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E-Commerce Strategy on Marketing Channels

- A benchmark approach

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Abstract

E-business offers many possibilities to re-organise business processes. However, to use the full potential of e-business, traditional business activities should not be simply converted onto electronic platforms. One should take the opportunity to completely rethink entire process chains considering the different opportunities that e-business offers. In this particular case, we are closely considering the branding, market, servicing, technological, and logistics strategy. When discussing the logistics strategy, the entire marketing channel is considered.

The methodology employed is benchmarking. We will look closely at the companies Luna, SKF Service Division and Papyrus, who have been successful in their development of e-commerce platforms and strategies, try to determine *how* successful and find out what measures were taken in order to come so far. We will also consider the example of a company that had to terminate its e-business initiative and assess the reasons for that.

Key Words: electronic-commerce, marketing channels, logistics, distribution, marketing, benchmarking

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1. Introduction

This chapter provides basic information regarding our thesis: background of the topic, research problem, purpose of the thesis, methodology, and limitations of our study. The structure of the thesis will be summarised at the end of this chapter.

1.1 Background

The rapid development of information technology creates vast possibilities to reconstruct and improve common business processes within and between companies. "A major shift in the communications between business organisations is taking place, which is actually redefining organisations and commercial transactions."[1]

It seems self-evident that e-commerce is to do business online and electronically. However, e-commerce is not merely the migration of certain business functions from 'offline' to 'online' platforms: it is the means to transform industries and introduce new ways of doing business. E-commerce is bringing us into a new era of business by creating an environment for new behavioural patterns and needs.

Some scholars even believe that we are now entering the era of an information revolution[2]. The expression 'information revolution' shows that e-commerce is one important component and it is already been paralleled by socio-economic commentators with the Industrial Revolution of the eighteenth and nineteenth centuries that transformed our world. "This development is causing some realignment in the traditional produce-distribute-sell paradigm. Most of the real stores and banks are likely to disappear in the sense of having a retail 'bricks and mortar' presence, leaving the entire business world consisting of just two industries: one can be called 'real' industry, which includes manufacturing and logistics, the other can be called 'virtual' or 'information' industry. The information industry includes sales, financial, advertising, data processing, etc."[3]

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[1] Graham G., Hardaker G. (2000) p.294.
[2] e.g. Mei,S.Z.; Li,Y.S., and Ju,S.D. (2001).
[3] Mei,S.Z.; Li,Y.S., and Ju,S.D. (2001) p.13.

The nature of electronic commerce has enhanced the importance of logistics. At the same time, modern information technology provides the tools for the theory and practice of logistics to develop further. Marketing channels, and especially distribution, are two areas of logistics that are particularly affected by this trend and businesses operating in these spaces should be able to take advantage of, for example, the Internet: speed, interaction, flexibility.

1.2 Problem

The initial problem arose from within the real business world. We were briefed that Volvo Parts Corporation were not satisfied with their current order-processing system. (See Chapter 3, Section 3.2 for more information on this.) We conducted an interview with Volvo Parts Corporation, which led us to consider how electronic commerce and the practice of logistics have impacted upon each other.

As mentioned above, e-business offers many possibilities to re-organise business processes. However, to use the full potential of e-business, traditional business activities should not be simply converted onto electronic platforms. One should take the opportunity to completely rethink entire process chains considering the different opportunities that e-business offers. In this particular case, we are closely considering the branding, market, servicing, technological, and logistics strategy. When discussing the logistics strategy, the entire marketing channel is considered.

It is so far unknown how strongly and in what way each of those sub-strategies are effected by introducing e-commerce and what possibilities companies have in order to react on the changing circumstances. Furthermore, e-commerce will probably provoke changes in the behaviour of the individual channel members, the structure, and the processes of the entire marketing channels.

1.3 Purpose

Firstly, the purpose of this thesis is to learn more about e-commerce and marketing channels: what the academic world writes about it and what is reflected from the business world. We will look closely at companies who have been successful in their development of e-commerce platforms and strategies, try to

determine *how* successful and find out what measures were taken in order to come so far. We will also consider the example of a company that had to terminate its e-business initiative and assess the reasons for that, and learn what pittfalls should be avoided when starting e-commerce.

The aim of this thesis is to learn from the success and mistakes of others, and show what is possible to achieve through introducing e-commerce and where potential problems may arise.

1.4 Methodology

In terms of methodology, a benchmarking approach was chosen. Benchmarking is a continuous endeavour, in which products and services, processes and methods of business activities from different companies or business units are compared. The goal is to make obvious the differences between the companies or business units, to explain why there are differences and to develop competitive targets.[4] A constitutive characteristic of benchmarking is that the company or business unit that is *best* in the considered activity should be analysed and used as the reference point in order to measure the performance of its peers. Benchmarking, therefore, is sometimes also referred to as "best-in-class comparison".[5] Through this analysis the company that wants to improve, for example, its internal processes will additionally discover strategies for achieving its goal. Macharzina (1995) outlines benchmarking as a primarily analytical, descriptive concept for strategy formulation.[6]

Two basic thoughts drive the concept:[7]

1. There is no company that has top grade performance in all units.
2. It is inefficient to "reinvent the wheel" (existing products, services, processes or methods) over and over again, so it is better to copy something well, than to invent something on your own but badly.

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[4] Horvath, Herter (1992), p. 5.
[5] Kollmar, Niemeier (1994) p. 31.
[6] Macharzina, K (1995) p. 264.
[7] Tödtmann, C. (1993) p. 42..

The benchmarking concept broadens traditional company analysis as it draws upon wider industry comparisons, both within and beyond the target company's traditional sector. Furthermore, the comparisons should exceed the pure cost orientated view and include specific characteristics of products, services etc.[8]

There are three varieties of benchmarking:[9]
The internal version: comparison of business units, departments, foreign branches etc.
The competition orientated version: the target's most successful competitor is used as a reference point.
The functional version: companies outside the industry are used as a prototype. The learning potential is limited to selected functions of the company and is usually less suitable for products. On the one hand, the potential for novelty here is especially high, but the drawback is that the transfer of ideas into a completely different business environment is likely to be more difficult. The collection of data is generally regarded as being more difficult than in an internal benchmarking exercise, but less difficult than in a competition-orientated benchmarking.

In this thesis, a functional benchmarking methodology will be used, as we believe that it is vital to find companies that are successful in the field of e-commerce and are willing to provide the required information. As e-commerce is still a relatively young business, only a few companies have actually shown outstanding results, and as a thorough investigation of the topic requires that we conduct interviews with participants to gather the relevant data, we are additionally limited to Sweden, reducing quite radically the number of potential interview candidates. Constraining the investigation to only one industry would lead to insufficient sources. The positive aspect of this choice is that the findings will be valid not merely for one industry but, to an extent, for all industries that have embraced – or potentially will embrace – e-commerce.

[8] Tödtmann, C. (1993) p. 43.; Horvath, P., Herter, R.N. (1993) p. 5.
[9] Macharzina, K. (1995) p.266.

Macharzina (1995)[10] has examined several studies on how to successfully conduct benchmarking and recommends following a three-phase concept developed by Horvath and Herter (1992)[11]:

1. Preparation: The exact subject (product, service, process, method that should be analysed), the performance criteria and the benchmark companies / business units as well as valid information sources are to be defined beforehand.
2. Analysis: Following set criteria, performance gaps are to be uncovered and critically explained between the companies.
3. Translation into action: Closing these performance gaps by setting suitable goals, developing strategies and taking measures.

This thesis will focus primarily on the first two phases, preparation and analysis. The third phase, translation into action, is ultimately the responsibility of the individual companies concerned, as each company has a very unique situation and therefore must apply the findings in their own unique way.

Apart from the recommendation to repeat the benchmarking process there are very few helpful guidelines as to how this methodology should be applied in more detail. However, all agree that it is vital to find suitable criteria to judge what is good, and what is not, and to find an ideal benchmark company.[12]

Benchmarking as a methodology faces criticism for not being as inventive as it claims.[13] However, it seems self-evident that as long as a method is helpful and leads to improvements in the business world, such criticisms are somewhat academic.

It was decided to interview three different companies, using a questionnaire as a guideline. Examining three companies is enough to show some differences in the way firms deal with e-commerce but it is not too many for an in depth analysis of each of them considering the strict time table of the thesis writing.

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[10] Macharzina, K. (1995) p.266.
[11] Horvath, Herter (1992), p. 8.
[12] Macharzina, K. (1995) p.267.
[13] Macharzina, K. (1995) p.267.

In the following graph the methodology of the chapter 'benchmarking' is visualised.

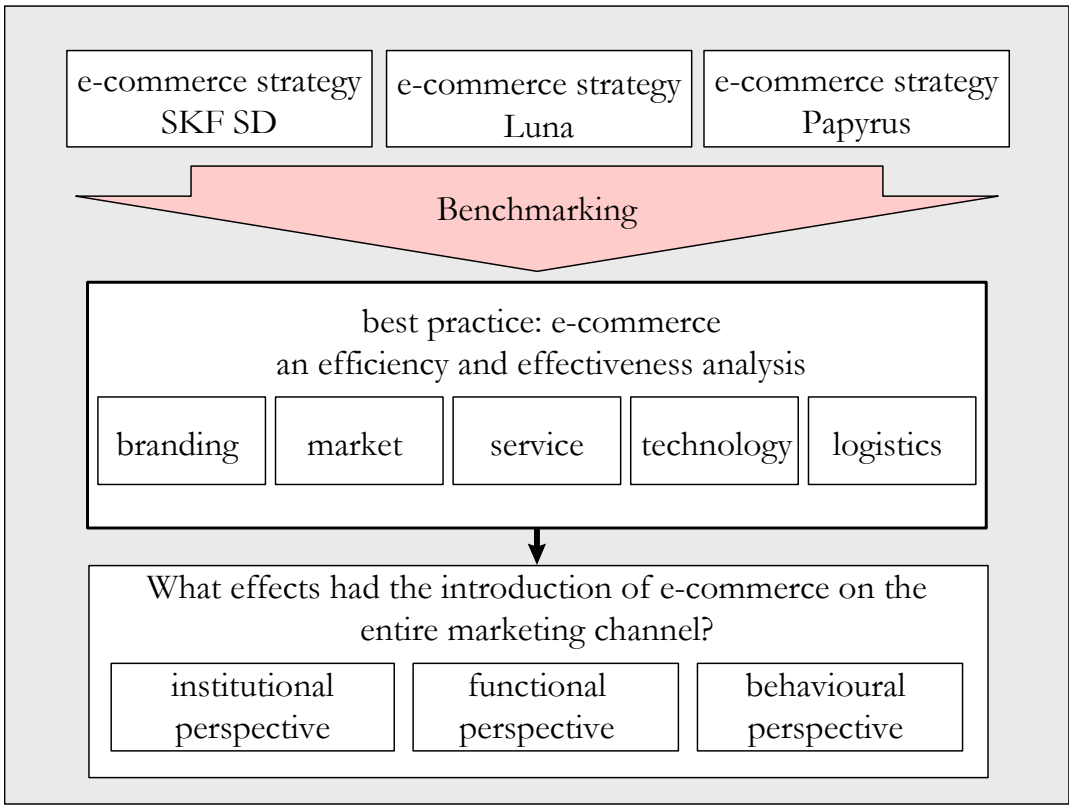

Figure 1-1 Methodology of the thesis

Reliability and Validity of the Survey

In order to make sure that true data was collected (reliability) and the data that was collected actually served the purpose and showed or measured the desired facts (validity), several measurements were taken:

With regards of validity the choice of literature was important as a lot of questions in the questionnaire were derived from books and articles dealing with the subjects in interest. So the literature was chosen carefully. E.g., when we decided whether to use Plant (2000) as one of the major sources, we checked his background. Plant being a leading global consultant on Internet strategies, having written several articles on e-commerce for the Financial Times London and being Associate Professor as well as Research Associate for several well known highly regarded Universities all over the world and the positive comments by well known businessmen about the book, convinced us that this can be regarded as a reliable source.

The questions in the questionnaire were mainly closed questions in order to facilitate the later comparison of the answers but always with the opportunity to add illustrative comments and explanations. In order to minimise misunderstanding, the questionnaires were conducted on a face to face basis (i.e. in a form of an interview), enabling both parties to obtain explanations of questions and answers on the spot.[14] Furthermore, the interviewees were asked to verify their answers and double-check that they had not left out any relevant data.

For achieving the highest possible level of data reliability the choice of the interviewees was probably the most important step. We were lucky to meet the logistic respectively the e-commerce managers at Luna and Papyrus and a range of different managers (Logistic Manager, Marketing Manager, Quality Control Manager, IT Manager, Service Manager) at SKF Service Division. These people have access to the most reliable data in the considered companies.

Finally the company representatives were given the opportunity to correct possible misinterpretations of their statements after having received a draft copy of the thesis.

1.5 Limitations

- The emphasis of our analysis falls mainly on the supply side, and less so on the sourcing side of the activities of companies analysed.
- As mentioned in the section on methodology, we will focus on the first two steps of benchmarking - preparation and analysis, while the translation into action will be left to the individual companies.
- Aiming to approach the problem from a rather wholistic point of view includes various aspects of the e-commerce strategy *and* the effects on the entire marketing channel. We will thus be constrained in our efforts to always discuss all topics in the finest detail.
- The scope of this thesis dictates that we will not be able to answer all of the questions it raises. On the contrary, more questions will actually arise that will require further in-depth investigation.

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[14] Berekovem, L., Eckert, W., Ellenrieder, P. (2000) p.65.

- In the benchmark chapter, only three companies are analysed, which can hardly be called a statistically representative sample. Nevertheless, we do believe that we have uncovered interesting aspects that are worth reading and writing about.
- Being economic students, rather than IT students, we have decided to limit ourselves to a selected number of information technologies /systems in the chapter entitled 'Technology'. Those selected were discussed in more than one of the considered sources and seemed most relevant with regards to logistics and marketing channels. Topics such as e.g., Internet infrastructure and architecture, platforms or basic Internet software are not discussed.

1.6 Structure of the Thesis

Figure 1-2 offers an outline of the thesis. It also reflects the steps in our research approach.

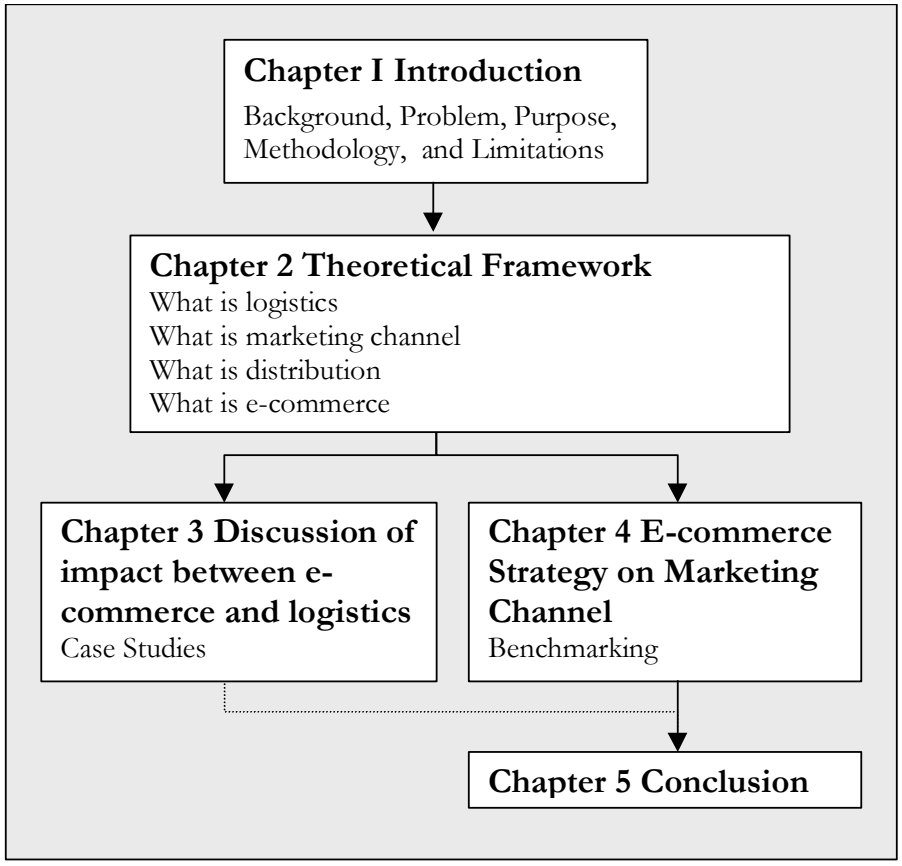

Figure 1-2 Structure of the Thesis

2. Theoretical Framework

In this chapter topics that are closely related to the discussed problem such as logistics, distribution, e-commerce, and marketing channels are explained. It is not our goal to introduce all these concepts and topics in their entirety and from all perspectives. Instead, the aim is to emphasise those aspects that are useful in order to explain backgrounds, and help in analysing and solving the problem.

2.1 What is E-Commerce?

We have found the following different definitions for e-commerce:

"From a general point of view electronic commerce is understood as all forms of transacting business through public or private computer networks."[15]

"E-business is the digital initiation, negotiation and/or completion of transactions between business subjects."[16]

"From an online perspective, electronic commerce provides the capability of buying and selling products and information on the internet and other online services."[17]

"Fundamentally we see electronic commerce as the electronic support and transformation of social and economic intercourse through internet worked technologies." [18]

"The support of business activities through communication networks."[19]

"Electronic Commerce can be simply described as doing business electronically."[20]

A closer look at these definitions reveals two broad, different understandings of e-commerce: the stricter definition (examples 1-3) where e-commerce is the realisation of business between two businesses subjects through computer networks. The broader definition (examples 4-6) includes the company's internal business steps that are supported and changed by using computer networks in an

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[15] Hermanns, A., Sauter, M.(1998), p. 14.
[16] Clement; Peter; Preiß, (1998) p. 50.
[17] Kalakota, R. and Whinston, A.B.: (1997), p. 3.
[18] Ware, J. Gebauer, J., Hartmann, A. and Roldan, M. (1997) p. 29.
[19] Merz, M. (1999), p. 18.
[20] e-Centre UK, 2000, www.eca.org.co.uk/ressources_glossary_details.asp?glossaryid-2

innovative way. The broader definition, (with which we and the interviewed benchmark - companies agree with) is often also called electronic business.[21]

Kalakota and Winston define e-commerce from the following four perspectives:[22]
Communication perspective: E-commerce is the delivery of information, products and/or services, or payments via telephone lines, computer networks, or any other electronic means.
Business process perspective: E-commerce is the application of technology toward the automation of business transactions and workflow.
Service perspective: With the help of e-commerce the quality of the goods can be improved while the speed of service delivery can be increased.
Online perspective: E-commerce provides the capability of buying and selling.

In the following sub-sections, the benefits and limitations of e-commerce to organisations will be listed and briefly described:[23]

Benefits of e-commerce:

- Expanding the marketplace: With minimal capital outlay, a company can easily and quickly identify customers, suppliers and business partners worldwide.
- Cost reductions: Expenses for creating, processing, distributing, storing, and retrieving paper based information can be decreased radically.
- Ability for creating highly specialised businesses, e.g., toys for dogs.
- Creating the possibility of a pull-type supply chain: through decreased reaction and lead times; the process system starts with the customer order.
- Facilitates product customisation[24]: Pull-type processing enables customisation of products, which leads to a competitive advantage.
- Time reductions: Reduced time between the outlay of capital and the receipt of products and services.
- Initiation of business process reengineering projects: by changing processes the productivity of some departments can be increased drastically.

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[21] Wamser, C.: (2000) p. 6-7.
[22] Kalakota, R. and Whinston,A.B (1997), p. 4.
[23] Turban, E. et. al.: (2000), pp. 15-17; Lientz, B.P. and Rea, K.P. (2000), p. 10, 11; Kosiur, D. (1997), p. 20.
[24] Offering the possibility to the customer to be able to influence the products configuration to a certain extent.

- Streamlined simpler business activities: When implementing e-commerce the effort should be made to drive out exceptions and manual steps in transactions and eliminate shadow systems.
- Lower communication costs: Internet is much cheaper than VANs (usually used for EDI systems).
- Reduced staff involvement in routine tasks related to ordering, status checking and tracking and even credit checking. This freed up employees can be redirected to more productive, creative and interesting work, which leads to
- Improved employee morale.
- Improved work quality due to automation sources for errors are reduced - except if programming errors occur.
- More information available: E-commerce provides a flood of automated and structured information on customer and supplier behaviour and purchasing habits.
- Improved decisions due to increased information availability.
- Improved customer satisfaction due to the convenience of doing business, and the improved information situation regarding products and services.
- Other benefits include improved image and customer service, newfound business partners, simplified processes, compressed cycle and delivery time, increased productivity, elimination of paper, expediting access to information, reduced transportation costs, and increased flexibility.

Limitations (technical):

- A lack of system security, reliability, standards, and some communication protocols
- Insufficient telecommunication bandwidth
- Rapidly changing and still evolving software development tools
- Difficulties with the integration of e-commerce in existing applications and databases
- E-commerce software may not fit with some hardware

Limitations (non-technical):

- Cost justification: the initial investment can be very high and mismanagement of e-commerce due to its inherent complexity may result in delays. Some

benefits of e-commerce, like improved customer service, are difficult to quantify.

- Security and privacy: despite constant improvements many customers regard this matter as very seriously - especially in the B2C market.
- Lack of trust and user resistance: customers may express distrust towards the 'faceless' seller, paperless transactions and electronic money.
- Other limiting factors: the lack of 'touch and feel', unresolved legal issues and government regulations, insecurity due to rapid change of technology, accessibility still expensive and/or inconvenient for many potential customers.

2.2 What is Logistics?

The simplest version might be that "Logistics is the management of the flow of physical materials."[25] There are three flows in the whole business world. They are: material flow, value flow and information flow.

Material flow is more like a one-direction flow compare with the other two. Logistics is dealing with material flow. See figure 2-1.

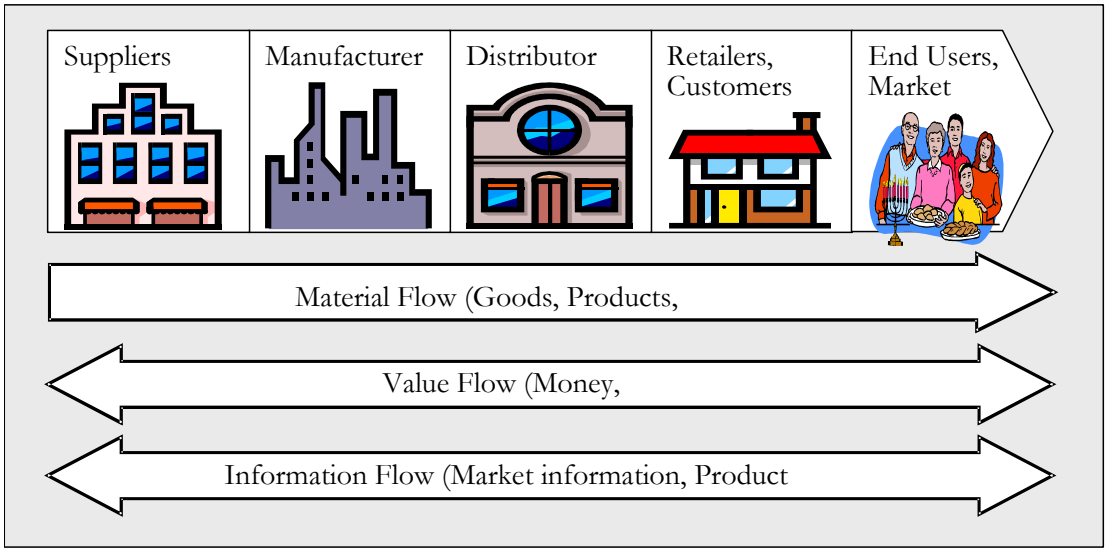

Figure 2-1 Three Flows in Business

[25] Stern, L..W., El-Ansary, A..I. and Coughlan, A.T.: (1996), p. 1.

Other versions of the definition include:

(1) Scholar's opinions: "Logistics is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organisation and its marketing channels in such a way that current and future profitability are maximised through the cost effective fulfilment of orders."[26] Or "A total approach to the management of all activities involved in physically acquiring, moving and storing raw materials, in-process inventory, and finished goods inventory from points of origin to the point of use of consumption."[27];

(2) CLM's (Council of Logistics Management, U.S.A.) definition in 1998: "Logistic is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customers' requirements."[28]

The definition could also be summarised as 7Rs: Right Time, Right Place, Right Cost, Right Customer, Right Product or Service, Right Quality, and, Right Quantity.

From the different definitions, we find something in common that the main functions of Logistics include:

1). Demand Forecasting, Planning and Inventory Control
2). Purchasing, Supplier Management
3). Material Handling, Warehousing, Storage, Packaging
4). Order Processing
5). Customer Service
6). Traffic and Transportation
7). Distribution, Marketing Channel

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[26] Christopher, M. (1998) p.4.
[27] La Londe, B. J.: *(Oct.1970) p.44*
[28] www.clm1.org, (2001), p.6

2.3 What are Marketing Channels?

"Marketing channels can be viewed as sets of interdependent organisations involved in the process of making a product or service available for consumption or use."[29]

Mehta et al. (1996) describe the marketing channel and some of the major aspects of how they work in the following way:

"From a managerial perspective, it is useful to view marketing channels as superorganisations composed of independent institutions because they must co-operate to perform distribution tasks in the course of simultaneous pursuing independent and collective goals. Further, a manufacturer [...] needs to administer the channel to foster channel member co-operation in achieving the firm's distribution objectives... Despite the differing goals of independent channel members, the marketing channel needs to function effectively as an integrated system in order to reduce the redundancy of work effort and the possibility of the inefficient allocation of distribution tasks and functions among channel participants. To achieve this in an intensely competitive global environment, organisations have recognised the need to develop long term relationships and forged coalitions and arrangements with their target channel members in which the marketing channel operates as an integrated inter-firm system under the leadership of one member."[30]

Marketing channels are to provide form, time, place, and possession utility and should not only satisfy demand but also stimulate it. The way of managing a distribution channel can provide a competitive advantage even if the products are getting more and more exchangeable. [31]

Abrahamsson and Brege (1995) have a rather long discussion about the technical terms distribution channel, marketing channel and logistic channel, their meaning and definition in comparison with each other.[32] However, because most literature

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[29] Stern, L..W., El-Ansary, A..I. and Coughlan, A.T.: *Marketing Channels*, 5th ed., New Jersey, 1996, p. 1.

[30] Mehta, R., Larsen, T. and Rosenbloom, B.: (1996) pp. 33, 34.

[31] Stern, L..W., et al (1996), pp 2, 3

[32] Abrahamsson, M. and Brege, S.(1995) pp. 7ff.

uses the two terms distribution channel and marketing channel synonymously,[33] we have decided to treat them as well as equivalent terms.

Logistics and Marketing Channels:

Marketing Channels mainly describe the *structure* of the supply chain while logistics deals with the *functions*. However, the distinction between these two terms is not always easy, because it is e.g., possible to consider a marketing channel through the functional perspective, and a lot of the marketing channel functions are logistic functions as well and it is the structure of the marketing channel that determines to a great extent by whom and how the logistic functions are executed. Talking about logistics and / or marketing channel functions, we will focus mainly on distribution - in contrast to the incoming logistic of a company.

2.4 What is Distribution?

In the initial definitions, logistics was called physical distribution. The previous name of Council of Logistics Management (CLM) USA is National Council of Physical Distribution Management (NCPDM). In 1968, NCPDM defined Physical Distribution as "a term employed in manufacturing and commerce to describe the broad range of activities concerned with efficient movement of finished products from the end of the production line to the customer, and in some cases includes the movement of raw materials from the source of supply to the beginning of the production line. These activities include freight transportation, warehouse, material handling, protective packaging, inventory control, plant and warehouse site selection, order processing, marketing forecasting, and customer service."[34]

After the development of the concept of logistics, distribution is defined to be part of logistics management. Distribution is the logistical link between the supplier and the customer. Physical distribution has to ensure that the product is available at the correct place (where it usually meets the customer's incoming

[33] e.g. Nyber, A. (1998).
Mehta, R., Larsen, T. and Rosenbloom, B. (1996), pp. 32-59;
Graham, G.; Hardaker, G. (2000) p.294.
[34] www.clm1.org, *Contemporary Logistics,* (2001), p.3.

logistic department) at the right time and in the ordered quantity to satisfy customer demand.[35]

Costs and availability (the speed with which the customers can physically obtain a product) are the main concerns of physical distribution. Two major aspects influence the availability: the adequacy of the stock held at the supply point and the order lead time (the period between a customer ordering a good and its delivery to the agreed place). When adequate stock of the requested product is available at the warehouse, the delivery time depends on four operations:

1. transmission of the order from the customer to the supplier;
2. order processing;
3. physically assembling the goods;
4. transporting the goods to the customer.

2.5 Sub-Conclusion : Theoretical Framework

In Chapter 2, we have studied the existing theories about e-business, logistics, marketing channels and distribution. We looked at the definitions and other topics we think might be useful in our further study. The theoretical framework built in this chapter is the base of the studies of this thesis and our conclusion.

[35] Gurau, C.; Ranchhod, A. and Hackney, R.(2001) p. 34.

3. Discussion of Impact Between eBusiness and Logistics

As mentioned before, e-business has increased the importance of logistics in the business world, i.e., logistics is one of the critical success factors of e-business. On the other hand, e-business also provides the technology to improve the logistics management. The aim of this chapter is to discuss the impacts between e-business and logistics, the focus are given to marketing channels and distribution.

Apart from benchmarking, we use case stories in this chapter to show the points of our findings. These cases are from China and Sweden. The sources of the case stories include books, magazines, news broadcastings, newspapers and interviews. The cases cover both B2B (business to business) and B2C (business to consumer). After each case, a summary about what we can learn from the case is attached. From the case studies, we hope to give a brief idea of the mutual impacts between e-business and logistics, i.e., how e-business changes logistics and how logistics affects e-business. A sub-conclusion of this chapter is written at the end.

3.1 Logistics Information and E-Business

Information flow is one of the three main flows in the business world. With the development of modern techniques, information flow has become more and more important in logistics management. First, the quantity of logistics information is growing. Because small quantity and frequent delivery are among the main characters of e-business. Second, the source of logistics information is widening. Not only inside the company but also inter-company information will be collected and analysed. Finally, the updating speed of logistics information is accelerating.

Following is the list of the major logistics information:

- Consumer or market information: product types, quantity, customer names, consuming time, etc.
- Warehouse and inventory information: product type, condition, quantity, in and out records, etc.
- Raw material information: quantity, availability, arrival time, new raw material, etc.

- Production information: work-in-process situation, quality check, machine capacity, maintenance condition, etc.
- Transportation information: departure, destination, quantity, carrier, estimated delivery time, arrival time, transportation forms & devices, etc.
- Other information: performance measurement, complain & penalty, vehicle information, etc.

To simplify the whole information system, more and more codes are and will be used. For example, product codes, which are identical for each product, will be used in order processing, manufacturing, warehouse and delivery. The product codes will become raw material codes when the products reaching customers' site. Another example is customer codes, which contain basic information like customer name, address, and contacts. The customer codes also record previous purchasing. Other very important codes are order codes. By entering the order code, both producer and customer will be able to get the information about this order, like quantity, delivery time, special requirement and the most important, current situation.

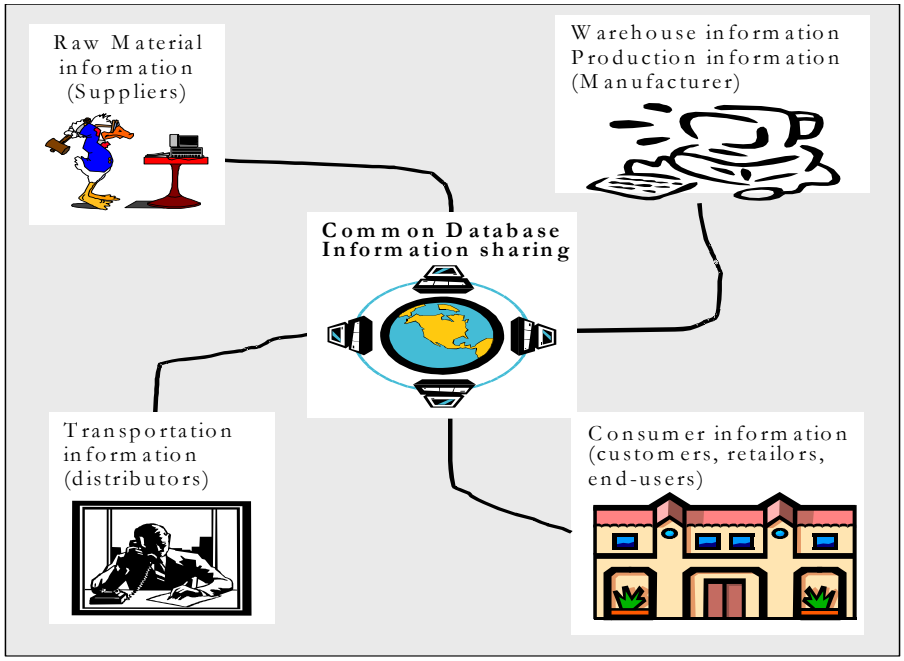

Figure 3-1 Logistics Information Sharing System

Information sharing is another essential point in e-business. While the traditional business is establishing an information sharing system inside the company, e-

business has requested something more. That is, to share information with suppliers, distributors, customers, etc, through the whole supply chain. This can be called a vertical information sharing system. The horizontal information sharing system, which means to share information with competitors, is still impossible and unnecessary in the current stage. The vertical information sharing from the whole supply chain provides the database for decision making and adjustment.

3.2 Marketing Channels under E-Business

There have been several big changes in marketing channels under different stages of economy. The most important one might be the merge of intermediations, simplely put, middleman. (Detailed discussion will be found in Chapter 4) The merge of department store was considered to be the first big change, and supermarket the second, then chain store and franchise came as another revolution.[36] Different marketing channels appear under different economic and social environments. They have changed not only the business world but also our daily life. Now under e-business, new changes in marketing channels are happening.

CASE STUDY I: ONLINE CHAIN SHORE – ROSE FARM FLOWER STORE[37]

Rose Farm Flower Store opened at February 1999 in Beijing. On the first day, a Swedish student who was studying in Beijing came to the store. He wanted to send some flower to his girlfriend in Shanghai. The owner of Rose Farm, Wang, was an Internet fan. He recalled a friend he met via Internet. His friend was running a flower store in Shanghai. They had been exchanging business experience online. So he contacted his Shanghai friend immediately. The Swedish customer's request was fulfilled. A beautiful bunch of white roses were sent to his girlfriend on Valentine's day.

Learning from that customer, Wang started to think of running his flower stores online. He chose chain store style.

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[36] Xiang, X. (2000) p.56-66.
[37] Zhou, S.Q. (2000) 67-69.

Chain store, or franchise, is an alternative to vertical integration and horizontal expansion. The normal way of franchise is specified by six standardisations: standard procurement, standard accounting system, standard layout or decoration, standard sales management, standard processing and standard facilities. The standardised operation reduces total cost, minimises inventory and optimises cash flow. Franchise makes sense for goods and services where retailing requires high quality, management and personnel attention, where products or goods are standardised and produced with economy of scale.

Does franchise work with e-business? Rose Farm online chain store works in its own particular way . Figure 3-2 shows how the online chain store works.

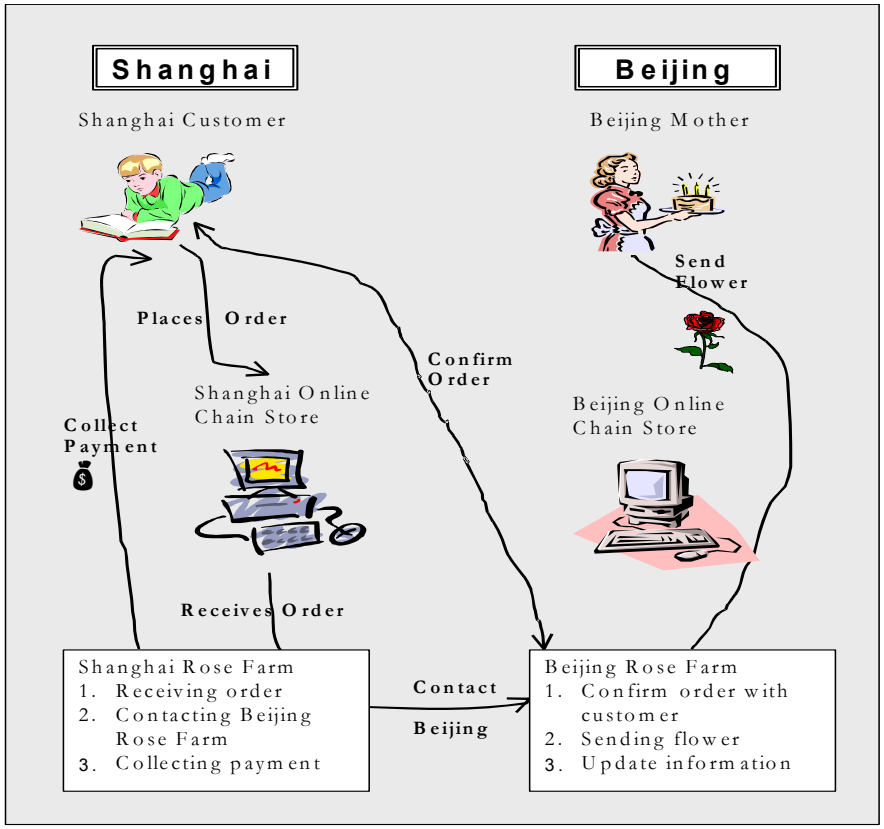

Figure 3-2 Rose Farm Online Chain Store

For example, a customer in Shanghai would like to send flowers to his mother liveng in Beijing. First, the Shanghai customer goes to Rose Farm On Line Chain Store and places an order. Second, Shanghai Chain Store gets the order and contact Beijing Rose Farm. Then, Beijing Chain Store confirms the order to both Shanghai Chain Store and the customer. Next, Beijing Chain Store prepares to

send the flowers and asks Shanghai Chain Store to collect payment. After the order is confirmed, a fixed order number will be given. With this number, the customer can trace the delivery procedure online. Finally, the mother receives the flowers by signature. Her signature or even comments will be scanned into the web site.

If a Beijing customer wants to send flower to Shanghai, the whole procedure will be the same except that Beijing Chain Store will collect the money and Shanghai Chain Store will send the flowers.

Now Rose Farm has chain stores in more than 16 cities in China and it is still growing.

What We Can Learn from the Case:

a. The traditional marketing channels, like franchise, or chain store, works well with Internet. Believed to be the third revolution in marketing channels, chain stores are actually working as are off line network, while e-business is running with online network - Internet.[38] Advantages of the chain store and rules of running a chain store can be the same as in the traditional business world, such as standard operation, centralised management and decentralised sales, the combination of wholesaler in purchasing and retailer in sells.
b. In the merger economy like China, online payment is not as common as developed countries. As a matter of fact, online payment has become a big obstacle for e-business to develop further in China. Rose Farm provided an alternative to do business online, and collect money off-line.

CASE II: E-BUSINESS INCREASES OFF LINE SALES – CAPITAL BOOKSTORE[39]

Books are something totally different from flowers. Books have much a longer shelf life. However, different from the western world, books are fairly cheap in China. The most famous online bookstore is of course Amazon. While Amazon is still losing money, Beijing Capital Online Bookstore started to gain profit after only three months operation.

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[38] Xiang, X. (2000) p.56-66.
[39] Zhou, S.Q. (2000) p. 92-94.

Unlike Amazon, Capital Bookstore has its own physical bookstore located in Beijing Book Building. Capital Bookstore is the biggest Chinese bookstore in the world. It has more than 160,000 different Chinese books. It's online business started in 1999. With the reputation and operation of its off line book store, Capital Online Book Store is a big success. It is visited by more than 40,000 people daily, monthly sales exceed CNY100,000 (US$12,500). E-business also enables Capital Bookstore to expand its business abroad without extra cost. Now the online bookstore has customers all over the world. International customers are almost 50% of the total number of consumers.

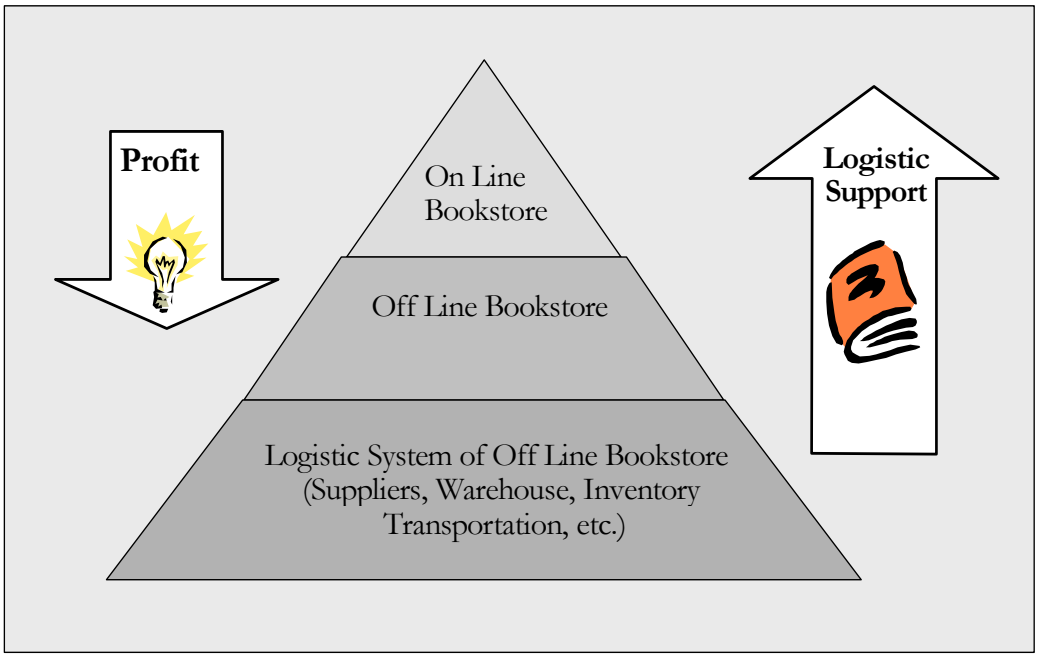

Figure 3-3 Capital Online Bookstore

Figure 3-3 tells us how the online bookstore and off-line bookstore help each other to gain profit for the whole company. While off-line bookstore provides the logistics support to online bookstore. Online bookstore brings extra benefit to the company. Off-line sales are increasing rapidly after e-bookstore opened. 24 hours a day, 365 days service, easy searching, etc. attracted a lot of readers. Some of the readers go to the off-line bookstore and buy the books they searched from the web. Within three months, off-line bookstore's revenue increased more than CNY5,000,000 (US$600,000).

What We Can Learn from the Case:

a. While the reputation of off-line business can help a lot with online business, e-Business can also bring benefits to off-line business. Besides the online payment, purchasing habits is another problem for the development of e-business in merging countries. As the quality of goods is not stable, most Chinese people want to see and even touch the goods they are going to buy. A combination of e-business and traditional business might be a better alternative to merging economies. Online web site can provide actual sales as well as an introduction to products, an easy way of searching goods and a forever patient shopping guide.
b. An existing logistics system (mainly supplier sources, warehouse, inventory, etc) can provide great support to online business. The opposite example is the e-business giant Amazon. To reduce it rapidly growing logistics costs, Amazon has to change its business strategy of zero inventories. Besides the co-operation with third-party logistics, Amazon started to build it own warehouse. Seven huge warehouses around USA were finished in 1999 alone. The warehouses will also serve as the distribution centre.

CASE III: ONLINE WHOLESALER'S MARKET – GUANGXI SUGAR MARKET[40]

GuangXi province is the sugar-manufacturing base in China. With annual capacity 4,000,000 tons, it has more than half of the total sugar manufacturing quantity in China. GuangXi Sugar Wholesaler Market locates in the capital city of GuangXi Province, NanNing. The real market is over 4000 square meters. It provides market information for sugar, and it is where the dealers exchange sugars. It also provides consultation and logistics service to clients, etc.

The e-business of GuangXi Sugar Wholesaler's Market is a combination of tangible and intangible markets. Its main functions include online payment, online training of exchanges, information centre, logistics distribution, online transactions and communications.

As a specialised web site, it provides detailed and most updated information about the sugar industry, such as market prices, available quantities, productions, sugar-

[40] Xiang, X. (2000) p.222-228.

related knowledge and techniques, new products development, etc. It introduces domestic and foreign sugar manufacturers and consumers. Online visitors can get almost all the information about the sugar business. As an online exchange market it, of course, has online transaction functions. Its clients, mainly the sugar dealers, can exchange sugar through online quotation, assignment, matching and ordering. From the web site, dealers can trace and search the transactions as well.

As a tangible market, GuangXi Sugar Wholesaler's Market has its warehouses in big sugar manufacturing sites around China. All the warehouses are managed by computer web systems with information available online. GuangXi Sugar Wholesaler's Market helps its clients in various areas as the third party in transaction. It not only provides logistics services like warehouse and transportation, but also helps to check the credit situation and monitor payments.

The GuangXi Online Sugar Market proved to be a big success. Before the online market, it got less than 10 new clients every month. However, within seven months after the opening of online market, it got 120 new clients. Now the web site has over 3000 visitors daily, more than 300,000 people have visited the web site. Its daily exchange quantity exceeds 30,000 tons of sugar, which doubled the off-line market.

Figure 3-4 shows the main functions of GuangXi Sugar Wholesaler Market and how the online and offline markets work together to provide better service to the customers.

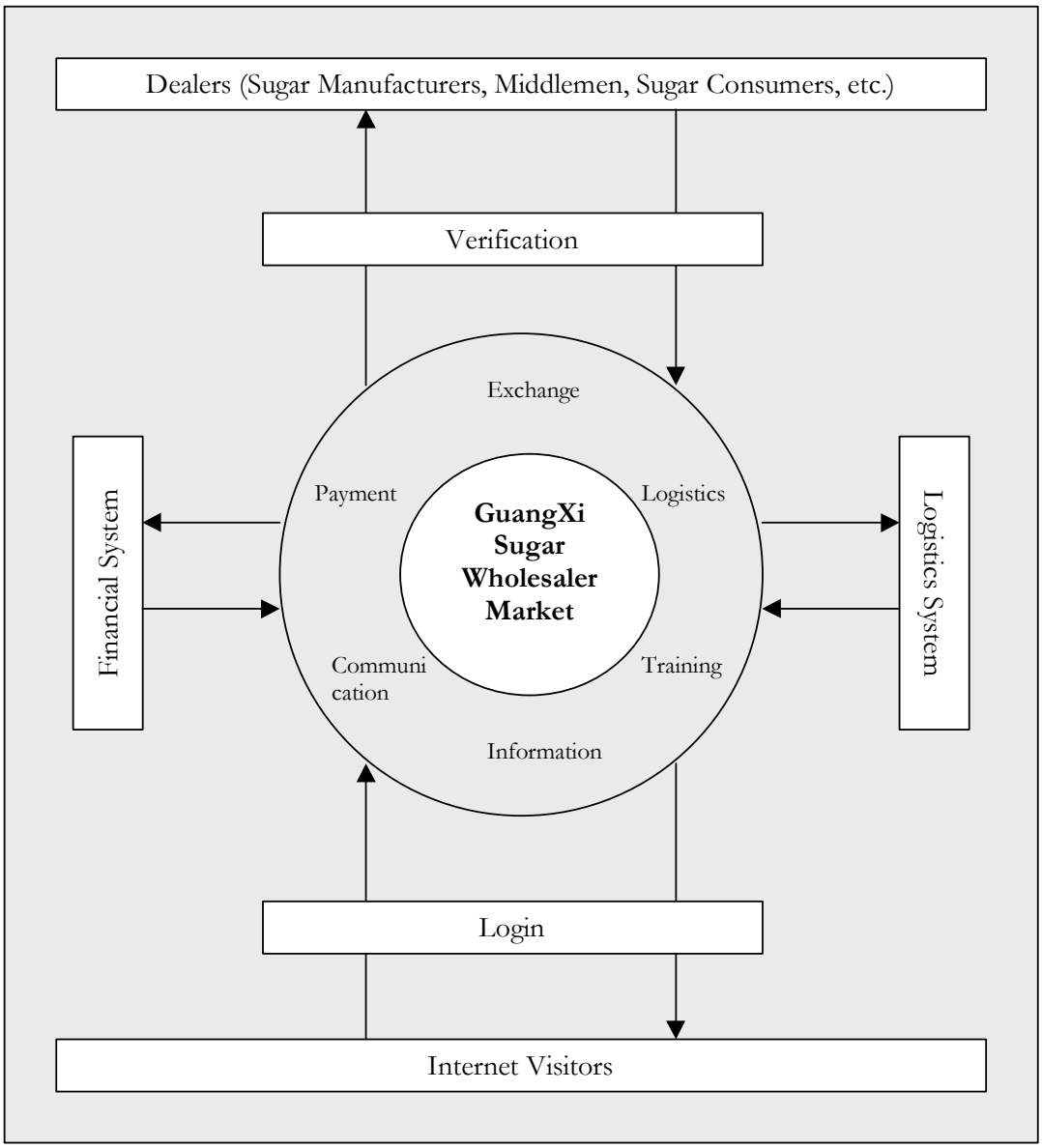

Figure 3-4 GuangXi Online Sugar Market

What We Can Learn from the Case:

a. To be a wholesaler's market or an exchange market, only having online transactions is not enough. Using the advantages of Internet on information should be considered as a professional or specialised web site. Data with numerous quantity and high quality should be provided.

b. A combination of tangible and intangible market can bring success to business, especially the special line of business such as a commodity exchange market. Commodity exchange markets are usually dealing with big quantity raw materials. Without a solid background on physical goods, it is difficult to attract

clients and dealers. On the contrary, tangible market without online information system or convenient tracing and searching functions on each transaction won't be attractive to clients in the near future.

c. Credit check and payment is always the problem of the exchange market. In an e-business situation, most of the dealers won't even meet each other. Online transactions are also different from off-line payments. The market can use its neutral position to provide various services to clients.

3.3 Electronic Order Processing

Order processing is one of the main functions of distribution. Order processing includes order preparation, order transfer, order input, order performance, order trace and search, etc. Electronic order processing is Internet enabled, which usually reduces the order processing time and provides better service to the customer. Orders come through electronic order processing become part of the common sharing database for order tracing and searching.

CASE IV: GLOBAL ORDER ENTRY – VOLVO PARTS CORPORATION

Volvo Parts Corporation, a subsidy of Volvo, supplies parts and services on a worldwide basis for Volvo trucks, buses and construction equipment, as well as for Volvo Penta engines.[41] To support its customers all over the world, Volvo Parts Corporation has established a global distribution network. It has central warehouses in Europe, North America and South America. It has support warehouses in England, France, Sweden, Finland, Spain, Italy, Austria, USA and Canada. Besides the central warehouses and support warehouses, it also has regional warehouses and importer warehouses.

Figure 3-5 shows the distribution network of Volvo Parts Corporation. [42]

[41] Sardal, U. (May 1998), preface.
[42] Holmberg, B. (May 1998) p. 15.

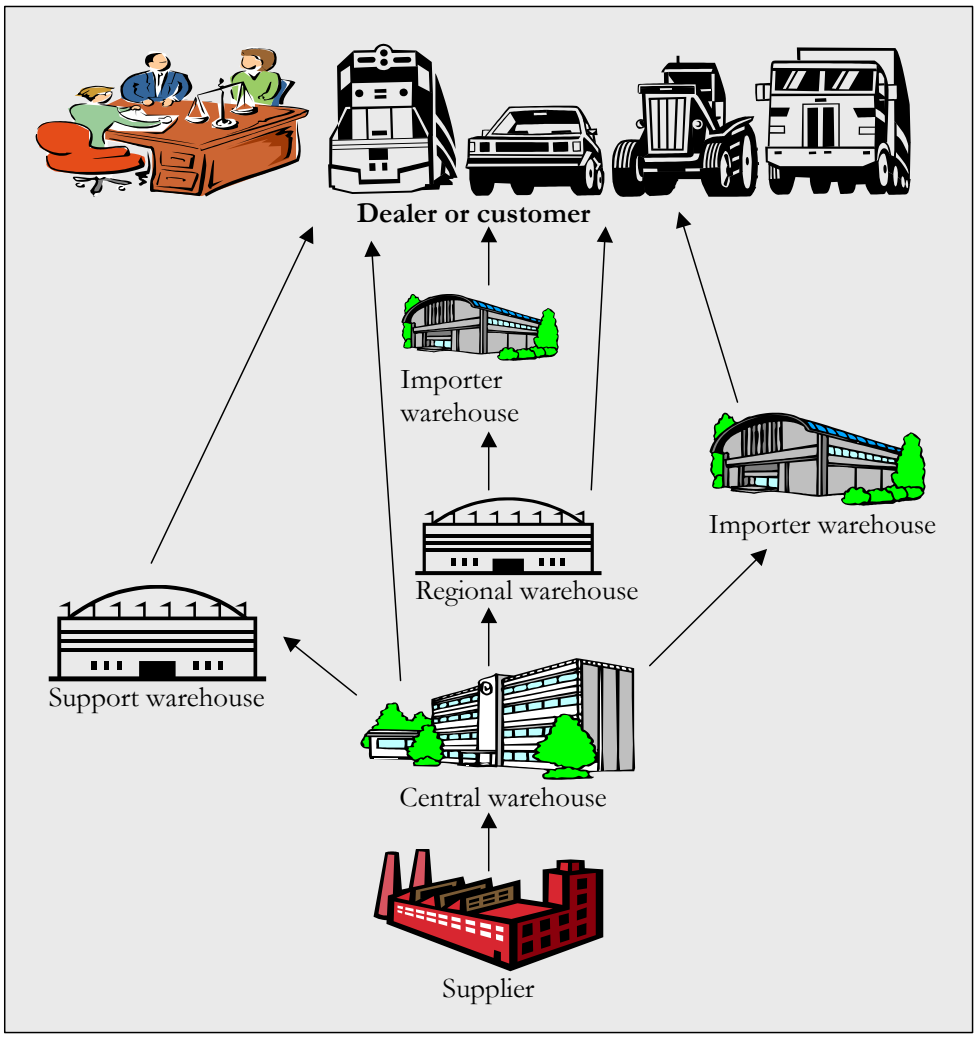

Figure 3-5 The logistics chain of Volvo Parts Corporation

From figure 3-5, we can see the material flow from supplier to customer. At the same time we can also see the order processing flow, which goes in the opposite direction to that of material flows. The current situation is that without an order center, customers need to contact different warehouses one by one by themselves if certain parts are not available in the closest warehouse.

Our Suggestions to Volvo Parts Corporation:

An internet enabled global order processing system can help Volvo Parts Corporation to serve its customer more efficiently.

Figure 3-6 explains how the electronic order processing will change the current situation.

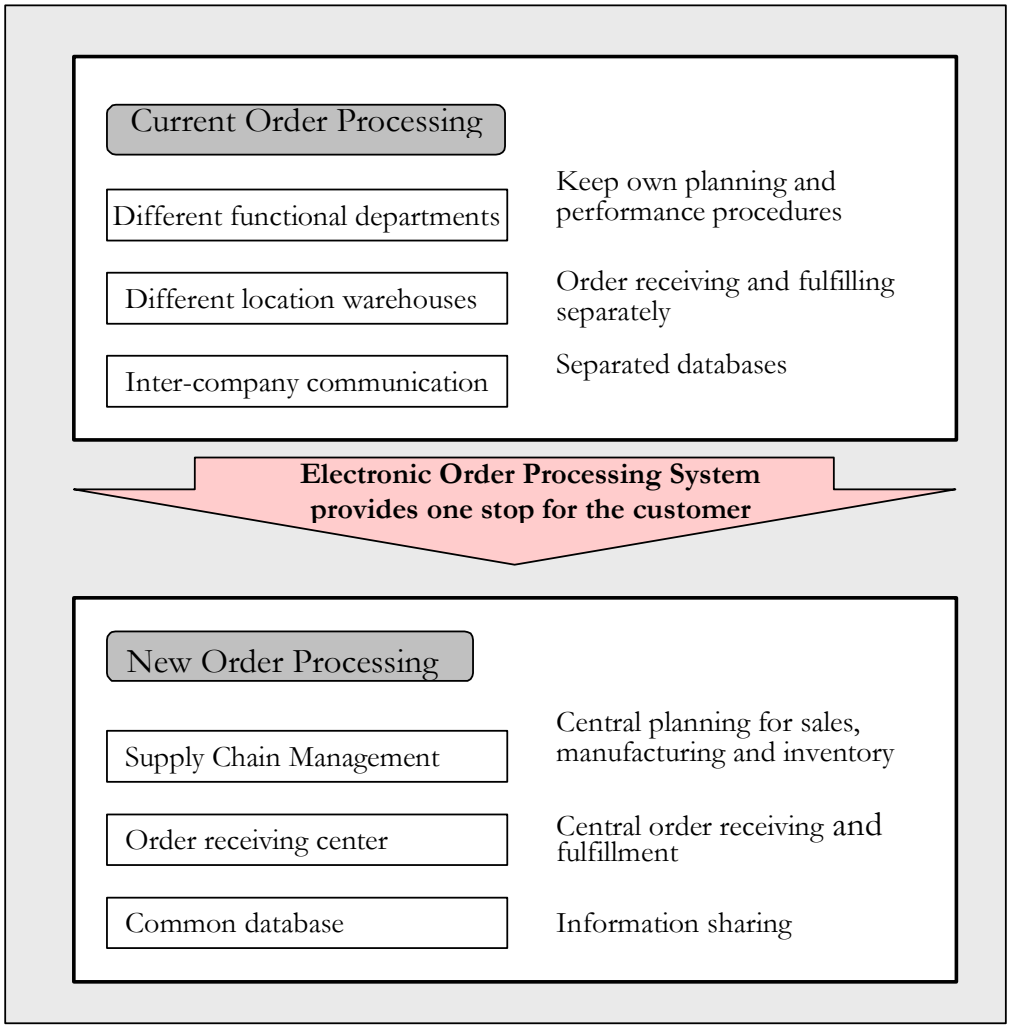

Figure 3-6 Order Processing System of Volvo Parts Corporation

Instead of contacting different warehouses, the customer will now contact Order Receiving Centre only when they want to place orders. The Order Receiving Centre will check the information in the common database and find the best solution for the customer. Or after searching the common database, if the customer's requirement can not be fulfilled, it will still be the order receiving centre that contacts the customer with various solutions for the customer to choose. The Order receiving centre becomes the one stop in solving all the problems for customers on ordering.

Figure 3-7 shows how the new system is going to work.

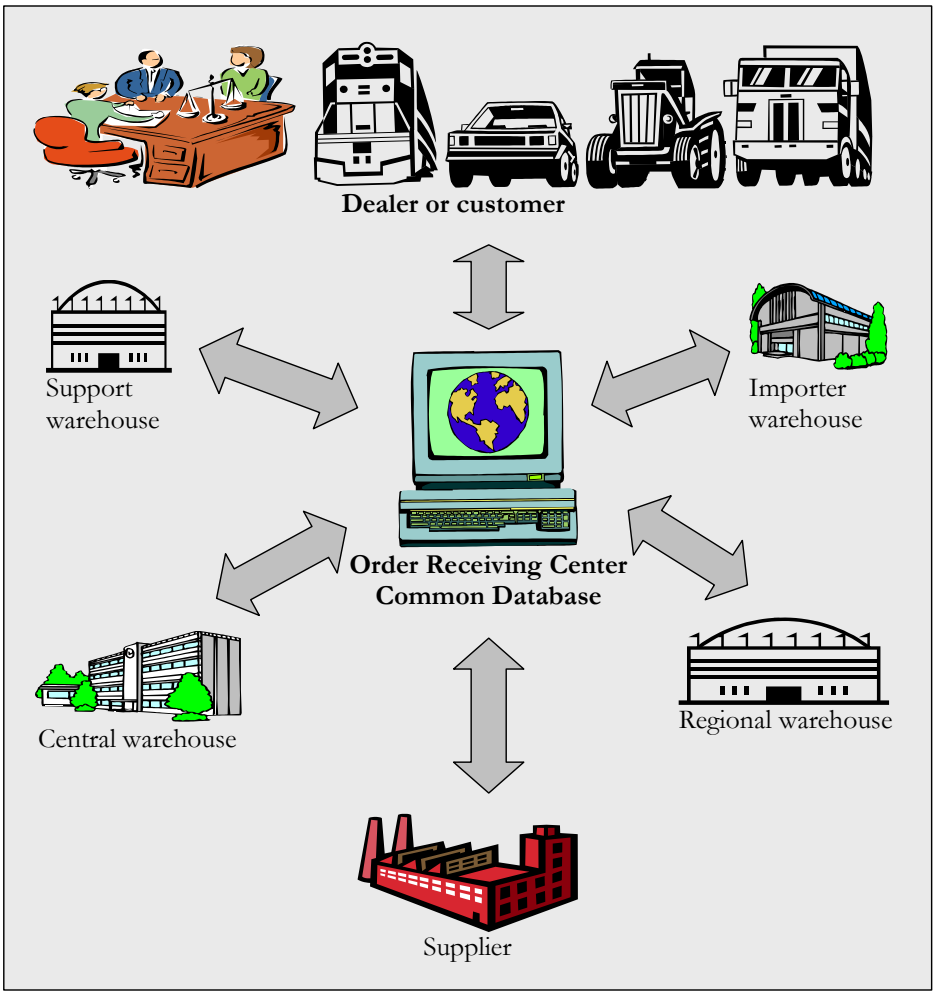

Figure 3-7 Electronic Order Processing for Volvo Parts Corporation

To achieve the best performance from the Order Receiving Centre, there is a list of information needed in the common database as follows:

a.) warehouse inventory information: product type and quantity in storage;

b.) transportation information: available delivery ways, delivery cost and time between different places;

c.) customer information: name, location(s), purchase history, etc.;

d.) order information: types, quantity, destination, special requirements, etc.;

e.) information from supplier side like product availability would be preferrable.

3.4 Distribution is the Bottleneck of E-Business

When talking about e-business, most people think of payment and security as tough problems. However, when actually doing e-business, people find that it is the logistics that is the most complicated, time consuming and costly part, especially in the business to consumer field. To deliver goods to thousands, or even millions, of individual customers is different from the traditional way of doing business. How to send the goods that customers purchased online to their doors? Case V provides quite a good example.

CASE V: FULL USE OF THE EXISTING DISTRIBUTION NETWORK – ZHENGGUANGHE MEILIN CORPORATION

It was six years ago that ZhengGuangHe Beverage Company started to build its distribution network for drinking water. At that time, nobody ever thought of e-business.

The rapid development of China brought pollution. It was just common sense not to drink water directly from the tap. Chinese people used to drink boiled water. However, the quicker rhythm of modern live made people want to have immediate access to drinking water. Drinking water became one of the biggest markets in Chinese cities. That's why when ZhengGuangHe, an old and famous beverage manufacturer, started to produce drinking water in 1994, it brought immediate profit and saved the dying old stated-owned company.

Then, distribution became a big problem. China is famous for its huge population. Big cities in China like Beijing, Shanghai has residents over 10,000,000, which is more than the national population of some of the European countries. How to get drinking water to each family and office became the critical problem as ZhengGuangHe has a rapidly expanding customer base.

ZhengGuangHe spent three years building a drinking water distribution network. Starting with telephone and paper files. ZhengGuangHe has now established its distribution network in every community, every lane and every building. ZhengGuangHe also built-up a detailed customer file, which was the most useful material when it was decided to begin doing e-business. The customer files contain

information such as name, members, occupations, ages, birthday, preference, addresses, telephone number, email address, purchasing history, etc.

With the existing distribution network, ZhengGuangHe started its e-business. "If drinking water can be sent, anything can be sent." Said Mr.Lu, the chairman of ZhengGuangHe MeiLin Corporation. At the beginning of the year 2000, ZhengGuangHe's online shop started its business with its famous telephone number as the web site address: 85818.com.cn. The first month sales exceeded CNY600,000 (US$72,000).

The goal of ZhengGuangHe MeiLin is to be the number one B2C e-business in China. At the same time, a distribution company to provide third party distribution service is now under consideration by the top management of ZhengGuangHe MeiLin Corporation.

What We Can Learn from the Case:

a. Under e-business, especially B2C (business to consumer), the goods need to be delivered to millions of individual customers in different buildings, streets, cities or even countries. This distribution system is totally different from traditional business. The companies with an efficient existing distribution network have good chances of being successful in e-business.
b. Like third party logistics and transportation company, a third party distribution company can be set up to fully use the existing network. On the other hand, not all online stores can afford to have their own distribution network. To search for distribution service will be one of the solutions.

3.5 Sub-Conclusion : Discussion of Impact Between eBusiness and Logistics

In this section we are sumarising the findings of the entire Chapter 3.

The Impact from E-Business to Logistics:

- E-business needs an integrated logistics information system, which contains more information, and is updated more frequently. Information sharing becomes necessary in e-business. Sharing information not only intra

company, but also inter companies, which is very different from the old business model, brings the new pattern of doing business.

- E-business brings different order processing models. An electronic order processing system provides simple solutions to the customer and collects useful data for the company.
- Although the marketing is very different from e-business and off-line business, with some adjustment and creation, most traditional marketing channels work well with e-business.
- The existing off-line marketing channels can help e-business, and e-business can be helpful to off-line business as well. A combination of the two business models can be one solution in e-commerce strategy.

The Impact from Logistics to E-Business:

- While an efficient logistics function is critical to the success of e-business, the distribution system is still the bottleneck of e-business, especially in B2C (business to consumer).
- The nature of e-commerce is causing some realignment in the traditional produce-distribute-sell paradigm. Within the e-commerce model, the product is usually sold before it is distributed (produce-sell-distribute) and the product is often distributed directly to the end-user. This needs an entirely new distribution and logistics system for the delivery of tangible products. After all, the online marketing, ordering or payment, physical material transactions exist in the real world. It is the logistics system that deals with physical material transactions in the real world. An efficient logistics system not only helps the e-commerce to complete its business cycle life effectively, but also shows the spirit of e-commerce in a visible way.

4. Benchmarking

In this chapter the three companies Luna, Papyrus and SKF are compared with regards to their e-commerce strategy. In the Chapter "Preparation" performance criteria will be identified, a number of aspects regarding the sub-strategies market, brand, services, technology and logistics will be explained and it is going to be compared, how the three different companies have handled these matters.

4.1 Preparation

In this section, the exact subject (product, service, process, method that should be analysed), the performance criteria and the benchmark companies/business units as well as valid information sources are to be defined.

Definition of the Exact Subject

For the benchmarking process, the primary focus will be on the strategy[43] that the companies have chosen and pursued to establish an e-commerce channel.

Following the philosophy of benchmarking "it is better to copy something well than to invent something by yourself badly", we appropriated the balance scorecard framework developed by Plant for companies that are active in e-commerce and want to investigate the effectiveness of its e-commerce strategy.[44] In the following brief insertion, Plants concept and intention are introduced.

Insertion: Plants Balance Scorecard[45]

It is important for successful e-commerce organisations to have a strong understanding of the ramifications of the business plan, which is currently executed or is about to be executed. Therefore Plants balance scorecard approach will assist in the creation of a metrics program for monitoring the effectiveness of an organisations' e-commerce venture.

Often, Internet business plans undergo several metamorphoses, usually starting with a vanity or "splash" site showing some basic information about the company. In the case that more structured activity has been planned for the

[43] Strategy in the sense of a complex bundle of consciously planned measures.
[44] Plant, R. (2000).

future, the URL has been chosen and successfully secured, and the focus is now on the creation of the e-commerce strategy and a detailed business plan. This is the point of time when the creation of a balance scorecard should be considered. The central preparatory activity is the identification of value criteria, which are most appropriate for the electronic marketplace in which the organisation will be active. The value criteria should cover the following areas: technology, brand, market and services. Having created and defined the value criteria, the next step is to create a mechanism to evaluate the operational effectiveness of the e-commerce system that represents the conceptual strategy. This then is the role and function of the "Internet strategy effectiveness scorecard". The scorecard considers each dimension of the strategy and creates an effectiveness rating system for it. The purpose is for the company, based on its selected value criteria, is to ask itself some rhetorical questions regarding its objectives and to define goals for those objectives. Plant also suggests comparison of the own data to *industry-best-practice-data*.

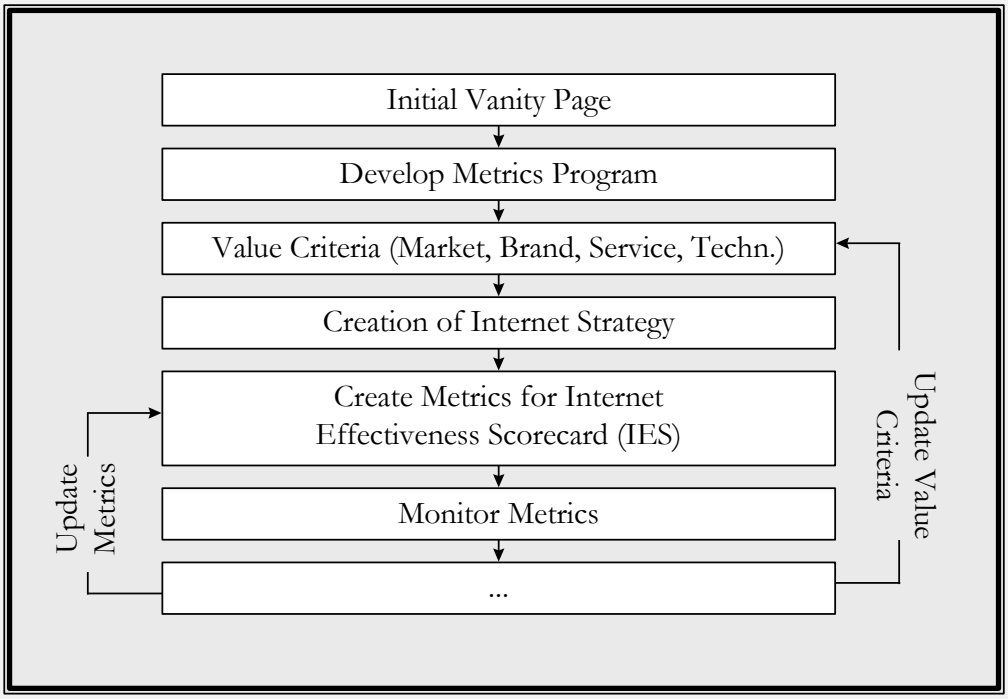

Figure 4-1 Plants Balance Scorecard Approach[46]

[45] Plant, R. (2000) pp. 205-208.

[46] Source: Shortened and simplified copy from Plant, R. (2000) p. 207.

This balance scorecard will be used as an orientation framework regarding important pillars that an e-commerce strategy needs in order to be thriving: market, brand, service and technology. However, as Plant does not consider the logistics solution that actually distributes the sold goods over the Internet, but which we regard as vital for a successful e-commerce enabled business, we will add this perspective. The fact that the logistic part is completely ignored is especially striking as Plant himself emphasises that *the* prototype of a successful e-commerce company Amazon.com "really could be categorized as a logistics company that just happens to sell books". With this statement, he is stressing the point that logistics should be an essential part of the e-commerce strategy. Furthermore, the main goal of the presented balance scorecard concept is to measure the effectiveness of e-commerce activities in the company, but the goals of benchmarking are not *only* to measure effectiveness (doing the right things) but also efficiency (doing things right) and additionally to compare different companies and to explain why some are more efficient and effective than others. Therefore, some questions proposed by Plant for his balance scorecard approach will be reformulated, and quite a few additional questions will be asked in order to fit the purpose and the circumstances.[47]

For the questionnaire developed for the adopted benchmarking approach, a general section will be included that deals with basic mainly marketing orientated information about the company plus a section discussing the logistical solution the company has chosen for its goods sold via e-commerce. Here, changes in the marketing channels regarding structure, activities and relationships should be recorded. We have modified a section included in Plant's concept called "financial impact" to become "economic impact", as it will include more than just financial figures. Analysis of these numbers will be crucial to our judgement as to which company displays the overall best practice.

These decisions determine the following structure of the benchmark approach:

- Introduction of Benchmark Companies
- Economic Impact
- Brand

[47] Please find the questionnaire in Appendix 1.

- Service
- Market
- Technology
- Logistics

The sections from competitive leadership to logistics will explain as to why one company has the best evaluation in the economical impact. Although, of course, some companies might score very highly in the service section, they may display drawbacks in other areas such as e.g., technology and branding. Such a company would, therefore fall behind in the overall evaluation. It is probable that each company can learn something from one of the others.

Identification of Performance Criteria

As stated in our section on the theory of benchmarking, it is vital to establish suitable criteria to help determine what is good practice and what is bad.

One way to establish performance criteria could be to ask the companies themselves; how they measure efficiency (according to the already stated slogan: it is better to copy something well than to invent something poorly). However, such a broad-ranging question is unlikely to provoke the most focused, objective or, indeed, helpful answers.

The customer's viewpoint is always very important, so the efficiency of the distribution system can be measured through the customer satisfaction. However, this line of investigation is only possible if the three companies have gone to the effort of measuring and tracking customer-satisfaction levels in broadly comparable ways. Nevertheless, to stay with the customer viewpoint, it may be possible to examine how many customers (both in absolute terms or as a percentage of the entire customer base) actually use the e-commerce channel to place orders and communicate with their supplier, as an indicator that using this communication channel offers a higher convenience level for the customer than traditional communication channels. A problem might arise regarding the comparability of different companies and their e-commerce systems, because the acceptance from industry to industry might be very different, or one e-commerce channel may simply be promoted in a better way than the other, although the

actual e-commerce solution may not necessarily be better from a technical and strategical point of view.
A further criteria to judge the chosen e-commerce system again is in terms of the perceived improvement offered over the traditional system: It is possible to measure the efficiency increase compared to the old system in several ways; e.g., in percentage time saving or cost saving per order. Here, of course, difficulties may also arise, because the old system might have been very poorly managed in one company, so that the new e-commerce system's perceived level of improvement vis-à-vis the other company's would be artificially high due to the low base of expectations from which the company originally started.

As we ask about the customers' opinion, we are simultaneously able to ask the company itself how satisfied it is with the e-commerce system and how far the demands to be met by such a high tech system are fulfilled. Again, this criterion is not entirely unbiased. The personal perceptions of the e-commerce system are potentially very different, due to differing expectations.

Another viewpoint to be considered is if the company has been able to broaden their customer base due to offering an e-commerce channel to market. A related angle to this would be if the company has been able to increase their revenue due to offering an e-commerce option to customers. These performance criteria would be of very high relevance, but it is, unfortunately, very difficult to objectively and effectively measure if the customer base or revenue increase is due to the offering of an e-commerce platform or because of, e.g., an improved product offering.

All of these goals - to satisfy the customers, to increase revenues and win new customers - are important but in the end, for most companies these are just ways of obtaining a higher profit. One of the most important criteria should be, therefore, if the company has succeeded in increasing their profit due to establishing an e-commerce platform. As before, of course, it will be very difficult to decide what profit share can be ascribed to the introduction e-commerce.

Yet another criterion could be to observe the market share development around the announcement of introducing e-commerce, and over time since the commencement of the company's e-business strategy being put into practice. Making use of this criterion would depend on having strong trust in a sufficient

market. This is very rarely the case, as market share development is strongly dependant on how information is communicated and again, many other factors, such as e.g., market volume development will also strongly influence the overall level of market share, and will potentially neutralise or artificially intensify any effects caused by e-commerce. In this context, therefore, this criterion seems more likely to confuse than offer further insight into the issues at hand, and it has therefore been excluded from our analysis.

All the other criteria discussed above - customer satisfaction, intensity of use of the e-commerce channel, efficiency increases measured in time and cost saved per order, the companies' overall satisfaction, broadening customer base, revenue increases, profit increases, reduction in customer-related costs - have their faults, but analysis of them all as a "portfolio of insights" offers the best way of building a composite picture to help us draw a reasoned judgement on the basis of the information available and fulfil our analytical purpose.

Internet site metrics are probably far less expressive about the success of a company's e-commerce strategies, but can give implications of the customer's perception of the actual Internet site.

Examples for valuable Internet site metrics are:[48]

- Number of hits per month (as a measure of customers' interest and site potential). In order to make it comparable to other companies sites it could be divided by the number of actual customers.
- Length of time a registered customer spends on the site per visit (as a measure of site information value).
- The repeat visit rate by registered users (as another measure of site value).
- The purchase per hit rate (as an indicator of interest converted to revenue).

Selection of the Benchmark-Companies

As mentioned above, it was decided to interview three different companies, using a questionnaire as a guideline. Examining three companies is enough to show some differences in the way firms deal with e-commerce but it is not too many for

[48] Plant, R. (2000) pp. 216, 217.

an in depth analysis of each of them considering the strict time table of the thesis writing. It is common practice within benchmarking to concentrate on a small number of companies instead of going for a statistically representative sample.

- The first selection criterium was that the companies had to have installed e-commerce (including online selling) and have worked with selling over the Net for at least two years. This is necessary for being able to provide useful information regarding their experiences.
- The second selection criterium was that the potential benchmark companies had to be middle or large size companies (to improve the comparability) in geographical reach (Sweden, or even Gothenburg and surroundings).
- Thirdly the reputation of the companies was very important. The three chosen companies had actually been recommended by independent sources from the academic *and* practical business world, by experts on this subject.
- The last but very important criterium was, that the companies were willing to co-operate with us and provide the required information.

Within the scope of the benchmark approach we have interviewed the three companies Luna (the Logistic Manager), Papyrus (E-Commerce Manager) and SKF Service Division (various people: Logistic Manager, Marketing Manager, Quality Control Manager, IT Manager, Service Manager).

4.2 Analyses

In this chapter the benchmark companies are introduced. We will try to measure their success in pursuing an e-commerce initiative and will then examine more closely their sub-strategies regarding e-commerce. The sub-strategies are brand, service, market, technology and logistics. Discussion of the sub-strategies will be divided into three parts. Firstly, a theoretical piece summarising some of the literature that has been written about this subject.[49] There then follows a description on how the analysed companies have dealt with these topics. Finally, a section called sub-conclusions, compares how the theories are reflected in these

[49] E-commerce is currently an interesting topic about which a lot is written. Due to time limitation not all literature on the market could be considered in this thesis. Whenever 'literature' is mentioned, it is refered to the books and articles listed in the bibliography.

real world examples; which of the companies succeeded to establish the best sub-strategy; and what the most important aspects from the first two parts were.

4.2.1 Introduction of Benchmark Companies

In the general section it is important to be briefed on the overall situation of the company and its business environment. In the following few paragraphs the interviewed companies are introduced:

Luna

Luna is a unit of Bergman & Beving Tools, the leading supplier of tools and consumables for the industrial and construction sectors in the Nordic region, covering the Nordic countries, the Baltic countries and Poland. As a wholesaler and distributor, Luna purchases from leading global suppliers and offers high quality programs. The customer is supported by his choice of products from the broad range of offerings and knowledge about the products is provided.[50] The business is 100% B2B (business to business), with a revenue of 900 MSEK (approximately 85 MUS$). Luna was traditionally trading off-line and moved to the net in 1998 where it is part of the e-consortia toolstore.com. An e-consortia results when organisations co-operate with the aim of leveraging the strengths associated with each company and partner through the virtual structure of an online organisation.[51] The other companies connected to the web portal toolstore.com are specialising in different product areas e.g., fastening elements or personal protection, but all of them belong to the Bergman & Beving group, too.

Papyrus:

As with Luna, Papyrus is a wholesaler and distributor active in large parts of Europe with a revenue of 2 BSEK (approximately 190 MUS$). Papyrus also moved to the Web, but unlike Luna is not part of an e-consortia. In Sweden, Papyrus operates two divisions. The Graphical Division (the country's largest) supplies fine papers, board, envelopes, etc. to customers throughout Sweden. The Industrial and Institutional Division supplies a wide range of consumables such as

[50] Bergman & Beving; Annaul Report 2000/2001, p.22-25.
[51] Plant R. (2000) p. 5.

office paper, office stationary, tissue, catering tape, ceiling, and is also the domestic market leader. In Sweden almost 5000 - 6000 products in all are kept in stock. Papyrus claims it is one of Sweden's most advanced e-commerce companies. Substantiating this are the figures: almost 20 per cent, or 400 MSEK (approximately 38 MUS$), of total annual turnover stems from online transactions.[52]

SKF Service Division:[53]

SKF is the leading global supplier of products, customer solutions and services in the rolling bearing and seals business. Furthermore, SKF has gained an increasingly important position in the market for linear motion products, as well as in high precision bearings, spindles and spindle services for the machine tool industry.

The SKF Service Division is responsible for sales of bearings and related products to the industrial aftermarket, using the company's network of distributors and dealers. Most of the Service Division's sales come from its global network of 7,000 authorised distributors and dealers worldwide. Further efficiencies in the supply chain were provided by the rapid implementation of the web-based buying and selling marketplace, endorsia.com™. This all-in-one service network, featuring branded industrial goods and manufacturer know how, has buyers and sellers registered in 23 countries. A rapidly growing number of distributors register and log into endorsia.com in order to place orders, check order status and gain product knowledge.

Around 80% of SKF's Service Division's business is to other businesses (wholesalers, distributors, retailers), with the balance sold to end-customers. SKF was founded in 1907, and started trading online in 1999 at the marketplace endorsia.com™.

[52] www.Papyrus.com
[53] SKF Annual Report 2000, p. 1, 22, 23.

All three introduced companies have had up to 20 years of experience doing business with EDI and have, during the last few years, begun selling over the Internet, too.

Goals

The main goal in going online for Luna, Papyrus and SKF Service Division was, of course, to increase profitability. Meeting the customer's demand was rated important especially for Luna and Papyrus. However, while for Luna the other main driving forces were to learn more about the customer's needs and wants, grow market share and redefine the business model. Papyrus hoped to get the products to market more quickly and cheaply, to pre-empt competition and to create an efficient network of customer systems. SKF Service Division also introduced e-commerce as a measure to get products to market quickly and cheaply ("E-commerce was installed in order to improve the efficiency of the entire supply chain"[54]) and in order to grow revenue. SKF Service Division did not redefine their business model at all because of e-commerce therefore, this was not an important goal for them. Other more or less important driving forces for installing e-commerce can be found in the following table, where 10 corresponds to the most important and 1 to the least important.

[54] Quote from: Doodson, T. SKF, Interview 15.11.01.

Goals	Luna	Papyrus	SKF SD
Increasing profitability (gross, operating, or net)	10	10	10
Getting products to markets quickly and cheaply	8	9	10
Meet the demand by customers	9	10	6
Learning more about the customers wants and needs	10	7	8
Pre-empt competition	7	10	7
Creating an efficient system of customer contacts	7	9	8
Increase shareholder value (cash flow measure)	7	8	8
Growing revenue	7	3	10
Redefine the business model	10	8	1
Growing market share	9	5	5
Tradable market value of the firm	7	5	4
Providing a better product for the customer through mass customisation	1	3	1

Table 4-1: Goals for Installing E-Commerce

Management Involvement

Emphasised by both Plant (2000) and Turban et al (2000), a critical success factor for e-commerce initiatives is top management support.[55] Papyrus and SKF Service Division judged the effectiveness of the involvement and support of their top management as high with a very positive impact on achieving the company's goal, whereas Luna regarded the top management's involvement as slightly less effective, but still having a positive impact on achieving the company's goals. In order to establish the level and impact of top management involvement a number of roles or activities were suggested to the interviewees and rated. By its very nature, we cannot claim that this list is complete, but as the interviewees did not add any further insight as to how the top management contributed to the e-commerce introduction, it may be assumed that the most important aspects were included in the list. As can be seen in the following table, in both cases - Luna and

Papyrus - the top management acted mainly as the internal champion of this project, while in SKF Service Division, the top management was mainly taking the final decisions and provided funding.

Top Management Support	Luna	Papyrus	SKF SD
Introducing new ideas	6	5	6
Initiating changes	9	5	7
Consulting	3	5	2
Taking the final decisions	5	10	10
Act as an internal champion	10	10	7
Providing funding	2	7	9
Helping to redefine business models	7	5	0

Table 4-2: Top Management Support

4.2.2 Economic Impact

In this chapter the earlier discussed performance criteria are applied to the benchmark companies.

In the following table the findings of the interviews with Luna, Papyrus, and SKF Service Division regarding economic impact of their e-commerce strategy are summarised and later on explained:

[55] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 311, Plant, R. (2000) p. 210.

Economic Impact	Luna	Papyrus	SKF SD
Customer satisfaction	strong increase	strong increase	almost constant
% of customers that use e-commerce (Internet) channel to place their orders	40%	25%	5%
Efficiency increase: % time saved per order	m.v.	m.v.	m.v.
Efficiency increase: % cost saved per order	< 1%	90%	m.v.
Companies satisfaction (0-10)	highly satisfied (10)	highly satisfied (10)	highly satisfied (8)
The company being able to broaden their customer base due to offering e-commerce	yes (end-customers, not retailers)	m.v.	if so, to a very small extent
The company being able to increase revenue due to offering e-commerce	ca. 5%	m.v.	yes
The company being able to increase profit due to offering e-commerce?	yes	yes	yes
Costs of e-commerce customers compared to traditional customers	less expensive, <1%	less expensive	less expensive

Table 4-3: Performance Criteria[56]

Neither Luna, Papyrus nor SKF Service Division have a fixed set of criteria with which they measure the efficiency of their e-commerce system. However, as it can already be seen in the table above, a lot of the suggested measurements are processed.

Regarding customer satisfaction, Luna measures seven-month-changes in the level of customer satisfaction via the Internet and could identify a strong increase over the last measured period. Papyrus, too, has measured customer satisfaction and

[56] m.v. stands for "missing value" and means that either the considered company has not collected this information itself or that the information is too confidential to share with the public.

also recorded a strong increase in satisfaction, especially among those customers that are using e-commerce. SKF Service Division does not measure customer satisfaction in a way that could be related to e-commerce, and due to the global dispersion of its customer-base, it is also difficult to construct a cohesive and meaningful picture of the development of customers' perception of SKF Service Division compared to their competitors. The best guess is that the customer satisfaction development in this case is rather constant with perhaps a slight upwards trend.

At Papyrus there are 1,700 customers that use the Internet and are generating 25% of the revenue. All 3,000 of Luna's customers place at least some of their orders over the Internet. Altogether, 40% of sales volume is requested via the e-commerce channel. Only about 5% of SKF Service Division's customers use the Internet to place their orders; in 50% of the cases EDI is still used.

Considering the efficiency increase measured in time and cost per order, the measurements at Luna are not very accurate, mainly because as the customers save the time, so Luna does less so. Luna estimates that less than one percent of the costs per order can be saved thanks to e-commerce. This might not sound like a lot, but considering that the system used before e-commerce was introduced (customer order via hand computers) was already very efficient, another percentage point or even less saved is a good achievement. Papyrus does not measure the time saved per order either, but has realised very high cost savings. The costs per order were reduced from around 65 SEK (ca. 6,2 US$) to 6 SEK (ca. 0,6 US$) simply by automating the process with an e-commerce solution. Unfortunately, SKF Service Division has not measured any of these figures.

The e-commerce system lives up to Papyrus', Luna's and SKF Service Division's expectations in every way, so the satisfaction is very high in the first two cases, with SKF Service Division's rating, while somewhat less enthusiastic, is still quite high.

SKF Service Division and Papyrus find it difficult to answer if the company has been able to broaden their customer base or to increase their revenue due to offering e-commerce, as it is hard to say if to what percentage *e-commerce* is responsible for actual revenue and customer base development.

Luna's ability to reach more retailers was not improved by the installation of an e-commerce platform, but it has become easier for the company to contact its end-customers directly. On the other hand, it cannot be said that completely new customers were won because of e-commerce.

Luna had a revenue increase of approximately 5% per year, but it is difficult to establish how much of this can be attributed to the introduction of e-commerce. SKF Service Division, Luna and Papyrus are convinced that a profit increase could be achieved because of e-commerce and that e-commerce customers are less expensive than traditional customers (indicated already at the order cost discussion) but exactely how much is too difficult or even impossible to pin down.

Sub-Conclusions

In order to present the findings graphically, they have to be translated into a scale. Many possible ways of doing so can be chosen. Rating scales are the most widely used scale method in market research as they are easy to use and there are a great variety of them. There are rating scales that are a pure continuum, others are segmented (4-10 segments are the most common versions), some are monopolar scales, e.g., from 1-7, others bipolar, e.g., from -5 over 0 to +5, while some only have the extreme end description - "I agree unreservedly" and "I disagree unreservedly" - and some have a verbal description for all possible answers - "I like it very much", "I like it a bit", "I do not have any opinion about it", "I dislike it" and "I dislike it strongly".[57] For the purpose of this analytical study, it was decided to classify the scale into 10 sections, giving a verbal description for approximately every second section:[58]

1 point = ineffective, a strongly negative impact on reaching the organisations goal;
3 points = negative impact;
5 points = neutral / no impact;
7 points = positive impact;
10 points = highly effective, a very positive impact on achieving the companies goals

[57] Berekovem, L., Eckert, W., Ellenrieder, P. (2000) p.72-75.
[58] Taking pattern from Plant's Scale

Still, however, the problem is not solved completely. It is not possible to judge objectively if 40% of customers using e-commerce to place their orders have to be classified as a positive impact or a *highly* positive impact on achieving the company's goals. However, since some reasoned decision must be made, and as the real numbers are presented in the table above, the reader is in the position to judge for themselves if they agree with our translation of the numbers into the 1-10 scale or not. Strictly speaking, rating scales deliver only ordinal scaled data (ordinal meaning giving an order of precedence e.g. A<B but A>C), but are usually (and this applies to this case) treated as if the data was metric, suggesting that the intervals of the scale sections are all equally large.[59]

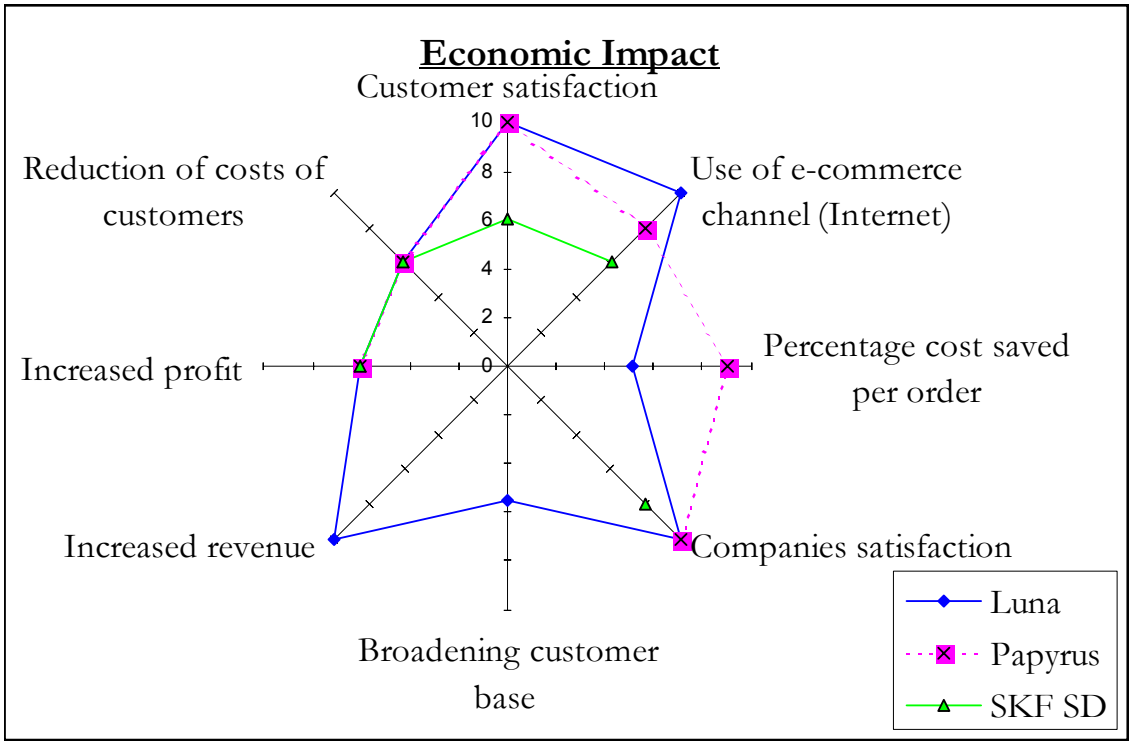

Figure 4-2 Economic Impact

The graph "Economic Impact" shows, that Luna and Papyrus have been equally successful in implementing and establishing an e-commerce platform considering almost all selected criteria - unfortunately, the issues of increased revenue and broadening customer base could not be compared, due to the lack of available information at Papyrus. While Luna succeeded in encouraging more customers to use the e-commerce channel more frequently, Papyrus managed to save more

[59] Berekovem, L., Eckert, W., Ellenrieder, P. (2000) p.74.

money in the order placement process. However, Luna, using an ordering system with hand held computers, had already installed a very lean ordering process before introducing e-commerce, and so this mitigates against Papyrus' comparative success slightly. Still, saving 90% of the ordering costs through e-commerce seems to be a very good achievement by Papyrus.

SKF Service Division has a slightly less favourable rating in the economic impact due to less fortunate figures in customer satisfaction and use of the e-commerce channel.

As demonstrated in the following table, have the Internet site metrics suggested by Plant been only to very small extent measured by the benchmark companies:

Internet Site Metrics	Luna	Papyrus	SKF SD
Number hits per month	480 000	75.000*	m.v.
Length of time spent on site per visit	m.v.	m.v.	m.v.
Repeat visit rate by registrated users	not yet measured	m.v.	m.v.
Purchase per hit rate	50%	m.v.	m.v.

Table 4-4: Internet Site Metrics

*The number of hits per month given by Papyrus is from April 1999 and is, therefore, relatively old. More recent statistical data is currently not available, but an increase of about 17% is estimated which would mean a bit less than 90.000 visitors per month.

Due to insufficient information, further analysis in this field would be unproductive.

4.2.3 Brand

This chapter is subdivided into three parts. In the section on theory, the term 'brand' is explained, and we discuss how introducing e-commerce can affect the brand strategy. In the second part on practice we measure the successfulness of the different companies' branding strategies in connection with e-commerce. There is also an explanation of the companies reactions on the changing

circumstances surrounding branding strategy due to the introduction of e-commerce. The third part, the sub-conclusion, discusses how far the theory predictions were actually applied by the benchmarked companies; which of them actually had the most successful branding strategy; and what the likely reasons for that success are.

Brand: Theory

"A brand is a name, term, sign, symbol, design or a combination of these, which is used to identify the goods or services of one seller or group of sellers and differentiate them from those of competitors."[60] A brand can deliver up to four levels of meaning:[61]

- *Attributes*, which are associated with the product, such as high quality, reliability, or exclusiveness.
- *Benefits*: The functional and/or emotional translations of the attributes are the benefits, as e.g., reliability means less reparation costs.
- *Values*: By striving for certain attributes and benefits the target customer group is defined as well: those whose values coincide with the attributes and benefits.
- *Personality*: A brand projects also a personality by outlining the values of the potential customer. A product will attract those people whose actual or desired self-image is reflected by the brand's image.

A brand repositioning - not only in the context of introducing e-commerce - may be necessary if a competitor launches a product which is positioned similarly to the original company's; thereby necessitating a division in market share. For a company considering moving to the web, it could mean that a competitor has already built up a similar product image, but is specialised in commercialising it over the e-commerce channel. Another possible reason for a brand repositioning could be that the demands and expectations of customers change overtime and introducing e-commerce might be a good opportunity to shift the image into a more promising segment. A third driving force for brand repositioning may be that the company wants to reach a different customer segment over the e-commerce channel than those served via the more traditional channels. The values

[60] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 469.
[61] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) pp. 469, 470.

of those customers might be different compared to the old clientele, so the product's image might need to be adjusted.[62]

Another theory regarding e-commerce and branding is that because the Internet is an "information media" and as branding is empty information or "the opposite of information", branding will lose its importance as long as the Internet gains importance. It will be interesting to discuss this viewpoint with the interviewees.[63]

An organisation potentially has to redefine its market with regards to the e-commerce business, and keep a close eye on the changing demands of the market.

Brand: Praxis

In order to measure the successfulness of the branding strategies of the companies considered, it would be useful to find out if the branding strategy has helped each company or their individual brands reach a higher degree of popularity and good reputation. One indicator for having achieved a good reputation is having received awards. The organisation called "Interbrand" calculates values for brands using the world's most widely endorsed brand valuation methodology, which it pioneered in the late 1980's.[64] This offers another, independent viewpoint on the value of these companies' brands.

As a brand's popularity grows, one can reasonably expect the customer base to grow as well, so this criteria will also be called upon to evaluate the branding strategy. On the other hand stands the costs for the branding strategy of course, it is best to grow a brand's reputation and commercial value while incurring as little expense as possible. Marketing and PR expenditure are the significant cost areas with regards to this.

Having summarised the literature written about branding strategies, we turn to an examination of how the three companies have forged their own brand strategies: First of all it is important to say that both Papyrus and Luna are wholesalers and distributors. As such, they do of course have a brand to establish, but the products that are sold are branded and advertised largely by the manufacturer. However, by

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[62] Plant, R. (2000) p. 235-251.
[63] Steinbock, D. (2000), p. 184.

choosing to offer a certain range of products (with the established manufacturer brands), their own brands are, of course, affected and can be fine tuned, too. Despite this situation, SKF Service Division, which actually has to promote and advertise its own brands, have by far the smallest level of expenditure for PR and advertisement (0,25% of revenue), compared to approximately 1,5% each for Luna and Papyrus. Of this 0,25% of SKF Service Division's advertisement and PR expenses, only 1/10 is actually connected with e-commerce.

None of the companies' brand names have been valued by Interbrand, but SKF Service Division and Papyrus have won awards connected with e-commerce.

In the following table the findings about the brand strategy effectiveness are summarised:

Brand	Luna	Papyrus	SKF SD
Has e-commerce has helped to a higher degree of popularity and good reputation?	yes, 8	yes, 7	yes, 7
Has the company has won awards?	no	yes	yes
Has the brand been valued by Interbrand?	no	no	no
Could the customer base be expanded due to e-commerce branding strategy	yes	m.v.	m.v.
How high were expenses for advertisement and PR (in % of revenue)	1-2%	1-1,5%	0,25% (0,025%)

Table 4-5: Effectiveness of the Branding Strategy

However, neither SKF Service Division, Luna nor Papyrus had to redefine their target markets due to competition or any other reason. All were early movers to the Net, so direct competition in the market space (as contrast to market place, the traditional non electronic market) was not a problem. Indeed, SKF Service Division found that moving to the Net forced the company to analyse its own market position more closely, i.e. the segmentation of the market, to clarify what exactly their target market was, how their sub-brands needed to be positioned and elevated. Papyrus Sweden did not have to reposition their brand in the context of introducing e-commerce either as it already had a good reputation. It is even the

[64] www.interbrand.com

case that their efforts with regards to e-commerce are an important part of the overall company strategy. Luna used the process of moving to the Net to establish their reputation of always being a step ahead of the industry. Still, offering e-commerce as part of an e-consortia meant for Luna to be part of a bigger organisation and, to a degree, would have to submit to the wishes of its partners in order to prevent friction.

The graphical, industrial and institutional consumables markets are not very volatile in terms of demand patterns, so Papyrus can cope with a review of its branding strategy only every five years or so. Luna is constantly complementing its range of products and through this, tries to always meet the changing demands and needs of the customers. The needs in SKF Service Division's market are changing rapidly, and new products need to be developed, but this doesn't necessarily change the image of the entire company, this only occurs gradually at most.

Both Luna and Papyrus used attaching information surrounding the products to add value to their brand. SKF Service Division is even thinking about what kind of information is valuable enough that customers would be willing to pay for them. This is one of the hot topics that are currently discussed at SKF Service Division.

SKF Service Division, Luna and Papyrus are, in different ways, interested in using the Internet as a mechanism for facilitating global branding. While Papyrus and SKF Service Division welcome this potential opportunity, Luna stresses that the facilitated transaction was by far the most important reason for choosing e-commerce, and that branding issues were, in the end, of less interest.

The findings regarding the companies' different branding strategies are summarised in the table below:

Brand	Luna	Papyrus	SKF SD
Was the target market redefined in the context of introducing e-commerce?	no	no	not really
Were any brands repositioned?	partly	no	not really
Did the e-commerce strategy collide with the overall business strategy?	yes	no	no
How often is the company prepared to change the branding strategy?	perma-nently	ca. every 5 years	perma-nently
Was attaching information surrounding the product a strategy to add value to the brand?	yes	yes	definitely yes
Was e-commerce installed because it was considered as a mechanism for facilitating global branding?	no	definitely yes	yes, absolutely

Table 4-6: Brand Strategy

Brand: Sub-Conclusions

Most of the situations regarding branding and e-commerce predicted by the literature actually occurred for some or all of the analysed companies, except that none of them really had to reposition any of their brands due to competition. Especially important aspects that should be considered regarding the branding strategy when introducing e-commerce are the information aspect - designing and organising the information in such a way that both customers and suppliers will benefit the most from it - and the possibility of using the Internet to promote a global brand.

According to the chosen criteria that decide which of the three companies has the best brand strategy, SKF Service Division takes the lead. They clearly needed to spend the least money on advertising and PR, so it is the most cost efficient company. Having won awards for e-commerce connected achievements, and judging the positive development of popularity and good reputation which is almost as high as Luna's, makes SKF Service Division the leader in the overall brand strategy effectiveness.

It is difficult to say what exactly made their strategy so successful. It may well be that it was actually the fact that the e-commerce strategy fitted well into the overall

business strategy. SKF Service Division's success at having won the awards may have been a result of being a larger, better known company than Papyrus and Luna, thereby allowing it to spend less money on advertising and PR, may have similar reasons.

4.2.4 Services

This chapter is also divided into three parts: theory, practice and sub-conclusions. In the theory section, the term 'service' is defined and a list of common online services is given. In the second part, after having graded the effectiveness of each benchmark company's service strategy, is illustrated which of the suggested services are actually offered by the companies. In the third part, a brief comparison of theory and practice is given before it is determined which of the companies has the best overall service strategy.

Services: Theory

"A service is an activity or benefit that one part can offer to another which is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product.[...] Generally, a company's offering to customers often includes some services. The service component can be a minor or major part of the total offering. As such there is rarely such a thing as pure service or pure good."[65]

Plant (2000) believes that "A key to success [..] is to understand and to establish a virtual value chain that adds content at each stage; the content must integrate to meet the overall value chain criteria goals of the company."[66]

[65] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 535.
[66] Plant, R. (2000) p. 66.

Here are some examples for online services:

- Offering information on the products and to the industry on the home page,
- Tracing and tracking: Enabling the customer to check the whereabouts of his individual package at every point of time and finding out when and by whom it will be delivered[67]
- Online bidding and pricing
- An online service centre - online service provision
- Mass customisation: "Mass customisation is the ability to prepare on a mass basis individually designed products and communications to meet each customer's requirements."[68]
- One-to-one customer marketing - due to the variety in customer needs and valuation, each account is treated separately with completely personalised approaches. The customer will be rewarded for increasing his business and being supported in his use of the product[69]

However, due to Bayles (2000), customer service as a problem solving action during the purchasing process is not to be underestimated. The following features help during that period: [70]

- Services for finding products and inquiries about product attributes
- Help for customers who want information during the buying process about billing issues, receipts, and the check out itself (designed e.g., in a FAQ catalogue)
- Information regarding the return of goods
- Features that facilitate repeat business, such as e.g., lists of already bought products, purchase statistics, stored personal data which then doesn't need to be typed into the system at every purchase,...
- Personalised Web pages: These kinds of Web sites are the third generation of Web sites. First generation: publishing sites where the same information is offered to everybody; second generation: combining publishing power with the ability to retrieve information in response to user requests - first steps to interactivity and dialogue. The third generation of Web sites creates dynamically

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[67] Bayles, D. (2001) p. 17.
[68] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 320.
[69] Hanson, W. (2000) p. 206.
[70] Bayles, D. (2001) p. 15-18.

a page catering to a specific individual, moving beyond an "ask-respond" interaction into a dialogue and may anticipate user choices and suggest possible alternatives. Users must reveal at least part of their identities, wants and needs and the site must be able to respond appropriately.[71]

- Automated respond system in order to reduce the respond time as much as possible.

Some companies employ sophisticated customer relationship management systems, which also track traditional methods of interacting with customers by phone and fax. Their main benefits are reducing costs of sales, increasing revenue, and gathering better customer information data to improve support and increase selling option.[72]

Services: Practice

Nowadays it is quite difficult to fill one's customer with enthusiasm over a high quality product only. High quality of the purchased product is already presupposed, but service is the field where there is still space for (over) fulfilling the customer's expectations. Therefore, measuring the effectiveness of the service (a customer satisfaction/delight evaluation) should be a good validation. In order to find out how cost efficient the companies have been, it is interesting to find out how much was spent on just customer services - as a percentage of the revenue.

As already discussed in economic impact, Luna's and Papyrus's customers are increasingly satisfied, while SKF Service Division's customer satisfaction is relatively constant - and this despite SKF Service Division spending a higher percentage of its revenue on services than Papyrus.

Services	Luna	Papyrus	SKF SD
Customer satisfaction	strongly increasing	strongly increasing	almost constant, slight increase
Expenses on customer service (% of revenue)	m.v.	ca. 1%	<5%

Table 4-7: Effectiveness of the Service Strategy

[71] Hanson, W. (2000) pp. 10-14.
[72] Standing, C. (2000) p. 60.

Most services are both offered by Luna and Papyrus. Many of the information orientated services were available in one or the other way even when doing business offline, but because it has become easier to update information - it doesn't involve reprinting of catalogues and pamphlets - the demand for completely up-to-date data is increasing strongly as well. Out of date information has become much less acceptable.

Being wholesalers and not manufactures, neither Luna nor Papyrus are offering mass customised products. Although SKF Service Division is a manufacturer, it doesn't offer mass customised products (which can be compiled by mouse clicks on the Web) either, because SKF Service Division provides components, not complete machines.

SKF Service Division and Papyrus are planning to introduce one-to-one marketing and connected to that, Papyrus will offer personalised Web pages. Customer relationship management service will be installed in the beginning of the year 2002.

In addition to the above-mentioned services, Papyrus offers the following assistance:

- Immediate delivery confirmation after order placement,
- Next-morning delivery for orders placed prior to 6pm
- Access to Papyrus stock levels
- Invoice information.

Luna has installed a VMI[73] to make repeat business even more comfortable.

An overview of the companies service offerings are presented in the following table:

[73] Vendor Management Inventory (VMI) systems make repeat business more comfortable. It facilitates the more efficient exchange of order and forecasting data between the supplier and customer. [Kosiur, D. (1997) p. 152.] For more information about VMI, please see the chapter 'technology'.

Service	Luna	Papyrus	SKF SD
Services for finding products and information about product attributes	yes	yes	yes
Help regarding billing issues, receipts, check-out process (e.g. FAQ catalogue)	yes	yes	no
Help regarding return of goods	yes	yes	not online
Mass customised products	no	no	no
One-to-one marketing	yes	not yet	not yet
Features that facilitate repeat business	yes	yes	no
Personalised Web pages	no	not yet	no
Customer relationship management service	yes	not yet	being installed
Chat room	not yet	no	no
Is an automated respond system installed?	yes	no	no
How quick is the average respond time to customer complaints?	avr. within 1 week	avr. within 1 week	90% in 20 work. days

Table 4-8: Service Strategy

Services: Sub-Conclusions

Comparing the literature relevant to e-commerce and connected services that are offered to the customers, all of them were either offered by at least one of the analysed companies, or they have at least been discussing their installation seriously. The example of Papyrus showed that there is still a list of services that have not been mentioned in the books and articles consulted on the subject.

Comparing SKF Service Division and Papyrus - unfortunately the requisite numbers from Luna are not available -, Papyrus is obviously more cost efficient, as they spend a lower percentage of revenue on services and yet have achieved strongly increasing levels of customer satisfaction. In this latter regard, Luna can also be categorised as the more effective company. On the other hand, one should of course not forget that customer satisfaction is not purely dependant on the service quality of a company. Usually, customer satisfaction is also strongly influenced by the perception of the competitors, so it may be that SKF Service Division just faces very tough competition relative to the other companies. In any case, in SKF Service Division's market, e-commerce seems to be of lower importance to the customers in Luna's and Papyrus' market, where customers appear to use e-commerce a lot more frequently. This would signify that e-

commerce services influence customer satisfaction a lot less anyway. However, looking at the offered services, it still seems obvious that both Luna and Papyrus offer a broader range of services, that include simple ones like FAQ catalogues, and far more sophisticated ones like one-to-one-marketing and customer relationship management services. So the outcome supports the argument that customer services are very important for raising levels of customer satisfaction.

4.2.5 Market

This chapter also has three subdivisions: theory, practice and sub-conclusions. In the theory part, the functions of markets are presented and how these potentially change due to the use of e-commerce. In the practice part, a suggestion of how to measure market strategy effectiveness is proposed and applied to the benchmark companies. Some comments about the companies' experience regarding being the first in their industry to enter the electronic market are also given. The sub-conclusion discusses which functions of the market have actually been affected due to e-commerce, and which of the companies has reacted most effectively to these changes.

Market: Theory

Markets play a central role in the economy. The main three functions of both electronic markets (as well called 'marketspaces') and traditional markets (or 'marketplaces') are matching buyers and sellers; facilitating the exchange of information, goods, services, and payments associated with market transactions; and providing an institutional infrastructure, such as a legal and regulatory framework that enables the efficient functioning of the market. Through this, markets create value for buyers, sellers, market intermediaries, and for the society as a whole.[74] According to Plant (2000), the market is the factor that is the one on which the Internet has the greatest impact. The company has to defend its position in an environment that is much more volatile than the one for traditional operating organisations.[75]

This is partly caused by shifting responsibilities in the entire channel - competition from partners (for more detailed information please see as well the logistic section)

[74] Bakos, Y. (1998) p. 45.

and the difficulty to create customer loyalty over the Internet - competition from rivals. E-commerce customers have the ability to shop, compare, and switch to a competitor extremely easily, quickly and inexpensively, given the help of search engines, mall directories, and intelligent agents. This is a very serious aspect, as customer loyalty is one of the most significant contributors to profitability. It is about five to eight times cheaper to keep a customer than to acquire a new one. Customer loyalty can be increased by e.g., including the provision of one-to-one marketing.[76] These measures are taken in order to increase customer satisfaction, which has already been discussed in more detail in the service section.[77] Many aspects that are also very closely related to the development of the market share and defending one's position in the market have already been dealt with in the section "brand". However, some questions are still to be answered, and the effectiveness and the efficiency of the market strategy to be measured.

Market: Practice

SKF Service Division, Luna and Papyrus mainly utilise the second function of the electronic market. As movers to the Net, most business relations with their customers were already established, so the aspect of matching of buyer and seller was not that important for them. As sellers of non-electronic goods, the delivery of goods has not been of high significance for any of them. Neither, according to Luna, were there any major adaptations necessary to a new regulatory system. The utilised advantage of the electronic market was the facilitated delivery of information and the possibility of offering online services.

In trying to measure the effectiveness of a market strategy, one obvious indicator is the growth of market share, and if the company was able to reap economy from the expansion of scale.

Luna could increase its market share due to offering e-commerce, because the customers' demand the ability to place their order electronically , next to personal

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[75] Plant, R. (2000) p. 239.

[76] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 85.

[77] One-to-one marketing is used when the variety of customer needs and valuation calls for specialised, completely personalised approaches. Each account is treated separately, and will be rewarded for increasing their business and will be supported in their use of the product. [Hanson, W. (2000) p. 206.]

selling. Papyrus also succeeded in increasing its market share, especially in the consumables branch. This development is not necessarily directly connected to introducing e-commerce but rather due to the increasing desire of powerful customers, e.g., Volvo, to decrease the number of suppliers and to concentrate on a few key business partners on the supply side. Small companies often cannot live up to those kinds of customer's expectations, so the larger players grow at the expense of the minor ones. However, Papyrus was able to use the growth of revenue to the company's advantage and reap economies of scale, especially in the service division.

The number of products offered by Luna (respectively toolstore.com) is increasing and will continue to increase because of the same trend as described in Papyrus' consumables market: Customers aspire to reducing the number of suppliers and thereby reducing the number of invoices. In order to be one of the few suppliers or even the only supplier, the offered product range needs to be as complete as possible.

SKF Service Division also does not believe that its positive market share development is connected to offering e-commerce, because all their competitors offer e-commerce themselves so this is not a comparative advantage any longer. Economies of scale could only be reaped in production, not in the administrative work.

In the table 4-8 the results are briefly summarised:

Market	Luna	Papyrus	SKF SD
Market share development	increase	(increase)	no changes due to e-commerce.
Reaped economy from an expansion of scale?	yes	yes (especially in services)	not due to e-commerce

Table 4-9: Market Strategy Effectiveness

Papyrus, SKF Service Division and Luna were all first movers in their industry. This meant that, on the one hand, they could collect experiences, improve competence and that little inaccuracies in doing e-commerce were more easily excused by the customers. In other words, they had moved further down their

respective 'experience curves' with regards to doing business on the Net. On the other hand, they payed dearly for their wisdom, they couldn't learn from mistakes others had made and the e-commerce technology required was also expensive. SKF Service Division stresses that it was necessary to take this step early because of defending the position of being worldwide market leader. Looking back, SKF Service Division estimates that this was advantageous because of the improving general perception of the customers.

Having e-commerce installed it meant that Luna was able to facilitate the expansion to the Baltic countries and Poland, for SKF Service Division e.g., having installed e-commerce facilitated the opening up of India. Papyrus did not utilise the possibility to expand geographically mainly because they already have branches in other countries.

The following table lists the just stated facts:

Market	Luna	Papyrus	SKF SD
Was the company an early mover?	yes	yes	yes
Could the geographical reach be expanded due to e-commerce?	yes	possibility not utilised	yes

Table 4-10: Market Strategy

Market: Sub-Conclusions

While the academic world lists at least three market aspects that are strongly affected by e-commerce - matching buyers and sellers, facilitating the exchange of information, goods, services, and payments; and providing an institutional infrastructure; for the analysed companies only the second aspect was of higher importance. Reasons for this are explained in the paragraphs above.

In this area, both Luna and Papyrus were very cost efficient, by succeeding in reaping economies of scale, while SKF Service Division was not, and Luna additionally managed to increase its market share due to installing e-commerce. Within the context of the chosen set of criteria, Luna appears to have the best market strategy. However, it is difficult to decide what exactly made this market strategy so successful, as according to the performed investigations, Luna's market

strategy is not much different from the others'. This is not completely surprising as being an early mover and growing the geographical market reach are not the only determinants of the market share developments. Again, e.g., the competition situation is very important and being good at the core business. These aspects seem to speak for Luna more favourably than for the other two companies.

Literature suggests, that switching suppliers is facilitated due to e-commerce, which is certainly true in B2C, whereas in B2B the trend can be observed of supplier and customer moving closer together, sharing more information and investing large amounts of money in systems and infrastructure like Extranet, EDI, VMI

Furthermore, an interesting argument from the interviews is, that being early mover in the industry is being regarded advantageous in spite of the high costs.

4.2.6 Technology

When discussing e-commerce a vast array of IT systems are involved and a lot of literature regarding e-commerce technology is available at the University library, discussing many different aspects extensively. However, having to limit ourselves to a relatively small number of topics, we chose some of the most important ones (Internet, intranet, extranet, ERP, VMI, EDI, data warehousing and XML) that will be introduced briefly in the following paragraphs. After attempting to measure and explain the effectiveness of the different choices of technology, the security concerns of the benchmark companies are briefly discussed in the practice part. In the sub-conclusion, the main findings are summarised.

Technology: Theory

Internet[78]

The Internet represents a common technical platform, which permits better co-ordination, organisation and management of the business operations between partners.[79] Using the Internet as a communication channel the advantages are

[78] Gurau, C.; Ranchhod, A. and Hackney, R. (2001) p. 34.
[79] Poon, S. and Javons, C. (1997) pp. 29-41.

increased speed of business transactions, increased flexibility and specificity of the information exchange.

Suppliers and customers are able to access and contact each other directly while potentially eliminating some of the marketing costs and constraints imposed by such interactions of traditional alternatives. The possibility is given that distribution will become much more efficient due to reduced overhead costs. With the help of the Internet, the supplier can offer additional online services to its customers such as tracing and tracking of the delivered product.[80]

Intranet

The intranet works like the Internet, but the access is restricted to one organisation. A server called a 'firewall' protects against unauthorised access. The intranet is an effective platform of implementing Web-based workflow and groupware and it is becoming a standard for corporate information systems and needs to be integrated with the e-commerce platform.[81]

Extranet

The extranet is a network with access limited to associated external parties. This alternative is sometimes used as a B2B e-commerce platform in favour to public networks like the Internet mainly due to security concerns. Still, so far the Internet is the more economical and seamlessly accessible platform for B2B e-commerce.[82]

ERP

Enterprise Resource Planning (ERP) is the further development of material resource planning (MRP), a system that allowed manufacturers to control the flow of components and raw materials and offered ways of planning in advance. Now, ERP is designed to cover all business activities in the company including human resources, project management and finance. ERP helps managing and improving processes such as product planning, parts purchasing, maintaining inventories, interacting with suppliers, providing customer service, and tracking orders. Through ERP, time cycles can be reduced and costs lowered, stocks can be reduced and it helps create the business environment for implementing a just-in-

[80] Gurau, C.; Ranchhod, A. and Hackney, R. (2001) p. 34.
[81] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 203.
[82] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 203.

time (JIT) process. It is also very important to bear in mind that the information kept in the system can be of high interest regarding online business and automatic information exchange with business partners. The Internet has changed the way ERP operates and co-operates with other systems. It permits rapid supply chain management between multiple operations and trading partners and creates a virtual supply chain. A problem is that not all ERP systems actually support Internet connectivity.[83]

The Internet provides a secure and direct self-service model for accessing the ERP system, which allows customers and suppliers to interact with the company without getting in touch with the respective contact person. This requires a highly secure connection to the system, as the ERP can be seen as the heart of the company.

VMI

Vendor Management Inventory (VMI) systems make repeat business more comfortable. It facilitates the more efficient exchange of order and forecasting data between the supplier and customer.[84] The idea behind VMI is that the customer no longer places the order with the supplier in the traditional manner, but instead shares information on actual demand or usage on a continuing basis. Basically, with VMI, the wholesaler takes over the decision of how much to stock at the retail store or at the end-customer.[85]

EDI

EDI is the technology that is used to transmit data - purchasing orders, inventory, point of sale, demand forecasts and advanced shipment notices - electronically and in a standardised and globally understood business language between supply chain partners. EDI improves partnerships, and other benefits are reduced business transaction cycle time, costs of manual processing and filing, inventory investment, purchasing lead time and error rates. EDI increases customer service, accuracy and elimination of lost documents, sales, inventory turns, and profitability. [86] However, there are also some disadvantages associated with EDI,

[83] Amor, D. (2000) pp. 103-107.
[84] Kosiur, D. (1997) p. 152.
[85] Jones, T., Danks, A., Dhillon, Y., and Holforth, l. (1998) p. 182, 280.
[86] Gattorna, J.L.(1998)p. 201.

such as a significant initial investment and high operating costs, and the relative complexity of using the system.[87]

For almost the last thirty years, EDI ran on expensive so-called value added networks (VANs), which usually only connected large trading partners. EDI was not profitable to install, if a company had a lot of minor trading partners that were perhaps also changing frequently. However, the situation has changed and Internet-based EDI is now available, offering global inter-network connections for any number of trading partners at much lower costs. To make it work, a company can either create an extranet that enables trading partners to enter information in Web form whose fields correspond to the fields in an EDI message of document or utilise the services of a Web-based EDI hosting service in much the same way as companies rely on third parties to host their e-commerce site. Web-based EDI can support or replace traditional EDI.[88]

Data Warehousing

A data warehouse is a copy of business transaction data specifically structured in order to run query and analysis. As operational systems are not able to hold their data for an infinite period, the data is moved to the data warehouse. Having introduced e-commerce, the amount of transaction data is increasing rapidly. Data warehouse systems can combine data, for example, from sales, marketing, finance and production applications. Once the data is combined, it is possible to cross-reference it and thereby gain insight to the bigger picture. Through this, decision makers in process can be supported and after that, the result of the decision can be verified. Data warehouses are not interfering with the operational systems and thereby detracting from their performance. "A well implemented data warehouse system is the key for understanding the business decisions of yesterday and making the right decisions for tomorrow. Especially in the rising light of the Internet business these features are highly important as fast decisions are required."[89]

[87] Turban, p. 224.
[88] Turban, E., Lee, J., King, D. and Chung, H.M (2000) pp. 224, 225.
[89] Amor, D. (2000) p. 99-103.

XML (eXtensible Markup Language)

XML is changing the way electronic commerce is implemented on the Internet. Together with Java it is enabling a new generation of Internet applications. XML and Java form together a complete, platform independent, Web-based computing environment, which is able to produce portable "smart" data.[90]

Technology : Practice

The way of working has changed with the introduction of new technology. This affects the tasks of the people who have been working in the now automated processes to a great extent. An indicator for the effectiveness of the technology is therefore if the implementation of e-commerce has led to any direct changes in headcount levels. Of course, it is interesting to find out in what departments this has occurred. Technology is often installed in order to save time, so another sign for a successful technology strategy implementation is the reduction of the cycle time for an order. This can be measured, e.g., in stock inventory days reduction, or in a reduced overall working capital cycle.

As usual, these achievements bring with them associated costs: the initial investment for the installed technology and the maintenance costs, like line to the net software. A return on investment (ROI) calculation would of course be very useful in order to determine the degree of accomplishment.

Luna and SKF Service Division had a constant employment level in all departments despite becoming a part of the e-consortia toolstore.com and endorsia.com, respectively. Papyrus, on the other hand, has reduced headcount in the departments customer service and sales. As e-commerce (including EDI) has already been installed since 1985, it is difficult to say, how much exactly is directly due to the introduction of a Web-based platform. However, regarding the sales department, an average sales manager is able to handle about 80.000 orders per year, while the e-commerce system is currently receiving and handling around 800.000 orders per year, the work of 10 sales managers.

Luna's installed technology cost probably about 10 million SEK (1,1% of the yearly revenue), so did the last Papyrus project as well, including band width,

[90] Amor, D. (2000) p. 449.

consulting, and software, but due to a higher sales figures, this was only 0,5% of the yearly revenue. Unfortunately this kind of information is confidential at SKF Service Division, so no statement can be predicated.

While Papyrus didn't reduce the cycle time, Luna did. Unfortunately no precise numbers are available, but exact data regarding the reduction of the stock holding level - which means that at an constant or increasing level of sales the stock inventory days are automatically reduced as well: The level of A-class-products could be reduced with approximately 55%, B-class-products with approximately 30% between November 2000 and August 2001 and the stock holding level for C-class-products could be with approximately 40% between February and August 2001. SKF Service Division was also able to reduce its cycle time by as much as 10% due to e-commerce.

These findings are listed in the following table:

Technology	Luna	Papyrus	SKF SD
Head count reduction	no	yes	no
Cycle time reduction	yes	non	yes, 10%
Initial investment (in SEK)	1,1% of revenue	0,5% of revenue	m.v.
Maintenance costs (in SEK)	"high - but not too high"	4-5" per year	m.v.
ROI	m.v.	m.v.	m.v.

Table 4-11: Technology Strategy Effectiveness

Of course, Luna, SKF Service Division and Papyrus each have an intranet installed.

In Papyrus' business communication, however, the Internet is, with approximately 90%, clearly dominant, but the XML is gaining importance as well, although so far it is only used for about 1% of inter-company communication. SKF Service Division is still mainly relying on EDI (90%), some communication via Internet, and a still relatively high percentage of manual communication (telephone, fax,

etc.). Luna has a more balanced use of the different communication channels: 40% via Internet, 40% via EDI and the remaining 20% of the communication is through telephone or fax.

For all the companies considered, Internet security is not a big issue, mainly because they are dealing only with other companies or with the government and doing almost exclusively repeat business. Therefore, the payment is done in the traditional way and not over the Internet, as it is usually done in the B2C business.

SKF Service Division, Luna and Papyrus have installed data warehousing. Papyrus used this tool e.g. in order to support activity based costing or identification of the most profitable geographic areas that are supplied. Papyrus regards the flexibility of its technology infrastructure as best-in-class, using standard software. Having real time commitment, the interfacing of front and back office receives Papyrus' highest approval. Less positive is SKF Service Division's rating regarding the flexibility of its technology infrastructure. SKF Service Division faces the difficulty that it wants to connect to a number of different marketplaces next to endorsia.com for different purposes. According to SKF Service Division's opinion the required effort is still too high to accomplish exactly this.

The choice of installation, use and rating of the companies' technology is summarised in table 4-12:

Technology	Luna	Papyrus	SKF SD
Installation of an intranet	yes	yes	yes
To what extend are the following systems used to communicate with the customers?			
EDI	40%	9%	90%
Internet based EDI	0%	0%	0%
Extranet	0%	0%	0%
Internet	40%	90%	5%
XML	0%	1%	0%
Installation of data warehousing	yes	yes	yes
Installation of knowledge management	m.v.	no	yes
Any other e-commerce supporting systems?	m.v.	no	m.v.
Importance of transaction security	m.v.	medium	medium
Technology infrastructure flexibility to accommodate market changes (rating)	m.v.	9	4
Effectiveness of interfacing between front and back office (rating)	9	10	10

Table 4-12: Technology Strategy

Technology: Sub-Conclusions

Regarding the technology strategy, it is very difficult to decide which one of the companies could establish the most successful one, mainly due to a lack of information regarding the cost efficiency (few statements on costs of technology projects, maintenance costs and ROI). The overall strategy effectiveness is quite balanced between the different companies: Luna and SKF Service Division were able to reduce their cycle time but Papyrus could reduce the head count levels due to the installed technology. In the end the determination of the best technology practice has to stay undecided, although they are quite strongly different from each other (e.g., in the use of communication systems).

An important conclusion of this chapter is that the widely discussed issue of transaction security in B2B commerce is not as important as it probably is with business to consumers, due to having retained the traditional way of invoicing.

4.2.7 Logistics

As the general definition of logistics is already stated in the chapter on theoretical background, we will concentrate at this point more on the effects e-commerce has on logistics according to Bayles (2001). In the practice part we describe how the practice of logistics has actually changed for the benchmark companies due to e-commerce, after having tried to measure the effectiveness of the logistics strategy in an e-commerce environment. In the sub-conclusion, the theory and practice part are compared.

Logistics: Theory

According to Bayles (2001), introducing e-commerce means radical transformation of traditional logistical habits. "Electronic commerce demands an agile, high velocity, granular approach to logistics. The typical electronic commerce customer is an unknown entity who orders products on an individual basis, according to impulse, seasonal demand, price, and convenience. A manufacturer or online merchant must be able to customize an individual order; ship it directly to the buyer anywhere in the world, track the whereabouts of the item at any given time along the supply chain; handle customer inquiries; handle product returns; and even offer gift wrapping - all at ten times the speed and at a fraction of the cost of traditional shipping and fulfilment."[91] The following graph shows the main points where traditional and e-commerce logistics differ:

[91] Bayles, D. (2001) p. 3.

	Traditional Logistics	Commerce Site Logistics
Shipment Type	Bulk	Parcel
Customer	Strategic	Unknown
Demand Style	Push	Pull
Inventory/Order Flow	Unidirectional	Bidirectional
Average Order Amount	high monetary values	low monetary values
Destinations	Concentrated	Highly dispersed
Demand	Stable, consistant	Highly seasonal, fragmented
Accountability	One link	Through entire supply chain

Figure 4-3 Commerce Site Logistics Differ from Traditional Logistics[92]

Logistic: Practice

Investigating how e-commerce has affected logistics and what an appropriate logistics strategy should be in order to maximise the entire companies performance, it is necessary to widen the perspective from just looking at the single company and consider the entire marketing channel.

However, before e-commerce and marketing channels are discussed, firstly the effectiveness of the analysed companies' logistics strategy must be measured. Good indicators for a beneficial logistics or, more specifically, distribution strategy is that both distribution time could be decreased while the on time deliveries are increased, while being cost efficient and reducing distribution costs.

Neither Luna, SKF Service Division nor Papyrus were able to decrease distribution time or increase the number of on time deliveries, emphasising that there is not really a connection between ordering goods over the Internet and distribution that materially affects the distribution time.

SKF Service Division's Logistics Director B. Hasteus' comment to these questions was that of course a functioning logistical network is one of the most, if not *the* most, important requirement's for a successful e-commerce business. As SKF Service Division was good at the practice of logistics, they are now good at the

practice of e-commerce. However, the implementation of an e-commerce initiative did not change the way they were doing logistics. This statement will be strengthened by the further investigations about how little the institutions, functions and behavioural aspects have changed in the entire marketing channel. The one process that is changed due to e-commerce is the ordering process.

Somewhat surprisingly, the distribution costs for both Papyrus and Luna have actually grown. The reasons given for this phenomenon are (a: papyrus) increased service, like e.g., longer open times and (b: Luna) due to smaller orders the freight costs have increased. However, Papyrus reacted to this development by successfully working out distribution plans ("leveransplaner") for important customers. With the help of these plans, the orders become more predictable and the inventory turnover increased.

Once again, the main findings of the last paragraphs are sumarised in the following table:

Logistic	Luna	Papyrus	SKF SD
Distribution time decrease	no	no	no
On time delivery increase	no	no	no
Distribution cost reduction	increasing costs!	increasing costs!	no

Table 4-13: Logistic Strategy Effectiveness

The suppositions about how logistic requirements change due to using e-commerce by Bayles (2001) were, to some extent, not confirmed by our analysis of the benchmarked companies. This was primarily due to the only relatively minor changes in the clientele. The customers are still strategic customers, so shipment to the respective destinations stays the same and so do the demand patterns. It is true, however, that the demand style for is developing from push to pull demand. This is especially clear at Luna - using VMI -[93] but at SKF Service Division, similar developments can also be observed. Luna has also noticed a trend whereby

[92] Source: Forrester Research, Inc. Taken from Bayles, D. (2001) p. 3.
[93] About VMI, see as well chapter 'technology'

customers order more often but in smaller amounts. SKF insists that this behaviour was already prevalent before e-commerce was a major factor. Papyrus could neither observe this development, nor a changing demand style, a bidirectional demand style nor a lower average order amount. SKF and Luna remark that bidirectional order and material flow have as well happened before and were not strongly affected by the switch to e-commerce.

However, Luna considers the responsibility throughout the entire supply chain as a very important aspect in contrast to taking responsibility for their own link only.

Logistics: Sub-Conclusions

Comparing what the considered literature writes about the impact e-commerce has had on logistical practice and what can be seen in the analysed companies, the changes are less distinct in the examined real world than that which, e.g., Bayles (2001) predicts or these trends have started already independent from e-commerce. The reason for this is probably that the considered companies are still doing business with other businesses and not with end-user individual consumers. Such a transformation would probably mean far stronger adaptations.

Again, it is difficult to identify a best practice with regards to the logistics strategy. The only lead is that, unlike Luna and Papyrus, SKF Service Division was able to prevent logistical costs to increase due to introducing e-commerce.

At this point, Hasteus' statement should be stressed, because it seems to hold not only for SKF, but as well for Luna and Papyrus: e-commerce does not improve the logistical situation of a company, but a well-working logistical strategy is vital for being successful in e-commerce.

Furthermore the development to supply-chain-management thinking is very prominent in all companies and is taken very seriously. E-commerce is an important supposition for supply chain management, because response time needs to be as short as possible and the information exchange without friction.

4.3 Conclusion: Benchmarking

As all of the analysed companies rated increasing profitability as one of their most important goals, the sub-strategies are now analysed regarding how cost efficient they have been in comparison to each other.

The criteria to measure cost efficiency are:

Branding: How high were the expenses for advertisement and public relation as a proportion of revenue?

Services: What proportion of your revenue is spent on customer services? Could the expenses for customer service be reduced due to e-commerce?

Market: Has the company reaped economy from an expansion of scale?

Technology: How high was the initial investment for the installed technology? How high are the maintenance costs?

Logistic: Could distribution costs be decreased - if so, by how much?

In the following graph the evaluation of the benchmark companies' cost-efficiency performance is shown. The same scale with the same restrictions as in 'Economical Impact' is used.

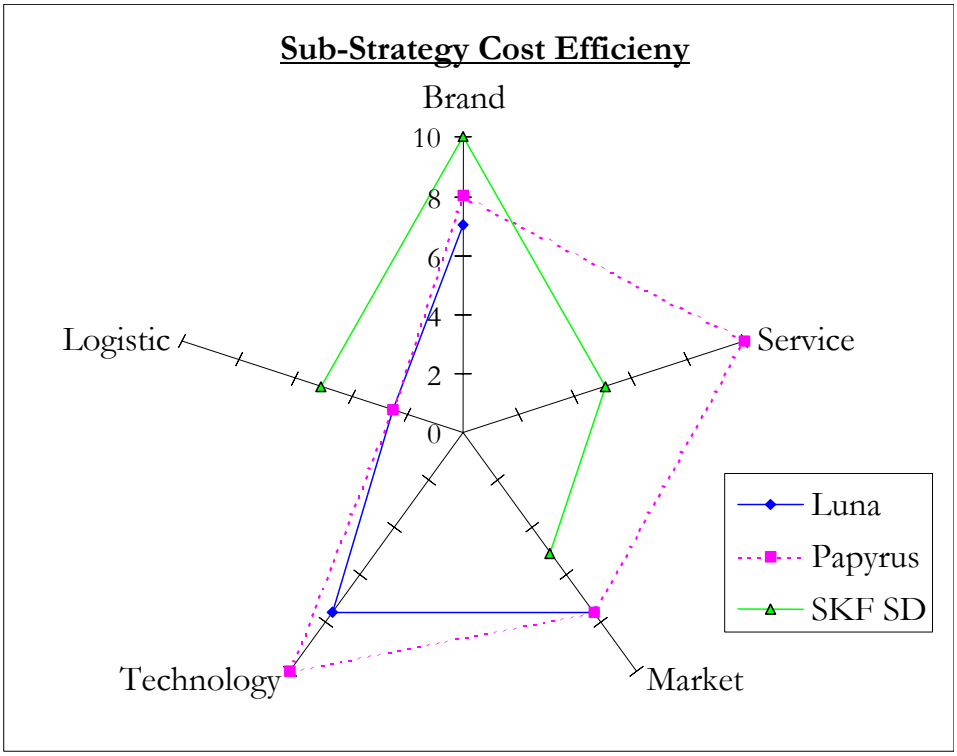

Figure 4-4 Cost Efficiency of the Sub Strategies

The graph shows Luna's and Papyrus' performances are very similar, except regarding technology, where Papyrus is more cost efficient, while SKF Service Division has come out better regarding logistics and brand but worse concerning the sub-strategies service and market compared to Luna and Papyrus. On the whole, all companies are probably equally cost-efficient, provided that all sub-strategies are considered equally important.

The effectiveness of the sub-strategies:

In the following graph the effectiveness of the companies' sub-strategies (including the cost-efficiency) are presented graphically.

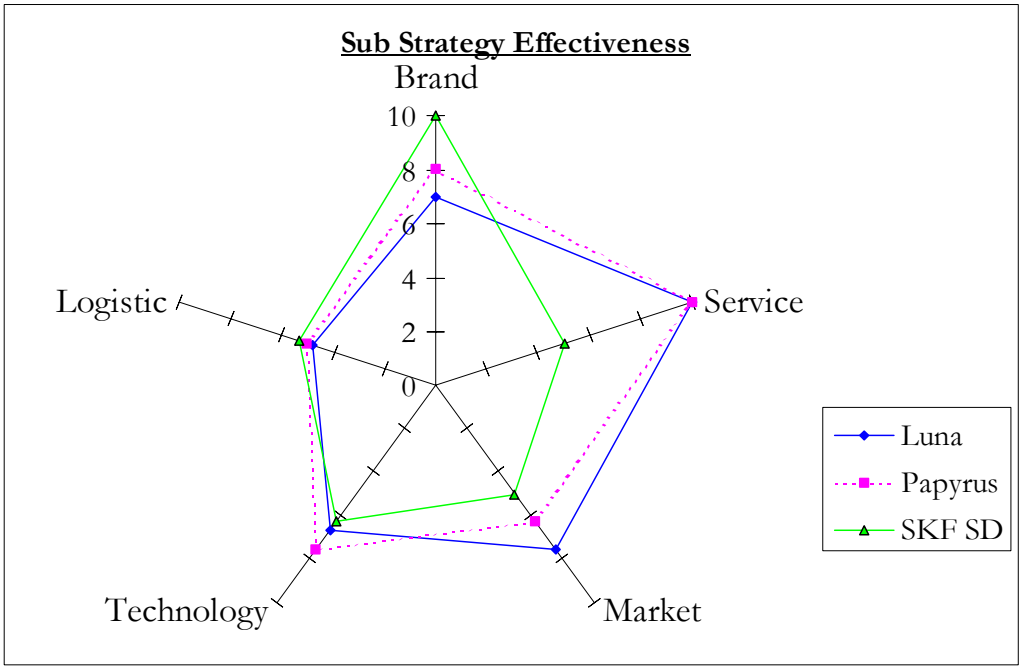

Figure 4-5 Effectiveness of Sub-Strategies

Similar to the cost efficiency analysis, while Papyrus' and Luna's performances are very similar, SKF Service Division has been relatively more effective in their branding strategy and less so in the service and market section. In the sections logistics and technology, all three companies' strategies can be valued as being relatively equally effective.

Wanting to compare the companies' overall effectiveness, all of them are on a very similar level as can be seen in Figure 4.6. Reaching 50 points on this scale would

be the maximum possible achievable (5 x 10 points = highly effective, a very positive impact on achieving the company's sub-strategy goal).

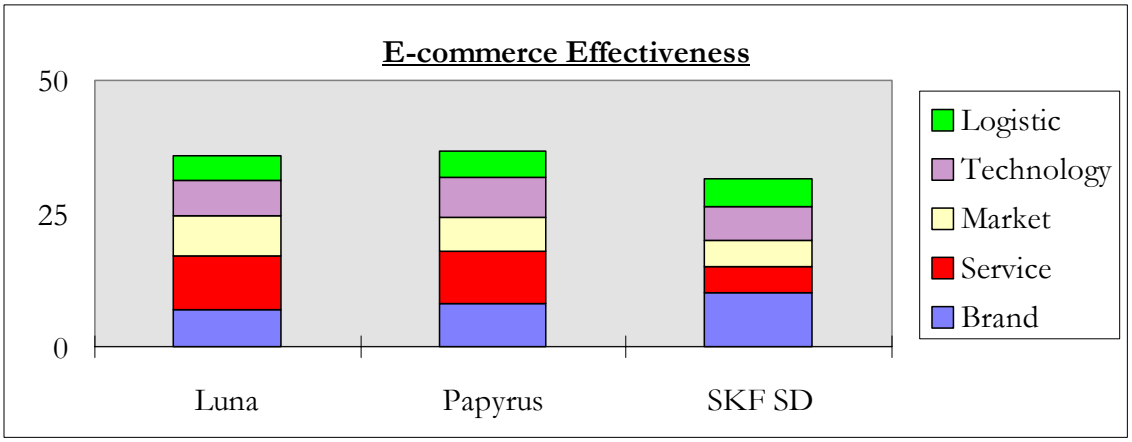

Figure 4-6 E-commerce Sub-Strategies Effectiveness

The ratings are, to an extent, arbitrary, because of

- the difficulty of translating real numbers into rating numbers,[94]
- the subjectivity of the interviewees, and
- the assumption that all criteria and all sub-strategies are equally important, which need not necessarily be the case in reality.

Considering these restrictions and the similarity of the overall ratings of the companies, no best practice can be identified. All three have established a highly efficient and effective e-commerce system, none materially better than the other.

4.4 E-Commerce and Marketing Channels

This chapter differs from the preceding ones, as here the goal is not one of identifying who has the best strategy regarding marketing channels, but instead to analyse the changes in the marketing channels.

- Changes are considered regarding the structure of channel members;
  - ⇒Has the number of traditional channel members (distributors, retailers etc.) increased or decreased?
  - ⇒Did new channel members appear (e.g., electronic intermediaries)?

[94] Please see Appendix 2.

⇒Were some intermediary groups completely replaced by others? ...

- Tasks in the marketing channels;

  ⇒How have the tasks changed due to e-commerce?

  ⇒How have the responsibilities shifted between the channel members?

- How has the nature of co-operation changed?

  ⇒Has power shifted between the channel member?

  ⇒Who is marketing channel leader and how does he use his role?

  ⇒Did conflicts arise?

  ⇒Has communication changed?

The Three Perspectives

Nyberg (1998)[95] has extensively investigated how innovations (and e-commerce certainly *is* an innovation) in marketing channels have been discussed in the literature over the years. She has come to the conclusion that there are mainly three different perspectives, each of them considering different aspects. They are the following:

- Institutional perspective
- Functional perspective
- Behavioural perspective

4.4.1 The Institutional Perspective

The institutional perspective discusses the usefulness of middlemen, meaning to analyse if they add more value than costs. At this point it should be investigated if the current level of middlemen's involvement is acceptable or if an introduction of e-commerce in the way we have described it above changes the situation of and demands on the marketing channels in a way that requires more or less intermediate stops between supplier and end-customer. As usual, first some books and articles are consulted with regards to this topic and afterwards we investigate as to how the benchmark companies have handled this issue.

[95] Nyberg, A. (1998) pp. 14ff.

The Institutional Perspective: Theory

Abrahamsson and Brege (1995)[96] propagate so-called direct delivery distribution (DDD), which suggests centralising the distribution function and that only one central warehouse should be required and no minor ones. This could mean that all dealers are rendered unnecessary if the manufacturer decides to run this warehouse by himself. However, Weld argues very wisely: "The functions of marketing channels have to be performed, however many separate middlemen there are; the problem is to find the most economical combination of functions."[97] In the end the decision on how to organise the distribution channel should depend on the costs that are generated by the functions, i.e. if they decrease or increase with scale.[98]

Especially in hostile, unstable and competitive times, companies judge their existing distribution channels more critically and choose those that are matching more effectively and precisely each of the different market segments.

Disintermediation and Reintermediation:

Through using the Internet, manufacturers are able to sell directly to customers and provide customer support online. This means, that the traditional intermediaries are potentially eliminated. This phenomenon is called disintermediation. When electronic intermediaries like e-malls and product selection agents are emerging instead, the development is called reintermediation.[99]

Electronic intermediaries on the Internet are offering services that combine multi-vendor information, comparison-shopping, and are often tied to local retailers in a new system of customer communication.[100]

Traditional intermediaries are wholesalers, distributors and retailers. A wholesaler is a firm engaged primarily in buying goods from the manufacturer and selling

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[96] Abrahamsson, M. and Brege, S. (1995).
[97] This quotation is taken from Nyberg, A. (1998) pp. 15.
[98] Nyberg, A. (1998) pp. 16ff.
[99] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 63.
[100] Hanson, W. (2000) p. 379.

goods and services to those buying for resale or business use.[101] In the context of its industry value-chain, the wholesaler can be described as having a 'many-to-one' relationship with its own upstream suppliers and a 'one-to-many' relationship with its downstream customers.

Physical distribution firms or distributors help companies to stock and move goods from their point of origin to their various destinations. Co-operating with warehouses and transportation firms, a company must determine the best way to store and ship goods, balancing such factors as cost, quality of delivery, speed and safety.[102] As seen in the benchmark companies Luna and Papyrus, distributors and wholesalers are not necessarily two different firms.

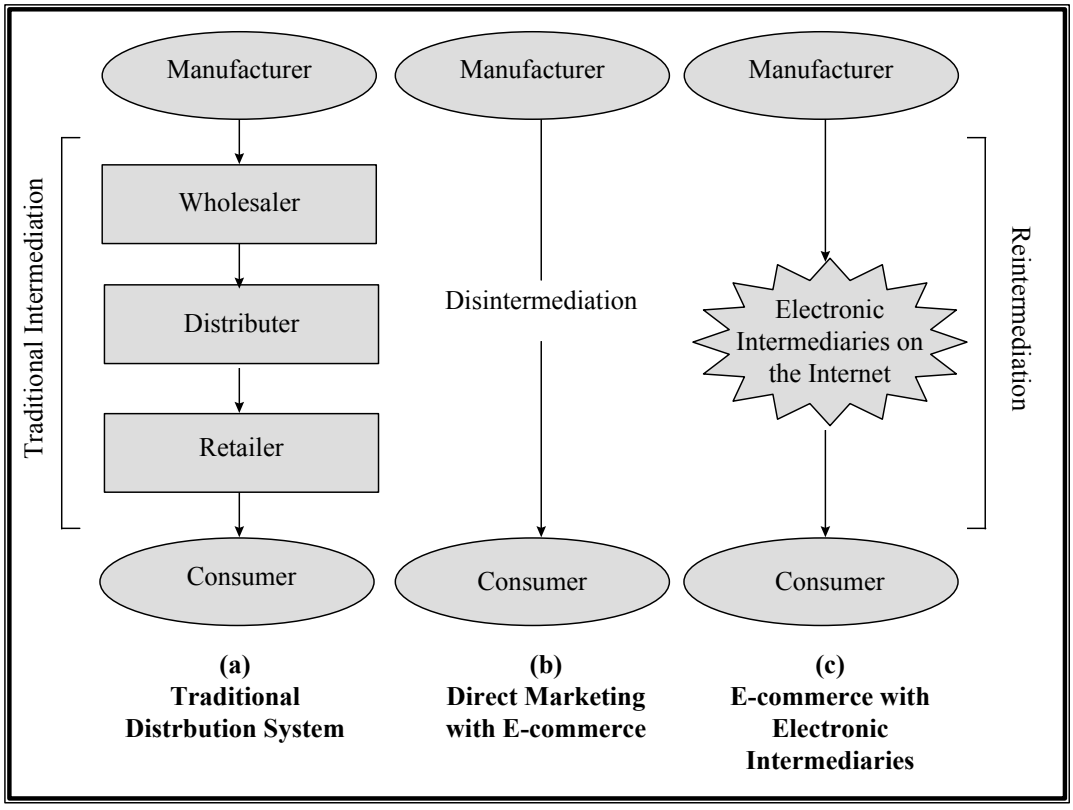

Figure 4-7 Disintermediation and Reintermediation by E-Commerce[103]

E-commerce gives manufacturers both choices and problems, and existing distribution partners do not necessarily welcome changes. Although the Internet

[101] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 834.
[102] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 120.
[103] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 64.

and its possibilities are growing rapidly, abandoning established channel structures is very risky. At the same time, companies do not want to miss the opportunities of online selling.[104] Still, they can choose to ignore the possibilities of business over the Web and keep their traditional distribution system. On the other hand, manufacturers may want to disintermediate completely and introduce direct marketing or they may choose to reintermediate and sell their products via e-commerce with electronic intermediaries. Of course, a mixture of these strategies is possible as well. In the automobile market it is e.g., common to coexist with the dealers, while Nike, for example, differentiates regionally if they offer traditional retailing or selling over the Internet only. Usually dependant on the potential customer's perceived relative ability to gain access to the Internet. Furthermore, the manufacturer has to make the decision if he wants to be the sole organisation that is allowed to sell his products over the net, like e.g., Levi's before 1999. Depending on the power of distribution in the marketing channel, the decision for evading intermediaries doing direct marketing with e-commerce must be balanced against the possibility that doing so can destroy the traditional way of doing business. According to Fortune, Aug. 16, 1999, the retailer Home Depot sent a letter to its major suppliers like www.whirlpool.com, telling them that Home Depot has the right to eliminate their products from their range of items of sale, if they decide to sell online directly to customers.[105] Other companies like Dell Computers or Cisco Systems are not dependant on their retailers at all and could shift their entire sales to online business.[106]

However, not only the manufacturers need to take decisions. The retailer, too, has the choice to go online and sell their products over the Web. Should this be the case, the retailer needs to decide how much further he would like to integrate his suppliers. Some manufacturers are not affected by the retailer's online strategy at all, while others are forced to adapt to technological changes and manufacturing practices, that support the requirements of online selling, such as rapid turnaround, in-depth information, and customisation.[107] Furthermore, as observed at the benchmarking companies Luna and Papyrus, wholesalers/distributors have

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[104] Hanson, W. (2000) p. 377.
[105] Further discussion regarding the importance of power over the marketing channel, please see the paragraphs about behavioural perspective.
[106] Turban, E., Lee, J., King, D. and Chung, H.M (2000) pp. 64, 65.
[107] Hanson, W. (2000) p. 376.

excellent possibilities to use e-commerce for communicating with the customers, too .

Turban (2000), among others, predicts the following developments within the marketing channels due to the impact of e-commerce:[108]

- Winners will be midsize manufacturers that are squeezed between market leader dominance and smaller competitors' flexibility. With an open e-commerce network, they will have greater access and exposure to their customers. He believes that small vendors will also gain access, but buyers might be sceptical about their support and their financial and delivery capabilities. Exceptions are niche markets and early movers to the Internet that already have established a reputation, such as Amazon.com.
- A few large re-sellers will, as well use the possibilities of the Internet, and, through their economies of scale in logistics and automation, succeed in increasing their market share. Some unexpected companies may emerge in this "large reseller arena" as express deliveries as in the case of FedEx and UPS.
- As a third group that will profit from e-commerce, Turban enumerates online dedicated companies such as E*TRADE, eBay and Amazon.com, that have long experience in leading the online market.
- Another winning group are conventional retailers that use online extensively like e.g. Wal-Mart, Dell and Cisco, but next to the manufacturers as well banks and other services that have established successful online divisions, and have already created a strategic advantage for themselves.
- Lastly market makers who organise the electronic markets and replace traditional brokers and sales people such as Chemdex, or GE Information Services.

Turban et. Al. (2000) believes the likely losers due to the increasing importance of e-commerce will be the following:

- Most wholesalers, especially small ones, because technology has reduced the need for local distributors who can provide quick delivery and service.

[108] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p. 440-442.

- Traditional brokers of all kind (real estate, stock, insurance, etc.) will lose, as can already be seen in the tourism industry: Airlines are cutting commissions due to electronic ticketing.
- As companies increasingly rely on e-commerce networks and provide most required information on the Internet, salespeople will lose their importance, provided they do not offer real, value-added consulting. They could help customers interpret, analyse and prioritise the increased data available and assist them with restructuring their purchasing, stocking, and usage patterns. On the whole, the number of salespeople will decrease significantly.
- The ability of e-commerce networks to highlight price and product information will discriminate against those companies that cannot be characterised by offering their products at low costs or are especially innovative. Turban calls those nondifferentiated manufacturers.

The Institutional Perspective: Practice

The marketing channels, of which Luna and Papyrus are a part, are mainly classifiable as traditional systems (manufacturer, wholesaler /distributor, retailer and end-customer). For Papyrus, only 15% of its sales involve retailers - in 85% of cases, Papyrus delivers directly to the end-customer. In some cases, if Papyrus is not able to add any value for the customer, then the manufacturers deliver directly to the end-customers. Luna as well believes that the trend is towards disintermediation of retailers, but so far is delivering directly to the end-customer in only 10% of the cases. Papyrus tried to work together with electronic intermediaries, but the co-operation was not successful, so it was discontinued. Luna is still considering that possibility.

Papyrus uses its own trucks for transportation in 70% of transactions and buys 30% of the transport for those areas where the transportation element is least profitable. Luna also buys in transportation and cross-checking. Luna or sooner Bergman&Beving Tools have reduced the number of warehouses by one, as it facilitates the assembly of an order into one shipment, when there are fewer warehouses, while Papyrus increased the number of warehouses over the last few years. This has no direct connection to e-commerce. SKF Service Division has virtually no proprietary transportation facilities at all.

At SKF Service Division, the situation is slightly different. In 30% of transactions, the traditional distribution system is used. In 50% of cases, direct marketing with an EDI connection is used e.g., to the automobile industry, while 20% of sales are due to business through the electronic marketplaces like endorsia.com. SKF Service Division is co-operating with about 7.000 distributors and dealers and this number has not changed due to introducing e-commerce.

Institutional Perspective: Sub-Conclusions

In this field, the predictions of the considered literature and what was actually uncovered in our investigations into real cases contradict each other in a few aspects. For one, a lot of changes were predicted especially regarding the role of the intermediaries after having installed e-commerce. The possibility that wholesalers and distributors may actually be the ones that initiate and drive the innovation is not even considered, with these groups generally being predicted to be the main losers due to the development of e-commerce. Luna and Papyrus certainly are not the losers of this trend.

Despite of the anticipated effects that e-commerce will have on the structure of the marketing channels, in the considered cases so far very little has happened. No actual disintermediation has so far taken place, although this might be a matter of time, considering that Luna and Papyrus are predicting a disintermediation of retailers, too. However, in two cases, new electronic marketplaces were established but there the same channel members are meeting as the ones that used to co-operate before the e-consortia was founded.

Regarding the reduction of warehouses no clear answer can be given at this point, as Luna actually has abandoned one warehouse while Papyrus acquired new ones. However, it can be stated, that storing and distribution is still staying with the wholesalers and distributors, and the manufacturers are not taking over this part.

4.4.2 The Functional Perspective

The statement by Weld quoted earlier[109] leads to the next perspective and the questions

- What functions does the marketing channel actually have?
- Which of these functions are affected by introducing e-commerce and in what way?

These questions will be examined more closely from the literature's point of view and later how the benchmark companies dealt with them.

The Functional Perspective: Theory

There are quite a few functions that need to be performed by at least one member of the marketing channel,[110]

- The market coverage function: A company's end-customers are often spread over geographically large areas. Normally, this function is performed by wholesalers and distributors.
- The sales contact function: Again, the customers being spread over a large area results in rising costs to maintain an outside workforce. It is easier to co-operate with a substantially smaller number of intermediaries (wholesalers, distributors or retailers), than with all customers individually.
- The inventory holding function: e.g., the wholesalers keeping the stocks releases the manufacturer from having to tie up a lot of money in inventory which can be reinvested in more profitable ways.
- The order processing function: Many customers want to buy in only small quantities, so that a lot of orders would reach the manufacturer and processing one order is expensive. While intermediaries often have a much broader range of products it is very likely that the customers are still buying little of one product but a lot of products at a time, so order processing costs decrease in relation to total revenue.

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[109] "The functions of marketing have to be performed, however many separate middlemen there are; the problem is to find the most economical combination of functions", see institutional perspective.

[110] Turban, E., Lee, J., King, D. and Chung, H.M (2000) p.116-118;
Nyberg, 1998, pp. 17, 18.

- The market information function: Due to intermediaries' closer contact to the end-customer, valuable information can be collected regarding the customer's product and service requirements. This kind of information should be passed forwards (or backwards) to the manufacturer.
- Customer support functions: Intermediaries can undertake a great deal of services to the many dispersed customers (e.g., product replacement, adjustment, reparation, etc.).
- Bulk breaking function: Customers usually do not need the large quantities that manufacturers prefer to sell. Therefore, by buying large quantities from the manufacturer and breaking these bulk orders into smaller quantities, intermediaries make it possible for the customer to buy in the quantities he likes.
- Credit and finance function: The two types of financial assistance offered to the end-customers: by extending open account credit on the sold product while the customers have time to use the product without having yet paid, and secondly by stocking and providing ready availability, so the customer himself does not need to keep high stock levels and can reduce his financial inventory burden.
- Risk taking function: Taking financial risk for illiquid customers, inventory or transportation damage risk.
- PR and advertising: "Advertising: Any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor... Public Relations: Building good relations with the company's various publics by obtaining favourable publicity, building up a good 'corporate image', and handling or heading off unfavourable rumours, stories and events. Major PR tools include press relations, product publicity, corporate communications, lobbying and counselling."[111]
- Negotiation function: Contracts between the different marketing channel partners and of course the end-customers need to be set up. These contracts need to be negotiated.
- The market information function: Taking care that all partners in the marketing channel are provided with the information that is required for well functioning processes.

[111] Kotler, P. Armstrong, G., Saunders, J., Wong, V. (2001) p. 819, 830.

Functional Perspective: Practice

SKF Service Division's attitude to e-commerce as merely a different way to place orders is also reflected in the way that all the functions that need to be done in a functioning marketing channel have changed very little. Only the order processing function and the market information function have changed vis-à-vis the traditional way of doing it. The catalogues are now also available in an electronic form, are easier to handle, and, in terms of order processing require less human intervention. However, none of the functions have shifted from one entity in the marketing channel to another one.

For Papyrus as well, the activities stayed at the same parties of the marketing channels. Papyrus' comment regarding the sales contact function was e.g. that although the information provision is automated, the negotiation is still one to one, and the contract time has increased, but this is more a general development and not so much due to e-commerce. Regarding the bulk breaking function, when the value of the orders are too small, they are past over to the retailers, but even this was done in the same manner before the introduction of e-commerce.

Luna is actually increasingly taking over the market coverage function, PR and advertisement function (for both the company name as well as for products names/brands) and market information function in the marketing channel, but stresses that the role of the retailer as the local sales man is still needed. The function that Luna is definitely taking over more and more is the inventory holding function, for both manufacturers and retailers, with help of VMI. Furthermore, Luna is now negotiating with the bigger customers directly which also means taking on the risk for their potential insolvency.

Changes in Functions	Luna	Papyrus	SKF SD
Market coverage fct.	increasingly done by Luna	no changes	no changes
Sales contact fct.	stays at retailer	no changes	no changes
Inventory holding fct.	increasingly done by Luna	no changes	no changes
Order processing fct.	major changes	now electronically	now electronically
Customer support fct.	no changes	no changes	no changes
Bulk braking fct.	increasing	no changes	no changes
Credit & finance fct.	no changes	no changes	no changes
Risk taking fct.	more risk for Luna	no changes	no changes
PR & advertisement fct.	increasingly Luna's fct.	no changes	no changes
Market information fct.	increasingly Luna's fct.	increasingly Papyrus' fct.	increasingly SKF's fct.
Negotiation fct.	with bigger customers now directly	longer periods	no changes

Table 4-14: Changes in Functions in the Marketing Channels

Functional Perspective: Sub-Conclusions

In none of the other fields discussed are the opinions of the benchmark companies so far apart from each other: While SKF Service Division and Papyrus insist on not having changed any functions apart from the order processing function and the market information function, Luna is able to list changes for almost all of the mentioned functions due to e-commerce. One explanation could be that Luna is a wholesaler and distributor while SKF Service Division is part of a manufacturing company, which was not responsible for the functions before introducing e-commerce either but Papyrus is also a wholesaler and distributor, so this is not a valid clarification. Another explanation could be, that Luna is the market channel leader and therefore has the power to change processes in the marketing channel, while Papyrus is not. The argument that contradicts this explanation is that Papyrus does not seem to mind that there are less changes in the marketing channel regarding functions. Our conclusion to these reflections is,

that there is probably not a set scheme for how to describe how the functions in the marketing channel having to alter in order to co-operate successfully with each other after having introduced e-commerce.

4.4.3 The Behavioural Perspective

The behavioural perspective deals with the four concepts of role, power, conflict and communication. This part of the thesis investigates what way these concepts were applied and what kind of changes in roles and behaviour were caused by implementing e-commerce.

Role, Power and Leadership Styles: Theory

There are different roles in the marketing channel regarding the power hierarchy. On top of this structure is the marketing channel leader. The overriding characteristic of channel leaders is that they try to influence the marketing policies and strategies of other channel members in order to be in the position to control various aspects of marketing channel operations.[112]

There are mainly three different strategies or leadership styles that support co-operation within the marketing channels:[113]

- Participative leadership style: The leader consults with other target channel members, asks for suggestions and uses these suggestions when making decisions on the design and introduction of channel-wide policies and procedures, and he tries to create a pleasant atmosphere for interaction.
- Supportive leadership style: The leader is concerned about the well being of other channel members. The leader accentuates other channel members' accomplishments, he looks out for the channel partners' welfare and he attempts to establish mutual interest and builds a team climate.

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[112] El-Ansary, A.I. and Robicheaux, R.A. (1974):
Price, R. (1991) pp. 87-112.
Schul, P., Pride, W. and Little, T.E.Jr. (1983) pp. 21-34.
Mehta, R., Larsen, T. and Rosenbloom, B. (1996). 32-59.
[113] Schul, P., Pride, W. and Little, T.E.Jr. (1983) pp. 21-34.
Schul, P., Pride, W. and Little, T.E.Jr (1985)
Mehta, R., Larsen, T. and Rosenbloom, B. (1996) pp. 32-59.

- Directive leadership style: The leader plans, organises, co-ordinates and maintains overall control of channel operations. He communicates to channel members consistent and channel-wide objectives and policies, establishes rules and regulations, and also operation production procedures to be followed in the performance of distribution tasks.
- Laissez-faire leadership style: The leader is not actively using the power of his role in order to influence other channel members in any way.

All these leadership styles (except the laissez-faire leadership style) promote co-operation in a different but positive way within the marketing channel: participative leadership style the most, followed by directive leadership, and then supportive style the least. Co-operation is so important because co-operation and effectiveness are strong positively correlated.[114] There are no investigations on how the laissez-faire leadership-style effects co-operation.

Power and Leadership Styles: Practice

Luna would classify itself as having been the marketing channel leader before introducing e-commerce and believes to have kept this position ever since. The company even hopes to have strengthened this role by introducing e-commerce. However, Luna finds it difficult to determine what kind of leadership style is employed. Its strategy is to ask the end-customers what they need and will co-operate with other channel members to the extent necessary.

In Papyrus' marketing channel, the manufacturers are leaders, but due to e-commerce and through this, getting closer to the customer, the power of Papyrus has relatively increased. Papyrus categorises the manufacturers' leadership styles as a mixture of participative leadership style and supportive leadership style. For the manufacturers, the price for the products they receive is important, and if that is what they obtain, then they are supportive when Papyrus suggests ideas and lets them take decisions. A very similar picture can be observed in SKF Service Division's marketing channel; except that here, SKF Service Division is the manufacturer and therefore the channel leader. However, they too assess

[114] Mehta, R., Larsen, T. and Rosenbloom, B. (1996) pp. 32-59.

themselves as using a combination of participative and supportive leadership styles.

An overview of the stated findings s given in the following table:

Role & Leadership Styles	Luna	Papyrus	SKF SD
Has power shifted due to e-commerce?	yes	yes	no
Who has gained power?	Luna	Papyrus	---
Changes in the role of marketing channel leader	still Luna	still manufacturer	still SKF
Employed leadership style	m.v.	participative & supportive	participative & supportive

Table 4-15: Roles and Leadership Styles in Marketing Channels

Channel Conflict:

Traditional distribution channel intermediaries feel threatened by e-commerce due to the possibility of end-customers asking for direct extranet links to manufacturers, manufacturers launching e-commerce sites, and co-operating with new online Internet intermediaries who have valuable information services and innovative business models.[115]

Generally there are three main sources of channel conflict:[116]

- Goal divergence
- Domain disputes[117]
- Differing perceptions of reality

According to Hanson (2000) a successful online channel is likely to cause conflict with members in the traditional channel due to each of these factors:[118]

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[115] Hanson, W. (2000), p. 378.
[116] Stern, L.W., El-Ansary, A..I. and Coughlan, A.T. (1996) Chapter 10.
[117] Domain meant as responsibility and territory, not to be confused with the Internet term domain.

Goal divergence occurs when the objectives of a manufacturer or service provider and its channel differ, e.g., a fight over prices or conflicts over carrying competitors' products. Now, e-commerce creates incentives for the manufacturer to offer its products online or branch out and form alliances and partnerships. This type of behaviour is usually opposed by existing channel partners.

Responsibility disputes right after the adoption of online sales technology are typical and can be severe. The subjects of those kinds of disputes are often about customer handling, territorial assignments, e.g., customer information ownership, functions to be served, e.g., order placements, execution of delivery, or about which technology to be used.

Any changes in the marketing channel's management are potential sources for conflicts. Even actions that are actually meant as a support of the sales force by the manufacturer e.g., by a direct Web approach to inform and support customers and that are in no way designed to circumvent established channel partners, can be misconstrued and lead to conflict due to differing perceptions of the reality.

Channel Conflicts: Practice

In the SKF Service Division marketing channel, no real conflicts were raised due to introducing e-commerce. The intermediaries did worry about possible responsibility disputes and goal divergence but since SKF Service Division treats e-commerce simply as an innovative way of placing orders, all discussions could be settled.

For Papyrus, only minor goal divergence issues and responsibility disputes appeared due to introducing e-commerce which could be settled relatively easily, e.g., which customers are served by the retailers, which by Papyrus and which by the manufacturers. No conflicts due to differing perception of reality occurred.

In Luna's marketing channel, conflicts occurred between the wholesaler (Luna) and their retailers. From their point of view, the retailers have very strong opinions about what the wholesalers should do and, especially, what they should not do.

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[118] Hanson, W. (2000) p. 378.

Luna admits to having, as well, differing perception of reality from other channel members due to different backgrounds and experiences.

Conflicts	Luna	Papyrus	SKF SD
Goal divergence	yes	yes	worries, but no conflicts
Responsibility disputes	yes	yes	no
Differing perceptions of reality	yes	no	no

Table 4-16: Conflicts in Marketing Channels

The following brief case study about Cardo Pumps shows how important the consideration of the entire marketing channel is, when thinking about implementing e-commerce initiatives:

Cardo is an international engineering group having established strong positions in the markets for doors, pumps and rail-vehicle brake systems.

In the market for pumps, Cardo is one of Europe's largest manufacturers. Cardo has subsidiaries in about 30 countries, concentrating on Western Europe and the US. 92% of invoiced sales, which amounted to SEK 9.8 billion in 2000, relate to customers outside Sweden.

Marketing and sales of products are conducted through sales subsidiaries in about 30 countries with the focal point in Western Europe. Other countries are covered via own representatives, distributors and agents. Service operations are integrated into the sales companies, and Cardo Pump also has a large number of authorised service workshops offering a range of expert services. Furthermore, Cardo Pumps is co-operating with independent wholesalers and installers.

When e-commerce was new and hot the top management of Cardo Pumps decided about three years ago to jump on the bandwagon and start e-business. The plan was to use the Internet as an additional sales channel and

sell the pumps over the Net, circumcise the wholesalers and supply the installers directly from the own stores.

Two main problems occurred:

1. The wholesalers in this particular marketing channel are very powerful; they are the marketing channel leaders and of course didn't like to lose business. Similar to the wirlpool.com and home depot example, the wholesalers were threatening to take Cardo products out of their product range, if they continued selling over the Internet. However, not only the wholesalers were putting pressure on Cardo Pumps, their own sales subsidiaries and the independent installers did not want the wholesaler's ill-will against them either.
2. The second problem was that Cardo's management had underestimated the need for training, persuasive work and motivation in their own company to achieve internal support and enable their employees to cope with the new processes and tasks.

As Cardo was not able to solve these problems, e-commerce in its original format had to be discontinued. A new project has been set up and aims to integrate e-commerce in the business model.

Channel Communication

The preceding chapters have already discussed channel communication at length, e.g., usage of and changes in communication technology. At this point, we will analyse how the intensity of communication has developed with the different channel members.

Channel Communication: Practice

While Papyrus is communicating extremely intensely with the retailers and almost as intensely with the end-customers but considerably less with the suppliers, Luna has equally intense communication with all other channel members. SKF Service Division's intensity of communication with the other channel members is slightly weaker and has not changed due to e-commerce. Papyrus' communication intensity to the suppliers is constant while the information exchange with the

customers and retailers has increased. More information is gathered by the customer himself and the quality of the exchanged information is better.

Communication	Luna	Papyrus	SKF SD
with end-customer	10	9	8
with retailer	10	10	8
with wholesaler	------	------	8
with supplier	10	5	------

Table 4-17: Marketing Channel Communication

Behavioural Perspective: Sub-Conclusion

As seen in the cases of Luna and Papyrus, introducing e-commerce can be an effective measure to increase power in the marketing channel and increasing their ability to influence subordinated channel members in their decision-making. However, it is important when deciding whether or not to install an e-commerce platform, to have the marketing channel leader on one's side. As e-commerce is potentially causing a lot of changes in the entire marketing channel, conflicts are likely to arise due to goal divergence and responsibility disputes.

Although there are no exact patterns in how the communication intensity develops, but the trend is probably going to a more intensive communication with all business partners.

5. Conclusions

The conclusion that could be derived from the benchmark approach was that it is actually very difficult to compare different companies regarding their e-commerce strategy, even if their business models are as similar as Luna's and Papyrus'. The individual goals for introducing e-commerce can be very different from company to company and, consequently, the strategies that are planned and implemented will be different, together with the effort and resources invested into making it work. However, independent from how much revenue is planned to be gained through e-commerce; starting at all requires a lot of organisation, as e-commerce affects many areas in the company, especially marketing. E-commerce can even (but does not necessarily) lead to a change in the underlying business model. Due to the extensive changes in the entire company, the need for internal active support of the top-management and, crucially, the non-management employees should not be underestimated either.

However, the attempt to measure the effectiveness and cost efficiency of the companies sub-strategies showed that on the whole the considred companies Luna, Papyrus and SKF Service Division were about equally successful.

Other important findings are that e-commerce for private consumers is not the same as e-commerce with other businesses. A lot of the literature written about e-commerce concerns business to consumer transactions, but this is not always stated clearly. An example is the security issue. While this aspect is widely discussed regarding business to consumers, this is less important when trading with other businesses, as the traditional payment method is retained.

However, even if the companies' goals for introducing e-commerce are potentially very different from each other, the information aspect, designing and organising the information surrounding the industry and products in a way that both customers and suppliers will benefit the most from it, plays an important role for all of them. Another trend that is clearly developing, and where e-commerce is a useful supposition, is the implementation of supply chain management.

A well-implemented logistics strategy is very important for successful e-commerce, but in the case of B2B, it does not affect logistics to a relatively great extent. The

structure and the responsibility distribution can be largely retained. Nevertheless, the co-operation of the entire marketing channel is important - especially having the market leader on one's side - when introducing e-commerce. A company planning to install an e-commerce platform has to be prepared for the evantuality that conflicts with other channel members may arise. With the required - internal and external - support and planning, e-commerce can be a tool to improve the power-position in the marketing channel.

Even though there are also disadvantages inherent in being an early mover, the benchmark companies judged it to be generally advantageous in being ahead of the industry and having introduced e-commerce early, mainly due to the improved general perception of the customers and the experience gained.

It does not necessarily need to be the manufacturer or the retailer who starts e-commerce. As demonstrated in the thesis, e.g., wholesalers and distributors have a good position to offer e-commerce, as they have already established a well-functioning logistics system, which is an important presupposition.

A lot of unsuspected possibilities connected to e-commerce are undoubtedly still ahead of us. Some expect the best, others the worst. Some are judging that what has already happened constitutes a great revolution comparable to the Industrial Revolution, others are less enthusiastic. After having worked a couple of intensive months with the benchmark companies on the issue of e-commerce, we disagree with both the undifferentiated technology euphoria as well as the dogmatic technology pessimism. In particular, e-commerce has already existed for around two decades - beginning with EDI -, so e-commerce really represents an evolution rather than a revolution and like most processes, there will be setbacks and progress. Obviously, it is impossible to look into the future, but we can sure that the ramifications of and course run in the evolution of e-commerce will be neither a series of unmitigated successs nor a litany of abject failures, but a progression that owes much to the benefits of the former and the lessons learned from the latter.

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Appendix 1: Questionnaire

1. General:

In the general section it is important to learn about the overall situation of the company and its business environment.

- **1.1** What kind of business are you engaged to (*in percentage*):
- B2B (business to business); ☐
- B2C (business to customer) or ☐
- B2G (business to government)? ☐

- **1.2** How is your relationship to e-commerce:
- born on the Internet, ☐
  meaning that it is the classic e-commerce company like Amazon.com
- "moving to the Internet" ☐
  an already established company, traditionally trading off-line
- e-consortia, ☐
  organisations are coming together with the aim of leveraging the strengths associated with each company and partner through the virtual structure of an online organisation.

In order to find out more about how the company perceives the need or the strategic imperative of globalising their business and have a competitive advantage in the future the following question is ask:

- **1.3** Is the company's business geographically limited to
  - Sweden ☐
  - Europe ☐
  - World-wide ☐
  - other _____
  - comments: _____
    _____
    _____

Furthermore it is important to understand what the main goals for going online were, that convinced the companies to take the step to implement e-commerce. **1.4** What were the main goals? *Please distribute for each possible goal up to 10 points (0 points = least important 10 points = most important)*

- Providing a better product for the customer through mass customisation? ☐
- Learning more about the customers wants and needs? ☐
- Creating an efficient system of customer contacts? ☐
- Getting products to markets quickly and cheaply? ☐
- Growing revenue? ☐
- Growing market share? ☐
- Increasing profitability (gross, operating, or net)? ☐
- Increase shareholder value (cash flow measure)? ☐
- Tradable market value of the firm? ☐
- Pre-empt competition? ☐
- Meet the demand by customers? ☐
- Redefine the business model? ☐

Emphasised by both Plant and Turban, a critical success factor for e-commerce initiatives is the top management support.[119]

Please allot up to 10 points for the first question

(1 point = ineffective, a strongly negative impact on reaching the organisations goal;

3 points = negative impact;

5 points = neutral / no impact;

7 points = positive impact;

10 points = highly effective, a very positive impact on achieving the companies goals)

- **1.5** Was the effectiveness of your development increased by the involvement and support of the CEO, CIO, or other senior executive from the outset? ☐

[119] Turban, p. 311, Plant, p. 210.

- **1.6** Specifically how did management involve in providing support?* *(please rate)*
    - introducing new ideas ☐
    - initiating changes ☐
    - consulting ☐
    - taking the final decisions ☐
    - act as an internal champion ☐
    - providing funding ☐
    - did they help to redefine business models ☐

_____

_____

2. Economic impact - Identification of performance criteria.

The theory about benchmarking, it is vital to find suitable criteria that determine what is good (best) practice and what is not.

- **2.1** How does the company measure efficiency itself of their e-commerce channel?

_____

_____

_____

The customer's viewpoint is very important, so the efficiency of the distribution system could be measured through the customer satisfaction.

- **2.2** How high is the customer satisfaction / delight (constant, increasing, strongly increasing, decreasing, strongly decreasing)?

_____

- **2.3** How many customers use the e-commerce channel to place their order?

    In real number :_____

    As a percentage of the total number of customers :_____

    or percentage of orders from total orders :_____

Other criteria:

- **2.4** How much is the efficiency increase compared to the old system?

  Measured in percentage time saved per order: _____

  or percentage cost saved per order:_____

- **2.5** How far could e-commerce system live up to the company's expectations / how satisfied is the company with its system?

  _____

- **2.6** Was the company able to broaden their customer base due to offering e-commerce? *(in actual number or percentage, comment)*_____

  _____

- **2.7** Was your company able to increase your revenue due to offering e-commerce?

  _____

  _____

- **2.8a** Was your company able to increase their profit due to offering e-commerce?
- **2.8b** Are the e-commerce customers more or less expensive than traditional customers, and how much is the difference?

  _____

  _____

3. Brand:

Effectiveness of the branding strategy:

- 3.1 Has e-commerce helped the brand to a higher degree of popularity and good reputation? _____
  - Has the company e.g., won any awards?_____
  - Has the company name been valued by Interbrand? - What was the outcome?_____
  - Or just rate (*1-10 points, see question 1.4*)_____
- 3.2 Has broader customer base expanded due to the e-commerce branding strategy? (already answered in question 2.6)

Efficiency:

- 3.3 How high were the expenses for advertisement and public relation in proportion of the revenue? _____

Explaining the branding strategy:

For mover to the web it could mean that a competitor has already built up a similar product image, but is specialised in commercialising it over the e-commerce channel.

- **3.4** As a mover to the web, did the company have to redefine its target market due to competition?

  _____

  _____

Another possible reason for a brand repositioning could be that the demands and expectations of customers change over time and introducing e-commerce might be a good opportunity to shift the image into a more promising segment.

- **3.5** Were any of the brands repositioned in context of the e-commerce strategy?

  _____

  _____

- **3.7** Did the Internet strategy collide with the overall business strategy?* If so, how was this problem solved?

  _____

  _____

  _____

  _____

- **3.8** In order to get closer to the customer, the Internet strategy may have to change over time in order to meet changing demands of the customer and the market. In what temporary distances is the company prepared to do so?*

  _____

  _____

- **3.9** Was information surrounding the product attached as a strategy to add value to the brand?*

  _____

  _____

- **3.10** Was mass customisation used in order to add value to the brand?*

- **3.11** Was the Internet chosen because it was viewed as a mechanism for facilitating global branding?*

4. Service:

Nowadays it is quite difficult to fill one's customer with enthusiasm with a high quality product only. High quality of the purchased good is already presupposed, but service is the field where is still space for (over)fulfilling the customer's expectations. Therefore measuring the effectiveness of the service, a customer satisfaction evaluation is should be a good validation.

Effectiveness:

- **4.1** How high is the customer satisfaction? *(already asked in question 2.2)*

  if 4.1 not available: how high is customer loyalty (repeat business ratio - before and after introduction of e-commerce?)

Efficiency:

- **4.2** What proportion of your revenue is spent on customer services? Could the expenses for customer service be reduced due to e-commerce?

Explaining the Customer Service Strategy:

Plant believes that "A key to success [..] is to understand and to establish a virtual value chain that adds content at each stage; the content must integrate to meet the overall value chain criteria goals of the company."[120] So, in terms of inquiring companies it would be interesting what kind of services they offer to the customer.

[120] Plant: p. 66.

Customer service should not only be offered as a problem solving action, *after* the sale, but as well during the purchasing process.[121]

- **4.3** Are services offered for finding products and for inquiries about product attributes?

- **4.4** Is help offered for customers who want information during the buying process about billing issues, receipts, and the check-out process itself (e.g., a FAQ catalogue)?

- **4.5** Is information provided about the status of the order in processing and shipping (tracing and tracking)?

- **4.6** Is help offered for questions about the return of goods?

- **4.7** Are customised products offered? *(already asked in question 3.10)*
- **4.8** Is one-to-one marketing offered?

- **4.9** How quick is your average respond time to customer complaints? / Is an automated response system installed?

- **4.10a** Are any features offered, that facilitate repeat business?

- **4.10b** Are e.g. personalised web pages offered?

Some companies employ customer relationship management systems which track traditional methods of interacting with customers by phone and fax. Their main benefits are reducing costs of sales, increasing revenue, and gathering better customer information data to improve support and increase selling option.[122]

- **4.11** Is a customer relationship management service installed?

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[121] Bayles, D.L.: pp. 16-19.
[122] Standing, Craig: *Internet Commerce Development*, Artech House, Boston/London, 2000, p. 60.

- **4.12** Is a chat room installed?

- **4.13** Are any other special customer services offered?

5. Market

According to Plant (2000) market is the factor that is the most impacted by the Internet. The company has to defend its position in an environment that is much more volatile than the one for traditional operating organisations.[123]

Effectiveness:

- **5.1** How did the market share develop? And who has lost market share and do those competitors have an e-commerce strategy?

- **5.2** How much could customer loyalty be increased? *(already asked)*

Efficiency:

- **5.3** Has the company reaped economy from an expansion of scale?

Explaining the Market Strategy:

- **5.4** Was the company an early mover - what advantages and disadvantages did the situation bring with it?

[123] Plant, p. 239.

- **5.5** Is one-to-one marketing provided in order to increase customer loyalty? *(already asked)*
- **5.6** Could the geographical reach be expanded due of e-commerce?

- **5.7** Did your company change its underlying the business model for starting e-commerce? (*Please describe the old and the new business model!)*

6 Technology

Talking about e-commerce, a lot of IT systems are involved. The most important ones are ERP, EDI and data warehousing plus of course the network of networks the Internet, the intranet, which is the architectural concept of the Internet, applied within the confines of the company and the extranet which again is the architectural concept of the Internet applied between a company and its suppliers, strategic partners, key leading edge customers, and other major external interfaces.

Effectiveness:

With the introduction of technology usually the way of working is changed. This effects to a great extent the tasks of the people that have been working in the now automated processes.

- **6.1** Has the implementation of e-commerce led to any direct changes in head count levels? In what departments? How much?

- **6.2** How far could the cycle time be reduced for an order (*measured in stock inventory days reduction , or reduced working capital cycle*)?

Efficiency

- **6.3** How high was the initial investment for the installed technology?

  _____

- **6.4** How high are the maintenance costs?

  _____

- **6.5** What is the ROI, and what are the usual demands for other projects regarding ROI?

  _____

Explaining the Technology Strategy:

- **6.5** Is an intranet installed?

  _____

  _____

- **6.6** What kind of Technology is used to communicate with the channel partners and end-customers: EDI, *Internet based* EDI, extranet, internet, XML, other (*in percentage of orders/revenue*)?

  _____

  _____

- **6.7** Is data warehousing installed as a decision managing tool?

  _____

- **6.8** Are any other important e-commerce supporting systems installed?

  _____

  _____

- **6.9** Does the technology infrastructure provide a flexible base to accommodate market change?* *(rating 1-10)* (*comment: what kind of technology is installed?*)

  _____

  _____

- **6.10** Do the front office and the back office (ERP) interface effectively?* (rating 1-10) *(comment, e.g. real time commitment))*

  _____

  _____

  _____

  _____

- **6.11** How important is the security issue regarded, considering e-commerce and what kind of measures are taken in order to guarantee security?

7. Internet Site Metrics

Internet site metrics can give implications of the customer's perception of the Internet site. Examples are:

- **7.1** Number of hits per month (as a measure of customers' interest and site potential).* *In order to make it comparable to other companies sites it could be divided by the number of actual customers.*

- **7.2** Length of time a registered customer spends on the site per visit (as a measure of site information value)*

- **7.3** The repeat visit rate by registered users (as another measure of site value)*

- **7.4** The purchase per hit rate (as an indicator of interest converted to revenue)*

8. Logistics

Effectiveness:

- **8.1** Could the distribution time be decreased - if so, how much?

- **8.2** Could the on-time-deliveries be increased - if so, how much?

Efficiency

- **8.3** Could distribution costs be decreased - if so, how much?

Explaining the Logistic Strategy

Do you agree with the following figure:

	Traditional Logistics	**Commerce Site Logistics**
Shipment Type	Bulk	Parcel
Customer	Strategic	Unknown
Demand Style	Push	Pull
Inventory/Order Flow	Unidirectional	Bidirectional
Average Order Amount	high monetary values	low monetary values
Destinations	Concentrated	Highly dispersed
Demand	Stable, consistant	Highly seasonal, fragmented
Accountability	One link	Through entire supply chain

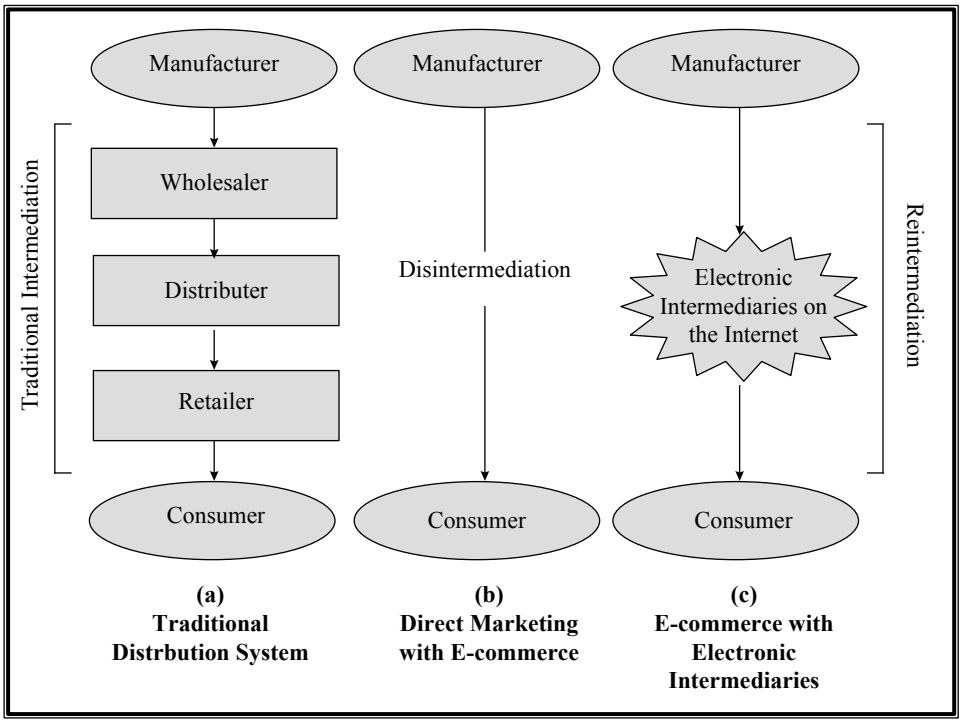
The three perspectives:

When looking at the logistic strategy, the entire marketing channel will be considered and the strategy will be divided into three perspectives:

- ♦ Institutional perspective,
- ♦ functional perspective, and
- ♦ behavioural perspective.

8.1 The institutional perspective:

The institutional perspective discusses the usefulness of middlemen, meaning, if they add more value than costs.



- **8.1.1** To what extent is
  - traditional distribution system _____
  - direct marketing with e-commerce _____
  - e-commerce with electronic intermediaries _____

  used *(in percentage of sales)?*
- **8.1.2** With how many wholesalers does your company co-operate? - Has the number changed due to e-commerce?

  _____

- **8.1.3** With how many retailers is your company co-operating with changes due to e-commerce?

  _____

- **8.1.4** Is there any co-operation with electronic intermediaries?

  _____

- **8.1.5** How is the transport problem solved (third party logistic, own transportation facilities, mixture of both?)

  _____

The functional perspective:

8.2 How does the company distribute the following functions that usually were fulfilled by wholesalers, if the traditional distribution system is not used?

- **8.2.1** The market coverage function: A companies end-customers are often spread over geographically large areas. In order to reach them, wholesaler distributors is able to offer a good market coverage at reasonable costs.

  Even though the manufacturer actually comes "home to the customer" via the Internet, but the transportation problem remains_____

  _____

  _____

- **8.2.2** The sales contact function: Again, the customers being spread over a large area causes the costs of maintenance of an outside workforce to rise. It is easier to co-operate with a substantially smaller number of wholesalers.

  _____

  _____

- **8.2.3** The inventory holding function: By the act of holding stock, the wholesalers add value to the manufacturers who would otherwise tie up a lot of money in inventory that could be better re-deployed and re-invested in growing business.

  _____

  _____

- **8.2.4** The order procession function: Many customers want to buy in only small quantities, so a lot of orders would reach the manufacturer and processing one order is expensive. While the wholesaler has a much broader range of products it is very likely that the customers are still buying little of one product but a lot of products at a time, so order processing costs decrease in relation to total revenue.

- **8.2.5** Customer support functions: The wholesalers can support a great deal of the many dispersed customers, e.g., product replacement, adjustment, reparation, etc.

- **8.2.6** Bulk breaking function: Customers usually do not need large quantities, which manufacturers prefer to sell. So by buying large quantities from the manufacturer and breaking these bulk orders into smaller quantities, the customer is able to buy the quantities he likes.

- **8.2.7** Credit and finance function: The wholesalers provide two types of financial assistance to their customers: By extending open account credit on the sold product while the customers have time to use the product without having yet paid. And secondly, by stocking and providing ready availability, so the customer himself does not need to keep high stock levels and can reduce his financial inventory burden.

- **8.2.8** The risk taking function: How has the risk distribution changed due to the introduction of e-commerce?

- **8.2.9** PR and advertisement: Is the company now more active in promotion and advertisement activities? Or have the activities changed, from the way they were executed traditionally?

  _____

  _____

- **8.2.10** Negotiating: Has the way of negotiating with direct customers changed?

  _____

  _____

- **8.2.11** The order forecast function: Has the way of predicting the customers' order altered, due to e-commerce is e.g., VMI installed?

  _____

  _____

8.3 Behavioural perspective

- **8.3.1** Has **power** shifted within the marketing channel, due to the introduction of e-commerce?

  _____

  _____

The most important **role** in the marketing channel is the marketing channel leader. His main characteristic is that he tries to influence the marketing policies and strategies of other channel members in order to be in the position to control various aspects of marketing channel operations.

- **8.3.2** Has the role of the channel leader shifted within due to the introduction of e-commerce?

  _____

  _____

- **8.3.3** What kind of leadership style is the marketing channel leader mainly forcing? (*please rank 1-10*)
- Participative leadership style: The leader consults with other target channel members, ask for suggestions and use these suggestions when making decisions on the design and introduction of channel-wide policies and procedures, and he tries to create a pleasant atmosphere for interaction. ☐
- Supportive leadership style: The leader is concerned about the well-being of other channel members. The leader accentuates other channel members' accomplishments, he looks out for the channel partners welfare and he attempts to establish mutual interest and builds a team climate. ☐
- Directive leadership style: The leader plans, organises, co-ordinates and maintains overall control of channel operations, he communicates to channel members consistent and channels wide objectives, policies and he establishes rules and regulations, and operation production procedures to be followed in the performance of distribution tasks. ☐
- Laissez-faire: The leader is not using the power of his role in order to influence other channel members in any way. ☐
- Other leadership styles. ☐

_____

_____

Conflicts

Goal divergence occurs when the objectives of a manufacturer or service provider and its channel differ, e.g., fight over prices or conflicts over carrying competitors' products. Now, e-commerce creates incentives for the manufacturer to offer its products online or branch out and form alliances and partnerships. This behaviour is usually opposed by the existing channel partners.

- **8.3.4** Did conflicts arise due to goal divergence?

Responsibility disputes right after the adoption of online sales technology are typical and can be severe. The subjects of those kind of disputes are often about customer handling, territorial assignments, e.g., customer information ownership, functions to be served, e.g., order placements, execution of delivery, or about what technology to be used.

- **8.3.5** Did conflicts arise due to responsibility disputes?

Differing perceptions of reality: Any changes in the marketing channels management are potential sources for conflicts. Even actions that are actually meant as a support of the sales force by the manufacturer, e.g., by an direct Web approach to inform and support customers, and that are in no way designed to circumvent established channel partners, can be misconstrued and lead to conflict due to differing perceptions of the reality.

- **8.3.6** Did conflicts arise due to differing perceptions of reality?

- **8.3.7** How intense is the <u>communication</u> to its channel member. *Please specify firstly communication with whom, than the intensity from 1=non existent - 10=extremely intense.*

  company with_____ ☐
  company with_____ ☐
  company with_____ ☐
  company with_____ ☐

- **8.3.8** Has the nature of exchanged information changed? In what way?

  _____
  _____
  _____

Appendix 2: Translation of Effectiveness Measurements into the Rating Scale

Economic Impact	Luna		Papyrus		SKF SD	
Customer satisfaction	strong increase	**10**	strong increase	**10**	almost constant	**6**
% of customers that use e-commerce (Internet) channel to place their orders	40%	**10**	25%	**8**	5%	**6**
Efficiency increase: % time saved per order	m.v.	**5,1**	m.v.	**9**	m.v.	
Efficiency increase: % cost saved per order	< 1%		90%		m.v.	
Companies satisfaction (0-10)	highly satisfied (10)	**10**	highly satisfied (10)	**10**	highly satisfied (8)	**8**
The company being able to broaden their customer base due to offering e-commerce	yes (end-customers, not retailers)	**5,5**	m.v.		if so, to a very small extent	
The company being able to increase revenue due to offering e-commerce	ca. 5%	**10**	m.v.		yes	
The company being able to increase profit due to offering e-commerce?	yes	**6**	yes	**6**	yes	**6**
Costs of e-commerce customers compared to traditional customers	less expensive, <1%	**6**	less expensive	**6**	less expensive	**6**

Brand	Luna		Papyrus		SKF SD	
Has e-commerce has helped to a higher degree of popularity and good reputation?	yes, 8	8	yes, 7	7	yes, 7	7
Has the company has won awards?	no	5	yes	10	yes	10
Has the brand been valued by Interbrand?	no	---	no	---	no	---
Could the customer base be expanded due to e-commerce branding strategy	yes	7,5	m.v.		m.v.	
How high were expenses for advertisement and PR (in % of revenue)	1-2%	7	1-1,5%	8	0,25% (0,025%)	10
Average		**7**		**8**		**10**

Services	Luna		Papyrus		SKF SD	
Customer satisfaction	strongly increasing	10	strongly increasing	10	slight increase	5
Expenses on customer service (% of revenue)	m.v.		ca. 1%	10	<5%	5
Average		**10**		**10**		**5**

Market	Luna		Papyrus		SKF SD	
Market share development	increase	7,5	(increase)	5	no changes	5
Reaped economy from an expansion of scale?	yes	7,5	yes (espec. in services)	7,5	no changes	5
Average		**7,5**		**6,3**		**5**

Technology	Luna		Papyrus		SKF SD	
Head count reduction	no	5	yes	8	no	5
Cycle time reduction	yes	7,5	non	5	10%	7,5
Initial investment (in SEK)	1,1% of revenue	8	0,5% of revenue	10	m.v.	
Maintenance costs (in SEK)	quite high		4-5" per year		m.v.	
ROI	m.v.		m.v.		m.v.	
Average		**6,7**		**7,5**		**6,3**

Logistic	Luna		Papyrus		SKF SD	
Distribution time decrease	no	5	no	5	no	5
On time delivery increase	no	5	no	5	no	5
Distribution cost reduction	increasing costs!	2,5	increasing costs!	2,5	no	5
Average		**4,8**		**5,0**		**5,3**

Sub-Strategy Effectiveness

	Luna	**Papyrus**	**SKF SD**
Brand	7,0	8,0	10,0
Service	10,0	10,0	5,0
Market	7,5	6,3	5,0
Technology	6,7	6,7	6,3
Logistic	4,8	4,8	5,3

Sub-Strategy Cost-Efficiency

	Luna	**Papyrus**	**SKF SD**
Brand	7	8	10
Service	0	10	5
Market	7,5	7,5	5
Technology	7,5	7,5	0
Logistic	2,5	2,5	5