Abstract

This paper explores the marketing of daily consumer goods in a pilot Web-based supermarket, in which no regular customers existed from among 65 registered ones at the end of the pilot project. Descriptive case research strategy and qualitative methods of analysis are utilized. Empirical evidence was obtained through multiple sources during an eight-month pilot period. The case study is analyzed using customer delivered value as a framework. The achieved results demonstrate the value and costs for pilot customers, and reveal key issues for further development. Although the Web's potential for marketing has been noted in the literature, this case shows difficulties in delivering total customer value when costs are also taken into account. It is suggested that systems development should find new means to deliver additional customer value in Web retailing context to exceed switching costs for customers.

1. Introduction

A pilot Web-based supermarket was opened for the employees of the Oulu Technopolis in the spring of 1998. The pilot program lasted eight months, and as it ended, surprisingly, there were no regular customers. The outcome was a disappointment considering the huge expectations and the enthusiasm at the beginning. The Internet did not yet provide enough business. To shed light on this mystery we analyze the case from a marketing perspective and use qualitative methods to understand and explain the outcome of the pilot.

The principles of qualitative analysis set forward by Alasuutari [1] are followed to find an answer to the main research question: Why did the customers of the e-shop stop buying from it? In qualitative analysis the data is considered as a totality and is thought to shed light on the structure of a singular logical whole. We try to explain all reliable pieces of information known to the "mystery" so that there is no contradiction with the interpretation presented.

As marketing is generally understood as value creation in exchange relationships, we use the theory of customer delivered value suggested by Kotler [10] as an analytical framework, and try to explain the outcome of the case by reviewing literature related to Web marketing as well as by using empirical evidence from several sources, a survey of the first pilot customers, observations during the meetings with the new customers, e-mail contacts with 16 customers, customer feedback, and a group discussion with the executives of the Wholesaler (the focal wholesaler) and an interview of the Retailer (the focal retailer). We then combine the observations and look for elements that have common variants. On this basis, we construct a "story" of what may have happened. In unriddling phase references are made in other research and literature. Empirical evidence is used as a hint in suggesting interpretations, and unraveling the whole case.

This paper is structured following a typical way of reporting qualitative research, which is like solving a riddle. First we introduce an analytical framework for marketing, the pilot case in its context and the research questions which act as clues for solving the case. We analyze the values and costs offered by the focal e-shop using earlier research of Web retail marketing. To get a better understanding of the context in this case we also analyze empirical evidence gained through group discussion with the executives of the Wholesaler, an interview of the Retailer, and multiple evidence of the customers' shopping experiences. At the end, we suggest some tasks for systems development.

2. An analytical framework for the case study

It is believed that customers do estimate which offer will deliver the most value for them. They are believed
to be value-maximizers, within the bounds of search costs and limited knowledge, mobility and income. It is believed that buyers will buy from the firm that they perceive to offer the highest customer delivered value. Customer delivered value is the difference between the total customer value and total customer cost. The total customer value is the bundle of benefits customers expect from a given product or service (product value, services value, personnel value and image value). Total customer cost is the bundle of costs customers expect to incur in evaluating, obtaining, and using the product or service (monetary cost, time cost, energy cost and psychic cost) [10].

In analyzing the values and costs for the pilot customers of a Web-based supermarket this study is related to the VRFlow project (http://vrflow.oulu.fi) which studies the enhancement of Web-based electronic commerce systems through hypertext functionality and virtual reality technology, and their effect on navigational behavior and customer purchasing behavior. Current Web technology provides only a very limited set of hypertext capabilities, and key hypertext features to be enhanced comprise, e.g. hyperlink attributes, and navigation and annotation facilities [11].

The main research question for this paper is: Why did the customers of the e-shop stop buying from it? More detailed research questions include:

- What kinds of reasons cause purchasing reluctance in Web context generally?
- How competitive is the Web retailing format compared to other formats?
- How important is the experience of shopping in itself?
- Are daily consumer goods suitable for Web marketing?
- For whom or for what kind of customers does the Web store offer value?
- What kind of marketing is needed in a Web context?
- What are the Wholesaler's expectations and visions of the focal business model?
- What are the Retailer's expectations and experiences of the pilot?
- Why did the pilot customers give up shopping in the E-shop?
- What are the further development tasks to increase the customer delivered value in this case?

3. The business model of the E-shop

The E-shop (the focal e-shop) was available by application to employees in the Oulu Technopolis from March until November 1998. The amount of registered customers was 65. The E-shop was a department of a Supermarket, from which the deliveries were provided. (The Supermarket has operated since 1972. Its annual sales are approximately 30 million FIM with about 13 employees in addition to the Retailer.) The Wholesaler is a purchasing and logistics corporation responsible for developing the chain of stores. It purchases goods and provides services for its customers on competitive terms and conditions to support their basic operations. The business idea of the Retailer is to be the best store for its customers. The logo and other marketing symbols of the alliance are used. In his entrepreneurial capacity, the Retailer is responsible for customer satisfaction and the profitable performance of the store. The context of the E-shop is described in Figure 1.

![Figure 1. The context of the E-shop](image)

The business model of the E-shop represents one form of electronic commerce where the sellers and buyers interact electronically, except for deliveries. It was an on-line storefront, or using Timmers’ [17] classification framework of Internet electronic business models, an e-shop. The Web site was a virtual catalog enabling purchases using 'shopping carts’. In this case, transactions could only be supported by technology. Textual descriptions of products were used. The store included 1600-2000 products, which is about one third of the products of the physical store. The prices were the same as in the supermarket. In marketing communication, the Web site, e-mail, and print media were used. There were also (face-to-face) meetings with the customers and e-mail contact. The Retailer gave presentations in professional and public seminars. The E-shop was technically open 24 h/day, and deliveries were provided according to a given timetable. Some additional information concerning suppliers’ delivery times was also provided. Delivering quality in terms of goods and service was insisted upon. The amount of products and payment options was increased according to the pilot customers' needs within the limits of the store. (By November 1998 the product selection was up to 6000 items, and the payment arrangements were available...
4. The E-shop's potential for providing value

Here we discuss earlier research to shed light on the research questions.

What were the reasons for purchasing reluctance? Gupta and Chatterjee [5] consider the reasons for purchasing reluctance to be security and privacy concerns, credibility and reliability of Web vendors. Burke [4] argues that many people are also reluctant to try new technologies. Jones and Biasiotto [8] argue that until consumers feel comfortable with the technology, adoption rates for Internet shopping remain low in most retail categories. In this case none of these reasons became a barrier, as the customers were regular users of e-mail and the Web, and the Retailer and particularly the Wholesaler were also well known to the customers.

Sheth and Sisodia [15] argue that a significant barrier to broader adoption of home shopping is greater value consciousness and the delivery charge, and that the future success of marketers will depend on their ability to deliver total customer convenience. This is probably a relevant issue in this case and we discuss it more as we analyze the values and costs of the E-shop.

How competitive is the Web format itself? Palmer [12] and Alba et al. [2], as well as Tedlow [16] have analyzed the Web retail format. Palmer [12] examined retail formats in terms of the degree of interactivity, the level of information supplied, the ability to compare products, and the degree of human intermediation. The findings reveal that, at that time, most of Web implementations were electronic catalogs with textual descriptions. Still, the Web sites showed the poorest performance on most of the dimensions studied. The Web provides anytime, anyplace access to catalogs, and offers a unique possibility to compare the same product across multiple Retailers. Alba et al. [2] argue that the growth of interactive home shopping is dependent on vast selection, screening, reliability and product comparisons. Without these benefits it will not develop beyond the relatively unattractive collection of electronic catalogs. Tedlow [16] also has some doubts about home shopping arguing that "pasting new technologies onto old paradigms" would not solve the problem. Burke [4] suggests that virtual stores have the potential to deliver both convenience and economy, with better and faster decisions using shopping lists, facilitating comparison shopping, providing additional product information, recipes and meal planning, and by highlighting new products and store specials, offering the ability to electronically access, clip, and redeem coupons and to continuously monitor the total costs of products purchased. In their experiment, shoppers took significantly longer to make purchases in the text-based system than in the graphical system, particularly during the first few shopping trips, because the shopping system did not provide shoppers with the familiar, visual cues of package location, shape and color. Shoppers were also significantly more price sensitive in the text-based simulation than in the graphical simulation or the actual store. It seems to be that the Web has all the potential to deliver customer value, but the actual design and implementation of e-shops requires closer attention and many resources for them to be really competitive.

How important is the experience of shopping in itself? Järvenpää and Todd [9] found out that positive shopping experiences and good customer service are at least as important as removing risks of e-shopping. User flow experience could also offer added value for consumers. Hoffman and Novak [6] argue that consumers can experience flow when navigating on the Internet, and that flow is a central construct of computer-mediated environments. Hoffman and Novak [6] define flow experience in computer-mediated environments as "the state occurring during network navigation, which is (1) characterized by a seamless sequence of responses facilitated by machine interactivity, (2) intrinsically enjoyable, (3) accompanied by a loss of self-consciousness, and (4) self-reinforcing" (p. 57). Hoffman, Novak and Chatterjee [7] describe a lot of opportunities and challenges for online storefronts. They combine direct marketing with in-store shopping and emphasize its potential to be much more efficient than either of them alone. However, the online storefront faces with a number of technical, conceptual and organizational challenges. For example, slow access can make online shopping frustrating and tedious. Moreover, all too often “the online versions pale in comparison to real-world experiences of shopping”. In our case it is difficult to experience flow in a virtual environment with slow and interrupted connections and a very simple textual description of products. It was impossible to find any evidence of flow within the first customers surveyed.

Is daily food suitable for Web format? Peterson et al. [13] argue that when products are low cost and frequently purchased, the conventional retail channel tends to dominate the Internet channel with respect to transaction and distribution function, because these functions do not offer economies of scale to the Internet marketer. However, they conclude that if the value proposition is intangible or informational, the advantage shifts to the Internet marketer. On the other hand, Burke [4] suggests several reasons for marketing food on the Web. For example, everyone has to eat, and shopping for food in a conventional store takes a lot of time and grocery shopping is also inefficient. In addition, most people do not like grocery shopping [4]; cf. Boedeker
Is there a suitable segment for Web marketing? Sheth and Sisodia [15] argue that evolving technology and changing lifestyles are the driving forces moving consumers towards the Web. As people start to change the way they work, communicate, and spend their leisure time, they will change the way they do business with companies. Women who are affluent, technically literate, and interested in shopping [9], consumers who have time or mobility constraints, including dual-income households, single-parent families, and the disabled [4] and shoppers who already have computers, high-speed connections and computing skills [5] are all potential customers. The hitech-consumers in this case provides a most promising segment for Web shopping.

What kind of marketing is needed to be successful in Web context? As the Web offers a new virtual environment, a medium, many tools, techniques, and concepts for Internet/Web/electronic marketing have been suggested. In most cases so far, however, conventional methods and tools have still been used. The essential features of Internet marketing are interactivity, customer relationships, and customization.

Demands for changes in marketing paradigm have been suggested. Rayport and Sviokla [14] suggest that transactions occur in marketplace in addition to a marketplace in which content, context and infrastructure can be disaggregated to create new ways of adding value. Yet, some organizations have been exploiting the unique business potential of the marketplace. Most organizations are simply taking their existing business models and transporting them to the marketplace with different degrees of effectiveness. They seem to view the Internet as an extension of the telephone.

Hoffman and Novak [6] describe hypermedia computer-mediated environments both as a media for marketing communications and as markets in and of themselves. These allow users of the medium to provide and interactively access hypermedia content, and communicate with each other. They also argue that successful Web marketing efforts will require re-definition or extension of the marketing concept, in which the firm engages in marketing activities that contribute positively to the development of the medium itself. Wigand [19] suggests “liquid marketing” to be a suitable descriptor of this evolving setting. "It denotes the disintermediated, frictionless, personalized, individually accessible, customer-centric, immediate, cooperative, dynamic, rapid, fluid, computer-to-computer or computer-to-person, on-line, and interactive nature of this new form of relationship marketing”, which allows for customized, almost interpersonal-like interaction. This is made possible by interactive multimedia, cooperative and feedback capabilities of the WWW, coupled with the application of such features as agents, avatars, network dynamics functions, cookies, caching, and the customers’ willingness to complete profile information forms.

Wikström [20] goes theoretically even further and argues that the consumer increasingly assumes the role of co-producer. Not only have technology and internal ways of working changed, but the whole mental map with its view of the customer's role has altered dramatically. The customer is no longer regarded as a passive receiver but is coming to be seen as an active and knowledgeable participant in a common process. This is why the company's activities are focusing increasingly on supporting the customer's own production, i.e. on their specific value-creating role. The company's role is designing a system of activities within which customers can create their own value. This implies a shift in perspective, a switch from a producer-and-consumer perspective to one of co-production.

The discussion on changes of marketing paradigm ranges from transporting, transforming and conceptualizing the new environment as co-production of sellers and buyers. There is a pressure towards new marketing thinking and practice as the Internet/Web provides not only a new medium for advertising, but a channel for marketing, and a new way of organizing company-consumer interaction. A big issue in the focal e-shop case is marketing which was tried to be transported from conventional into a new virtual environment. The Retailer admitted that the marketing was actually not done at all in this case.

5. E-shop as an alternative from the strategic perspective of the Wholesaler

To understand the focal E-shop better, we analyze the Wholesaler's interests and contribution to the case. According to the Wholesaler electronic commerce may have a significant role in retail sales (scenarios vary between 5-20 %). Due to uncertainty about future developments investment strategies concerning the network of retail outlets have not yet been changed. Big retail units are still being built.

Earlier, it was believed that mail ordering would replace ordinary shops and so on. That has not happened in Finland although it would be quite natural here as we have an excellent mail network and long distances. Even the catalog showrooms in the USA did not have any success, although the products could be seen before buying. This (the Internet) is actually an extended version of that, and this type of thing is quite impossible in daily consumer goods. (Group discussion with the executives of the Wholesaler)

The visions of changed customer behavior are taken into account when shaping strategies. Customers could
change their shopping behavior to buying their bulk products once per week through the net and perishables in conventional stores. In this way it would be possible for the customer to become convinced about the question of quality.

As one thinks how people could behave, they could buy their bulk products, such as tea, coffee, drinks, papers, detergents and heavy goods, which do not need cold space, once per week through the net. These goods would be delivered to the home. Then there would be no space problems, and that would be the most inconvenient part of the shopping because of its heavy weight and a repetitive nature. On the other hand, customers themselves could do the shopping for fresh food, bread and milk. Milk is a special case in Finland; we want it fresh every day, but ordering daily is not possible due to high costs. In this way, it is possible to make sure that the customer is convinced of the quality of fresh food. Another problem is logistics. It seems as if the customers should have different alternatives to choose among. Sometimes the customers want to do their shopping in convenience stores, sometimes in hypermarkets, depending on their situations.

…We suppose that we offer here an alternative, that in any case will not be the only way of doing business but an alternative for heavier goods. (Group discussion with the executives of the Wholesaler)

Two business models were used and piloted by the Wholesaler: a retailer using cash and carry without any physical retail store and a "virtual department" in a physical store. The third alternative is a business model in which manufacturers themselves are selling their products through the net, in which a wholesaler would have no role. In any case the customers wish to pay for the deliveries as little as possible. However, “shopping” for the customers and deliveries cause extra costs for the retailers.

The wholesaler and retailer marketing consist of (sales promotion) activities of different chains and services concerning the whole retailer network. The retailers themselves are marketing through their supermarkets (the store itself), newspapers and TV. For customers, the store is the most important marketing media. In practice, disappointments of shopping in a store make the customers change stores. The first visit in the store is “the moment of truth” or the “critical incident”, and the welcoming appearance of the store can be a decisive factor.

The shop itself is a part of marketing, as a new customer enters the store, someone greets her and takes her into account, that's a good feeling. To keep the store in good condition as the customer visits the store, is also marketing. (Group discussion with the executives of the Wholesaler)

From the Wholesaler's point of view, the E-shop is a department, within the main brand among several other sub brands, different departments, for example, a bread department. The Wholesaler is interested in finding a suitable business model to offer value to the customers, and the case served as a learning experience in it.

6. E-shop as a competitive tool for the Retailer

The Wholesaler and the Retailer, who hired a part-time employee and facilities for her to carry out the sales, financed the whole pilot system of the E-shop. This pilot required high quality activities in every respect as well as a positive attitude from all of the personnel. For example, it was important that items should not be out-of-stock. Nobody worried much about this earlier. Another thing was “price management”, which gained an even more important role during the pilot program. Continuous learning, commitment from other personnel, flexibility, immediate actions and reaction to customers' feedback were required. The knowledge of the selection of the physical store was also a prerequisite of successful “shopping” for the net customers.

The Retailer was expecting to create a modern image for his supermarket to get a competitive edge by offering extra service resulting in more business and new customers from the nearby Technology Park.

I want this store to be a food shop of high quality, within these circumstances and this environment and to get a competitive edge towards the nearby competitors, and hopefully this (net shop pilot) will strengthen that image. That's the goal in this business. This is a serious business and results should be gained, this is no charity. It is possible that nothing much will be gained for some years. But the resulting experience will be a positive one for the chain of stores. That's why one is ready for this. From our point of view we had to take this opportunity and what we do we do properly. (The Retailer)

The Retailer had also expectations from the cooperative partners of the pilot program, the suppliers of the merchandise, Web technology and also the Technology Park with its networks, whose commitment to the pilot program was a problem. Customers and also the Retailer had huge expectations concerning the added value of this way of shopping.

There were no regular customers in September of 1998. The summer was quiet, but there was no sign of things picking up after summer holidays either, although the customers had been reminded of the possibilities to order through the net again. The net customers bought every now and then, but not on a regular basis. Extra costs were a problem for the Retailer, because he had to pay for transportation in spite of there being no customers. There were also problems with marketing (or advertising). Should he or should he not do marketing, as the results of the project were not yet to be seen, and the further development of the E-shop was still under way.
So far experiences of the pilot showed that people were quite slow to move to this type of shopping. The Retailer estimates that one reason for that could be the type of goods involved in daily shopping. When shopping for them, people are accustomed to seeing and feeling what they buy. Many of the net customers do shopping also in the physical store just to see the environment from which the products come from.

For some reason, they prefer the traditional way... The number of registered customers is encouraging, but where are the real buyers.(the Retailer)

Marketing was a problem, “because we do not have the channel to do the marketing” (the Retailer). The Retailer had no access to the companies’ networks, although he had his own expectations of using them. In essence, there were no marketing activities. The Retailer had several ideas and plans for developing marketing in the future. "Internet marketing” was not utilized in his marketing scheme at all. The Retailer would like to have promoted sales, for example, with new techniques, maps, excursions, and campaigns, but due to resources at that moment, it was impossible.

The Internet has not yet been utilized in marketing but we will add our Web address in our customer letters. We do not talk much about it, let’s see if someone notices it there... does it raise any questions? We have to practice and learn these things...A couple of advertisements of the E-shop will also be placed in November 1998 when the net shop will be opened for a larger audience. (the Retailer)

... this is done along with other business, it would require more resources. In a small shop resources are limited, with whom to do what with what money? It is expensive to make one's home page and so on. (the Retailer)

The purchases have been relatively small, average purchases of 50 FIM have been delivered. It did not occur to us that people who are interested in this, are relatively young, and when they are young and highly educated, they do not have big families, childless couples or couples with one child, then their needs are small, on the other hand, highly educated people have a lot of money and they are very demanding. These kind of controversies, a family of three, if it ordered two thirds of all items, it is not much... Then there is the selection, it should be large and cheap, no delivery charge, and good quality goods. Prices should not be higher than in physical shops either. (the Retailer)

There are some problems concerning Web marketing of supermarkets of this size. The first issue is the question of necessary resources for this kind of activity. Another is the size of the selection. The Retailer has a fear that the net is only seen as one way of delivering goods, with no active marketing making the most of it. How to meet the customers’ huge expectations concerning virtual shopping as an easy and inexpensive way of shopping?

Do we have enough resources to do this kind of business on the whole, or in our chain generally, will this become only a means of delivery, not marketing with it actively. We have a selection of about 2000 items. Who is satisfied with it and pays for it, some added value should be developed, receipts, for example... (the Retailer)

The process of taking an order from the customer looks very simple, but takes a lot of time. The process at the Web site starts at 12 every day, which was the deadline for orders. The person in charge first checks the way of delivery to make sure that the delivery day is the one the customer wants (1-5 days are possible), then she accepts the way of payment. She signs the order and a confirmation of the order is sent to the customer. The products were usually gathered in a normal route around the store, but not exactly the same route every time. Every item has to be checked by the EAN code to make sure that the product is just the one ordered and paid for.

In addition to that, it is important to follow the principle of delivering only products of the highest quality. The gathering process usually takes half an hour depending on the amount and type of merchandise ordered. The items ordered are gathered in a box (max 3 customers at the same time), extra money is returned (if for example the sizes of apples are not the same as estimated) under the purchases.

The person in charge is able to change the set of products available on the Web. It was also possible to put some additional product information on the site, e.g. the necessary information to recognize sugar free products. However, this was not utilized much. She has contact with the individual customers by e-mail, e.g. replying to their feedback or even sending e-mail messages to the customers, for example, after holidays to remind them of net shopping. There existed, however, no mailing lists. A critical success factor in this case is value creation for customers for which the Retailer alone did not find a suitable channel or have enough resources for and hence was neglected.

7. Pilot customer experiences with value of the pilot program

The pilot customers emphasized an easy and effortless way of shopping. They did not have to go shopping during the week, pick up the products and stand in checkout lines. The Supermarket was open 24 hours per day. They found it easy to make orders (not taking into account the slowness), because the interface was relatively easy to use. It was easy to compare prices and time was saved as the purchases were delivered to their work place. One customer said: "Shopping took only 4 minutes, and even that was during work!"

I do shopping in the E-shop about once a week. It is an easy way of going shopping for parents of small children. There is...
no need to go shopping with tired children after work or daycare. Shopping goes fairly well. At the beginning it was slow but it is getting faster all the time. It is easy and saves time. For example, today I would not have time to go shopping after work, but now it's done through the net. Food and drinks are ready for my husband and children, so that I can go to the opera without the terrible hurry and stress…which would follow from the normal Friday shopping trip. I have no essential problems…if something is missing, I go to the nearby convenience shop. I have found almost everything I need. I am satisfied with this service. Everything has met my expectations. (C 2/12, in September)

The customers were mostly satisfied with the quality of products and service. They were also satisfied with the decreasing amount of impulse purchases. Many customers had been browsing the selection of products and had interest in it although they had not purchased anything. They had a positive attitude towards shopping daily through the net, one customer commented that "the net is the shop of the future".

The customers considered Web-based shopping suitable especially for some customer groups. Some of them commented that shopping is easy, and almost all needs are met. Some of them bought missing articles from a nearby shop. They were satisfied with the payments and bonus cards, the first delivery, the service offering and deliveries free of charge.

The customers, however, had a lot of costs related to time and energy, and also psychic and monetary costs. The customers considered purchasing slow, especially from home using a modem. Some of them had bad experiences, when the server was down or there was a database error. Using a former shopping list made it faster. Some had tried to use the system several times and cancelled their orders due to slowness. One customer complained that "ordering 8 items took over 1 hour", and another said that "it is slow, it breaks, there is no interest after that".

I have ordered so far only once. I have tried to order several times, but as the connection has been slow, I have not bothered to stay waiting for it and have interrupted my purchase intentions. The only problem that occurs to me is the slowness. Based on these few trials I consider the interface clear and easy to use. (C 2/4, in September)

The customers had problems with identification. Written instructions were given, but some customers did not read them. They also had difficulties with the payments and bonus cards at the beginning. The customers had difficulties in finding the right items/brands. They complained about difficulties in recognizing the products they wanted and they had no time savings due to difficulties in choosing and/or finding products. Some did not find time to get familiar with the net shop.

I have not done shopping on the Net due to my own laziness. My purpose is to buy on the Net, it is a shop of the future. Perhaps the biggest threshold has been to learn it for the first time. (C 2/7, in September)

The customers reported it to be difficult to change one's shopping habits. People are too busy, travelling around, having meetings and picking up their children from day care. Sometimes it was not possible to enter the net shop before noon, which was the deadline for orders.

I have used the E-shop about ten times during the spring. I have not used the service during June, July and August. Here is a list of some reasons for that: Quite often I go by bike or by roller skates to work. It is not possible to transport the purchases. Secondly, you must make orders before 12 to get them on the same day at 4 p.m. Quite often it has been my intention to order through the net, but then I notice that it's past 12 and it is too late. Of course it is possible to order the day before, but it does not work in my case. Thirdly, the net connection is slow. A few times I have tried to order in the morning but the connection has REALLY been slow and I have not ordered. To benefit from the service it should be possible to make the order in 5-10 minutes. Making orders is easy (except the slowness) and the products are of good quality. (C 1/2, in August)

I have not used the E-shop at all during the autumn and at the moment it looks like I am not going to use this service anymore. I have a very positive attitude towards e-commerce, but in this case there are elements that do not fit me. Here are two of those: Planning and ordering foodstuffs one day earlier does not suit me. The price of goods and delivery is in my opinion too expensive. I am accustomed to getting goods cheaper using the net than otherwise. (C 1/2, in November)

The range of merchandise did not fully meet the expectations of high tech -consumers. No weekend shopping was possible either. The customers complained, for example, about the lack of frozen food, some brands, and freshly baked warm bread. Some customers had already found solutions to the problems. No impulse purchases were made.

One could say that one obstacle for shopping is the fact that it is impossible to choose JUST the one individual item you would like. In addition, one cannot speak of saving time, because choosing and finding products is quite slow. Doing fewer purchases on impulse is a benefit in that nothing extra will be bought, but also a negative thing if you forget to buy something, for example toilet paper is bound to be forgotten. On the other hand, you can use the whole day for planning! One can choose products as long as they come to your mind and at the end of the day pay for them. I insist on graphics, from a plain text list it is very difficult to recognize the product you want. (C 2/8, in September)

The social aspect was also commented upon. The customers pointed out that there was too short a space for comments, they were not sure whether their comments had been read, and they were looking forward to getting answers to their messages. They also expected some publicity for their pilot system, and they were eager to tell others about their experiences. The psychic costs cannot be neglected either. One customer had a
fear that "customers could be profiled". In this case, as purchases were made mainly from work, some moral problems also arose.

Another barrier for shopping in the E-shop is a bad conscience. How can I do shopping while working? If others come just at that time to my room, I feel, that they criticize me for using time for shopping, although I knew that I had come to work fifteen minutes earlier in the morning. I myself once surprised my work mate reading the Web pages for evening news (Iltaelehti) during work. (C 1/1)

Surprisingly, monetary costs, in terms of prices of goods and services were commented only by one person. The customer considered the prices to be more expensive than the prices of the day. There were also some comments on privacy and security problems related to the deliveries to Technopolis. One customer was living near the big hypermarkets with cheaper prices and did not buy from this E-shop. Many were dissatisfied with the slowness at the beginning, but said that it was getting faster all the time. One customer said that biggest problems were with the proxy, failures were mostly due to his own mistakes, and the problems were related to technology, not to food or buying.

I have used the E-shop only a few times at the beginning of the spring. Everything was ok, but as a single man my daily shopping is very little because I do not make food at home, so it's of no use ordering a couple of bananas or yogurt through the net. I have had no problems with the net, though it is really slow, instead, one friend of mine said that the browser crashes every time he had tried to make orders. The Web-based supermarket is an excellent idea if one has plenty of regular purchases and little time to do shopping, for example, families with children. The purchases and comings and goings of a single man are too occasional. (C 2/5, in September)

I have not purchased anything during the summer (vacation) neither in the autumn. I would like to. I have a problem with Internet Explorer, using which (at least in the spring) it was impossible to get into the shop except occasionally after trying for a long time. So it often happened that it was impossible to get in before noon and I could not do any shopping. (C 1/1)

Some disappointments were caused by, for example, the locked pick-up storage in the Technology Park. There was also some misunderstanding of the instructions. There were some problems due to the holiday season, and some mistakes were made, for example, concerning package sizes. Based on the customers' experiences, we conclude that the values created in this case did not exceed the costs to them, and that is why they gave up using the E-shop.

8. Conclusions from the empirical case

Security, privacy, reliability and credibility concerns have been emphasized in previous research [12, 5] and also in the popular press. These have been argued to be the main reasons for reluctance in electronic shopping. In this case, these concerns did not constitute a barrier, however, as the e-shop was a department of an already well known supermarket, and the customers were used to e-mailing and navigating on the Web and banking through the net. Yet, these do not explain the outcome of the pilot. The delivery charges or monetary costs were also reported to influence intentions to buy on the net. The e-shop offering anytime, anywhere access to shopping did not seem to be competitive enough in this case. Doubts about the suitability of selling food and groceries [5, 8, 13] proved to be true. The segment of hitech-customers had some of the characteristics of an ideal segment [4, 5, 9]. At the same time, most of the registered customers were men, who were not necessarily in charge of doing daily shopping for the families.

The Web sites' potential to deliver positive shopping experiences and to help make better and faster purchase decisions have been emphasized in researched literature [9]. Earlier experiences show that customers have had disappointments in their goal-directed navigation. In this case study, customers reported their positive experiences, but no indication of the flow state was reported spontaneously in the survey with pilot customers. There are many different parties involved in the marketing of daily consumer goods. Integrating the views of different parties involved in electronic shopping into a framework is suggested in Figure 2 to further understand and develop marketing in a food retailing context.

<table>
<thead>
<tr>
<th></th>
<th>WHOLESALE</th>
<th>RETAILER</th>
<th>CUSTOMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is it?</td>
<td>Strategic investment Sub concept</td>
<td>Modern image</td>
<td>Competitive edge</td>
</tr>
<tr>
<td>What is the added value?</td>
<td>Alternative for doing shopping</td>
<td>Extra services</td>
<td>Easy and effortless shopping</td>
</tr>
</tbody>
</table>

Figure 2. How different stakeholders view electronic shopping

Although the sellers (The Retailer and The Wholesaler) and the buyers share the view of The E-shop (modern image, shop of the future), the conceptions of the added value are not fully consistent with each
other. The sellers regard extra service as added value, but, in addition to that, the buyers insist in ease of use.

Marketing has been predicted to change to some extent in the Web context as marketing moves from a physical marketplace to a marketspace or a computer-mediated environment [6, 14, 19, 20]. Changes have been predicted from gradual transformation to radical changes in marketing thinking with more interaction, co-production and customers' contribution to marketing processes. In this case, the ordering process changed onto the net, and in essence, there were very little or almost no marketing activities. Considering the outcome of the pilot program it can be argued that neglecting the marketing function explains the dissolution of the customer relationships. However, the marketing proved to be difficult as the Web store was under continuous development and it would have required extra resources and other cooperative partners to carry out interactive marketing through the Web.

The earlier research [2, 5, 8, 12, 13] has suggested that the Web retail format is not competitive enough in all product categories compared to the physical ones. Transporting traditional marketing thinking and practice into a new context is difficult or even impossible. Marketing food may be one of the most challenging categories. In this case study, the Wholesaler had some interest in doing this and considered the format to offer an alternative or additional service for customers and to help local competition by getting new customers.

Virtual shopping has potential to deliver convenience and economy to customers [4, 9]. The customers of the E-shop valued an easy and effortless way of shopping and quality of goods and service. However, in this case they were slow to make purchases and there was a lot of paperwork to get registered. Furthermore, it was difficult to find certain products and brands, and the customers also had to organize their daily routines in a new way to utilize the Web shop. Often they had to make additional purchases somewhere else. On the other hand, some of the prices were more expensive than in other shops.

The problems faced and related key areas based on the empirical evidence of the case study are suggested and presented in Figure 3.

<table>
<thead>
<tr>
<th>Retailer problems:</th>
<th>Key area:</th>
<th>Customer problems:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra costs</td>
<td>Technological</td>
<td>Slowness, Unreliability</td>
</tr>
<tr>
<td></td>
<td>issues</td>
<td></td>
</tr>
<tr>
<td>Extra costs</td>
<td>Logistics</td>
<td>Expensive</td>
</tr>
<tr>
<td>Lack of customers</td>
<td>Marketing</td>
<td>Switching costs, Lack of information</td>
</tr>
</tbody>
</table>

Figure 3. The problems faced and related key areas.

By targeting and offering proper content in marketing within an easy-to-use technological context the views of sellers and buyers could be combined. Delivering and communicating the added values and the ease of use of the system to the buyers would help them learn to use the E-shop in everyday shopping. By combining the problem areas of the sellers (the Wholesaler and the Retailer) and the buyers (the customers) we propose key areas for further development in electronic retailing and shopping. These key areas are: technological issues, logistics and marketing.

Although this pilot case reported in a way a failure of electronic retailing, we believe, however, in a promising future for it. Consumers and marketers do have in general a positive attitude towards the Web. As reputation is suggested to be a critical factor in successful e-business [9] there are good prospects concerning e-business for a well known chain like the focal chain. To contact consumers the focal Wholesaler has already opened a portal site with a lot of content and will develop it to meet consumers' everyday needs. The Retailer, encouraged by the pilot program, opened in November 1998 the E-shop to the public. The number of registered customers was at the beginning 250.

Technology has been suggested to be a barrier for a larger audience [8, 4], but as soon as technology concerns are addressed, the future for business opportunities seems bright. New thinking in marketing adopting a more co-productive attitude might help marketers to take advantage of the customers' willingness to develop the system. Different business models for different contexts suggested by Tuunainen [18] could be a useful principle also in marketing to develop different marketing models for different contexts.

9. Suggestions for further research

Some changes in the e-shop system were carried out during the pilot. Lessons learned through this study suggest that more emphasis should be devoted to add value and reduce costs for Web customers. They expect a vast customized selection, which is not possible in a physical supermarket. In this case the customers had to replenish their purchases or even buy the majority of products in other stores. This kind of shopping pattern does not save their time, on the contrary it takes more time. The intangible and informational value that an e-shop can offer could include information about environmental issues, recipes, discussion groups, clubs etc. Moreover, fluent navigation in the e-shop may increase customers' flow experiences and lead to additional purchases. The Web site could offer more visual cues to make purchasing easier and faster. By adding these kinds of hypertext features into the Web
site, the retailer would have a better way to remind customers about added value, e.g. offering sales promotions, campaigns and store specials, and give new ideas for shopping and making food. Enhanced navigational capabilities could help get customers more deeply involved in the shopping process and increase their commitment in co-production of the service.

Monetary costs were in this case as high as in conventional shopping or even higher. The customers do understand the expenses but, for one reason or another, they feel that Web shopping should be cheaper than conventional shopping. Changes in shopping habits take time and energy, and a new way of shopping must offer considerable advantages over the conventional ones. It should be easy to do the shopping at any time during 24 h/day.

The central feature in marketing an e-shop is the Web site itself, as following the theory of services marketing, the moments of truth or the critical incidents take place on the site. Whether marketing takes place in physical or virtual environment, the basic elements of marketing, such as the target group, positioning and segmenting, are important. The Web is a relatively inexpensive medium in marketing communication, but it is also a useful and efficient way to carry out other marketing actions, such as selling, customer service, transactions and exchange. It is fundamental to adopt a different approach to value addition for Web-supermarkets to become competitive. The context and business model also need to be taken into account. In this case the e-shop was regarded as a department of a physical supermarket or an additional home delivery service for the customers. Business models that could deliver total customer value, such and specific models that can make food buying/selling more efficient, need further research.

The Web-based e-shops should be easy to use and help customers meet their daily needs efficiently and flexibly. At the same time, the e-commerce solutions should similarly offer marketers easy-to-use tools to create and enhance customer value that exceed the customers’ costs of switching from earlier shopping habits to organizing their daily routines in a new way. The developers of Web e-shops need to find ways to add value for customers in order for marketers to be able to shift from collecting learning experiences to that of doing business.

References