

LOGISTICS PLAN FOR A FINNISH IMPORTER

Case: Reaction Skate Store

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ABSTRACT

This thesis deals with supply chain management in the sports equipment retail industry. The case company is Reaction Skate Store, a Finnish importer of sports equipment and leisure time and sportswear. The purpose of this study is to map out the steps in the logistics supply chain from the case company's point of view and investigate needs for improvements. The aim is to give recommendations and solutions to the detected problems, in order to enable the company to develop its logistics activities in a cost-effective manner. Managing an efficient logistics system can result in cost savings, as well as in improved customer satisfaction in the form of enhanced supply chain operations.

Information for this study was gathered from interviews with the owner of the case company, through observation, the Internet, books and other published literature. This information was used in the theoretical descriptions of the various logistics activities within the case company's supply chain. The issues of the thesis were discussed according to the steps of the chain.

The study is comprised of four main chapters which tackle the various logistics activities issues, such as transport mode selection, inventory forecasting and information systems. After that, the recommendations made alongside the text are gathered under the same heading. Each chapter and issue is comprised of a theoretical overview, the general modes of operations of sports equipment retailers and finally that of the case company with a few exceptions when some of the information was unattainable.

The results of the thesis suggest that Reaction Skate Store has several needs for development in the logistics activities of its supply chain. Such needs emerged for instance in contracting and optimising safety stocks for goods. These problems mean that while the company is performing well in various activities of its operations, there are still improvements needed in order to intensify the logistics system and do so in a cost-effective way.

Key words: supply chain, sports retail industry, logistics activities, transportation, Reaction Skate Store

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TIIVISTELMÄ

Tämä opinnäytetyö käsittelee toimitusketjun hallintaa urheilualan vähittäiskaupassa. Opinnäytetyön tutkimuskohteena toimii urheiluvälineitä, sekä urheilu- ja vapaa-ajan vaatteita maahantuova yritys. Työn tarkoituksena on kartoittaa toimitusketjun vaiheet, sekä ketjussa esiintyvät ongelmakohdat tutkimuskohteen näkökulmasta. Lisäksi tavoitteena on tarjota suosituksia havaittujen ongelmien ratkaisuun sekä toimintojen kehittämiseen kustannustehokkaalla tavalla. Tehokkaasti toimiva logistiikkajärjestelmä johtaa kulujen pienenemiseen, joka puolestaan kohentaa asiakastytyvyyttä ja -palvelua.

Tietoa työhön haettiin kirjallisuudesta, havainnoimalla, internet-lähteistä, sekä haastatteluista tutkimuskohteen omistajan kanssa. Tätä tietoa hyödynnettiin yrityksen toimitusketjuun sisältyvien seikkojen kuvaamiseen. Opinnäytetyössä aiheet käsiteltiin toimitusketjuprosessin mukaisessa järjestyksessä.

Tämä opinnäytetyö koostuu neljästä pääaihealueesta, jotka käsittelevät erinäisiä logistiikkatoimintoja, kuten kuljetusmuodon valintaa, inventaarioennusteita ja tietojärjestelmiä. Tämän jälkeen työn mukana mainitut ongelmakohdtien ratkaisuehdotukset on koottu saman otsakkeen alle. Jokainen kappale ja aihealue koostuu teoreettisesta yleiskuvauksesta, jota seuraa urheilualan vähittäiskaupan yleisten toimintatapojen esittely. Tutkimuskohdeyrityksen toimintatavat ja niissä esiintyvät puutteet on käsitelty kappaleissa edellä mainittujen jälkeen. Muutamina poikkeuksina tästä ovat satunnaiset aihealueet joihin tarvittavaa tietoa ei ole ollut saatavilla työn tekohetkellä.

Tutkimustulokset osoittivat että tutkimuskohteena olleella yrityksellä on useita kehitystarpeita toimitusketjussaan. Erityishuomiota tulee kiinnittää muun muassa sopimusten laadinnassa, sekä varmuusvaraston koon optimoinnissa. Huolimatta yrityksen tehokkaasta toiminnasta erinäisillä yritystoiminnan osa-alueilla, edellä mainitut ongelmat viittaavat toimitusketjun ja logistiikkatoimintojen puutteelliseen hallintaan. Tämä opinnäytetyö tarjoaa ehdotuksia näiden puutteiden korjaamiseksi, sekä kustannustehokkaan logistiikkajärjestelmän luomiseksi.

Avainsanat: toimitusketju, urheilualan vähittäiskauppa, logistiikkatoiminnot, kuljetus, Reaction Skate Store

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1 INTRODUCTION

1.1 Purpose of the study

This thesis was written for Reaction Skate Store, a Finnish importer of sports equipment, sportswear and leisure time clothing. The purpose of this study is to cover the company's logistics supply chain and discuss the possible causes for improvement and development in the logistics activities. While marketing and other financial matters are discussed, the observations and recommendations are made focusing on the effect these issues have from the logistics' point of view, rather than commenting on the profitability of the business. This research aims to give answers to the needs for development within the supply chain of the case company. What are the current logistics operating methods of the company? What problems can be found in the supply chain? How can these problems be solved? These are the questions that this thesis aims to find improvement proposals for. Such a study was necessary because the case company has not previously mapped out its logistics supply chain in a manner which would allow deficiencies to be discovered and removed.

1.2 Research methods

This study is comprised of three main chapters. The issues of the study are introduced according to the steps in the logistics value chain of the company. The theoretical parts are introduced in the chapters followed by reviews of the general operating modes of sports equipment retailers. Then the operating modes of the case company are discussed and recommendations on deficiencies are made. These recommendations are gathered under the same headlining later on in chapter 5.

The used research sources were both primary and secondary sources and consisted of e-mails, company documents, government published statistics, course material

packages, books and other published literature, and internet sources. In addition, discussions with some former employees of different sports equipment retailers were utilised to describe the general operation modes of sports stores. The used methods were selected based on the availability and accessibility of the information. Also, the quality of the information needed influenced the chosen methods. In the empirical part, the used methods were qualitative consisting of observation, interviews with the owner of the case company. In addition, calculation-based analyses were also conducted for the empirical part of this thesis.

1.3 Limitations

This thesis focuses on the logistics supply chain activities of Reaction Skate Store. The technical or financial details are not included in this version of the thesis as this information is considered classified. Therefore, all detailed calculations are presented in the case company's version of this study. The calculations in this version are brief examples of those conducted for Reaction Skate Store and some of the figures used in these calculations have been concealed to prevent the company's key numbers from being calculated by external parties. The details of the interviews with the former employees of sports retailers are confidential and were not tape-recorded. Some of the information received from these interviews was used to help describe the general modes of operations of retailers in the sports and leisure time industry. The issues discussed in this thesis are covered in an order which follows the steps of the supply chain of the case company. The issues are reviewed from the theoretical point of view, followed by that of the sports retailers before discussing the operation modes of the case company. However, some information concerning the covered issues in this research from the sports retailers' point of view were unavailable.

2 LOGISTICS DEFINITIONS, COMPANY PRESENTATIONS AND OPERATING AND LEGAL ENVIRONMENT ANALYSIS

2.1 Logistics

2.1.1 Logistics and logistics management

Logistics can be defined simply as the management, control and movement of goods from the point of production to the marketplace. Logistics as a whole is a wide concept including functions such as e.g. transportation, inventory carrying, and warehousing. The size and nature of the company in question defines what logistics operations are necessary. A manufacturer, for instance, must deal with materials handling, packaging and production planning. A retailer does not need to tackle such issues but is concerned with keeping an inventory which is able to meet the demand, and with providing customers with service superior to that of the competitors. (Romo, 2005.) Despite the type of the organisation, logistics plays an important role and influences all activities of a company and should therefore be planned with great care and consideration.

The activities of transportation, facility structure, inventory, material handling and communication of information are called “primary logistics activities” while waiting time, capacity and delivery are called “service response logistics activities”. When these two activities are combined to work together as one they become integrated logistics. Integrated logistics does not result any physical products because it is namely a service-oriented process. (Bloomberg, Hanna, & LeMay, 2002, 7.)

Logistics has an impact on the financial performance and profitability of a company because of the connection between the elements of logistics and marketing. Customer service, for example, is directly influenced by the availability of goods, which is influenced by the efficiency of the delivery

strategy, which is influenced by the amount of investment made in transportation. The link between logistics and marketing is further discussed in chapter 3.3.

Logistics and logistics management as a whole cover several issues which can be considered as the backbone of a logistics system in a company. These activities are:

1. Customer satisfaction
2. Order processing
3. Distribution communications
4. Inventory control
5. Demand forecasting
6. Traffic and transportation
7. Warehousing and storage
8. Plant and warehouse site selection
9. Material handling
10. Procurement
11. Parts and service support
12. Packaging
13. Salvage and scrap disposal
14. Return goods handling (Lambert & Stock 2001, 85.)

In addition to controlling the logistics activities, logistics management must also control the costs generated by the different activities. The costs incurred by a logistics chain can be divided into six categories, which are:

1. Customer service levels (the cost of sales)
2. Transportation costs
3. Warehousing costs
4. Order processing and information costs
5. Lot quantity costs
6. Inventory carrying costs (Lambert, Stock & Ellram 1998, 555.)

When trying to reduce costs of a company, management should be aware of the risks involved in attempting to diminish a cost incurred by a single activity. Such a strategy can very easily fail because in most cases the cost reduction of a single activity merely shifts to another rather than vanishing altogether. Poor decisions can be easily avoided by understanding the trade-offs and interrelationships

between logistics and the marketing activities. By practicing some cost balancing, the management should be able to decrease the total costs of all the activities. This strategy is called “total cost analysis” and is considered to be the key element in managing the costs of the logistics functions. (Romo, 2003, A5)

All aspects of the logistics system must be well-planned and maintained by the company management in order to run a profitable business. A strong logistics structure combined with efficient and effective management can enable a company to maximise its profit while simultaneously reducing the costs incurred. With a well-planned strategy and a smoothly running logistics system, the inventory can remain at a satisfactory level which leads to an increase in the quality of customer service and ultimately to a growth in profitability.

2.1.2 Supply chain and supply chain management

A supply chain, otherwise known as a logistics network, is a chain where different logistics activities are linked together to form a coordinated system. The purpose of this system is to efficiently move goods from manufacturers to the end customers. The supply chain consists of several entities such as manufacturers, distributors, retailers and consumers. The activities of the chain are various and include warehouse site selection, demand forecasting, decisions on purchasing, transportation strategy, whether to make or buy etc. Each party of the supply chain has their own responsibility in managing the separate functions of the chain and has an effect to the efficiency of all the separate links in the chain. This means that each party in the chain must cooperate in a seamless manner to ensure the easy and timely movement of goods throughout the entire supply chain. A manufacturer is required to manage e.g. the materials flow, the actual production process and the packaging. A retailer’s responsibility is to plan the transportation and control the inventory, while a carrier makes sure the transportation process functions as it should. In this way all parts of the supply chain are managed by some party. The output of a successful logistics management combined with aspects of marketing is value added in customer service. Effective movement of

goods results in product availability to the customer which can lead to a competitive advantage in the markets. (Wikipedia, 2006a.)

There are some problems supply chain management has to address; Distribution network configuration, distribution strategy, information, and inventory management. Problems associated with distribution network configuration deals with selecting the suitable number and location of suppliers, location of production facilities, distribution centres and warehouses. Distribution strategy problems mean whether to select a centralized or a decentralized distribution system. It also addresses direct shipment, cross docking, pull or push strategies, and third party logistics. Information related problems include arranging and controlling an integrated information system which within the supply chain processes and shares valuable information on e.g. demand, forecasts, inventory and transportation. Inventory management faces problems on making decisions on the quantity and location of inventory. (Wikipedia, 2006a.)

The efficiency of supply chains is growing in importance as consumers today are increasingly aware of quality, service and cost. The demand on fast deliveries, good design, reduced effort and risk requires that the chains are managed in a way that enables companies to provide their customers with these features. (Supply Chain Management Guide. 2006.) The needs of companies differ which means that the used supply chains should be designed accordingly to the specific requirements. One unifying factor between all supply chains is that they should always be as short as possible to lower the costs generated by the different activities.

2.2 Case company presentation: Reaction Skate Store

Reaction Skate Store is an importer-retailer, selling products of three different manufacturers; Bont Skates Ltd, Powerslide and Raps Skates. Reaction will act as the importer, i.e. purchase the goods directly from the manufacturer, and will then sell them on to the end customer, the general public, as a retailer. In the future they are most likely to import and distribute goods for sale for other sports stores

as well. From this point on, the company will be referred to as Reaction or Reaction Skate Store.

Reaction is specialised in selling fitness skates (regular “roller blades”), inline speed skates (more “professional” roller blades, mostly used in active competing rather than merely recreational sports), speed skates (used on ice) and related equipment and accessories, as well as sports and leisure time clothing for men and women between the ages 10-64. Because the names of the sports are so similar, inline speed skating will from now on be referred to as “inline skating”. Accordingly, inline speed skating boots will be referred to as either “inline boots” or “inline skating boots” and speed skating boots as “ice boots”.

The company is owned by Esa Lottanen. He has been importing the products of Bont Skates Ltd for several years but has now expanded the business to include goods of two other manufacturers as well. Therefore the range of products is also wider than before. As the importer of Bont Skates Ltd’s products, Esa Lottanen had a sales facility but the space and location is no longer suitable for the new, expanded business and has been transformed into a warehouse.

The clientele consists of active skaters and beginners between the ages of 10 and 64, as well as people who are just interested in shopping for sports and leisure time clothing. This is why the targeted age group with regard to clothing is bigger than with skates and other sports equipment. The demand and usage of clothing is generally higher than that of any sports equipment as clothes are not seasonal products to the same extent as many sports equipment are. Clothes are sold throughout the year but the type of the clothing items change, whereas any regular ice skates only have demand during the winter season. Also, in comparison, the pricing of clothes is usually much lower than the pricing of sports equipment.

The inline skates are sold as ready-assembled skate packages, which include the inline boots, frames, wheels and bearings. The items are sold separately usually only on specific request. The price of the goods sold separately is considerably higher than if it were purchased as a package which means that the demand for packages is much higher than on separately sold items. During the winter season

speed skating boots and ice blades are sold separately. They are also available as packages but the demand is mostly for separately sold goods. Reaction, however, purchases most skating equipment as packages because the reduction in purchase price is much lower that way. The company then simply sells the goods on to the consumers as separate items rather than a package.

At the moment Reaction lacks any physical sales facilities, the company only has a warehouse for the goods. The products are sold over the telephone and the internet as well as in the sports events and competitions that the owner of Reaction actively participates in. The company is, however, going to put up sales facilities during next spring. The facilities are most likely to be situated in the city centre of Lahti. Although sales will be concentrated on these facilities, the company will still accept telephone and internet orders as it is the only shop of its kind in the country. In addition to the sales facilities, the company will have a new and improved internet site featuring product presentation and information of all their products of all the manufacturers used, as well as price information and an electronic order form. (Lottanen, 2006.)

2.3 Supplier selection

The most important step in the acquisition process is the selection of a supplier that is best for the company. In this process, there are several issues to be taken into consideration before making the decision, although it is not always necessary to go through all of them. The need to go through the individual steps depends on the situation and needs of the company in case. The 12 steps are the following;

1. Identifying the needs
2. Establishing specifications
3. Searching for alternatives
4. Establishing contact
5. Setting the purchase and usage criteria
6. Evaluation of alternative buying actions

7. Determining budget availability
8. Evaluation of specific alternatives
9. Negotiations with suppliers
10. To buy
11. To use
12. To conduct the post-purchase evaluation.

(Leenders, Fearon & Flynn 2002, 81.)

Sports stores

Most of the big sports stores in Finland, Intersport, Sportia, Elmo Sport etc, are chains owned by the Kesko group. These stores provide basic equipment on all of the most common and most popular sports. They also sell sports, leisure time and fashion clothes, as well as footwear. This means that their target groups include not only sports people, but everyone interested in buying fashionable clothing. Because these chains are the number one suppliers of sportswear and equipment, they are purchasing the goods from the best know brands such as Adidas, Nike, Puma and Luhta. It would be foolish for big sports stores and chains not to include these or similar brands to their range of goods since people are familiar with these names and associate them with certain images of quality; Well known and highly appreciated brands attract more customers for a company than unknown names.

The range of smaller, independent sports stores is wide and many of them are specialised in one line of sports. For instance, ice hockey stores are most likely to be found in every large or medium sized city. Like any other provider of sports equipment, the smaller stores also try to attract business by supplying the customers with goods of high quality but at an affordable price level. Depending on the sport in question, the specialised brands may not always be familiar to the average consumer but to the people actively involved in the sport in question. Specialised sports stores can never achieve the customer levels that the big non-specialised chains do, but the specialised stores can increase knowledge and enthusiasm of e.g. ice hockey and boost their sales by providing their existing customers with high quality brands and that way hope to attract new customers.

Reaction Skate Store

Since Reaction Skate Store is an existing business, it already has its suppliers; Bont Skates Ltd., Raps, and Powerslide. Selling products such as speed skates is a very specialised business. Therefore, the amount of manufacturers is not high. From the existing range of manufacturers of speed and inline skating equipment, Reaction has chosen the ones with best quality and reasonable prices, who have many years' experience in the field and are valued by the skaters. The chosen suppliers have long histories and are among the first manufacturers in this field. With regard to fitness skates, there are several high quality manufacturers in the market. Fitness skates were the latest addition to the range of products sold by Reaction. Powerslide was selected as the supplier because the company also manufactures high quality speed skating equipment which let to believe the quality of the fitness skates to be similar. (Lottanen, 2006.)

As already mentioned, the owner of Reaction has been importing Bont Skates Ltd's products. There are several reasons why he decided to broaden the product range by purchasing from more than one manufacturer. Bont has always represented the very highest of quality when it comes to clothing items and skating equipment but the variety of other products is quite small. The other manufacturers have wider ranges of additional equipment and accessories. By purchasing the best products from the different manufacturers, a customer is able to put together a full set of equipment of the highest possible quality. For example, by buying boots, frames and bearings from Bont, blades from Raps and wheels and protective wear from Powerslide the customer gets the best combination of the best products available.

2.4 Supplier presentations

2.4.1 Bont Skates Ltd

Bont Skates Ltd, founded in 1975, is an Australian family company specialised in inline, speed, and short track skates and related products from wheels to spare parts and clothing. Bont Skates Ltd is the world's largest producer of hand-made inline and speed skates. In 1983 the company began to develop inline skates to be used for off-season training by speed skaters, the first products being 4-wheel frames. The real inline skating boom took off in 1993. At this stage other manufacturers of inline boots were unsuccessfully trying to copy the Bont Skates benchmark. The company will be referred to as Bont or Bont Skate Ltd from this point on. (Bont Skates Ltd. 2006.)

Several materials like Kevlar, carbon fibre, Velcro, neoprene, heat mouldable thermo plastics, and moulding socks for custom made boots were first introduced by Bont Skates. These innovations together with many new ones and several patents they own, make Bont Skates the world leader in skate technology. The right pricing combined with extremely high quality of products makes Bont Skates the market leader in their field of operation. (Bont Skates Ltd. 2006.) Bont supplies Reaction with the following products; Clothing items (including shoes) and accessories, ice boots, helmets, bearings, speed skating boots, frames and skate packages which include a combination of some of the aforementioned goods.

2.4.2 Powerslide

Powerslide was founded by a former skater, German Mathias Knoll, in 1994. Together with Stefan Göhl and his sister Birgit, Mathias Knoll began to grow the business first by importing many different brands and distributing them to the German-speaking countries. Later on Powerslide began to develop and

manufacture its own products. This change in the strategy of the business enabled Powerslide to expand into a worldwide business, enabling the company to be independent of other brands. (Powerslide. 2006.)

Powerslide manufactures a large variety of product groups and brand names such as Powerslide Junior fitness skates, Choke skateboards and Aggressive USD skates. The module system for Aggressive skates and the first adjustable speed skates for kids, pure magnesium frames, protection gear with gel or air padding and Nordic off-road skates are just a few examples of the innovations introduced by Powerslide. The development and manufacturing process covers everything from the initial idea of a product to the finished good. Also all of the marketing activities, including creating advertisements and catalogues, and the preparation of trade shows are managed by Powerslide itself. (Powerslide. 2006.)

Powerslide supplies Reaction with the following items; inline skating boots, frames, wheels, skin suits, fitness skates, Nordic Division items (including boots, air wheels and aluminium poles), and protective wear including helmets, gloves and “3-packs” of knee pads, wrist guards and elbow protection. The product range provided by Powerslide is quite wide. In addition, they supply Reaction with fitness skates, which significantly increases the order lot quantities. The Finnish market for inline skating and speed skating equipment is quite small whereas the demand for fitness skates has experienced a strong increase in sales during the past few years. This trend is expected to continue in the future years as well. In practice this naturally means that the number of fitness skates purchased by Reaction is very high as compared to the corresponding numbers of purchased speed skates and inline skates.

2.4.3 Raps Skates

Speed, the number 1 word at Raps. Raps is derived from ‘Rapide’, being French for Fast! As per 1987 things speeded up within the company and production became substantial throughout the years, all based on the two main focuses of the company; Quality and Innovation. These two factors contribute to the fact that Raps is Europe’s number 1 speed skate producer. (Raps Skates. 2006.)

Raps Skates is a Dutch manufacturer specialized in making speed skates and related products from blades to skin suits – meaning racing suits, as well as a wide range of different types of accessories. Even though Raps Skates' main focus is on manufacturing speed skating equipment, the company also makes inline skates and related products. The company holds many patents as they invest heavily into Research and Development. The rights of use for these patents are available for purchase. Most of the manufacturing process takes place in the Netherlands because it enables the company to control and ensure the highest possible quality level in their products. (Raps Skates. 2006). Raps Skates provides Reaction with ice blades, blade guards, boot covers, burr stones and sharpening stones. From this point on, the company will be referred to as Raps.

2.5 Operating environment analysis

2.5.1 General state of retail trade and consumption

Economists suggest that the general development in retail trade is positive, as sales showed a clear increase already in the first third of the financial year 2006, which also continued on the second third. The purchasing power of households is estimated to grow 2.5% in total this year, which can be qualified as a good growth level for trade. In addition, Finnish households' level of saving is low because the households' trust in the positive development of their economies has remained very strong. The trust in economy has been measured stronger only in four other EU nations (Latvia, Sweden, Denmark and Estonia). (Wires, 2006.)

The sales in the special retail market have been developing well throughout the ongoing year as the growth in many fields of operation has accelerated from the previous year. None of the businesses in the special retail trade have suffered decrease in sales. The differences in development of sales between different lines of operations vary between 0% and +16%. The best selling fields of special retail market are home electronics (+16%), jewellery (+8%), furniture (+7.5%), optics (5.5%) and sports and leisure time (+4.0%). Sales of books and fashion have also

increased by 3%, although the clothing sector suffered due to the exceptionally warm summer which slowed the growth in sales of the fashion industry. In addition, the prices have been decreasing due to the strong competition in the field. (Wires, 2006.)

Despite the general state of development of the fashion industry, clothes and footwear have sold especially well in the sports and leisure time trade. However, regardless of the effect of the overly long summer, fashion retail experienced a satisfactory level of growth in total sales. Consumers are still increasingly interested in brands and high quality, and are generally speaking investing on more expensive products than before despite of weather conditions. (Wires, 2006.)

The purchasing power of households in the year 2007 is estimated to increase equal to the on-going year, 2.5%. This enables the opening of new jobs in the retail and grocery trade sectors assuming that the consumers' trust in the positive development of their economies remains as strong as this year. The Finnish traders are also very confident with regard to their businesses' success as compared to other tradesmen in the EU member are. This predicted development strongly suggests that the retail trade, including the sports and leisure time industry, will continue growing during the next financial year as well. (Wires, 2006.)

The information on the general state and development in the retail trade industry were gathered from various sources. More detailed information on the state of the sports and leisure time industry were difficult to find. This suggests that a thorough research of this subject could be executed in the future.

Target group analysis

The following chart demonstrates the age distribution of population in Lahti at the end of the year 2005. The total population was 98,413 people of which 48.9% were male and 51.1% female. Unemployment in Lahti in 2005 was 14% of the working-capable population, meaning that the amount of working population between the ages 15-64 amounted to 41,491 people. (Lahden kaupunki, 2006.)

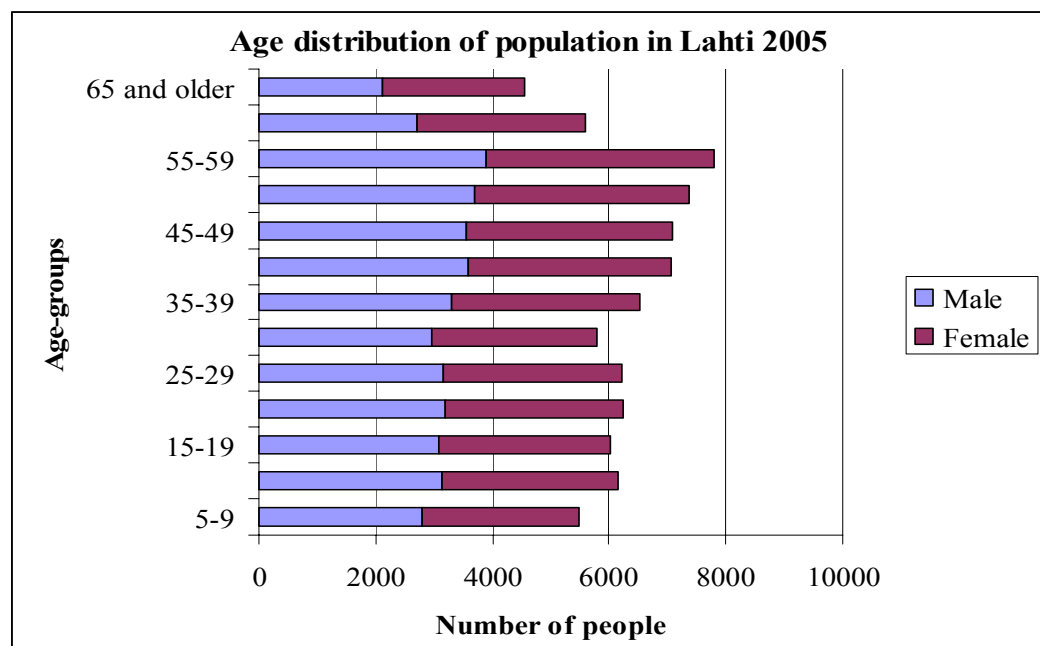


Chart 1. Age distribution of population in Lahti 2005.

The best-selling items of Reaction are clothing items, including shoes, and fitness skating products. These products are purchased by men and women alike, whereas the customers of inline and speed skating products are mostly adult males. Fitness skating equipment and clothing items are also purchased by children. Reaction has not analysed its existing customers or the potential target groups. Considering the competition in the market for fitness skating products and clothing items, Reaction could gain the attention and interest of 10% of the working population between the set target groups. Therefore, targeted age groups for the products would be as follows:

Product group	Targeted age group	Size of target group in people
Inline skating products	20 – 64	3,012
Speed skating products	20 – 64	3,012
Fitness skating products	10 – 59	6,625
Clothing items	15 – 44	3,784
Accessories	20 – 64	5,966

Table 1. Target groups by product groups in Lahti.

It is not realistic to assume that the entire 10% of interested people and potential customers would make a purchase. The nature of the goods and the popularity and familiarity of the sport must also be taken into consideration. This means that Reaction is most likely sell more fitness skating products and clothing items than the goods of the other product groups. Fitness skating is a popular sport and during the summer season the sales of these goods increase with regard to all sports stores, and clothing items are sold throughout the year. These goods are generally speaking consumed by various age groups from children in their early teens to middle-age. Fitness skating equipment are purchased fairly equally by both sexes and although women are perceived as dominating the consumption with regard to clothing items, the situation is slightly different in the sportswear industry. The distinction between the consumption patterns of the two sexes is not as clear as in that of fashion clothing due to the nature of sportswear. Rather than being bought for appearance related reasons, sportswear purchase decisions are dominated by issues such as practicality and durability, although appearances are becoming increasingly important to the consumers. Fashion clothing is purchased primarily based on the appearance of the items and several sports equipment retailers provide their customers with these products because they tend to attract more customers and increase total sales of the company.

Inline and speed skating products are consumed by quite a large age group but the sportsmen are very dominantly male which considerably reduces the target group. The “accessories” sold by Reaction includes products such as sunglasses and bandanas, but also goods used mainly by inline and speed skaters such as waxed laces or boot covers. Therefore, the products are purchased by both men and women and within a wide age range. The 10% target group according to the

abovementioned ages and sexes totals 18,127 people. This number measures the amount of people that could potentially be interested in the products provided by Reaction and does not take into consideration the level of demand for the individual goods. Levels of demand are discussed later on in chapter 3.2.

2.5.3 Competitors

There are a few big and approximately 25 smaller sports stores in Lahti. The big stores are all parts of sports store chains owned by Kesko Group and include Intersport, Sportia and Elmo Sport. They provide a wide selection of goods from different brands and generally specialise in selling well-known brands and equipment related to the most popular sports in Finland. Many of the smaller, independently owned sports retailers are specialised in some sport and also sell brands most familiar among the athletes of that particular sport in question. None of the sports stores in Lahti are selling inline or speed skating equipment which means that in that field, Reaction has no competitors. However, many of them provide their customers with fitness skating equipment as well as sportswear and fashion clothing. Therefore, competition on these goods exists and the biggest threats for Reaction are namely the Kesko-owned stores. Competition can be reduced by effective logistics and marketing, which are discussed in chapter 3.3.

2.6 Legal issues

2.6.1 Contracting

Contracts emerge from mutual agreement of two parties. Before this agreement is made, the parties have to have negotiations. In many cases the first offer might not be accepted, therefore a new meeting and negotiations are often needed. After the parties have come into an agreement, a contract is made. A written contract should always be made. An oral contract is just as binding but hard to proof and should therefore be accepted as an “official” agreement. A contract is made between a seller and buyer, where the parties agree on which products or services are sold, at

what price and quantity. Delivery terms and time should also be stated in the contract. In addition to these basic pieces of information the contract should mention any special requirements and most importantly, the applicable law and choice of forum. Generally speaking, a contract should include every detail that may have an effect on the execution of the agreement, the nature of the deal or the settling of potential disputes. All the legal text should also be explained in a common language to ensure that both parties are aware of the meanings of the issues stated in the contract, and there is no risk of either of the parties trying to confuse one another with legal jargon. (Kallio, 2003.)

Especially when negotiating with a party from abroad, a company must remember that cultural differences may have an effect on the terms and end result of the negotiations. Even negotiation techniques, as a result of cultural differences in etiquettes, can differ greatly between countries and cultural areas. This is why a company should first find out what is the business culture in the country of the other party of the contract. As mentioned above, choosing the applicable law and choice of forum is very important. The importance of this is stressed when entering into international contracts. This will minimise the risk of conflict and allow the parties of the contract to prepare accordingly if a dispute were to emerge. Also, both parties will be well aware of how the settlement will be enforced. When drafting or prior to agreeing to the terms of a contract, it would be beneficial for companies to have assistance from an agency working with international contract law. (Kallio, 2003.)

WTO is based on GATT 1994 collection of rules which are the basic rules for international trade. The goal of WTO regulations, as any international trade laws, is to harmonize actions and make trading easier by applying and enforcing rules for international sales of goods and services. It gives clear and public rules for trade. The rules are based on three principles; preferred country-principle, absolute prohibition to discriminate, and duty on national treatment. WTO is a contract between governments on making trade easier between the member states and does not interfere or impose specific regulations on trade contracts between companies. (Kallio, 2003; World Trade Organization, 2006.)

United Nations Convention on contracts for the International Sale of Goods (CISG), also referred to as the Vienna convention or UN trade law, is an international trade law also valid in Finland. Henceforth in this thesis, the abbreviation CISG will be used when discussing the aforementioned trade law. The international trade law is applied when the places of business of the parties are in different countries and both of the countries have signed the CISG contract, or when national laws are applied according to the international civil law regulations. For instance, if Finnish law is stated applicable in a contract between two parties of different nationalities, CISG will overrule the national regulations. However, if the parties expressly want to use the Finnish national trade law as the applicable law, this should be specifically mentioned in the contract. (CISG, 2006.)

CISG regulates over two thirds of the world trade and comprises of two main parts; contracting and sales. In the Nordic countries the primary emphasis is on contracting. CISG's goal is to create legal uniformity and own independent concepts. The set of rules states that the seller party is liable for the transfer of goods, documents and ownership to the buyer. Accordingly, the buyer is responsible for accepting and paying deliveries and covering any additional obligations mentioned in a contract. This set of rules is not obligatory and can therefore be overruled by practice or usage. (CISG, 2006.)

UNIDROIT principles are an independent set of rules and represent a neutral ground for companies because they have been especially designed for international trade. When drafting a contract, the UNIDROIT principles can be used as a check list. There are also other means of ensuring that all necessary issues are taken into account in a contract. For instance, PECL (Principles of European Contract Law) is similar to UNIDROIT but operates also between natural persons and consumer contracts. These kinds of principles are not obligatory or binding as such and are most commonly used as a guideline together with international laws. (UNIDROIT, 2006.)

Sports stores

The sports stores in Finland order goods from manufacturers all over the world. Many of the sports brands have import agents in Finland so the sports stores have an option to purchase some of their supply from the agents and goods from brands with no local agents from the manufacturer or from an agent in another country. If a company wishes to import goods themselves, it is also a possibility regardless of whether an importing agent exists or not. There are occasions, however, when this is not possible. For instance, if the manufacturer has made a contract with another company and granted them with an exclusive import right. The contracts used in importing goods to Finland from abroad presumably state the applicable law to be one of the international set of regulations. It is not recommended for companies to use their respective national laws in international contracts. If the parties wish to avoid dispute over whether the applicable law should be that of the country of the seller or the buyer, international laws should be used. For this practical reason, international trade most commonly uses the regulations tailored especially for cross-border business activities.

Reaction Skate Store

When drafting a contract, using national laws as the applicable law should be avoided. Both parties of a contract typically agree to use international laws and are more aware of their content than that of any other national laws than their own. Attempts of either or both parties to use their own national laws usually end up in a conflict when neither one wants to use the regulations of the other party.

Let us assume that an Australian trader wishes to sell goods to Turkey. Neither of the two parties wants to be governed by any of the two domestic systems. The Turkish buyer proposes to use the law of a neutral country namely Switzerland. The effect of that choice of law is that the Turkish buyer in practice is using his own law as Turkey in their modernization of commercial laws introduced the Swiss commercial Code (OR) into their own system. The Australian buyer now has to deal with a foreign law whereas the buyer uses his own, well understood domestic law merely with a different front cover. (Victoria University, 2006).

If an international law is chosen, such situations do not emerge because they are widely known and accepted. For instance, CISG currently is being used by 63 countries including Finland, Australia, Germany and the Netherlands. Since all of the suppliers of Reaction, as well as the company itself, are located in member countries of CISG, it would be recommendable for this set of rules to be used in all the contracts between Reaction and any of the suppliers. All the manufacturers and Reaction are also located in WTO member countries which means that business transactions are made as similar as possible in trade between these countries.

Currently, Reaction has made a written contract only with Bont Skates. The agreements with Raps and Powerslide are oral contracts, with certain details agreed via telephone conversations and e-mail exchange (Lottanen, 2006). While oral contracts are just as binding as written ones, the content and even existence of an oral contract can be difficult to prove in case of dispute. This is why Reaction should immediately draw up written agreements with all necessary details with both Raps and Powerslide. Even though the relationship between Reaction and all of its suppliers is good, a written contract protects all parties in case of a conflict. Even though CISG regulations are not binding but can be overruled by practice or usage, it is safe to use this set of laws because all four companies are located in member countries. Bont, Raps and Powerslide all supply goods to companies all over the world, hence it is safe to presume they are familiar with the content of these international regulations. It would be recommendable to use UNIDROIT principles together with CISG law as a guideline and a reminder of what the contracts should include.

When a company is arranging the physical delivery of goods from one point to another it must draw up a contract with the carrier. However, if the company chooses to use a freight forwarder they can leave the contracting and other formalities to the forwarding agent to take care of. The differences between a carrier and a freight forwarder are discussed in chapter 3.5.3. All of the three suppliers of Reaction have made their own contracts; Bont Skates with FedEx, Raps with DPD (Deutscher Paket Dienst) and Powerslide with UPS (United Parcel Service Inc.). In practice this means that Reaction has not needed to make

separate contracts with any carriers as it has agreed to how the manufacturers have arranged the transportation. (Lottanen, 2006.)

When selling on-line and over the telephone, Reaction is responsible for arranging transportation of goods from the warehouse to the customer. In these cases the goods are delivered mainly by Matkahuolto and on occasions by Finland Post Group. Companies that send out big volumes of goods can make a special contract with Matkahuolto or Finland Post. In case of Reaction, the address label for domestic parcel services acts as the contract of carriage. This label is the same that everyone uses when posting parcels and contains the information of both the sender and the receiver, as well as certain details of the parcel. These details include e.g. measurements and content of the package. The label also states the service type, for instance if express delivery is required or if the goods are fragile and need special handling. (Lottanen, 2006.)

When selling goods on-line, the customer must be well informed about the details and terms of a purchase. The terms must be found in a perfect form in the web site so, that the customer can not place an order before he has familiarised with the terms. An offer placed in the internet is binding to the seller. This means, that when the customer has accepted the offer from the web site, a contract has been born and both the seller and the buyer are legally bound to act accordingly. Clear terms create credibility and help in case of dispute to solve the problem fast, therefore reducing costs. There are few things to keep in mind when drafting terms of agreement. For instance, the terms can not have points that are against the law and the consumer has to have genuine opportunity to familiarise with the terms of agreement. (Kuluttajavirasto, 2006; Lottanen, 2006.)

2.6.3 Insurance and risks

There are many logistics related risks a company can face. For instance, there are several reasons why transportation might suffer and goods fail to arrive on time. Companies must take into consideration geology, weather conditions, natural hazards, custom issues, human errors, political situations and other issues that

might influence transportation of goods. In addition to this, the manufacturer may suffer from strikes, lack of raw-material and other special conditions that would have either a direct or an indirect impact on production. Problems in production can weaken the availability of products for the wholesalers and retailers and increase the price of the goods. It is difficult, if not impossible, to predict these kinds of special conditions. That is why the best possible insurance against such problems is keeping a safety stock for goods. Especially goods with high demand should always have safety stocks to enable their availability to the customers at all times. There are also other, more general risks a company can face, such as risk of fire, water damages, theft, etc. Insuring these kinds of accidents is fairly easy and executed by most, if not all, businesses since premises, machinery and equipment are among the most important assets of a company. (If vahinkovakuutusyhtiö. 2006.)

Sports Stores

No information was available on how insurance issues have been arranged by Finnish sports stores. The presumption is, however, that all goods have been insured both while in transportation as well as while in stock.

Reaction Skate Store

The owner of Reaction has insured the warehouse along with the goods. This is important because one can never know when there is a fire, water damages, theft, etc. With regard to the goods under transportation from the manufacturer to Reaction, FedEx, DPD and UPS all bear the risk of damage or breakage until the goods have been delivered to Reaction's warehouse. Therefore it will not be necessary for Reaction to insure the goods during transportation. (Lottanen, 2006.) However, the insurance coverage provided by the carriers as well as that provided by the ICC Incoterms 2000 (from now on referred to as either "Incoterms" or "Incoterms 2000"), if used, only offer a very minimum level of insurance and therefore Reaction should consider insuring the goods for the time of the transportation. The cost of the transportation insurance is low and thus would not add a notable increase in the company's expenses. In addition to insuring the

goods and the warehouse, the company should keep a safety stock to prevent stock-outs incurred by the logistics related risks mentioned above. Safety stocks are further discussed in chapter 3.2.5.

3 VALUE CHAIN

3.1 Inventory and inventory management

An inventory consists of goods and materials held available in stock. The primary reason for holding an inventory is that by having constant availability of goods to customers, a company can cut any uncertainties in demand. For instance, production can have problems such as raw material stock outs which can delay or even shut down the entire production process until raw material is available again. This would have an effect not only to the operation of a manufacturer but that of the wholesalers and retailers and ultimately the end customer.

Inventory management aims at reducing inventory levels to having only the required number of goods in stock while decreasing the costs and risks involved. Forecasting is also necessary to businesses in order to ensure that a required number of goods are available in stock in time for a predicted demand. Companies cannot purchase random levels of goods, but to try to keep the inventory at a level where supply meets demand. Keeping track of estimated demand and the actual demand are useful not only at the time of the purchase but many years after that. By keeping record of the changes in demand, a company can more easily predict future demand and avoid both overstocking and stock outs and by doing so, have an ideal inventory. Economical lot sizing helps to analyse the incurred costs in obtaining and carrying inventories.

When an inventory is successfully managed, goods are available for the customers when necessary but no excess items are taking up space in stock. This way a company always has the inventory the customers want, which results to low inventory carrying costs and the price of the good to the customer reduces. Good product availability and low price improves customer service and thus is most likely to generate more financial in-flow for the company.

3.2 Inventory forecasting

Inventory forecasting includes predicting future demand and sales and the required levels of inventory. Demand forecasting defines the predicted amount of product or service that the customers will require at a certain point in the future. It includes such aspects as pricing, market research and promotional activities and strategies. Sales forecasting should determine purchasing strategies and inventory decisions. Demand forecasts determine the quantities of different items that need to be transported to the sales points. One of the most effective ways to predict future demand is to study inventory statistics of previous years. By basing the demand estimates on such records enables inventory forecasts to be more accurate and result in an effective inventory control system. (Romo, 2003, B4.)

Demand can be divided in to two categories; independent and dependent demand. Independent demand refers to such items that are affected by the market conditions and are not directly influenced by any other products. A table, for instance, is a combination of several components, or, several products. The top, the legs and the fasteners together form the table and thus they are dependent on each other. This means that the demand on the finished product is also dependent. It also means that since the demand is derived from the production decisions made for each component, the actual demand of the components can be forecasted. When the components of the table are assembled and it becomes a finished product, it is placed available for purchase. At this point, the demand changes from dependent to independent because the behaviour of the consumers is influenced by the fluctuations of the market. Therefore, independent demand can not be forecasted, only estimated. Whether the demand is being independent or dependent, the production and inventory control systems are utilised accordingly. Independent demand is associated with fixed order quantities, continuous and periodic review systems and ABC-analysis. Dependent demand is associated with material requirements planning, distribution requirements planning and optimised production technology. (Lysons, 2000, 221.)

Sports stores

No information was available of inventory forecasting methods used by Finnish sports stores.

Reaction Skate Store

The following table shows Reaction's annual sales of goods in units. The product ranges are listed in the first column. Accessories include caps, sunglasses, bandanas, waxed laces, tricot boot covers, socks and sharpening jigs. Clothing items include bags, pants, shirts, jackets, colleges, skin suits and shoes. Nordic division products include two kinds of trainers, aluminium poles and air wheels. Protective wear includes helmets, protective gloves, knee pads, elbow protection and wrist guards. The second column lists the current annual sales, the third lists estimations of annual sales for when the company has established physical sales premises. The current annual sales volumes are also estimations because the year is not yet over and actual sales volumes can be seen only in early January. The two last columns represent the growth in sales before and after establishing sales facilities in both units and percentages. Inline skate packages are not listed in this table because though the table lists demand of individual product groups, and the packages consist of components of several groups.

The estimated sales for when Reaction has physical sales facilities show how much the company could improve sales as compared to the current situation. From the logistics point of view the increase in sales means that more goods are moving between the manufacturer and Reaction, as well as between Reaction and the end customers. With a growing demand, the order quantities will increase along with the amount of goods in stock. This means that the warehouse is required to accommodate larger inventories than before.

Product groups	Current demand in units	Future demand in units	Estimated growth in units	Estimated growth in percentage
Accessories	175	240	65	37.1
Bearings	100	150	50	50.0
Blades	70	100	30	42.9
Burr and sharpening stones	6	20	14	233.3
Clothing items (incl. shoes)	365	605	240	65.8
Fitness skates	350	400	50	14.3
Frames	60	95	35	58.3
Ice boots	30	45	15	50.0
Ice boot covers, blade guards	100	140	40	40.0
Inline boots	55	90	35	63.6
Nordic division products	30	50	20	66.7
Protective wear	210	365	155	73.8
Wheels	180	250	70	38.9
Total	1731	2550	819	47.3

Table 2. Estimated annual demand for present and future.

The demand of goods was calculated by product groups by using the moving average method. The company can continue calculating future forecasts by using this time series method used in the above table. The method can be used whenever there is historical data of sales available. In Reaction's case, there is several years' data available of the sales of Bont's products and a few months' data of the sales of Raps' and Powerslide's products. This is because Esa Lottanen has begun importing Raps and Powerslide just recently and Bont many years ago. When using the moving average method, it should be noted that the method assumes that the future demand will be similar to the past demand. Therefore, if Reaction wishes to use past sales as a basic data to predict future averages it should note that the numbers given by the method are appropriate for short-range purchasing only, as they assume that the existing demand patterns will remain unchanged.

3.2.2 Optimising the size of delivery

Distributors must decide on the quantity or lot size of an item to be purchased. Lot sizing is divided into two categories. Static lot sizing refers to fixed order sizes or EOQ (Economic Order Quantity) systems. In these cases the quantity of purchased items is the same with every order. Dynamic lot sizing is when the quantities differ each time an order is issued. With this strategy, systems like MRP (Materials Requirements Planning), DRP (Distribution Requirements Planning) and the planned order release system are used. (Lysons, 252.)

The lot sizing strategy selection depends on the nature of the goods; seasonal products, for instance, are purchased by using dynamic lot sizing where the ordered quantity is high enough to cover the demand requirements for the season in question but low enough to avoid overstocking. This way the inventory carrying costs are kept at the minimal level. However, dynamic lot sizing does not take into consideration the costs incurred by order placement or set-up. This strategy is also recommended when the items are very expensive. When the demand for an item is constant and not influenced by trends, purchasing should be static, enabling the optimal level of availability at all times. However, static purchasing methods such as the MRP system are typically used by manufacturers because it has been designed for controlling inventories of raw-materials, sub-assemblies, component parts etc. and supplying components required to produce finished assemblies. The DRP system, however, can be used by retailers because it is a system where “products are delivered precisely when and where they are needed on the basis of forecast demand” (Schary & Skjøtt-Larsen 2001, 331.).

Economic order quantity is a model focusing on lot sizing decisions and defining the most optimal order quantities of goods. The purpose is to calculate the quantity in a way that will minimize the total order and inventory carrying costs. By calculating the economic order quantity, and by defining the time consumed by every order and the cost structure, it is possible to measure the effectiveness of purchasing. Since the ordered quantities define the availability of the goods, as

well as the price to the end customer, it is easy to see that purchasing is directly linked to customer satisfaction. (Romo, 2003.)

The EOQ model allows the company to solve certain decision problems, such as what items should be carried in stock, in what lot sized should the orders be made and when should an order be placed. It also enables the company to cover anticipated changes in demand or supply. For instance, a change in the availability of raw materials in the production process affects the availability of the end product. If the change can be predicted beforehand, a company can take advantage of this piece of information and take it into consideration when calculating the order quantities. In order to cover unanticipated changes in demand or supply, however, a safety stock is needed. (Romo, 2003.)

Sports stores

No information was available on the order quantities of Finnish sports stores.

Reaction Skate Store

The economic order quantity is calculated using the formula $\sqrt{2DP/CV}$ where D represents the annual demand or usage of the product in units, P stands for the ordering costs per order, C is the annual inventory carrying cost in percentage of product value and V the average value of one unit of inventory. For example, Reaction is currently selling shoes at a pace of 100 pairs per year. The ordering costs, i.e. the cost of transmitting the order, of receiving the product, of placing the product in the warehouse and the costs associated with processing amount to a total of €10. The inventory carrying costs, i.e. the capital costs, inventory service costs, storage space costs and inventory risk costs, will not be informed to prevent the company's purchasing prices being calculated. The average value of one unit of inventory can also not be mentioned here due to the classified nature of the information. However, by using this formula, the economic order quantity of shoes would be 20 pairs per order.

However, the demand of shoes is not constant meaning that the ordered lot quantities differ with every purchase. This is something that should be taken into consideration when examining this formula; it assumes that the annual demand is constant. In Reaction's case, most of the products are seasonal meaning that the demand for summer season's products drops or vanishes entirely for the winter season. Also, with the non-seasonal products, i.e. clothes, shoes, bags etc., the demand fluctuates throughout the year. This means that the economic order quantity given by the formula does not always meet the actual need defined by the fluctuating demand. In fact, due to the nature of the EOQ formula (giving an annual average) the results are merely "about numbers" and do not necessarily suit the company's requirements in terms of order quantities. When the demand is not constant and especially when it is seasonal, the company should rely on the EOQ formula only as a trend-setting suggestion.

The following table demonstrates what the order volumes should be if orders were placed five times a year. Both EOQ and DRP systems have been used as a basis for the calculations and the results of using the formulas have been adjusted to meet the estimated demand. The demand forecasts are based on previous years' records of actual sales and demand. The products of different manufacturers are listed separately to show what the total order quantities from different destinations should be. The table also shows what time of the year and from which manufacturers different goods should be available for purchase by Reaction's customers. Although the ordered numbers of goods are low, the goods are large enough to take up a lot of warehousing space. Therefore, it is not recommended for Reaction to order such quantities but to keep ordering in smaller quantities and several times a year, according to the demand. This is also financially sensible because the manufacturers bear all the transportation costs under the current contracts.

Product	Optimal order quantities per main order points in units					Total order quantity in units
	Late winter	Early summer	Mid-summer	Late summer	Early winter	
Bont						
Accessories	25	25	50	25	25	150
Clothing items incl. shoes	20	110	50	50	140	370
Bearings	-	55	30	10	-	95
Frames	-	20	15	5	-	40
Helmets	-	5	5	-	-	10
Ice boots	10	-	-	-	20	30
Inline boots	-	20	15	10	-	45
Wheels	-	15	10	15	-	40
Total order quantity of Bont products						780
Raps						
Blades	30	-	-	-	40	70
Blade guards	25	-	-	-	25	50
Boot covers	25	-	-	-	25	50
Burr stones	3	-	-	-	3	6
Sharpening stones	3	-	-	-	3	6
Total order quantity of Raps products						182
Powerslide						
Boots	-	5	5	-	-	10
Frames	-	10	10	-	-	20
Wheels	-	70	50	30	-	150
Protective wear	-	100	70	30	-	200
Skin suits	-	10	5	5	-	20
Nordic division	-	15		15	-	30
Fitness skates	-	170	110	70	-	350
Total order quantity of Powerslide products						780
Total order quantities in units	141	585	395	245	281	1,647

Table 3. Optimising order quantities.

3.2.3 Just-In-Time purchasing

The Just-In-Time, or JIT-system, implies to a system with a very low or zero-inventory. In JIT purchasing, the ordered quantities and required safety stocks are calculated to ensure that there are no stock-outs, but that the inventory is as low as

possible. This is practiced in order to reduce inventory carrying costs. One characteristic of JIT purchasing is to have nearby suppliers, which also reduces transportation costs, as well as the risk of delays. Having the suppliers at a short distance is a prerequisite if a company wishes to succeed in keeping a zero-inventory. However, if the aim is at having a very low rather than a zero-inventory, the distance between the supplier and the buyer can be longer but still short enough to enable fast delivery of goods. Since the goods come in small lot quantities, the deliveries are required frequently. The order quantities in JIT purchasing are fixed for the contract term but the sizes of the deliveries vary from release to release. (Romo, 2003, E1-E3.)

Sports stores

No information was available of the purchasing methods of Finnish sports stores.

Reaction Skate Store

In the case of Reaction, following a JIT-system when purchasing is difficult due to the distances between the company and its suppliers. Raps and Powerslide are both situated in Europe and can usually deliver goods within seven working days, regardless of the mode of transport. Bont products are transported all the way from Australia but they are flown to Finland which speeds up the delivery time for such a long distance. However, with the distances being thousands of kilometres, it is impossible to ensure that goods will always arrive on time. Also, with air transport being as expensive as it is, flying small quantities of goods at a frequent pace is not financially sensible. Despite not being able to hold a zero-inventory, Reaction should aim at keeping inventories as low as possible. Most of the goods are very valuable and keeping a high inventory on such items would not be very economic. The relatively low demand on the most specialised items, i.e. speed skating and inline skating equipment, allows the company to keep the inventory on these goods low. However, the fluctuations in demand of these goods are hard to predict and that is why it is not wise to keep the inventory so low that the company is unable to meet the market demand.

During the summer season, the best selling items are fitness skates. In that time the value of inventory is bound to increase because quite a big amount of goods is needed in stock. Because the deliveries from the supplier of fitness skates, Powerslide, take at least a week and the number of skates sold is quite high, Reaction must ensure that there is always at least a one week's safety stock at hand. The same applies for clothing items which are also sold in high quantities during the summer season. Despite the higher demand of goods in the summer, Reaction still insists on keeping the inventories as low as possible because, as mentioned before, the value of the goods is high. However, although the aim is to maintain a low inventory, a zero-inventory policy is not an option.

3.2.4 ABC-Analysis

The ABC-analysis is an inventory classification technique. The goods are divided into A, B and C-groups according to their values generated by annual sales and purchases. ABC-analysis is calculated by determining the values of products by multiplying the unit costs with the number of units sold and purchased. The results show the annual values of goods. The ranking of the items is based on the calculated annual values. 20% of the goods are rated in to group A, 30% in to group B and 50% to group C, A being the most valuable and C the least valuable group of goods. (Romo, 2003.)

Sports stores

No information was available on the ABC-analysis of Finnish sports stores.

Reaction Skate Store

The following table presents the ranking order of Reaction's products. However, the table only shows the item, supplier and the rank but not the unit prices and annual usage values as they are classified information. Clothing items have not been collected under one title in this table to see how the separate product groups are ranked in value. Inline skating products have also been separated for the same

reason, but “inline skate packages” are still mentioned. This is because all inline skating products are purchased as packages though can be sold separately to the customers. This way the table is able to show where the packages rank in the total sales of Reaction.

Rank	Item	Supplier
A 1	Fitness skates	Powerslide
A 2	Wheels	Powerslide
A 3	Bearings	Bont
A 4	Blades	Raps
A 5	Inline skate packages	Bont
B 6	Protective wear	Powerslide
B 7	Frames	Powerslide
B 8	Nordic division	Powerslide
B 9	Shoes	Bont
B 10	Ice boots	Bont
B 11	Jackets	Bont
B 12	Accessories	Bont
C 13	Shirts	Bont
C 14	Frames	Bont
C 15	Inline boots	Bont
C 16	Skin suits	Powerslide
C 17	Boot covers	Raps
C 18	Pants	Bont
C 19	Skin suits	Bont
C 20	Bags	Bont
C 21	Inline boots	Powerslide
C 22	Helmets	Bont
C 23	Blade guards	Raps
C 24	Sharpening stones	Raps
C 25	Burr stones	Raps

Table 4. ABC-analysis.

The results of the ABC-analysis can be utilised to see which items should have a high, and which ones a low safety stock. Safety stocks are further discussed in the next chapter. In addition to providing companies with information on safety stocks, ABC-analysis also allows to prioritise goods with regard to turnover times. The turnover goals for products in group A should be the highest and that of

group C the lowest. The table below shows the turnover times of Reaction's products and suggests that the company should increase sales of products in group A. Because most of the products sold are seasonal, they do not have constant demand throughout the year, which may have had an effect on the turnover numbers.

Rank	Inventory turnover	Rank	Inventory turnover
A 1	3.6	C 13	12.5
A 2	5.0	C 14	2.0
A 3	7.0	C 15	3.0
A 4	5.0	C 16	4.0
A 5	5.0	C 17	5.0
B 6	10.0	C 18	3.0
B 7	10.0	C 19	2.0
B 8	15.0	C 20	2.5
B 9	5.0	C 21	5.0
B 10	1.5	C 22	5.0
B 11	1.5	C 23	5.0
B 12	5.0	C 24	6.0
		C 25	6.0

Table 5. Inventory turnover.

3.2.5 Safety stocks and service levels

A safety stock is defined as the stock “needed to cover shortages due to the agreed lead-time being exceeded or the actual demand being greater than that anticipated” and service level as “the ability to meet the demands of customers from stock “(Lysons, 253.). These two are directly related to each other, meaning that when an investment is made to increase the level of inventory, the higher availability of the good increases service level. However, higher service levels usually mean that since the safety stocks are large, they result to higher inventory carrying costs. Therefore, the management should pay special attention to which products should have safety stocks and of what size. Safety stocks as such are cost

adding factors and companies usually wish to eliminate them. (Lysons, 254.) However, their importance should not be undermined. By holding inventory, and namely a safety stock, a company can ensure they are able to meet demand at all times. With poor availability of products, customers are easily persuaded by competitors to shift their business elsewhere. Relatively few are willing to wait or backorder goods if the item is available somewhere else.

Sports stores

No information was available on the safety stocks of Finnish sports stores.

Reaction Skate Store

When calculating safety stocks, attention should be paid on the times required for ordering, manufacturing, transportation and stock conversion, in addition to the number of goods in stock at all times. For instance, 150 sets of Powerslide's wheels are sold annually. Most of the purchases are made during the summer season, but the sport can be practiced in the winter time in field houses. In addition to this, many customers practice summer seasons in Finland and winter seasons abroad. In practice this means that wheels are purchased throughout the year at a monthly average of 12 sets. The wheels come in 4 sizes and 4 hardnesses, and the time between ordering and the goods being delivered into the warehouse takes 2 weeks at the most. Usually the delivery times are shorter but two weeks is the maximum historical delivery time. The average sales of wheels is 12 sets per week. This means that taken into consideration the hardnesses, sizes, and the delivery time, the safety stock should be at a level of 96 sets at all times, provided that the company wishes to keep a safety stock throughout the year.

The table below presents the required safety stocks of the different items sold by Reaction. Note, that the table is calculated with the assumption that if a safety stock is kept, it includes at least one product in every size and every model of the product. Reaction should take into consideration that larger safety stocks may be required during different times of the year, depending on the alterations in

demand. Also, with some goods having a safety stock may not always be necessary.

Supplier	Item	Safety stock in units
Bont		
	Accessories	42
	Bags	5
	Ice boots	9
	Inline skate packages	15
	Jackets	10
	Pants	10
	Shirts	20
	Shoes	16
	Skin suits	3
Total safety stock of Bont products		130
Raps		
	Blades	30
	Blade guards	3
	Boot covers	3
	Burr stones	1
	Sharpening stones	1
Total safety stock of Raps		39
Powerslide		
	Boots	8
	Frames	3
	Wheels	96
	Protective wear	50
	Skin suits	3
	Nordic division	12
	Fitness skates	80
Total safety stock of Powerslide		250
Total safety stock in units		419

Table 6. Safety stocks.

Since inventory can account to over a third of a company's assets, it is crucial to manage the value of the inventory and thus create free capital to be used on other investments. The value of the total safety stock based on the above numbers totalled €28,271.55. This also represents the minimum annual value of inventory

if safety stock is held for all products. The actual inventory value depends on the ongoing seasons' fluctuating demand.

3.2.6 Warehousing

Warehouses do not act only as points of consolidating goods but also as reservoirs for production overflows. In cases of excess production, the goods can be stockpiled where they are available to be used when necessary. Production overflows often occur due to seasonal changes in demand. Semi-finished goods are also often stockpiled by manufacturers. Retailers and wholesalers do not manufacture anything and therefore do not need to worry about excess production but benefit from having warehousing facilities all the same. Simply put, warehouses provide retailers and wholesalers space to store merchandise from where they can be moved to the availability of end customers. They also provide improved time and place utility to inventories using the warehouse.

Sports stores

Sports stores typically have a storing facility within the sales facilities where they are able to keep at least a very minimum level of required inventory. Some retailers have additional warehousing space somewhere else where they are able to store goods for longer periods of time or larger quantities at a time. The required warehousing space is dependent on the sales volumes of the company and can therefore differ greatly between retailers.

Reaction Skate Store

Reaction has warehousing facilities in Holma, Lahti. The warehouse is sufficient enough to hold the inventory incurred by the current level of business. When more storing space is needed, the company will not necessarily be forced to move goods to another warehouse because the current one holds unutilised surface area which can be taken into use later on if necessary. The structure of the warehouse building allows the storage space be expanded into two stories which is something

Reaction should take full advantage of. The upkeep of the warehouse is very affordable as it is, and building a second story does not seem likely to have a notable effect on the rent. (Lottanen, 2006.)

The goods can be shelved individually in the warehouse or in cardboard boxes. In order to save space, it would be recommendable for Reaction to keep goods in boxes so that they can be economically stacked in the warehouse. Currently, the goods do not come in all at once but in smaller quantities and several times per season. If goods were ordered five times a year in bigger quantities, they could be stacked on 4 EUR-pallets in a semitrailer. However, since Reaction does not bear the costs incurred by transportation, it can continue receiving goods several times a year and in smaller quantities. Still, Reaction should consider getting more warehousing space if the company wishes to start ordering larger quantities at some point in time. More detailed calculations on the sizes of the shipping packages are included in the company's version of this thesis.

3.3 Marketing mix

“Logistics can be a source of competitive advantage for a firm just like a good product, promotion and pricing strategy” (Romo, 2003, A5). Logistics plays an important role in a company's marketing strategy by generating customer satisfaction and therefore increasing profits. Logistics' ability to provide customer service, together with marketing's skill in generating and completing sales, can potentially create a high level of customer satisfaction. This can lead to a differential advantage in the marketplace. Customer satisfaction issues are discussed with more detail in chapter 4.2.

All of the major elements in the marketing mix are in some way affected by logistics operations. It has been well documented that management's allocating of resources to the product, price, promotion and place can determine a company's profitability and therefore also its position in the marketplace. The purpose of the marketing mix is to enable the company to invest in a way which will result to the greatest possible profits in the long run. An improvement of the company's

competitive position becomes more attainable when management is able to analyse the most effective and efficient means of allocating resources.

3.3.1 Product

Product is what the customer gets as a result of a purchase. Since manufacturers make the decisions on product features and overall quality, a retailer must try to increase the general interest of the customer in other ways than meddling with product quality. In case of manufacturers, if the management attempts to lower the product price, the trade-off can many times be seen as a result of reduced product quality e.g. by eliminating certain product features. Although reducing the quality of goods decreases manufacturing costs, this is most likely to have a negative effect on the attractiveness of the product to the consumers which creates a risk of making fewer sales and results to lower profits. Retailers and wholesalers cannot influence product quality but can compensate poor quality with lowered prices or raise the prices if the quality is very high. The attractiveness of a good can also be influenced e.g. by active marketing. (Ellram *et al*, 14.)

Sports stores

Sports stores typically sell well-known brands of well-known manufacturers. The quality levels of these goods are high and widely appreciated. This means that the retailers have no need to compensate lacks of quality. The brand names speak for themselves and are many times enough to attract customer purchases. Also, most stores are concentrated on selling equipment of the most popular sports as well as sports and leisure-time clothing. This allows the companies to get relatively large numbers of customers. Providing consumers with fashionable, every day clothing at affordable prices together with equipment for the most popular sports enables retailers in this field of business expand their customer bases much wider than specialised sports stores, or stores that sell only equipment and no additional product lines.

Reaction Skate Store

Reaction sells products from three different manufacturers. The brands sold are well known and highly appreciated among the active sportsmen of inline, speed and fitness skating. The brand names act as visiting cards of product functionality, safety, styling and quality to the customers. All the products have warranties set by the manufacturer meaning that the customers are able to get repair and support services when needed. Most of the products are seasonal but maintenance and support services for all the goods are available throughout the year.

The clothes and shoes sold are not seasonal products, although the variety of different clothing items is larger and the sales volumes bigger during the summer season. Even though Reaction sells leisure time and fashion clothing in addition to sportswear, the trend in sales of clothes is increasing during the summer and, accordingly, declining during the winter season. Despite the fact that non-seasonal sales of clothing items makes the goods important for the company's net sales, the quality requirements on the clothing items are on par with that of the sports equipment. When marketing the goods, Reaction should pay more attention to this fact because the current promotion is almost entirely focused on sports equipment. The company must keep in mind that clothes are a necessity and compared to the amount of people purchasing clothing items is far greater than that of investing in so-called luxury goods. In practice this means that much bigger profits could be gained from the sales of clothes than are being attained at the moment.

3.3.2 Price

“Price is the amount of money that a customer pays for the product or service offering” (Ellram *et al.* 14.). Companies must determine how different pricing will affect the behaviour of their customers. In the case of manufacturers the price of a good has an impact to all the intermediaries as well as the end customers, whereas in the case of retailers, the change is only seen by the individual consumers who make up the company's entire customer base. The supplier of a good can many times try to increase sales by reducing the price. For this to work, however, the good in question must be very price sensitive. Otherwise the supplier has a risk of not being able to generate sufficient increase in unit sales and offsetting the

lower price, which would lead to making lower profit. This strategy tends to fail especially in mature industries where demand is relatively fixed. Very often competitors will lower their prices as well, which then leads to no real change in demand and less profit for the entire industry. (Ellram *et al.* 14.)

Particularly with regard to retailers, there are several factors that may increase a product's price. Each intermediary adds to the list of costs of which all increase the ultimate price of the good. Changes in manufacturing, transportation, warehousing, inventory holding and everything else between the production and the end customer makes the possibility for price changes higher. The intermediaries can also demand faster payments which many times forces retailers to raise prices, which then affects demand. This is why businesses of all sizes should aim at cutting off all possible intermediaries to keep the prices in control.

Sports stores

When sports stores are selling brands or products that the competitors are also selling, competing with prices rarely benefits anyone in the marketplace. Price war usually tends to harm the consumer as the price/quality ratio a good no longer seems sensible. In stead of paying unreasonable prices, the customer is many times more willing to turn to other suppliers or a substitute product. For this reason, the prices of e.g. Adidas, Nike or Puma products are equally priced by all retailers. The most commonly used method of attempting to generate more sales is selling goods at reduced prices at the end of each season before or during new products are placed available for purchase. This is practiced by most retailers all over the world, despite the field of operation.

Reaction Skate Store

So far Reaction has been selling the goods at the suggested retail prices given by the manufacturers. However, the company has a right to alter the prices if needed. Reaction should take advantage of this and consider weather amendments in prices would turn out to be favourable for the company. For instance, in their book *Katteella tulosta*, Mäkinen, Stenbacka and Söderstöm (2001, 39.) use a

simple percentage calculation formula to see the impact of price alterations on consumption patterns. The book suggests that in order for a company to increase sales volume, the existing customer base should consume more or the company should draw in more customers. When applied to Reaction's case, by increasing the price by 5% sales could diminish by 5-10%. If sales drop by 5%, it would have no impact on the contribution margin but a 10% reduction would take off 2.6% of it. As a conclusion, Reaction could risk changing the prices but should note that the above calculations are merely examples of price alterations in one product group and the changes vary according to the individual products, prices and sales volumes.

3.3.3 Promotion

Promotion of a product or service encompasses both personal selling and advertising. Whereas increasing advertising expenditures or the size of the direct sales force can have a positive impact on sales, there is a point of diminishing returns. A point exists where the extra money being spent does not yield sufficiently high increases in sales or profits to justify the added expense. It is important for organizations to understand when they reach that point, so that they can avoid misallocating funds. (Ellram *et al*, 14.)

Instead of using advertising as means of yielding increased sales, investments could be made in the activities which provide more value-added services to customers. For example, improving logistics can generate greater product availability and customer satisfaction. Also, training sales force can raise value added provided to the consumers and therefore contribute to increased sales.

Sports Stores

For several years now, two of the most significantly growing media used for promotional purposes have been the television and the internet. Advertising in television has been common for decades and the amount of internet advertisements has experienced a significant growth during the past few years.

Pop-ups and banners have taken over a vast majority of web pages and since approximately 80% of the Finnish population has access to the internet either at home or at work, the advertisers are gaining more visibility to their products or services. Similar to most commercial businesses, sports stores are claiming their share of this phenomenon. The big Finnish chain stores, i.e. Kesko's sports store chains, are actively advertising in both the television and on-line. In addition to this, they also frequently launch advertising campaigns in the radio, send direct mail advertisements and place roadside advertisements. Also, e.g. Adidas and Nike regularly launch their own marketing campaigns which momentarily focuses more attention on the brands and thus indirectly to the retailers providing the brands in question.

Reaction Skate Store

Other ways to promote in addition to the abovementioned methods include e.g. personal selling and public relations. The owner of Reaction actively participates in inline, speed and fitness skating competitions and events. Promoting the company and presenting the goods to the participants of the events has many beneficial effects. The brands and the company gain publicity, new potential customers and raise awareness of both the brands and the company. Esa Lottanen is personally particularly capable and qualified to handle the promotion and personal selling due to his years of experience in skating.

With Reaction being such a young player in the field it has a relatively restricted budget available to invest in advertising. With this in mind, marketing campaigns in television would be too expensive to execute. Thus, the company should consider other, more affordable alternatives. As an example, if Reaction was to launch a direct mail advertising campaign with an investment of €3,000 it would be realistic to assume that it could lead to a 15% increase in sales over a period of four months. Based on this assumption, calculations suggest that the abovementioned advertising campaign would increase profits of four months by 48% after which sales would return to normal. This example calculation does not take into account the variation in level of demand of different items but is an

average of total sales. It does, however, indicate how relatively small investments in advertising can result as a momentary growth in sales.

From the logistics point of view, effective promotion is generated by having the required supply available for purchase by the customers. Right timing and lot sizing of orders along with adequate safety stock levels will enable the company to provide their customers with good service. The importance of good customer service has been mentioned earlier in this thesis and will be further discussed in chapter 4.2.

3.3.4 Distribution

Logistics is directly connected to the place element of the marketing mix. Better service supported by product availability and order cycle time may increase the price but can also attract more customers due to the added value in service. Logistics costs can affect the market price of a product, but customer service levels are bound to increase when goods are differentiated from the goods of the competitors by good availability. Consumers are many times willing to pay more for better service and higher quality.

High quality of customer service is the result of a well managed distribution system and by investing on logistics a company may be able to improve customer service, followed by a significant improvement in profitability. Higher profitability in return increases a company's market share and results as a growth in the competitive advantage. However, it should be stressed that the investments made should be higher than those made by the competitors. If everyone increases the quality of customer service, no one is differentiated and no real improvement in sales is gained but distribution costs will have increased for everyone. A company can reduce logistics costs and still improve customer service by systematically adjusting the service package. (Romo, 2005 and Lambert & Sterling, 1987, 1-30.)

The distribution element of the marketing mix includes choosing a distribution channel and the amount of intermediaries, selecting warehouse location to ensure product availability and making inventory decisions. Companies should avoid having several intermediaries because each middleman will generate additional costs which lead to increases in products' selling prices. There are several stages of movement when moving goods from the manufacturer to the supplier and on to the end customer. Decisions made at the individual stages of the distribution channel will determine the cost structure, and the differences in expenses between distribution strategies can be great. Also, the amount of control a supplier has over the relationship with the end customer can be significantly reduced by having several intermediaries, a fact which also emphasizes the importance of finding the optimal distribution channel. Management should recognise that each component of the marketing mix requires investing time, money and effort. However, it should be ensured that the gained sales increase profitability enough to cover the invested amount as well as improve profitability.

Sports stores

The goods sold by sports stores are purchased from the manufacturers or import agents, who in turn bring the goods to the country directly from the manufacturers or from other suppliers. The retailers can also import the goods themselves. However, many of the well-known brands have import agents with exclusive right to sell the goods of the brand in question. This means that the retailers are forced to purchase the products from the agents. Many sports stores have either fully or partially outsourced their logistics activities to ease the management of material flow of the company. For instance, the biggest Finnish sports store chains are owned by Kesko Group which has a subsidiary forwarding agent, Keslog Oy. It provides logistics services to all companies and, naturally, also to companies under Kesko's ownership. This way the retailers can concentrate on running the stores and generating profits through other logistics activities, such as customer service, rather than e.g. investing time and effort on physical distribution of goods.

Reaction Skate Store

Reaction has outsourced transportation of Bont products to FedEx. Raps and Powerslide have also existing contracts with carriers UPS and DPD. Carrier selection is further discussed in chapter 3.5.3. All three suppliers of Reaction do business on a global level and at a scale where they have been able to enter into very favourable and affordable contracts with the abovementioned companies. The content of the contracts is classified and therefore no information is available on delivery costs. However, the shipped quantities of the manufacturers are high meaning that the costs are most likely much lower than they would be e.g. for an average consumer sending out a parcel. Reaction does not move goods in similar volumes which means that the company is not likely to get a contract with a carrier at such low costs. For this reason, it is recommended that Reaction continue having the goods delivered under the existing contracts made by the manufacturers. Transportation costs are discussed with more detail in chapter 3.5.2.6.

3.4 Ordering process

The ordering process can be divided into the following sections; order transmittal, order processing and preparation, and order shipment. Order transmittal is the time between a customer placing an order and a seller receiving the placed order. Generally speaking, an order can be placed on-line, through the mail, via the telephone, using fax, through the EDI (Electronic Data Interchange) application, or in person with a salesman. Using EDI and the internet are further discussed in chapter 3.8. Order processing consists of activities such as order entry and editing, scheduling, order tracing and invoicing. Order preparation begins when an order reaches a warehouse and ends when the goods are ready to be shipped on the loading dock of the warehouse. Order shipment, i.e. delivery of goods to the customer, is the final step in the ordering process. In many cases this is the most time-consuming phase and the time spent is dependent on the distance between the seller and the buyer, the type of the order transmittal system and the degree of

automation of order processing and preparation at the seller's end. (Kearney, 1978, 191.)

Sports stores

Sports stores usually place four primary orders a year, one for every season. The orders are placed approximately six months beforehand to ensure that the goods will be available when needed, even if the goods are not yet finished when the order is placed. The ordered goods are delivered to the stores' facilities or warehouses in time for them to be placed available at the very beginnings of the seasons. For instance, spring products are ordered in autumn and arrive right after or during the January discount sales. Even though the main orders are calculated to be sufficient to meet demand, supplementary orders are many times needed. This is due to unexpected fluctuations in demand; e.g. a good may sell much better than anticipated or demand can remain at high levels at the end of seasons etc. The inventory levels are constantly being tracked by computer systems which enables the companies to follow up on stock levels at all times and react when stocks are low.

Reaction Skate Store

Currently, the customers of Reaction Skate Store are ordering goods on-line through e-mail, via the telephone, or in person by making a purchase at the sports events and competitions where the company promotes the goods. When the goods are in stock, they are sent directly to the customer using Matkahuolto or Finland Post. If goods are not in stock, the orders are forwarded through e-mail to the manufacturer. Single orders, however, are avoided. Reaction always aims at gathering several orders within reasonable time to be sent to the same manufacturer in order to reduce costs. The orders are drafted into an excel document before sending them out. Orders for Powerslide products are sent to the Finnish and Swedish agent in Stockholm but the invoices and goods are shipped to Finland straight from the manufacturer in Germany. Raps is a Dutch manufacturer and similarly to Bont, all transactions take place between Reaction and the manufacturer in the Netherlands, without any middlemen.

After the order has been forwarded to the manufacturer, they confirm receipt of the order, give an estimation of the delivery time and inform if some goods are in production and need to be put into back order. When the shipment is ready, the supplier will send the goods to Finland. Depending on the supplier, the transportation will take from four days to two weeks at tops. When the goods have arrived to the premises of Reaction Skate Store, the packing list will be compared to the content of the package after which the list will be compared to the order to see if everything has arrived. After this, the customer orders will be packed immediately for forwarding, and they will be shipped out using Matkahuolto or Finland Post. If additional goods have been ordered simultaneously with the customer orders, the goods are placed in the warehouse. After delivering the customer orders, they will be marked as “delivered” in the database. An invoice is also sent at this point if it has not already been sent together with the goods. Payment issues are discussed with more detail in chapter 3.7.

3.5 Transportation

The largest single logistics expense is most commonly generated by transportation. There are several means of transport to move the goods from the manufacturer to the supplier to the consumer. The choices made in carrier selection and routing can generate substantial savings or excessive expenses depending on how much time and thought is put on the decision. (Romo, 2004.) The different transport modes are introduced in the next chapter.

3.5.1 Transport modes

Sea transport

When the size of the cargo is big or the weight is high, sea transport is a suitable means of moving goods because there are virtually no limitations as to cargo capacity. Virtually every type of goods can be carried due to the wide variety of available vessels and the unit costs are low. There are hardly any political

restraints imposed on accessing ports or on international carriage. However, most countries practice cabotage, meaning that coastal wise traffic is limited to national flag carriers, which to a certain extent restricts the freedom of movement. Many distances and routes have been shortened and redefined by canals. Still, sea transport remains the slowest means of transport. (Romo, 2004, 8/1.)

Climatic features such as tides, fog and rain set limitations by disrupting traffic through a port. In certain countries some of the ports must be closed because of ice or monsoon seasons. Seasonal wind and wave conditions, as well as tides also limit the payload of the cargo vessels. The vessels need high water to get in and out of the ports which means that movement can take place only during certain times of the day. This, as well as the relatively slow operation of the docks, explains why sea transport takes the most time of all the transport modes. Additional problems may occur with some terminals inaccessible to certain vessels or ill-equipped to handle particular consignments. This problem is, however, being overcome by the development of roll/on roll/off vessels and adjustable ramp facilities. (Romo, 2004, 8/1.)

Air transport

Air freight provides a faster way to transport goods around the world as compared to other modes of transport. Due to the reliability and speed of air transit a supplier can hold a small inventory and make up for the relatively high transportation costs with reduced inventory carrying costs and increased customer service. It is of great use when the distances are long and the goods are perishable because there is no risk of overburdening. In addition, air transport is recommended when the products are of high value because with delivery running smoothly and quickly, there is a minimal chance for pilferage and breakages. Air transport is also a versatile mode as it is not comprised only of airplanes but also helicopters which are able to fly in difficult surroundings. However, due to the relatively small size of helicopters, they are not able to take in as much cargo as airplanes, which restricts their usage in some cases. Air transport also has a significant role in international trade because it has enabled the internationalization of many organisations. The existing international air freight

network is very extensive as it is but still continues to expand. (Romo, 2004, 8/1-8/2.)

Although air transport is in many ways very effective it has its problems. The operating costs are very high for one. Also, the service of air freight providers is vulnerable to certain weather conditions such as fog, ice and snow. Fog does not prevent landing because modern aircraft can land safely by relying on ground control despite the visibility for the pilot but all of the mentioned hazards prevent take-offs. Despite aircraft's capability to carry very large cargo, there are some limitations as to cargo weight due to the surrounding conditions. At some runway locations altitude and heat result in such thin air an aircraft's load on take-off must be restricted. In addition, the sovereignty of over the air space of all countries sets additional restrictions on air transport. (Romo, 2004, 8/1-8/2.)

Rail transport

Large quantities of goods can be transported by rail. However, there are some limitations with regard to the dimensions of the loads, meaning height and width. An exception is made over very short distances where wider loads can be transported. Still, in most cases moving cargo by rail is possible since it can deal with both length and weight and thus provide deliveries in high capacity. Rail transport is also relatively fast because the tracks are being used only by trains and therefore there are no problems with rush-hours. Exclusive usage of the railway tracks enables the operation of special high-speed trains as well. In addition, there is hardly any pilferage loss which enables low insurance expenses. (Romo, 2004, 8/2-8/3.)

The problems with rail transport are the different gauge standards in some countries, and the high basic costs due to maintenance expenses of bridges, tunnels and such. The unit costs are low but the additional expenditure usually increases the total cost to point where it outweighs the advantages of rail transport. Another mode of transport is also many times needed to complete the transit from rail to the final destination, which weakens the competitive advantage and gives way to road transport. Even though railway tracks are used only by train

traffic, delays are not uncommon. This is because in international transportation the responsibility of the wagons is constantly passed from one authority to another. This same problem also often results in wagons going astray. (Romo, 2004, 8/2-8/3.)

Road transport

Road haulage is in many ways an efficient means of transport. Due to the extent of the road network, road transport is extremely flexible in routing because different roads can be used on each transit if needed. Transit times are also short and the service reliable because of the extensive network. Fast routes are easy to find and delays only occur due to some exceptional circumstances, and this competitiveness has a positive impact on customer service and therefore also profitability. In addition, road transport is able to personalise the service provided with door-to-door service directly to the customer and without any intermediate handling as well as by making special deliveries. The required documentation is very simple, though needs specific information on the goods as well as the vehicle and the driver, and the packing costs are relatively low. All this makes road haulage competitive in terms of transit times, rates and customer service, within certain distance bands. (Romo, 2004, 8/3.)

The standards and capacities to handle certain types of lorries can vary considerably on some routes e.g. due to the road and weather conditions. There are also differences in weight regulations for vehicles in some countries. In addition, vehicle movement on weekends and public holidays is banned on certain routes which can cause delays in transportation. Most drivers of carrier vehicles are also subject to drivers' hours which limit the driving times and sets minimum rest periods. (Romo, 2004, 8/3.)

Pipeline transportation

Pipelines are used to transport liquids, gases and virtually any substances which are not chemically unstable, such as sewage, slurry and even beer. Irrigation and drinking water can also be transported but the most important good to travel

through pipelines are oil and natural gases. Special safety concerns are imposed on both oil and natural gases since they are flammable or explosive materials. Despite the strict safety measures, accidents happen from time to time. The pipes are built both under and above the surface and many times multi-pipes are used which enable the traffic of several different substances simultaneously. The unit costs of pipeline transport are low and the capacity to move goods is high which makes it a cost-effective way to transport goods from one place to another. Pipelines can also be operated automatically and because they are closed systems, they can be used in virtually any weather conditions. (Wikipedia, 2006e.)

Intermodal transportation

Intermodal transportation means moving goods from origin to the final destination by using more than one mode of transportation. Each transport mode has its benefits with regard to capacity, delivery time, safety, flexibility and cost. This enables the buyers to build an efficient transport chain which is suited for their particular needs at the lowest possible expenditure, by integrating the most optimal modes for the goods. (Wikipedia, 2006f.)

3.5.2 Transport mode selection

With regard to the selection of shipment, carrier, and routing, every importer or retailer must consider several factors which may influence their particular transport needs. According to Leenders, Fearon & Johnson (433-434.), some of the most important factors are the following. Delivery time, service quality and reliability, available services, type of goods, shipment size, and cost of the transport service.

3.5.2.1 Delivery time

Transport mode selection can be made very simple because of the required dates of delivery of the goods. For instance, with urgent deliveries over long distances,

air shipment is the only possibility because goods can be moved to their final destination within just a few days. Other transport modes can be considered when more time is available. The purchaser can estimate the delivery time of different modes by relying on past experience and most carriers also provide information on their average delivery times. There are several factors that can cause delays in transportation, such as poor weather conditions, political uncertainties, human errors and other special circumstances. These factors can be difficult to predict and for that reason companies should have safety stocks to ensure that goods are available for customers despite disturbances in deliveries. (Leenders *et al*, 2002, 433.)

Sports stores

As mentioned earlier in this thesis, sports stores typically purchase goods from import agents or directly from the manufacturers or other suppliers. When the agent, manufacturer or supplier is located within the country borders, deliveries are usually fast enough regardless of the transport mode. If goods are delivered from abroad, more time is required. However, because sports stores order goods on an average six months in advance, deliveries are manufactured and transported on time. Therefore problems are most likely to occur while placing supplementary orders caused by unexpected changes in conditions, such as demand.

Reaction Skate Store

The goods are delivered directly to Reaction from the manufacturers abroad. Currently, with sales based on internet and telephone orders and those made at sports events and competitions, the products are ordered from the manufacturers in most cases. The reason for this is that the owner wishes to keep the inventory levels low as long as the demand is not high in volume. When sales premises are put up, demand is expected to grow significantly and a higher level of stock is required. Because the suppliers are in Europe and Australia, all the deliveries take several days, two weeks at the longest. The goods imported from Bont in Australia are flown to Finland because it is the fastest way transport the goods, this takes approximately a week. Other modes cannot be recommended because

they would be much slower and keeping safety stocks to cover such long periods of time would become unreasonably high. Products from Raps and Powerslide are trucked from the Netherlands and Germany. The delivery from Raps takes approximately 5 working days and from Powerslide around 9. Rail transportation could also be considered for the EU area deliveries but trucking allows the goods to be transported straight to the buyer's facilities which suites the company well.

3.5.2.2 Service quality and reliability

There can be great differences in service quality between two carriers as one might be more attentive to the needs of the customer. With regard to reliability, as an example, there can be differences in damages incurred. This can be affected by the level of professionalism and training of carrier staff as well as the quality of the equipment used. Usually the best indicator of high service quality and reliability is the past experiences of the buyer. (Leenders *et al*, 2002, 433.)

Sports stores

When retailers are drafting purchasing contracts with manufacturers, the delivery terms are discussed and the chosen terms stated in the agreement. Sometimes the manufacturers have existing contracts with transportation companies and do not wish to use anyone else in delivering goods to customers. In those situations the buyer must settle with the quality and reliability of service the manufacturer has chosen in form of the contracted shipping company. If there are no existing transportation contracts that bind the retailer to use certain parties and modes in transportation, the retailers are free to arrange delivery themselves. In these cases the companies can take advantage of previous experiences or the general reputation and reliability of a carrier or a freight forwarder.

Reaction Skate Store

Reaction has several years' of experience in purchasing and transporting goods from Bont. The mode of transport, as well as the used freight forwarder, have

been used the entire time because of the existing contract between Bont and FedEx. Reaction has had no complaints over the quality and reliability of using air transportation, or FedEx for that matter. Flying the goods to Finland is the quickest way to transport the goods over such a long distance. At the moment fast delivery is required because most of the purchases are made on special orders. A fixed amount of seasonal goods are ordered several months in advance and in theory these deliveries could be used by using other modes of transport. However, unless Bont and FedEx alter the terms of their contract, Reaction has no possibility to influence the chosen transport mode.

This also applies with regard to Raps and Powerslide. Raps has contracted with DPD and Powerslide with UPS and Reaction cannot influence the mode of transport. The goods are trucked to Finland to Reaction's facilities directly from the manufacturers in the Netherlands and Germany. Flying the goods to Finland would not be financially sensible because of the high costs of air transport and the relatively low levels of order quantities. When sales facilities are put up and the ordered lot quantities increase, Reaction could try and negotiate with Raps and Powerslide for the goods to be flown to Finland. If the goods were flown, it would mean that the manufacturers would no longer be willing to pay for freight and these costs would have to be covered by Reaction. So far, however, both Raps and Powerslide have been reluctant to change transport modes.

3.5.2.3 Available services

When the goods are large or bulky or in some other way require special container features the carrier should be able to provide equipment qualified to move the goods. Staff must be trained to handle both special goods as well as the unique equipment used in transportation. Very often warehousing and inventory management services are required in addition to the transportation. Therefore, carriers today should be able to provide their customers with not only trained staff and suitable vehicles or vessels but also with storage facilities and services. (Leenders *et al*, 2002, 433.)

Sports stores

Sports stores many times have warehouse facilities combined with the sales premises. The inventory and warehouse management are handled by the company employees, with e.g. the help of various information systems that help track stock levels. Because of this, the stores usually only need transportation services from the carriers and the unloading of the goods at the buyer's premises.

Reaction Skate Store

FedEx, DPD and UPS used by Reaction deliver the goods all the way from the manufacturers' loading docks to the retailer's warehouse in Holma, Lahti. Because of the relatively small size of the company, there is no need to outsource warehousing and inventory management services. They can very well be handled in the future as it is now, by the owner and a part-time employee. The only service that is required by the company, is moving the goods from the seller to the warehouse.

3.5.2.4 Type of goods

Some types of goods can be shipped in only certain transport modes. For instance, bulk liquids may require pipeline or tank car transportation. Usually there are separate safety requirements for liquids and other special items. There are especially strict restrictions for all kinds of hazardous materials as to what carriers and routings are to be used. (Leenders *et al*, 2002, 433.)

Sports stores

Sports equipment retailers do not usually sell any hazardous or quickly perishable goods which means that no special safety measures are required. Most sports stores have a variety of nutrition and body care products that are equipped with an

expiration date. The times between the purchases and the expiration dates are typically so far apart, that the goods do not need to be shipped in a hurry. Therefore, generally speaking any form of transportation will do.

Reaction Skate Store

Similar to most other sports stores, Reaction does not import any types of goods that can be shipped using only certain modes of transport, nor is it likely to do so in the future. This again means that all transport modes would be suitable in theory, when not taking into consideration the other factors influencing in mode selection, like time and costs.

3.5.2.5 Shipment size

Small shipments can be economically moved by using various national and international postal services and larger shipments by rail or truck. Due to the small amount of sportswear and equipment manufacturers in Finland, goods must many times be imported, which increases transportation costs. This is why it is especially important for importing companies to consider the size of the shipments as one of the key factors to the costs and thus the ultimate selection of transport mode. Also, in international trade, buyers prefer larger quantities because of the cost-lowering aspect it includes. (Leenders *et al*, 2002, 433.)

Sports stores

Sports stores usually place large orders four times per year, one main order for every season. Smaller, additional orders are placed according to the restocking needs of individual products throughout the year. Goods are most typically trucked to the retailers regardless of the size of the company.

Reaction Skate Store

In most cases it is most cost-effective for sports stores to transport shipments by truck. The stores generally order large quantities at a time and thus reduce additional expenditure generated by international transportation. Many sports equipment are large in and even orders that are small in number of items can be big in size. This is why smaller, supplementary orders are usually transported using the same modes of transport than when delivering high volume orders. This applies also in Reaction's case. All orders are delivered using the same modes of transportation, air with Bont and road with Raps and Powerslide. However, these strategies to use these particular modes have been chosen by the transportation companies, FedEx, DPD and UPS, and have not been influenced by Reaction.

3.5.2.6 Cost of the transport service

When the goods to be shipped do not require any special qualities from the carrier, any mode of transport can be selected. In these cases the buyer should choose the mode, carrier and routing that will provide transportation within the required time, with safe movement of goods at the lowest transport costs possible. For this to succeed, specific information of the carriers, freight classification and tariffs is needed. If this information is available, the buyer will be able to select which combination of qualities and functions are suitable for their specific transportation needs. As a general rule, air transportation is the most costly of the transport modes, which is followed by rail, sea and waterway and finally pipeline modes. However, the total cost is influenced by the quality and quantity of the goods, carrier, routing and possible additional. Intermodal transportation costs are influenced by the aforementioned factors as well as the combination of modes selected. (Leenders *et al*, 2002, 434.)

Sports stores

No information was available on the costs incurred by transportation of Finnish sports stores.

Reaction Skate Store

All the suppliers of Reaction have made contracts with transporting companies and the contracts state that the manufacturers are responsible for the costs incurred. The volumes that the manufacturers send out on a regular basis are so high that they have been able to get very affordable prices on the transportation service. The amounts ordered by Reaction are very low as compared to those shipped by the manufacturers. After all, they are sending goods to hundreds, if not thousands, destinations all over the world. This is why it would not be possible for Reaction to get transportation arranged at such low costs. For example, if a hundred pairs of shoes were ordered from Bont in Australia, consumer price of the transportation using FedEx would be approximately €2,150. Other transport companies would charge similar rates, e.g. using TNT would cost anywhere between €1,200 and €2,400, and using Australia Post would total €1,300 at the lowest.

The transportation contracts made by the manufacturers and the transport companies are confidential and therefore no information can be attained on what the cost would be for Bont, Raps and Powerslide. However, typically the prices are somewhere around 50-60% of the announced consumer prices. In practice this would mean that even if Reaction would pay only 50% of the consumer prices, the costs would still be anywhere between €600 and €1,200. These calculations suggest that it would be financially most sensible for Reaction not to arrange transportation and pay amounts similar to the abovementioned numbers for each order. It would be recommendable for the company to continue accepting goods being delivered by the carriers that are currently used by the manufacturers and have Bont, Raps and Powerslide bear the costs.

In addition to the abovementioned list of issues to consider when selecting the mode of transport include the financial situation and stability of the carrier; manner of handling claims in cases of damage; carriage performance measurement by using rating systems; possibility of damage; and whether to use private or leased equipment. The carrier's financial situation naturally affects the ability to maintain quality equipment, provide professional and trained staff and

satisfactory customer service. The carrier will also need sufficient funds to cover expenditure generated by damages incurred. Damage claims easily occur in shipping fragile items or large quantities of goods when the possibility of damage is high. In these cases evaluating the situation and settling claims should take place in a prompt and efficient manner. Carrier rating systems help evaluate this as well as the general quality of the service provider, which helps the buyer make the necessary transportation decisions, while private carriers provide exclusive use of equipment to companies. Company-owned or leased vehicles can also be used instead of common carriers who offer services to companies as well as to the general public. (Leenders *et al*, 2002, 434.)

3.5.3 Carrier selection

When selecting a transportation company deliver goods, a company can either hire a freight forwarder or a carrier. A common carrier offers transportation services to the general public. They usually move people or goods according to certain ready-defined routes or time tables. Common carriers can be bus lines, trucking companies, cruise ships, airlines or railroads. A carrier can also be private which means that they offer their services for single entities, often corporations. These corporations are generally not in the field of transportation. As an example, General Motors Corporation (GM) owns and operates their own private fleet which is used to deliver goods to their stores. Since GM does not sell transportation services but is the world's largest automaker, the GM fleet is a private carrier. Private carriage can be found in water and rail transportation, though it generally refers to trucking. Large corporations many times choose operating a private fleet because even though it is fairly expensive, it can reduce transportation costs in the long run if the volumes of the moved goods are large enough. In addition, private carriers can arrange pick-up or drop-off at any location but a common carrier requires fixed points for shipments. (Wikipedia, 2006b; Wikipedia, 2006c.)

A freight forwarder, sometimes referred to as travel agent for freight, is either an individual or a company who arranges common carriers to dispatch shipments, typically to international destinations. They provide companies with information on export regulations, required documentation, carriers, costs associated with different transport modes and so forth. They have the expertise to perform the documentation and related activities involved in international movement of cargo. For instance, very typically a freight forwarder reviews information such as commercial invoices, shipper's export declaration and other related information that is required by the carrier or the country of export or import. In addition to preparing and checking shipping document, freight forwarders also arrange order collection from the point of origin to the shipping port. They also set up customs clearance and the final delivery at the country of destination. (Wikipedia, 2006d.)

Sports stores

Most sports stores, when contracting with suppliers, have agreed to outsource transportation to the supplier or to outside parties. It is simple and fairly inexpensive in the long-run. In addition, it allows companies to focus on selling goods and possibly managing and maintaining warehouse and inventory if these activities are not outsourced as well. The market leaders of the Finnish sports retail industry are owned by Kesko Group who owns a logistics services providing subsidiary, Keslog Oy. Keslog covers all transportation services of the Kesko owned sports store chains with its own transportation systems and vehicles (Keslog Oy. 2006.). This means that all goods coming to the stores through Kesko's central warehouses are delivered using the group's own fleet. Goods that are purchased directly from the manufacturers are in turn delivered with the manufacturers' fleet. Halti, for instance, covers transportation to all buyers with its own transportation fleet.

Reaction Skate Store

In Reaction's case, the carrier selections have been made for the company by the manufacturers in Australia and Europe and so far they have not been willing to change transport companies. However, the delivery terms are so favourable for

Reaction that there is no need to make any amendments in the near future. As already mentioned, Reaction currently sells goods over the telephone and through e-mail orders placed on-line. This will also continue after sales premises have been put up. The telephone and internet orders are delivered using Matkahuolto and sometimes Finland Post. The delivery costs are covered by the customers unless otherwise agreed. (Lottanen, 2006.) The following are brief presentations of the transport companies used by Reaction and its suppliers.

FedEx

FedEx, the world's largest express transportation company, was founded in 1973. Its worldwide headquarters is located in Memphis, Tennessee, USA and European headquarters in Brussels, Belgium. FedEx has 674 aircrafts and 42,000 vehicles worldwide moving approximately 3.3 million packages per day. (FedEx. 2006.)

FedEx provides customers and businesses worldwide with a broad portfolio of transportation, e-commerce and business services. With annual revenues of \$32 billion, the company offers integrated business applications through operating companies competing collectively and managed collaboratively, under the respected FedEx brand. Consistently ranked among the world's most admired and trusted employers, FedEx inspires its more than 260,000 employees and contractors to remain "absolutely, positively" focused on safety, the highest ethical and professional standards and the needs of their customers and communities. (FedEx. 2006.)

DPD

As a leading provider of parcel services Europe-wide DPD offers you a first-class range of services covering all aspects of domestic and international parcel shipment, providing you with fast access to all major business centres. DPD's service is exceptionally efficient due to a unique, high capacity transport network with more than 500 DPD depots in some 30 countries (DPD. 2006.).

UPS

UPS, United Parcel Service Inc., was founded in the US in 1907 and in Europe in 1976. Their worldwide headquarters is located in Atlanta, USA, and the European headquarters in Brussels, Belgium. UPS has 91,700 vehicles and 577 aircrafts and delivered 3.75 billion parcels in 2005. With more than 2,000 daily flights to over 200 countries and territories, time-definite delivery options, up-to-the-minute tracking, and expertise in customs clearance regulations, UPS makes international shipping easier than ever (UPS. 2006.).

Oy Matkahuolto Ab

Oy Matkahuolto Ab is a private buss traffic service and marketing company founded in 1933. The company's main business activities are travel and parcel delivery services, providing customers with timely and reliable transportation solutions. Matkahuolto employs approximately 800 people at nearly 500 service stations around the country ensuring fast deliveries over 20,000 scheduled freight shifts a day (Oy Matkahuolto Ab.).

Finland Post Group

Finland Post was founded in 1638. After several years of operating as a limited company, it finally turned public in 2001. The group is now the leading distribution and logistics company in Finland and selected markets in North Europe and employs approximately 24,400 people. Its main areas of development are international operations, information logistics and comprehensive logistics solutions (Finland Post Group. 2006).

3.5.4 Incoterms 2000

It is not uncommon for the parties to a contract to be unaware of the different laws, regulations and practices of trading in each other's respective countries. This problem was attacked by the International Chamber of Commerce already in 1936

when a set of international rules of trade terms became to be, known as “Incoterms 1936”. The set of rules was later amended and additions were made according to the changes in the international trade practices and the latest version of these terms is “Incoterms 2000”, which is the version used today. Although Incoterms have are mainly meant to be used in international commercial deliveries, it is at times used within domestic markets. It does not provide for all the duties that the contract parties might want to include in a sales contract, or deal with issues of breach of contract or exemptions from liability. It only covers issues related to the obligations, costs and risks of the parties of a contract with respect to the delivery of goods sold, placing the goods at the disposal of the buyer, distribution of risk and what to do with respect to carriage of the goods from the seller to the buyer. Other issues must be resolved in the contract of sale and possible conflicts according to the applicable law where necessary. (ICC Incoterms 2000, 109.)

EX Works/EXW

The term EX Works means that the buyer is responsible for bearing all the costs and risks that include in taking the delivered goods from the seller’s premises. This means minimum obligation for the seller. The goods are considered as being delivered when they are placed for the buyer’s disposal at either the seller’s premises or another named place. The goods are not cleared for export and not on any collecting vehicle. If the parties want the seller to be responsible for loading of goods and the costs and risks involved, they can do so by stating so in the contract of sale. This term can be used in any mode of transport, including multimodal transport. (ICC Incoterms 2000, 132-137.)

Free Carrier/FCA

The seller delivers the goods to a buyer nominated carrier (any person who, in a contract or carriage performs transport by any mode or a combination of modes of transport) at a named place, at which point the goods are cleared for export by the seller. If the buyer nominates a person other than a carrier to receive the goods, the seller has fulfilled his obligation when the goods are delivered to that person.

Under the FCA term the buyer should note that the place of delivery influences the obligations involved in loading and unloading the goods; When delivery takes place at the seller's premises, the seller is responsible for loading but not responsible for unloading if delivery takes place anywhere else. This term can be used in any mode of transport, including multimodal transport. (ICC Incoterms 2000, 138-145.)

Free Alongside Ship/FAS

The goods are considered delivered when they are placed alongside the vessel at the named port of shipment. The seller is not obligated to bear any costs or risks of loss or damage to the goods from that moment on but the responsibility shifts to the buyer. The seller is, however, required to clear the goods for export unless the parties wish otherwise, in which case this must be stated in the contract of sale. This term may only be used for sea transport. (ICC Incoterms 2000, 146-151.)

Free On Board/FOB

Similar to term FAS, term FOB also states the buyer to be responsible to bear all costs and risks of the goods from the point of delivery. However, the delivery is considered to take place when the goods pass the ship's rail, rather than being placed alongside the vessel, at the named port of shipment. The seller is required to clear the goods for export. This term may only be used for sea transport. (ICC Incoterms 2000, 152-157.)

Cost and Freight/CFR

Under the CFR term the goods are considered delivered when they pass the ship's rail in the port of shipment. The seller is responsible for bearing the costs and freight in order to bring the goods to the named port of destination. The seller is also required to clear the goods for export. The risk of loss of or damage to the goods and any additional post-delivery costs are transferred from the seller to the

buyer at the named port of destination. This term may only be used for sea transport. (ICC Incoterms 2000, 158-163.)

Cost, Insurance and Freight/CIF

The goods are delivered when they pass the ship's rail in the port of shipment. Again, the seller is responsible for bearing the costs and freight in order to bring the goods to the named port of destination. The risk of loss of or damage to the goods and any additional costs occurring after the delivery are transferred from the seller to the buyer at the named port of destination. The seller is required to clear the goods for export and also to obtain marine insurance on minimum cover against the buyer's risk of loss or damage to the goods during the carriage. The insurance is contracted and the premium paid by the seller. This term may only be used for sea transport. (ICC Incoterms 2000, 164-171.)

Carriage Paid To/CPT

The goods are delivered to a seller-nominated carrier by the seller after which the responsibility of all risks and costs is shifted to the buyer. If several carriers are used, the risk and costs pass when the goods are delivered to the first carrier. The seller must pay the cost of carriage necessary to bring the goods to the named destination. Under the CPT term the seller is required to clear the goods for export. This term can be used in any mode of transport, including multimodal transport. (ICC Incoterms 2000, 172-177.)

Carriage and Insurance Paid to/CIP

The goods are delivered to a seller-nominated carrier after which the buyer bears all risks and costs occurring after delivery. The cost of carriage necessary to bring the goods to the named destination is paid by the seller. The seller is also required to clear the goods for export, as well as to procure insurance on minimum cover against the buyer's risk of loss of or damage to the goods during the carriage. The insurance is contracted and the premium paid by the seller. This term can be used

in any mode of transport, including multimodal transport. (ICC Incoterms 2000, 178-185.)

Delivered At Frontier/DAF

The DAF term states that the goods are delivered when they are placed at the buyer's disposal at the named point and place at the frontier on the arriving means of transport. The goods are not unloaded and not cleared for import but cleared for export. The point of delivery must be placed before the customs border of the adjoining country. Also, the specific frontier must be precisely defined as the named point and place of delivery. If the parties want the seller to be responsible for the unloading of the goods and bear the risks and costs involved, they can do so by stating so in the contract of sale. This term can be used in any mode of transport when goods are delivered at a land frontier. (ICC Incoterms 2000, 186-193.)

Delivered Ex Ship/DES

The goods are delivered when they are placed at the buyer's disposal on board the ship. The seller is responsible for all the costs and risks involved in bringing the goods to the named port of destination before discharging. The goods are cleared for import by the buyer after delivery. This term can only be used when goods are delivered by sea on a vessel in the port of destination. (ICC Incoterms 2000, 194-199.)

Delivered Ex Quay/DEQ

When the goods are placed at the buyer's disposal on the quay at the named port of destination, the delivery is considered having taken place. The seller is required to bear all costs and risks involved in bringing the goods to the port of destination and discharging the goods on the quay. The buyer is responsible for clearing the goods for import and to pay for duties, taxes, charges and other formalities upon import. All or parts of the import-related costs can be included to the list of the seller's obligations if it is stated in the contract of sale. This term can only be used

when goods are delivered by sea on discharging from a vessel on to the quay in the port of destination. (ICC Incoterms 2000, 200-205.)

Delivered Duty Unpaid/DDU

The goods are delivered to the buyer at the named place of destination. The seller is not responsible for the clearing for import or for unloading the goods. The buyer must carry out any customs formalities, customs duties, taxes and other charges involved in bringing the goods for import in the country of destination. Also, the buyer has to cover all costs and risks if he fails to clear the goods for import on time. If the parties want the seller to carry out customs formalities and cover the resulting costs and risks, this must be stated in the contract of sale. This term can be used in any mode of transport, unless delivery takes place in the port of destination on board the vessel or on the quay. (ICC Incoterms 2000, 206-211.)

Delivered Duty Paid/DDP

The DDP term represents the maximum obligation for the seller. The seller must contract for the carriage and pay for the resulting costs, clear the goods for import and bear all risks and costs included in bringing the goods for import in the country of destination. DDP should only be used if the seller is able to directly or indirectly obtain the import license. If the parties do not want the seller to cover some of the import-related costs, such as value-added tax, this should be stated in the contract of sale. This term can be used in any mode of transport, unless delivery takes place in the port of destination on board the vessel or on the quay. (ICC Incoterms 2000, 212-217.)

Sports stores

No information was available for the used delivery terms of Finnish sports stores, or whether or not they are using Incoterms.

Reaction Skate Store

As long as Reaction is operating without physical sales facilities and the purchased quantities are low, Bont Skates insists that the used Incoterm be DDP Lahti, with an exception to the shoes and clothing items with which the used term is DDU Lahti. Bont places the goods to be transported by FedEx, who then delivers the goods, cleared for export, at the place named by Reaction. Bont bears all costs except for the import clearance of clothes and shoes. (Lottanen, 2006.)

As long as the operation is internet and telephone sales based only, meaning that there are no actual sales facilities, the suppliers are reluctant to change the terms of delivery. Once Reaction finds a suitable space to act as sales facilities and the order volumes increase, the suppliers may be more willing to make alterations in the contracts, including delivery terms, if the buyer so wishes. If and when Reaction has a say in delivery terms when purchasing from Bont, they should use the term DDP with regard to all the goods. The term holds the maximum amount of responsibility to the seller, who bears all costs and risks of delivery until the goods are placed at the disposal of the buyer. The buyer merely must accept the delivery of the goods at the named place of destination. Both Raps and Powerslide have agreed upon using Incoterms 2000 with DPD and UPS. The term DDP Lahti is executed in both cases which, again, is the most favourable term for Reaction. While the term DDU used by Bont when delivering shoes and clothing items is more favourable to the buyer, Reaction, than to the seller, it is recommended for the case company to try and amend the used term to DDP Lahti if a chance for that were to emerge.

3.6 Customs clearance and import taxes

A company faces customs and trade barriers when importing from outside the EU area. How big these barriers are depends on the country the goods are imported from. When importing inside the EU area, there are no customs duties, and there is no need to declare goods to the customs authorities. However, a company still must find out whether or not they are VAT (Value Added Tax) liable. The VAT

rate depends on the type of the imported product. VAT is paid simultaneously with the customs, before the goods are released. The VAT for most commodities in Finland is 22%. (Suomen Tulli. 2006.)

Customs duties in turn are paid in percentages defined by the value of the goods. When the buyer is responsible for paying the freight costs, the value of the goods is added, from which the amount of customs fee is calculated. Import and export within the community and the EU area is duty-free. The customs declaration has to be given, when the contracting carrier informs that the goods have arrived and can be collected. (Suomen Tulli. 2006.)

The easiest way for a company to deal with the import issues with customs authorities, is to let the carrier handle the whole procedure. Most carriers and freight forwarders are prepared to provide customers with customs clearance services. This means that the carrier will handle all issues with the customs authorities on behalf of the company, who then pays a fee for this service to the carrier together with a reimbursement of the duty paid by the carrier at customs clearance. (Suomen Tulli. 2006.)

Sports stores

No information was available on the customs clearance and import taxation of the Finnish sports stores.

Reaction Skate Store

Reaction Skate Store has outsourced the customs issues to the carriers, cover the entire process with the customs authorities. This makes things very easy for Reaction, and ensures that all necessary import documents are taken care of correctly. Having the carriers handle customs issues also speeds up the import process because the owner of Reaction has no experience on the matter. All of the carriers provide import clearance services and since the suppliers are paying for the duty, except for that of the shoes and clothes purchased from Bont, it is financially more sensible not to meddle with the customs clearance process.

Reaction pays 8% of the value of shoes and 12% of clothes as duty when importing from Australia. Duty on other Bont products is covered by the manufacturer. If Reaction at some point wishes to arrange transportation on its own, the company might have to cover the customs duties. (Lottanen, 2006.) However, this would not be rational because the current transportation contracts are financially sensible for the company and it is not recommended that the terms and modes of transportation, or the carrier, be changed.

3.7 Payment process

Companies send out their invoices either before a shipment is made or after the goods are delivered. Which one of the two methods is used, depends on the contract made between the seller and the buyer. The process of receiving goods was discussed earlier in chapter 3.4. After the invoice has been sent and received, the buyer must pay the invoice within the given payment time, after which the seller confirms that the payment has arrived and the customer account is cleared. The details of the payment process are defined by the different systems and policies used by companies, and by the payment terms stated in the contract. When a company sends an invoice it has to include information on what has been sold, quantity in words or numbers, the price both with and without the VAT, the company information, and the payment information. Also the due date and related information has to be included. (Yrityksen perustajain opas 2006, 33.).

According to the accounting law, all commercial companies are liable to provide accounting data of their business activities. Tracking financial success of a company and calculating its profit per accounting periods is possible with the help of accounting. The bookkeeping data can also be used for statistics and taxation purposes. Bookkeeping can be made within the company by its own employees or management, but can also be outsourced to an external expert, such as an accounting agency. Because taxation and accounting are closely bound to each other, it is extremely important that a company's books are handled professionally and with care. A company is always liable for the accounting data and

information, even if the process is handled by an external agency (Yrityksen perustajain opas 2006, 33.).

Sports stores

No information was available on the payment processes of the Finnish sports stores.

Reaction Skate Store

Reaction Skate Store purchases its products from the Netherlands, Germany and Australia. The company receives invoices from every supplier and all of them have slightly different payment policies. Bont, Raps, and Powerslide, all have payment time of 30 days, with the exception of Bont's custom made boots, of which the company requires a pre-payment before the product is manufactured. The currency used in all payments with all three suppliers is the Euro. When paying outside the EU area and using other currencies than the Euro, the bank charges extra of €5 for processing the payment transaction. By paying invoices in Euros, no additional fees are charged because the bank in Finland does not have to exchange currencies. Bont sends its invoices via e-mail as PDF documents a few days after the delivery, whereas Powerslide and Raps invoices come in the post as hard copies a day or two before the goods arrive. Powerslide grants a 2% discount when payment is made within two weeks from receiving the invoice. Bont and Raps do not currently grant discounts on fast payments. (Lottanen, 2006.)

When invoicing their internet and telephone customers, Reaction Skate Store gives 14 days' payment time if no other arrangements are made with the customer. The company allows the customer to pay in instalments without charging any extra costs. When an order is made for custom made boots, the company requires an advance payment of 50% of the selling price. This is because custom products do not have a return right and because Reaction must pay the purchasing price in advance. When the goods are shipped to the customer, the invoice will be sent in the same delivery. Sometimes when the customer needs

prompt delivery, or when they prefer to have the invoice in electronic form, it is sent a day after the goods are delivered. (Lottanen, 2006.)

The flexibility in payment procedures has both good and bad sides. Special payment arrangements with customers, i.e. giving extra long payment time or granting a possibility to pay in instalments, increase customer satisfaction and acts as good advertisement for the company in general. The downside, however, is that the money is tied up longer which slows down the money flow. Therefore, it is essential to find a good balance between the payment time and money flow. Special arrangements on payments are granted rarely by according to the individual cases. Reaction should consider whether to make special payment times or instalment payment a method they offer to everyone or if they should be offered as they are now. Another possibility would be to refuse instalments altogether but this would hold a risk of losing customers and can therefore not be recommended.

When physical sales facilities are put up, the “order” of a customer is the actual purchase of a good, and payment takes place immediately if paid in cash, or at a few days’ delay if paid with a bank or a credit card. If a customer wishes to purchase such goods from Reaction’s suppliers that are not included in the company’s product range, the items will be specifically ordered from the manufacturer similar to as if a normal telephone or e-mail order was made. Other than that, having sales facilities will not affect internet or telephone sales as such, because Reaction is the only supplier of Bont, Raps and Powerslide in Finland.

3.8 Information systems

In order to run a smoothly running business, a company should have some kind of an information system to ensure the efficient communication of e.g. inventory and stock levels. Accurate, timely and useful information is important for every company in order to satisfy customers and keep the logistics costs as low as possible, as well as generating the highest possible profit. Communication is required between the logistics activities, the company and its customers, and the

company and its suppliers. Marketing and accounting also benefit from effective communication and information systems. A key issue in a successful logistics management is timely and accurate movement of information. For instance, a company must be able to react quickly in cases of stock-outs or delays in deliveries. These kinds of situations are most likely to have a very negative affect on customer service level, especially if a company frequently fails to react quickly. If communication and the movement of information are efficiently covered within the company, with the suppliers and with the customers, it will have a positive effect on customer service and increase sales.

Companies can use advanced information technology which link the members of a supply chain to one another. In his book, *Strategic Logistics Management*, Lambert (Lambert 2001, 85) states that by sharing key data, a firm may be able to achieve some or all of the following; Increased customer service levels, lower inventories, speedier collections, decreased transportation costs, lower warehousing costs, improvement in cash flow, and high return on assets.

An example of such technology is the EDI (electronic data interchange) system. The system can be described in the following manner:

EDI (Electronic Data Interchange) means automation of business transactions and paperless trade. In it, the data concerning a business transaction is sent from one company's information system (IS) to another via a telecommunication network. The data is converted into a commonly agreed form consisting of short messages of a certain structures. Eg, the information keyed in from the freight forwarders to the customs authorities is instantly available to anyone authorized to access it. However, all parties concerned must have compatible systems, before any savings in time, documentation and paperwork can be achieved. (Airas & Junkkari 2002, 366.)

Along with the Single European Market, EDI was supposed to reduce the amount of paperwork between the parties involved in an export/import transaction and, finally, lead to the paperless office. But this did not happen; paperless trade never really materialized. The vast majority of suppliers are still printing out documents and using fax, email or snailmail to send them instead of EDI. (Airas & Junkkari, 366.)

A company can also decide to rely on a system as simple as the internet. “By contrast to EDI, the Web offers much broader adoption and coverage, ease of use and the ability to handle a wide variety of message content.” (Schary, Skjøtt-Larsen 2001, 314.) Especially small businesses tend to use the internet combined with simple spreadsheet programmes, such as Microsoft Excel. The internet is very low in costs and Excel is usually installed on computers unless other operating systems than Microsoft are used. However, all operating systems have similar programmes which enable all computer-owning companies to use spreadsheets in warehouse and inventory management. Invoicing, ledgers and receivables can also be tracked and controlled by using administrative management programmes such as Passeli, NetBaron and Exact. These programmes can be especially tailored to suite the specific needs of different kinds of companies. The introduction of information systems can be expensive but in most cases the increased sales incurred by intensified movement of information justifies the costs of the systems. However, companies should not rely completely on a single information system but have a back-up system of some sort. This is because even information systems can fail due to various reasons such as human errors, lack of support for the system or inadequate computer resources.

Sports Stores

Big sports store chains have their own internal information systems tracking all activities from demand and sales to inventory levels and orders. The cashiers are linked to the warehouse and inventory systems, and together they keep record of e.g. how much goods are in stock and when new orders need to be placed. The information systems used by the Kesko owned sports stores are integrated with the group to enable fast and efficient movement of information within the entire organisation.

Reaction Skate Store

Currently, Reaction uses the internet in communicating with the suppliers and the customers, and some information is kept using spreadsheets. Since the company is small and using expensive information systems is not necessary, Reaction should

consider taking advantage of the various inexpensive or free programmes available in the internet. For instance, Microsoft provides an electronic invoicing system which has been designed for the use of small and medium sized companies. It offers applications for administrative management, production, logistics, contact management and e-commerce. Using information systems that help companies to process and manage initial data is recommended to ensure the timely, efficient and cost-effective business operations. They could easily intensify operations by offering professional help in tracking all necessary and important information in Reaction's case as well.

4 SALES PROCESS

4.1 Pricing

A company's pricing policy has a great impact on the sales of the goods. Pricing affects not only the profitability of a company, but also the image. The company should find a pricing balance, where the company can gain a desired level of profit without decreasing demand of the goods. For the sake of image and appearances, the appropriate pricing strategy should be decided alongside with the product and distribution strategies. It should be noted that different target groups associate different levels of value added and necessity to goods and are willing to pay different prices. (Yrityksen perustajain opas. 2006, 38.) Image can be strongly influenced by marketing decisions which were discussed in chapter 3.3.

In general the payment and the ownership of the product have to move at the same time. Typically, several payment options are accepted in both remote and normal retail sales. For instance, pre-payment by cash or using on-line banks cannot be the only acceptable payment methods. If a customer fails to pay for the goods on time, payment reminders can be sent 14 days after the due date at the earliest. A maximum compensation of €5 can be charged as compensation as expenses for sending the customer a written reminder. (Kuluttajavirasto, 2006.)

Sports stores

Sports stores generally price goods at a level close to the recommended resale price albeit exceptions do occur, e.g. in forms of discount sales. Most retailers sell well-known brands and since the same, or similar, products can be purchased from nearly every sports store, price competition is not sensible. Therefore customers are not likely to find big differences in the pricing between two sports stores. Price competitions tend to weaken the price/quality ratio of a product and when it becomes weak enough, the customer is no longer willing to pay for the

good and turns to supplementary products or refuses to purchase a good altogether.

Reaction Skate Store

Price information is a part of marketing, and usually also an essential part of the terms of agreement. In Internet sales, it is just as much a company's duty to make sure that the price information is correct than in any other deal. Also, updating information in the Internet is easy. The final selling price must always be quoted when promoting specific products but preferably all price information should be available at all times. The prices must be so called total prices, which include all taxes and other additional costs. The freight costs of remote sales must also be quoted. If the freight costs are determined by order quantity or weight, it must be clearly informed that freight costs are not included in the prices. Sometimes a company is forced to make amendments in selling prices, mostly because of increases in costs of production, purchasing, transportation, warehousing, etc. However, a company can have discount sales or give special discounts to certain customers or customer groups. The customers should be informed of the retailer's right to price changes. (Kuluttajavirasto, 2006.)

Reaction has the right to price their products as they prefer, except with Bont goods where the company has a +/- 5% marginal for alterations of the recommended resale price. Currently, the company prices the goods according to the recommended resale price given by the supplier. This kind of a pricing strategy is quite safe because it keeps the company's contribution margin good and the goods affordable to the consumers. In addition, when Esa Lottanen was selling Bont products, he found that if the customers could purchase goods even slightly cheaper somewhere else, they would not place an order to Bont. This was the case even though the total price, including transportation costs, totalled more than ordering goods from Esa Lottanen at a slightly higher purchasing price and lower delivery costs. In conversations with other Bont's customers abroad confirmed that the situation was same everywhere. (Lottanen, 2006.)

When talking about the clothing and shoes, the prices must be slightly higher than the recommended resale prices. This is because Reaction is responsible for covering the customs clearance and on these goods, which results as an increase in the purchasing prices. By increasing the prices according to the extra costs incurred by the import costs, the company is able to maintain the contribution margin at the same level as without additional costs. The small adjustments made in the prices of clothes and shoes have not alienated customers like the price changes made in other products. Though the price alterations have previously affected demand, when sales premises are put up and the demand structure and sales volumes will change, Reaction should amend its pricing strategy for a test period and see whether or not it would generate positive results. Calculations on price alterations were made earlier in chapter 3.3.2.

4.2 Customer service issues

It is a fact well known that customer satisfaction is supported by good customer service. Decisions made by the management on logistics strategies ultimately define whether the necessary level of customer satisfaction is being achieved at the lowest possible costs. Understanding the importance of customer service leads to bigger profits for a company. Since every company needs customers to buy their products in order to get profit, customer needs and wants must be carefully analysed. By answering demand with the required supply and thus providing customers with the highest possible service levels enables a company to keep their old customers while attracting new ones. Keeping customers happy is one of the most effective means of marketing as people are very willing to share their shopping experiences, especially the bad ones. Accordingly, since marketing and logistics are strongly linked to each other, customer service can be significantly influenced by various logistics decisions.

The most direct link between a customer and the supply chain is distribution. Since distribution affects the level of performance of the chain, it is also bound to have an impact on customer satisfaction and loyalty. This makes customer service the most direct output of the logistics system which and also benefits greatly from

a company's good performance on the components of the marketing mix. By making adjustments in the customer service levels to ensure the needs of the consumers are met, a company can improve profitability while reducing costs. (Ellram *et al*, 15.) This demonstrates how important logistics can be when it is organised in an effective and efficient way. Good customer service keeps the customers coming back time after time and can attract new customers. Accordingly, poor customer service can result in loss of both sales and customers. This can also drive away any potential customers. Therefore, every logistics activity in the company has a vital role in the pursuit of customers receiving the right product at the right time, at the right place, in the right condition, for the right cost. (Romo, 2003, B1.)

The aim in customer service is always on meeting demand. If a company is executing a low or a zero-inventory policy, having goods available at all times can be challenging. From the customer's point of view, the perfect situation would be for companies to keep full stocks on all items to ensure the availability of goods, i.e. to keep high service levels for all products. However, this would be extremely uneconomic because the service levels would increase due to high availability of products, but the inventory carrying costs would increase considerably as a result of the high safety stock levels. In time, this would lead to a raise in selling prices, since the level of service is influenced by the safety stock levels. (Lysons, 254.)

Sports stores

Most sports stores provide their customers with well-known and highly appreciated brands and products. Customers are typically attracted by goods and names they are familiar with and interpret availability of these products as quality service. Also, the pricing of these goods are reasonable and marketing frequent, which also increases customer satisfaction. Customer satisfaction surveys are quite rarely executed by sports stores but nearly all of them have feedback boxes where customer can write down suggestions, pros and cons, and other types of feedback concerning the store, its employees and products. The members of the staff are frequently trained by various courses that focus on several issues, customer service included. Occasionally, some sports stores or chains may use

investigators pretending to be customers, after which the company receives a report on the sales skills of the employees and service level of the store.

Reaction Skate Store

Reaction aims at providing their customers with professional advice on inline, speed and fitness skating alongside with high quality goods at affordable prices. The company helps the customers find the best solutions possible concerning goods, and is even willing to send a sample for fitting if the customer lives far away from Lahti. For instance, if a customer lives in Oulu, Reaction can send sample boots for fitting, providing that customer pays the freight costs. This has been very well received by the customers. All of those customers who have received boots for fitting have been willing to pay for the freight costs and have not seen it as negative. Reaction also provides its customers with after sales services, which are discussed in chapter 4.5.

By taking some time to find out what the customer wants and then finding the best solution both price and usage wise, Reaction can communicate to the customer that their individual needs are taken care of. The decision making process between different products takes a long time especially with the customers who are purchasing skate packages. Even a simple fitting and conversation on what the best product for that particular customer would be can take up to three hours. Yet, the customers have usually been pondering the purchasing for several months even before the actual fitting session. During this time the customers have usually familiarised themselves with the products at the events where Reaction has participated, and discussed the goods with the owner of the company as well as with other active sportsmen.

In addition to the abovementioned, Reaction could execute a survey on what the customers think of the products and the services, and make suggestions on what they would like to see done differently. This way Reaction could gain new perspective on possible needs for amendments or developments in order to increase the current level of customer satisfaction. By paying attention to the needs and wants of their customers, and improving customer satisfaction,

Reaction can also gain better opportunities to grow sales volumes and the company profit. The company should also aim at having goods available for purchase as that will increase service levels as well as the company's reputation as a good and reliable supplier of various speed, inline and fitness equipment and clothing items.

4.3 Packing

“In foreign trade, packing calls for several considerations: the length of journey, the method of dispatch, reloading if multimodal transportation or transshipment are used, customs clearance, climatic or other unstable conditions, even the human hazard – pilferage” (Airas & Junkkari, 112).

Sports stores

Retailers receive the goods from their suppliers packed and therefore do not need to repeat this operation when goods are delivered to their storing facilities. Some of the Finnish sports stores are selling goods on-line, in which cases the retailers are responsible for packing the goods for transport. No information was available on the packing arrangements but it is a presumption that if the quantities of shipments are high and the deliveries frequent the retailers most likely have contracted with a single carrier to take over the transportation process of the goods to the customers.

Reaction Skate Store

When purchasing goods from the manufacturers, Reaction naturally is not responsible for the packing. The manufacturers pack the goods according to the nature of the items and to the issues listed above. Therefore, Reaction is only liable for packing goods when sending them on to its customers all over Finland. The goods are individually packed after which they are placed in parcels or cardboard boxes and tubes, when delivered from the manufacturers. When forwarding the goods to the customers, the products' own packages remain

untouched but they are packed into cardboard boxes, usually provided by Matkahuolto and Finland Post. Reaction receives a discount on the packing materials and the expenses are included in the invoice to be reimbursed by the customers receiving the goods. The costs are defined by the size and number of goods as well as the length of the journey.

4.4 Guarantees and return right policies

When goods are faulty, a buyer has the right to return them to the seller. When a customer sends back goods to the supplier, the buyer has the right to inspect them at arrival. If there are defected goods, the buyer must inform the seller within a reasonable time. The final limit for claiming damages due to defect is two years unless the good has a warranty which exceeds that time frame. However, it has to be clearly shown that the damage has not occurred during the shipping, but is caused by the seller. If the goods are detected to have damaged during transportation, the responsibility falls on the carrier if so stated in the contract. In these situations using Incoterms is useful, as the terms state distinctly who is responsible for damages during delivery and the liability can be moved to the right party. (Kuluttajavirasto, 2006.)

Even though many stores offer their customers return rights, it is not obligatory in retail sales. In an internet business, however, this right must always be granted to the customer because the purchase decisions are based on pictures and verbal descriptions. Because in these cases it is not possible to examine and experiment the goods, customers would not likely be even willing to purchase a good without a right to return goods if they did not meet up to their expectations. The cancellation time in remote sales is always at least 14 days. It can also be longer if the seller so wishes but the time should always be made available for customers to see. However, the consumer has no cancellation right on specially ordered custom made goods. Consumer law grants consumers the chance to try goods at home if purchased on-line so that the customer can see and feel the qualities of the product. However, the consumer does not have the right to start using the product if intending to return it. (Kuluttajavirasto, 2006.)

Sports stores

Usually products can be returned within 14 days of the purchase. However, there are some exceptions. Some brands can have special campaign offers where they grant longer return times, e.g. a month within which time the customer can return the good if it is not satisfactory. In case of breakage or other malfunctions or manufacturing errors in general, an employee of the sports store makes the first assessment on the product and decides if it should be sent to the manufacturer for further assessment or replacement. Each case is assessed individually. Typically in case of problems, reclamation and compensations can be made within one year after the sale.

Reaction Skate Store

Bont International Ltd gives a two year guarantee to their boots in case of a manufacturing error. If a customer returns the boots to Reaction complaining about a problem that seems to be a manufacturing error, Reaction will send the boots for assessment to Australia. After the assessment made by Bont, they usually give a new product to the customer if the problem with the boots is not possible to fix. This means that Reaction itself does not compensate the faulty products. Also with regard to other goods, they are sent to Australia in case of suspected manufacturing errors. However, if a digital picture of the fault can be taken, it will be sent to the manufacturer in stead of the good to avoid additional costs if goods are not found faulty. Similar procedures are also used with the other suppliers. Each problem is solved individually, but in most cases the supplier ends up replacing the faulty product after assessing a picture sent by Reaction. It is quite rare for goods to be returned because of manufacturing errors. (Lottanen, 2006.)

Reaction has a policy concerning the head mouldable and customised goods stating that the products do not have a return right, unless there is a clear manufacturing error. This is informed to the customers whenever customised goods are ordered. However, if the customer is very unhappy with the product and has no right to return it, Reaction usually will try to handle the situation by

offering another model to partially compensate the good that the customer has previously purchased. The used methods of operation are bound by law meaning that no special recommendation can be given with regard to guarantees and return right policies.

4.5 After sales activities

Building and maintaining good customer service includes after sales activities. The need for spare parts and service support, as well as a smoothly running system for returned goods and compensations are essential parts of the customer service process. The better the service is both during and after the sales transaction, the more satisfied the customers are. This will most likely lead to new purchases by the customer and also to gaining additional customers by the word-of-mouth influence of the existing, satisfied customer. Keeping in touch with the customers can also increase satisfaction in service by making the customers feel important. For instance, the seller can track if the customers have been satisfied with the purchased products or do something as simple as sending out Christmas cards. Because of the importance of after sales activities, they should be made a fixed component of a company's marketing strategy.

Sports stores

No information was available on the after sales service policies and practices of the Finnish sports stores. However, Kesko systematically sends out leaflets and pamphlets to their regular customers. These leaflets and pamphlets include information of new products and the goods of the group's sports store chains are frequently displayed.

Reaction Skate Store

Reaction provides its customers with after sales services related to the products themselves. The services include activities such as spare part services, heat moulding, blade sharpening, and advising. When a customer wants to return a

product they have purchased, Reaction checks the problem or sends it to the manufacturer for inspection and informs the customer of all steps taken and about the progress of inspection process.

Reaction also gives information on the sports, the brands, skating techniques etc. The owner, Esa Lottanen, has been involved in organising technique courses and events alike. Information and advertisements of these events are regularly being sent to the customers of the company. Reaction should also send information on new products and other advertisements to their customers. By making special offers to the long-term customers, Reaction can increase its sales but also increase the customer satisfaction by making the customers feel special.

Despite not being able to hold a zero-inventory, Reaction should aim at keeping inventories as low as possible. Most of the goods are very valuable and keeping a high inventory on such items would not be very economic. The relatively low demand on the most specialised items, i.e. speed skating and inline skating equipment, allows the company to keep the inventory on these goods low. However, the fluctuations in demand of these goods are hard to predict and that is why it is not wise to keep the inventory so low that the company is unable to meet the market demand.

During the summer season, the best selling items are fitness skates. In that time the value of inventory is bound to increase because quite a big amount of goods is needed in stock. Because the deliveries from the supplier of fitness skates, Powerslide, take at least a week and the number of skates sold is quite high, Reaction must ensure that there is always at least a one week's safety stock at hand. The same applies for clothing items which are also sold in high quantities during the summer season. Despite the higher demand of goods in the summer, Reaction still insists on keeping the inventories as low as possible because, as mentioned before, the value of the goods is high. However, although the aim is to maintain a low inventory, a zero-inventory policy is not an option.

5 RECOMMENDATIONS

Reaction does not have written contracts with Raps or Powerslide. Some details over prices and delivery terms have been agreed over the telephone and during e-mail exchange. Reaction should make written contracts with these suppliers. It is recommended that the applicable law in contracting would be CISG together with the UNIDROIT principles. All the manufacturers as well as Reaction, are located in countries who have signed the CISG regulations and therefore the set of rules should be familiar to all of the parties. Also, disputes over the applicable law should be avoided by using an international law rather than any national law.

The transportation of goods is arranged by the manufacturers in all three cases. Bont has contracted with FedEx, Raps with DPD and Powerslide with UPS. The contracts state that the carriers are responsible for the physical transportation as well as the paperwork included in the process, such as the customs clearance documents. The manufacturers are also covering the transportation costs incurred. This is in the best interest of Reaction because the company could not contract a carrier on such low-cost terms as the manufacturers do. So far the suppliers of Reaction have been reluctant to make amendments in transportation. However, even if alterations could be made in the future, they could not be recommended because the current situation is financially very suitable for Reaction.

Because the manufacturers are covering the costs incurred by the transportation of goods, Reaction can make several smaller orders, rather than a few large ones per year. The company could order products more infrequently but that would increase warehousing and inventory carrying costs. Since Reaction does not need to be bothered with the delivery costs, they are financially speaking free to order as little they want, as many times they want. Therefore, considering the abovementioned facts, the company should continue ordering goods in smaller volumes frequently. The optimal order quantities can be reassessed later on when the company puts up physical sales facilities, as Reaction's operations are currently based on internet and telephone sales. Having sales facilities is expected to increase sales significantly, which again influences the amount of goods ordered from the manufacturers.

Bont is currently using the Incoterm DDP Lahti, and with regard to shoes and clothing items the term DDU Lahti, when shipping goods to Reaction. The goods are delivered, cleared for import, at Reaction's facilities. Under the conditions of the aforementioned terms, all costs except the import clearance of clothes and shoes are covered by Bont. Both Raps and Powerslide are using Incoterms 2000, and the same DDP Lahti term under the current contracts with DPD and UPS. If Reaction at any time has a chance to influence the used delivery terms, it should recommend that Bont use the term DDP Lahti with regard to all the goods. The goods are delivered from Bont in Australia by using air transport and from Raps in the Netherlands and Powerslide in Germany by using road transport. The term DDP can be used with all modes of transport and holds the maximum amount of responsibility to the seller. Under the term, the seller is responsible for all costs and risks of the delivery until the goods are placed at the disposal of the buyer, meaning that it is the easiest term from the buyer's point of view.

As already mentioned, the goods purchased from Australia are flown, and those purchased from the Netherlands and Germany are trucked to Finland. Using air transportation is expensive, but it is also the fastest way to deliver goods over long distances. Importing goods from Australia to Finland by using other modes of transport would be very time-consuming and goods would always have to be ordered months in advance. The goods provided by Reaction are valuable and keeping safety stocks to cover demand over several months would significantly increase inventory carrying costs. In addition, since the company does not bear costs for the transportation, goods can be delivered using air transport though it is the most expensive of the transport modes. In case of Raps and Powerslide, the goods are delivered by trucks. Both of the manufacturers are situated in the EU area and the deliveries are quick enough to ensure Reaction can provide its customers with the goods within a reasonable time-frame. Reaction should, however try to negotiate with the suppliers for the option of having e.g. urgent orders to be delivered using aircraft, although so far neither one of the suppliers have been willing to use this mode.

Because the manufacturers have contracted carriers for the transportation of goods, Reaction does need to insure the goods because the responsibility of

damage of goods during transportation is covered either by the seller or the carrier. However, when the goods have been delivered and are placed at Reaction's disposal in its facilities, the risk of damage shifts to the company. For this reason, the warehouse and the goods in it have been insured. In addition to insuring the warehousing facilities and the goods in stock, Reaction should hold a safety stock as an insurance against stock-outs. There are various reasons why deliveries can be delayed or goods unavailable. It is important to be able to provide customers with goods at all times, despite any disturbances in the transportation or manufacturing process.

Though safety stocks enable the availability of goods for customers, thus increasing customer satisfaction, they also increase the inventory carrying costs. In Reaction's case when the goods are valuable, the safety stock levels should be carefully assessed, as such goods increase the value of the total inventory. Not all goods necessarily need safety stocks, especially if they are seasonal items, such as those sold by Reaction. There is hardly any demand during off-season, regardless of the occasional single purchases. This is why Reaction should either have very low safety stocks for these goods or no safety stocks at all. Goods like clothes and shoes, on the other hand, are sold throughout the year and though the demand for these goods fluctuates slightly, they should always have a safety stock. However, due to the high value of the products, Reaction should always keep inventories as low as the demand allows. The turnover times calculated for Reaction's products suggest that the company should pay special attention on the sales of bearings, inline skate packages, ice blades, wheels and fitness skates. The demand of the goods is difficult to predict due to the seasonal nature of the goods but by analysing past sales, Reaction can get an estimation on the level of future demand. This also helps to set the inventory levels so that goods are available when needed but at the lowest possible costs.

Reaction is currently promoting both the company and the products in various sports events and competitions, and is sending information on these events to its customers. Since the company is already keeping contact with the customers, it should also track the customer's satisfaction with the goods and inform them of new products and discounts. Paying attention to the customer after the purchase

has been made, is an effective means of marketing as it makes the customer feel appreciated. The company should pay attention to marketing in other ways as well. Reaction is a new player in the marketplace and does not have the funds to launch big advertising campaigns, but even fairly small investments can have a significant, although momentarily, impact on sales.

Promoting the company by providing customers with high quality service is another form of effective marketing. Reaction should consider executing a survey to find out what are the issues the customers would like to see improved. In addition to the abovementioned, Reaction should pay more attention to clothing items because currently promotion is almost entirely focused on sports equipment. This is important not only because of the non-seasonal nature of clothing items but because unlike sport equipment, clothes are a necessity and therefore have a relatively higher demand. This means that the sales of clothes have potential to generate much bigger profits than those gained through sales of any sports equipment.

Reaction currently has warehousing facilities in Holma, Lahti. The space is sufficient to hold the goods needed in stock to cover current demand. The warehouse can also be expanded which means that the company does not necessarily need to move to another warehouse when sales increase. The unutilised storage space should be taken advantage of because the costs of the current warehouse are very reasonable. Also, additional costs would be incurred from moving the goods to a new location. Even though the warehouse is sufficient to hold the current level of inventory, Reaction should keep the ordered volumes low due to the high warehousing and inventory costs generated by the valuable goods. Accordingly, it is recommended that the company shelve the goods in cardboard boxes in order to save space in case level of inventory was to suddenly increase.

The company has used the manufacturers' recommended resale prices on all goods. So far it has suited the company well. However, especially after physical sales facilities are put up, the company should consider altering selling prices. A small change in prices can have a surprisingly significant influence on sales and

profit. Still, it must be noted that under the current contract, Reaction can only impose a 5% amendment on the retail prices given by Bont. Neither Raps nor Powerslide have restricted Reaction from making price changes, but it should always be executed with patience and consideration.

At the moment Reaction is using the internet alongside with a simple spreadsheet programme. This is easy and inexpensive, and is sufficient to meet the needs of a small business. In addition to these, the company should consider using various free systems provided by companies on-line. These systems can be specialised in accounting, invoicing, warehouse and inventory control etc. and ensure the timely, efficient and cost-effective way of business operations.

6 SUMMARY

Reaction Skate Store is a sports equipment importing company situated in Lahti, Finland. The company is specialised in selling inline, speed and fitness skates, and related equipment, alongside with leisure time and sportswear. The goods are imported from three different manufacturers located in Australia, Germany and the Netherlands. Currently, the goods are sold in the Internet via e-mail and telephone orders.

The purpose of this thesis was to provide the case company with suggestions and recommendations on how to improve the various activities of the logistics questions in the supply chain. The aim was to offer solutions that will enable the company to maximise the efficiency of the logistics activities at the lowest possible costs. The used information was gathered from interviews with the owner of the company, through observation, in the Internet, books, and other published literature. The theories of each subject were reviewed after which focus was aimed at the general operation modes of sports stores if such information was available. This was followed by the operation modes of the case company alongside with analysis on needs for improvement or development.

The subjects were discussed according to the various steps in the purchasing process. In the first part of the thesis, supplier selection was discussed and the suppliers presented alongside with the case company. Legal issues, contracting, and insurance and risks were reviewed and the operating environment, including the general state of retail sales, competition and target groups were analysed.

The second part focused on the several activities in the value chain. Inventory and inventory management were introduced, as well as the methods used in inventory forecasting. Marketing and its connection to logistics were presented in the form of the marketing mix after which the ordering process was discussed. After that, the various issues of transportation were handled. These issues included transportation modes and mode selection, carrier selection and Incoterms. Last in this part, customs issues, information systems and the payment process were covered.

The fourth and last part concentrated on the sales process. First, the issues of pricing and customer service were tackled. After that, questions concerning packing, and guarantees and return right policies were grasped.

After covering the abovementioned issues, recommendations and suggestions given in the text were gathered and recapitulated in the fifth chapter of this thesis. These recommendations were made based on the observations of deficiencies in different logistics chain activities in this study. The lacks in the logistics operations of the case company were found in the areas of information systems, contracting and using Incoterms. Although the company is small and the current combination of the Internet and a spreadsheet programme are sufficient for the prevailing size of operation, the company could benefit greatly from using supplementary information systems to enable seamless and timely movement of information. Contracting was found to be one of the greatest problems as the case company currently has no written contracts with two of the three suppliers. Accordingly, only one of the suppliers is delivering the goods using Incoterms. Finding and utilising the most suitable Incoterms is beneficial for both the seller and the buyer party in an international business transaction by clearly defining the division of risks and costs over transportation.

Recommendations were also made on other issues such as warehousing, safety stocks, and marketing and pricing. The used warehousing facilities are sufficient to hold the inventory levels incurred by the current level of business but additional space will be needed if and when growth in sales occurs. One of the reasons why the existing storage space is adequate is that the high value of the goods requires low level of inventory and safety stocks in order to prevent inventory carrying costs and a big amount of money being tied down to the goods. Marketing and pricing are also problem areas as the sales could fairly easily be increased by reasonable investments in promotion and slight adjustments in pricing.

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