against external actors?

27. How do you use the KPI’s?
   a. Are they related to the strategies?
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