

Enhancing Customer Perceived Value in Home Deliveries - Case: Customer Company X

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ABSTRACT

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Objectives of the Study

The aim of this research is threefold. The first objective is to define the concept of service quality in the context of home delivery of physically large consumer goods. Second objective for the research is to identify different customer segments and their key value drivers. Third object for this research is to identify those elements in the service process that could be used to modularize the service package.

Academic background and methodology

Important quality aspects of the home delivery service were revealed by literature review. The empirical part of the research was conducted through e- survey. The questions were formulated based on the literature review and discussions with Customer Company X. The survey was designed from the perspective of consumers and divided into meaningful parts of the service process. 240 people responded to the survey.

Findings and conclusions

In the service management literature, many authors have quite recently mentioned that quality of a particular product or service is whatever the customer perceives it to be. Enhancing the customer perceived value through service modularization was considered a better approach for Customer Company X. The survey results suggest that possibilities for service modularization can be found in multiple parts of service process.

Keywords

Service quality, service modularity, customization, customer perceived value, home delivery, B2C

TIIVISTELMÄ

Tutkimuksen tavoitteet

Tässä tutkimuksessa on kolme tavoitetta. Ensimmäinen tavoite on määrittää mitä palvelun laadulla tarkoitetaan suurikokoisten kulutustavaroiden kotiinkuljetuksessa. Toinen tavoite on tunnistaa erilaisia asiakassegmenttejä jotka arvostavat samoja asioita kotiinkuljetuspalveluissa. Kolmas tavoite on tunnistaa kotiinkuljetuspalvelussa sellaisia osia joita voisi hyödyntää palvelun modularisoimiseksi.

Kirjallisuuskatsaus ja metodologia

Kotiinkuljetuspalvelun laadun kannalta oleelliset osat määritettiin kirjallisuuskatsauksen perusteella. Tutkimuksen empiirinen osa suoritettiin verkkokyselyn avulla. Kyselyn kysymykset muodostettiin aiempaan kirjallisuuteen perustuen yhteistyössä toimeksiantajayrityksen kanssa. Kysely on suunniteltu kuluttajan näkökulmasta ja jaettu kuuteen tarkoituksenmukaiseen palveluprosessin osaan. 240 kuluttajaa vastasi kyselyyn.

Tulokset ja päätelmät

Palvelujenjohtamiskirjallisuudessa on viime aikoina moni tutkija maininnut että tietyn tuotteen tai palvelun laatu voi olla mitä tahansa kuluttaja kokee sen olevan. Kuluttajan kokeman arvon lisääminen koettiin paremmaksi lähestymistavaksi toimeksiantajayritykselle. Tutkimuksen tulokset viittaavat siihen että mahdollisia modularisoitavia osia palveluprosessista löytyy useasta kohdasta.

Avainsanat

palvelun laatu, palvelujen modularisointi, asiakkaan havaitsema laatu, kotiinkuljetus, B2C

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1. INTRODUCTION

This introductory chapter discusses first the backgrounds of the research and introduces the Customer Company X, the client of this thesis. Then the research problem is presented and objectives for empirical research are identified. The scope and limitations of the empirical research are clarified and some Key Definitions of this thesis are presented. The structure of the thesis is explained at the end of the introductory chapter.

1.1 Customer Company X

The parent company X operates in the field of logistics and transportation. Globally it has over 91,000 employees in some 130 countries. Parent Company X holds top positions in global air and ocean freight and has extensive land transport network and the rail expertise of one of Europe's largest rail freight company. Parent company X has traditionally focused on B2B sector and provides its customers activities typical for a Logistics Service Provider (LSP), such as transportation and warehousing.

Parent Company X acquired Customer Company X recently in order to develop new business opportunities on B2C field of logistics, such as home deliveries of consumer goods. Customer Company X is responsible for domestic land transports of Parent Company X in Finland. Customer Company X is one of the leading providers of logistics solutions in Finland. Customer Company X offers advanced transport, logistics and information services. Now they are however facing new challenges, as they are looking for new business opportunities in B2C sector.

Customer Company X is trying to generate new business opportunities in field of distribution of home-electronics and other goods (anything from refrigerator to coffee machine, from curtains to king-sized beds) directly to the consumers' homes.

Company X has a vision in which the consumers of home-electronics are increasingly not willing to carry goods home by themselves, but rather they order them from the web or go to retailers location to choose the product, but expect it to be delivered to their home, rather than arranging the delivery themselves. Company X sees a major possibility for customer acquisition through enhanced service here. The problem is that they do not have an idea what is considered great service in context of home delivery of consumer goods.

Statistics Finland (www.stat.fi) provides statistics that support the vision as the number of consumers using e-commerce is steadily increasing. On year 2011, the total demand grew over 20 per cent up to over 5 billion euros annually. It can be said that Finland's use of e-commerce is already rather regular than occasional. Moreover, in the near future it can be expected to keep growing, as more service and value can be included in the web offerings for the end customers.

Currently Parent Company X has a web service, which is targeted for deliveries between the suppliers, manufacturers of goods and the retailers (B2B). The service requires retailer to type in the basic information and the specifications of the order, and then provides estimates for the transportation costs to the retailer. It allows retailers personnel to estimate the cost of transformation beforehand (without contacting X's representative each time separately) and then utilize this information when determining their own buying- and selling prices and conditions of delivery. The web service calculates the date of delivery utilizing internal timetables of transportation system. It also keeps all the relevant transportation documents (delivery contract, transportation order, confirmation of order, bill of freight, SSCC-codes and bill of freight number) in the same place and visible to all parties.

The web service provides real-time tracking of shipment service for retailers and enables receiver to sign for receivable when the shipment is delivered. The service also provides a possibility to give notice of defects directly to Company X in case something goes wrong with the delivery. After all has been approved, the service sends an electronic invoice for the customer. The web service also provides customers with transportation reporting tools. Basic reports can be printed from the system and special ones are delivered as files. The customers can also give feedback to Company X via web service.

The new service would operate between the LSP, (retailers) and the consumers, which requires different approach to the whole service. Bask, Lipponen and Tinnilä (2012) point out two characteristics typical for e-commerce logistics. The first one is the market. The customers' locations from LSP's viewpoint will no more be fixed, rather spot-market type, similar to the postal services. Operationally this means that required network of delivery points is more dispersed than in "traditional" retail chain. Consumers are also often considered to differ from businesses in their preferences and decision-making principles when choosing services (Bask et al., 2012). One major difference between consumers and businesses as a receiver is that open delivery slots are much narrower in B2C- relationships. This means that customers in B2C field can be considered more demanding than B2C field. Some investments have to be made to information- and route planning systems, and the personnel needs to be trained to meet the demands of the new market.

The second typical characteristic for e-commerce logistics is the role of LSPs. Bask et al. (2012) write "Because the sales channel is separated from the delivery channel in e-commerce, suppliers without retail and distribution infrastructure can sell their products globally to both business and consumer customers. This provides opportunities for LSP's to offer the required services"(p.2)

1.2 Research Gap

E-commerce logistics is an interesting area for research due to the continuous growth of Internet sales and related delivery service requirements. As the earlier literature of e-commerce logistics strategies have mainly focused on viewpoints of LSPs (Delfmann et al., 2002, Gunasekaran et al., 2007) and retailing companies(Rabinovich et al., 2007, Hult et al., 2007)

The earlier research in the buyer preferences and service quality in e-commerce environment has been focusing mainly on B2B- sector (Cao and Zhao, 2004). Lately also the B2C- sector of e-commerce buyer preferences has emerged as an academic topic. Many of the earlier articles

written on topic relate to electronic grocery shopping (Småros et al., 2000; Yrjölä, 2001; Tanskanen et al., 2002; Lunce et al., 2006).

Småros et al. (2000) discussed the e-grocery business by recognizing the necessity of first analyzing the customer needs and then implementing corresponding new service offerings. Lunce et al. (2006) compared two different strategies of selling groceries online and came into a conclusion that large distribution facilities become efficient only if there are enough customers to serve, highlighting the importance of customer density and uncertain demand.

Later articles discuss elements affecting buyers' use of e-commerce. One of the key issues seems to be the delivery time. Hsiao (2009) argues that the monetary value of delivery time perceived by consumers is the central issue of study, while Zhang (2008) considers delivery time to be one element of transaction process in shopping. Koyuncu and Bhattacharaya (2004) found in their study that longer delivery times are a decisive factor encouraging consumers who actively use e-commerce to use an offline-channel instead of online-channel. Cao and Zhao (2004) found that different factors related to online retailers (price, own inventory, multi-channel structure, order-tracking system) had a positive impact on delivery fulfillment satisfaction of business buyers. They also found that a favorable pre-purchase perception of retailer's ability to deliver the product fast has a positive effect on the delivery fulfillment satisfaction. A study by Boyer and Hult (Ellis, 2003) argues that convenient pickup and delivery are more important than price in the e-grocery business. Esper et al. (2003) highlight the importance of on-time delivery as an e-commerce quality factor.

The earlier literature suggests that consumers as e-commerce customers base their perception of the e-commerce quality to elements such as speed of delivery, delivery as promised, responsiveness and customer convenience. All of the above are perceived and evaluated by customers individually.

Logistic Service Providers, like Customer Company X here, have traditionally focused on increasing efficiency and reducing costs, thus increasing their profits (Rust and Kannan, 2003). This strategy is an effective one in a fixed B2B environment. Fixed environment here means given delivery locations and stable or foreseeable demand.

Expanding business to reach B2C markets requires radical changes to service system as the delivery locations will no more be fixed, but rather spot-market type. In addition, the demand is also variable, which poses some challenges for operative management. Taking into account that buyers with different characteristics possibly having different perceptions of the same delivery performance (Cao and Zhao, 2004), suggests that there is a major change for service customization in the field.

Customization of e-services can be reached by designing the service process module like. This allows customers to individually customize their service, by choosing which elements to include in the service. Modularity is a common topic in earlier literature from product manufacturing perspective. Product modularity relates to production, organizational and supply chain modularity. Recently efforts have been made also to modularity focusing on services. But it can be said that the impact and possibilities of service modularity are not yet completely understood or used. (Bask et al., 2010)

Service modularity seeks to accomplish flexibility and customization for different customers or situations in service implementation. Chances for service modularity can thus be found in those aspects of the service that people perceive and evaluate uniquely.

1.3 Research Objectives

Customer Company X is a traditional LSP creating profits from effective supply chain management and cutting costs. This is an effective strategy in B2B environment, characterized by fixed delivery locations and stable demand. Shifting to B2C environment requires a fresh perspective for the business. That perspective should be customer centric, as customer is the primary judge of quality perceived. Consumers perceptions of service quality related to home deliveries of consumer goods have not been studied in the past, at least to my best knowledge.

The first objective is to *define the concept of service quality in home delivery of consumer goods.*

The earlier literature suggests that customers evaluate services individually, based on their personal views, needs, skills and so on. From Customer Company X's perspective it would be valuable if some customer segments could be identified that share similar values considering the context of home delivery.

The second objective is to *identify different customer segments and their key value drivers*.

Service modularity is a rather fresh topic of research. It strives for flexibility and customization of services. The recent advancements in ICT have made it possible for customers to design their own service package including only elements considered valuable by an individual customer. However, there are relatively few analyses of modularity focusing on services.

The third objective is *to identify those elements in the service process that can be used to modularize the service package*.

1.4 Scope and Limitations

This thesis is written from the perspective of the end customer, which means consumers. As mentioned above operating in B2C field differs from operating in B2B field in many ways. One of the biggest differences is the location of customers, which in B2C field is spot-market type in contrast to fixed delivery locations of B2B field.

This thesis focuses on home delivery of physically large consumer goods. Physically large in this context means that:

- one person cannot carry the product
- a bigger vehicle than a normal car is needed for transportation
- the consumer has to be home to open the door when the delivery arrives

It is important to notice that this study applies only to large consumer goods, because for smaller-sized products can be distributed in other ways also such as click-and-mortar style for instance. Pure digital products can be distributed over web with zero delivery cost etc.

1.5 Key Definitions

Definitions

IHIP	- Intangibility, Heterogeneity, Inseparability and Perishability; the four characteristics that traditionally distinct services from goods
Paradigm	- a fundamental set of assumptions that is shared by members of a particular scientific community
ICT	- Information and Communication Technologies
CRM	- Customer Relationship Management
ERP	-Enterprise Resource Planning Program
ABC	- Activity- Based Costing

SCM	- Supply Chain Management
OE	- Operational Excellence
CVC	- Customer Value Creation
CVA	- Customer Value Analysis

1.6 Structure of the Study

This thesis begins by defining and opening up the topic of service quality. In second chapter, a brief history of services marketing research is provided and criticized. Services research has for a long time been focusing on differentiating itself from products manufacturing. The underlying paradigm of the academic field has been for a few decades that services are different from products because of four special characteristics of a service: Intangibility, Heterogeneity, Inseparability and Perishability. In the academic field, these characteristics are often referred to as IHIP- characteristics of service (Fisk et al., 2000; Kerin, 2000; Kotler, 2000; Pride and Ferrel, 2000). Recently many service researchers (Schneider, 2000; Berry, 2000; Lovelock and Gummesson, 2004; Lusch and Vargo, 2004b) have expressed their concerns over the future of services marketing as the underlying paradigm seems to be obsolete. It now seems that distinction between services and products is hippocrate as most offerings are a tandem of product and service rather than pure products or pure services (Rathmell, 1974). This becomes more evident when remembering the wise words provided by Ruby Norris already in 1941 “Goods are wanted because they are capable of performing services”. The recent developments in Information and Communication Technologies (ICT) has had its impact on the field and many of the old assumptions have to be updated or abandoned. At the end of the 2nd chapter a brief history of e-commerce is presented, followed by presentation of shift from era of e-commerce to era of e-service.

The third chapter discusses value perceived by customers. Value is what has always been exchanged, still it seems like very few companies thoroughly understand this very valid point. Many service companies are struggling with declining profits and traditionally this problem has been solved by focusing on reducing internal costs rather than increasing the value created for the end customer. This chapter presents two models from Professor Christian Grönroos. Total

Perceived Quality Model discusses the two different dimensions of quality; technical process quality and functional process quality. The Augmented Services Model breaks the service package into core service and auxiliary services and includes basic elements composing the service process, that according to Grönroos (2007) are: accessibility of the service, interaction with the service organization and customer participation.

The Customer Value Creation- concept (CVC) is also explained in 3rd chapter. Many service companies struggle to understand who their end customers are, and if you do not know who your customers are you certainly cannot create more value for them. CVC focuses on value and seeks to understand how customers draw value from the solutions they receive.

At the end of 3rd chapter the concept of Service Modularity is presented. Modularizing services allows consumers to customize the service by themselves, thus including such parts/modules of a service they consider valuable for themselves and removing those parts that do not provide value for them. The consumers are paying only for those parts of the service they choose to consume, which increases the sense of fairness over the service system in the minds of consumers.

In the 4th Chapter the methodology of the empirical part is explained and the e-survey constructed for consumers is introduced. Some hypotheses are also presented and then tested.

The 5th Chapter discusses the results of the survey and presents its key findings

6th Chapter summarizes the thesis and gives recommendations for the Customer Company X

“Goods are wanted because they are capable of performing services”

-Ruby Norris (1941)

2. SERVICE QUALITY

The first research objective was to define the concept of service quality in home delivery of consumer goods. This chapter reviews the earlier literature written on service quality. It demonstrates the lack of consensus over the subject on the academic field. The chapter concludes that the customers always perceive quality individually and thus it is more appropriate to rather talk about customer perceived value.

2.1 Backgrounds of the concept

The definition of services used in this paper was proposed by long-term services marketing researcher Christian Grönroos on his latest textbook published in 2007:

“A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems” (p.52)

The definition must seem surprisingly vague for most readers. To understand the definition and its vagueness, we must go back to the roots of services marketing research. A rare characteristic of service research is that it originated simultaneously in several European countries and the United States. An international dialogue developed at an early stage, although the English-language literature, as in most sciences today, remains dominated by American views and research. As Evert Gummesson (2002a) noted, “European academics read U.S. journals, but U.S. academics rarely read European journals” (p.329).

Fisk, Grove and John (2000) analyzed in their book 10 different scholars (eight from U.S. and two from Europe) who have been in the field since the early days of discipline and remain as

active contributors. The authors noted that different scholars provide different histories of the evolution as well as different projected futures due to their varying perceptions of past, present and future of services marketing. Is the academic field of services marketing in danger of losing its coherent perspective? On the other hand, has there ever been one?

2.2 Goods versus Services

The early days of service marketing focused on separating services from goods. As stated by Schneider (2000), “the underlying paradigm in services marketing since the 1980’s has been that services are different from goods.” Fisk et al. (1993) supported the statement by concluding that “ four features – intangibility, inseparability, heterogeneity, and perishability- provided the foundation for the case that services marketing is a field distinct from goods marketing” (p.68)

Lovelock and Gummesson (2004) reviewed the recently published marketing management books in U.S. and identified four textbooks that contained an entire chapter devoted to services. In each book, the authors appoint specific characteristics to services that differentiate them from physical goods. (Table 1) Despite the small differences in terminology, each book essentially discusses the four IHIP characteristics; intangibility, heterogeneity, inseparability and perishability.

Table 1: How Introductory Marketing Mngement Texts Portray Service Characteristics
Source: Lovelock et al. (2004)

Authors	Statement of service characteristics (direct quotes)
Kevin et al.(2003, p.323)	There are four unique elements to services: intangibility, inconsistency, inseparability and inventory
Kotler (2003, p. 446)	Services have four major characteristics that greatly affect the design of marketing programs: Intangibility, inseparability, variability and perishability
Pride and Ferrel (2003, p. 325)	Services have six basic characteristics: intangibility, inseparability of production and consumption, perishability, heterogeneity, client based relationships and customer contact
Solomon and Stuart (2003)	Regardless of whether they affect our bodies or our possessions, all services share four characteristics: intangibility, perishability, inseparability and variability

However, the world we live in today is very different from 1980's when the underlying paradigm of service marketing was created. Many authors have expressed their concerns over the future of services marketing.

“Services marketing has been successful because it differentiated itself in the marketplace with a conceptual paradigm shift, services are different from goods. All else has followed from this conceptual leap, and with increasing refinement. We have had a happy 20 year run...but we may need some new energy and new directions...I sense a kind of malaise in services marketing”
Schneider (2000) (p.180)

Leonard Berry (2000) was concerned that dominance of a single area of research has efficiently blocked progress in other areas. The major change that made the Schneider and Berry question their own area of contribution was the emergence of Internet as important business tool in the late 1990's. Internet technology offers the potential for creating new business models, radically new ways to deliver information-based services and new ways to relate to customers. This results into a faster changing competitive landscapes than we have ever witnessed before.

Some scholars notified that existing service concepts were not readily applicable to Internet services. Stephen Brown (2000) pointed out that “the ability to obtain and consume services without interacting with a human provider challenges much of our existing knowledge.” (p.62)

In the same spirit D.E. Bowen (2000) concluded: “It now seems that most of what we know about services marketing and management has been derived from the study of face-to-face service encounters or at least over the telephone” (p.46)

Grove et al. (2003) notified that “services marketing was now facing a challenge that confronted many maturing fields of study. Specifically, as the domain of services had expanded, the boundaries that defined it had become more obscure. The direction in which services marketing was heading was unclear. In short, as the field had grown it had become more diffuse.” (p.106)
And this means that very fundamental assumptions of services marketing, like IHIP-characteristics, could not be taken as granted anymore.

2.3 The Underlying Paradigm Obsolete

Despite the ongoing debate and skepticism about the components, the IHIP framework remains a unifying theme for services marketing. It continues to be presented as received wisdom in several, but not all, specialized services marketing textbooks. However, the framework has serious weaknesses as a generalizable foundation for the paradigm that services are different from goods. It seems appropriate to go through the four “unique” characteristics of services to prove the point.

2.3.1 Intangibility

Intangibility is not only the most often cited difference between goods and services, but it has also been described by John Bateson (1979) as the critical distinction from which all other differences emerge. Bateson drew a distinction between physical intangibility (that which cannot be touched), and mental intangibility (that which cannot be understood or concluded). Bielen and Sempels (2003) confirmed Bateson’s conceptualization based on two subsequent empirical studies. They concluded that intangibility is a bi-dimensional concept consisting of:

- 1) a physical dimension specific to the degree of materiality of the product or service studied
- 2) a mental dimension tied to the degree of difficulty involved in defining, formulating or understanding in a clear precise fashion the product or service in question.

Physical Tangibility

The recent introductory marketing textbooks fail to make this distinction between physical and mental intangibility. For example Kotler (2003) stated that unlike physical goods, services cannot be seen, tasted, heard, smelled or felt before purchase and then linked this point to the need to reduce pre-purchase uncertainty. It is easy to argue that this same pre-purchase uncertainty happens to be also true with a number of manufactured products, including food, cosmetics, medicines and audio or video recordings, whose sensory stimuli are often hidden within protective packaging, making it possible for only the most experienced buyers to fully

evaluate them before actual use. The growth of telephone ordering and e-commerce further isolates buyers from merchandise in advance of delivery. Yet many services involving delivery of tangible elements can be evaluated before use. For example, the core product of a hotel is the room. Travelers can check out hotel rooms and even try how the bed feels before registering in to the hotel. This is of course not possible if travelers choose to book the hotels in advance, in those cases travelers can try to gain more pre-purchase information from websites that provide hotel ratings and comments from other travelers. (Lovelock and Gummesson, 2004)

In order to define whether services are intangible or not, we have to go beyond pre-purchase issues and consider delivery processes, consumption behavior and observable outcomes (Lovelock and Gummesson, 2004). It has long been recognized that there is an important interdependence between services and goods, with most services requiring physical goods to support and facilitate the delivery system (Rathmell, 1974). Ruby Norris said it well already in 1941: “Goods are wanted because they are capable of performing services”. Shostack (1977) noted that there are very few pure goods or pure services, instead “most market entities are combinations of discrete elements which are linked together in molecule-like wholes. Elements can be either tangible or intangible. The entity may have either a tangible or intangible nucleus.”(p.75). Shostack proposes that products may be arrayed on a tangibility spectrum (Figure 1) according to whether their constituent elements are collectively tangible-dominant or intangible dominant. Pure goods and pure services lie at the extremities; most other items are presented as containing a mix of tangible and intangible elements.

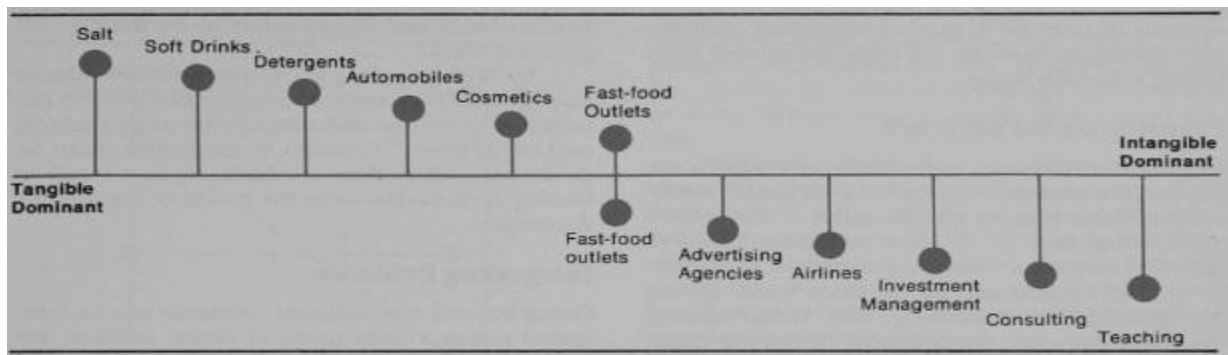


Figure 1: Tangibility Spectrum Source: Shostack, 1977

Mental Tangibility

Lovelock and Gummesson (2004) affirm that “for first time users goods are often easier to evaluate than services, because many goods are high in search qualities, attributes that can be determined and evaluated before purchasing, such as car engines and computer processors for example. Most services (and also many goods) instead are high in experience qualities, because their attributes cannot be known until they have been purchased and are being consumed (p.27).” They proposed that products could be arrayed on the same tangibility spectrum (Figure 1), with most goods falling to the left (easier to evaluate) and most services to the right (harder to evaluate). However, they point out one major weakness on the notion that goods are easier to evaluate than services. The theory does not take into account learning effects. They have found no empirical evidence that the difficulty of making pre-purchase evaluations persists as experience is built through frequent use. Moreover, even if we accept the fact that many services are hard for first-time users to evaluate, the same rule applies also for many goods. (Lovelock and Gummesson, 2004)

“Many services involve tangible performance activities that users experience during delivery through one or more of their five senses. In fact, for services such as surgery, haircuts, health clubs, cleaning, repair, or landscaping, customers’ key goals are to obtain tangible changes in themselves or their possessions. The tangible outcomes of such changes—a feeling of physical well-being following a massage, a clean office, a radical new haircut, a newly mowed lawn, or restored mobility following hip replacement surgery—will range from temporary to permanent and irreversible. For such a central principle of services marketing, intangibility shows up as an ambiguous and surprisingly limited concept.” (Lovelock and Gummesson, 2004, p.27)

2.3.2 Heterogeneity

The problem of variability has drawn attention from service researchers in both marketing and operations, primarily in relation to the difficulty of achieving equal output, especially in labor-intensive services. Lovelock and Gummesson (2004) point out that it is hard to establish standards when behavior and performance varies not only among the service workers, but even

between the same employee's interactions from one customer to another and from one day to another. As we all can empirically confirm; it is easier to connect with some people than others. As easy it is to observe that sometimes people just have bad days. Even those working in customer service jobs.

Although the case for heterogeneity in services is based primarily on variations in worker performance, Zeithaml and Bitner (2003) noted that no two customers are precisely alike and thus will have unique demands or experience the service in a unique way. Another factors affecting to the variability of services are the presence and behavior of other customers in the service system as well as external conditions, such as weather, crowding and differences between service locations. It is important to notice that goods are also subject to variations in customers' perceptions and thus the experience of consumption varies widely also within goods. (Lovelock and Gummesson, 2004)

Pride and Ferrel (2003) emphasize that "heterogeneity usually increases as the degree of labor intensiveness increases. Equipment-based services suffer less from this problem and are thus easier to standardize" (p.326). Keeping in mind that all consumers have their unique demands and expectations leads us to a very important question. Is it even desirable to standardize services? Solomon and Stuart (2003) note that individuals often appreciate customization to meet their specific needs. Vargo and Lusch (2004a) have a similar approach to subject stating, "rather than trying to make service more goods-like through internal standardization, service managers should capitalize on the flexibility of service provision, and manufacturers should strive to make their goods more service-like through the customized provision of output that meets the heterogeneous standards of consumers." (p.12)

In the service literature, standardization versus customization is a common topic. Yet this represents an incomplete representation of the issue. A better conceptualization, derived from manufacturing, is standardization, modularization, and customization. Joseph Pine (1993) pointed out that many so called standardized services, actually represent a strategy of mass customization, in which customers make selections from a variety of modules (standardized in themselves) to create the service package that best suits their unique needs. For example, scheduled airline service is highly standardized in design but offers modules for customizing

specific elements, such as: alternative schedules, service to or from different airports in the same metropolitan area, different classes and prices, seat location and a selection of drinks and food. Actual execution, of course, is variable.

“We conclude that it is inappropriate to continue to generalize about heterogeneity (or variability) as being a distinctive characteristic that sets all services apart from all goods.” (Lovelock and Gummesson, 2004, p.28)

2.3.3 Inseparability

Inseparability relates to simultaneous production and consumption of services. Despite the inseparability claim for services, there is a large group of separable services that do not involve the customer directly, with the result that production and consumption need not be simultaneous: such as transporting freight, laundering clothes, and undertaking routine cleaning and maintenance of most equipment and facilities are most commonly performed in the customer’s absence.

“Consumers purchase such services as laundry and dry cleaning, oil changes for their cars, lawn care, and parcel delivery precisely to avoid having to involve themselves in these tasks. They are willing to pay money to save time and effort and to allow a professional to do the job, often perceived as an unpleasant one, better than they could themselves.” (Lovelock and Gummesson, 2004, p.29)

Similarly, corporate customers outsource such repetitive tasks as freight transportation, payroll administration, landscaping, and office cleaning because those tasks are not their core competence. Outsourcing makes it possible for them to focus on what they can do best, and gain biggest benefits from. In some cases, these tasks are performed at a different physical location, in others, such as office cleaning or building repairs, they may be deliberately scheduled at night or weekends when hardly anyone is around. (Lovelock and Gummesson, 2004)

2.3.4 Perishability

Perishability of services roots to the common claim that services cannot be saved, stored for reuse at a later date, resold or returned. In traditional manufacturing companies use warehouses as buffers to be able to answer to fluctuating demand smoothly, or in other words to balance demand and supply. When producing for inventory, manufacturing firms incur maintenance costs and financial carrying costs. Maintenance costs include storage (operating), security and insurance costs. Financial costs relate to the monetary value that is tied to products in inventory, and could be invested otherwise. Therefore, if a manufacturing company carries a large inventory, it has large maintenance costs as well as large financial costs. Thus, it seems desirable to carry smaller inventory. However small inventories carry risk of losing profits if the inventory runs out, leading into lost business opportunities and in some cases to reliability problems with customers. Managing inventories is like tight-wire walk, balancing between not losing opportunities and keeping costs under control.

Service companies do not have inventory costs of this nature. Nevertheless, the problem achieving efficient capacity utilization is universal. Lovelock and Gummesson (2004) write, “Perishability of productive capacity is as relevant to the manager of bed production factory as it is to the manager of hotel who is worried about unrented rooms. Perishability of capacity from the producer’s standpoint is not the same as a perishable experience for a customer, although both are rooted in the passage of time. And perishable capacity is not the same as perishable output, for without customers who require service at a specific time, either to themselves or their possessions, there can be no output at most service organizations.” (p.30)

Consumers may view output differently from producers. Most service performances are momentary experiences, but this does not mean that the output itself is also perishable, since some services create durable results. For instance, from a hospital’s perspective, a surgical procedure represents output, but from the patient’s perspective, it is the outcome of that surgery that matters.

With services, inventory carrying costs are related to idle production capacity (Kerin et al., 2003). This means that the number of service employees needs to be optimized in order to optimize the profits. In a similar fashion to costs related to inventories, service companies lose money if they have too many employees working at a specific time, as some of the employees are idle. As well they can lose opportunities if they are short of employees and customers decide to choose another company rather than waiting for idle employee. Today, many service industries explicitly calculate their future productive capacity for specific dates and even times of day, relating it to such variables as hours of service and number of employees available. Planned variations in this capacity can be reduced if customers are willing to queue. (Lovelock and Gummesson, 2004,)

Growing attention is now being paid to maximizing yield per unit of available capacity, by varying prices between time periods and charging different rates to different types of customers (Kimes and Chase 1998). Hotels have different prices for high- and low- seasons as well as different levels of rooms. Airlines categorize seats by service class, route and schedule. Bars and restaurants offer happy hours for low business hours etc.

“An important exception to the generalization that all services are perishable is found among information-based services, such as sports, movies and music, where there is the option of recording the performances in re-playable media for later resale and reuse. In these instances, the producer’s output is durable and replicable, and the customer can enjoy the performance again and again.” (Lovelock and Gummesson, 2004, p.30)

From the customer’s perspective, some service output is durable and may even be irreversible. Consider tattoos for example, even though the moment of making/getting the tattoo cannot be saved, the result will stay on your skin forever.

The generalization that perishability makes services distinctively different from goods requires significant qualification, for it is a multidimensional concept including productive capacity, the producer’s output, the performance experienced by customers and the output customers obtain from the service. Productive capacity is perishable in both service and manufacturing companies and is wasted if unused in both instances. Manufacturers may be able to use the inventory as a buffer between production and variations demand, but carrying this inventory has its costs. For

service firms the concept of perishable capacity is a powerful one if the industry is one in which the demand fluctuates a lot. A logical approach is to emphasize the future capacity to use among different market segments under different prices and terms at specific times. (Lovelock and Gummesson, 2004)

As a conclusion to this section where I have criticized the four “unique” features of services we can take a closer look to major changes in the service sector in the last 20 years, namely internet and digitalization, and how they have reshaped the concept of services.

Replacement of human inputs by automation and application of quality improvement procedures have radically reduced variability (heterogeneity) of output in many service industries. Outsourcing by companies and delegation by consumers to a specialist service provider of tasks they used to do themselves have greatly expanded the existence of separable services. Advancements in Information and Communication Technologies (ICT) have also made it possible to separate customers in both time and space from the production of numerous information-based services, thus destroying the limitations of both inseparability and perishability. (Lovelock and Gummesson, 2004, p.32)

Hence, we can conclude that the paradigm that these four IHIP characteristics make services uniquely different from goods is incorrect and out of date. Rathmell (1974) stated, “The underlying problem is rooted in the extensive (and still growing) diversity of activities within the service sector and complicated by the fact that goods and services appear in tandem in almost every offering.” This should lead to a relevant question: Is it even meaningful to separate goods and services in marketing literature? Vargo and Lusch (2004a) propose that the major reason to the distinction is that marketing literature has been unwilling to abandon mainstream marketing concepts and categories and to acknowledge services as an integral part of every industry and product. Theodore Levitt claimed already in 1972 that “everybody is in service business”.

In the next section, we look at how internet has affected the traditional services and how e-commerce has developed over its short time of existence.

2.4 From E-Commerce to E-Service

This section provides a brief evolution of e-commerce and highlights the importance of logistics as its backbone. It demonstrates the importance of being able to deliver as promised as a distinctive factor between success and failure.

In many traditional production industries, it is very costly to get started. Starting a new production factory requires significant in-front investments, and these investments operate as effective entry barriers providing shelter to existing players, and challenges to new entrants.

Today, the Internet and mobile technologies have offered new ways of doing business, which do not require huge in-front investments. These drivers are reshaping industries and redistributing profits around the world and the established firms may be forced to renew their existing business models to counter threats to their continued ability to create value for their stakeholders and/or to capture sufficient value for themselves (Sosna et al., 2010)

Uday Karmarkar (2004) refers to the development as services revolution:

“The primary change driver behind the services revolution is technology. Forget about the information highway, Moore’s law, and the wonders of wirelessness. Rather, think of technology as creating an information assembly line; information today can be standardized, built to order, assembled from components, picked, packed, stored, and shipped, all using processes resembling manufacturing’s. Industrialized information becomes more efficient, less expensive, and more highly automated. The costs of logistics and storage are minimal; only labor and intellectual property matter.” (p.2)

Brynjolfsson and Smith (2000) found in their study that prices in the late 1990s for homogenous products, like books and CDs, were 9-16% lower in e-channels than in traditional outlets.

Thousands of entrepreneurs connected the dots and thousands of e-companies were founded in the beginning of e-commerce era. The first wave of e-commerce was based largely on selling commodities over internet, using advertising to gain transactions and counting on operational efficiencies to reduce costs of selling and managing supply chain. However, many forgot that after the product is sold, it still has to be delivered to the customer. Pyke et al. (2001) wrote:

“The 1999 Christmas shopping season signaled to both consumers and e-tailers (retailers operating in internet) that order fulfillment was a critical component of e-commerce. Frustrated consumers had to contend with late deliveries, damaged goods and messy product return procedures, while dot-com managers found fulfillment costs rising out of control. To the casual observer it might seem easy to fulfill orders for books, CDs and toys quickly. But even these simple products have experienced significant order fulfillment troubles. Amazon has watched its inventories explode and its ability to turn inventory plummet. For physically large consumer products-like furniture and home appliances- order fulfillment is far more challenging” (p.26)

Besides the problems with inventory and delivery, many did not understand that the easy entrance to the market also makes the competition on the market fierce. As the already low profit margins of selling commodities started to diminish or turn negative, many e-commerce run out of business.

Karmarkar (2004) stated that companies who wish to survive the revolution of services have to make proactive and far-reaching changes focusing on customer preference, quality and technological interfaces. “Companies need to rewire their strategies to find new value from existing and unfamiliar sources, disintegrate and radically reassemble their operational processes and restructure the organization to accommodate new kinds of work and needed skills” (p.2)

Rust and Kannan (2003) came to the similar conclusion in their article: “Rapidly advancing technologies such as wireless, broadband, smart cards, data warehousing, data mining, and agent technologies, contribute toward the effective accessibility and servicing of the correctly targeted customers for businesses while providing more choices, options, and ultimately, power to customers in their transactions with businesses. As the advancing technologies and possibilities shape customer expectations, organizations are under pressure to improve their business processes, to develop new markets, and to improve their competitive positions using these

technologies. This focus on the customer, brought about by the diffusion of network-based technologies, in turn, is also hastening the transformation of the economy from goods-based to a service-based one, leading to the era of e-service.” (p.38)

e-Tailing	⇒	e-Service
Goods	⇒	Services
Tangible Products	⇒	Information Products
Advertising	⇒	2-Way Dialogue
Cost Reduction	⇒	Revenue Expansion
Efficiency Focus	⇒	Satisfaction Focus
Supply Chain	⇒	Information Flows
Product Profitability	⇒	Customer Profitability
Brand Equity	⇒	Customer Equity
Mass Marketing	⇒	1-to-1 Marketing
Commodities	⇒	Customization
Low Margins	⇒	High Margins

Figure 2: A paradigm shift from e-commerce to e-service Source: Rust and Kannan (2003)

Figure 2 demonstrates what Rust and Kannan imply with the paradigm shift from traditional e-commerce to e-service. They define e-service as “the provision of service over electric networks. This notion includes services provided by a typical service organization as well as services provided by good manufacturers (such as manufacturers of consumer goods) where the quality of customer care plays an important role.

E-service is an extensive customer-centric concept that comprises all the interactive flows in the upstream and downstream channels. In the downstream channel, e-service includes concepts such as customer relationship management (CRM), relationship marketing, one-to-one marketing, and customer care. In the upstream channel, e-service includes e-procurement and supply chain functionalities, with one important philosophic difference, improving efficiency and cost is secondary to superior customer service and market expansion. (Figure 3)

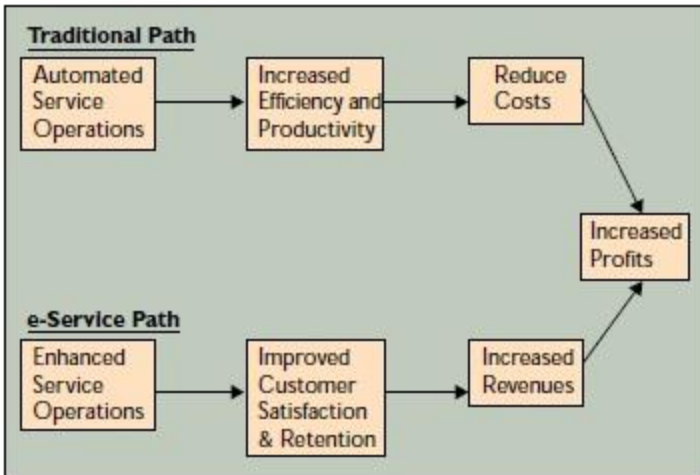


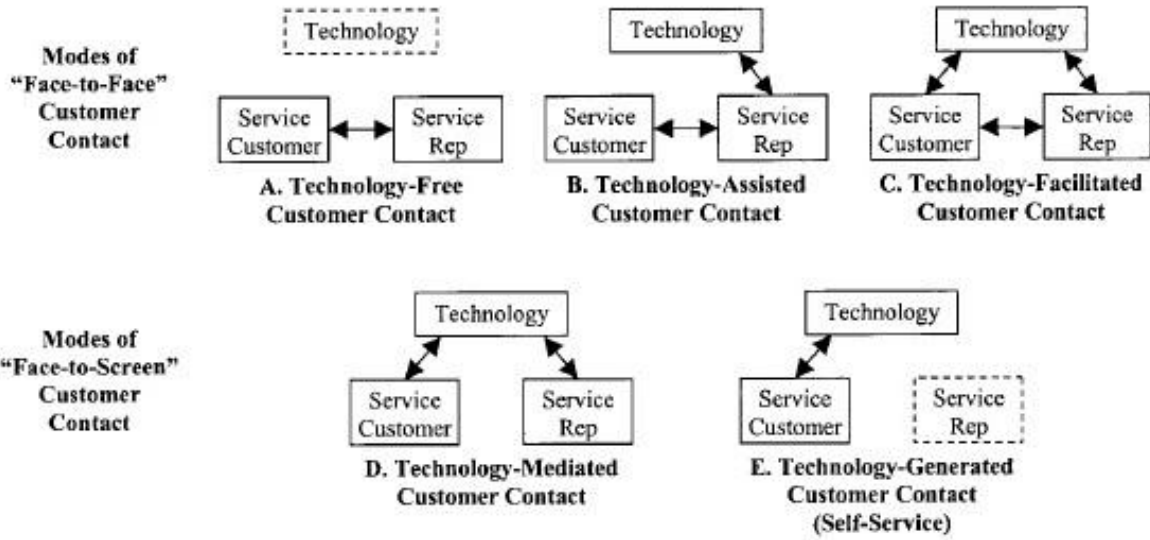
Figure 3: E-commerce paths to profitability Source: Rust and Kannan (2003)

“The fundamental philosophy of e-service is the focus on customers, meeting their needs precisely and there by growing the markets and revenue. As companies use the opportunity provided by the technological advantages to gain competitive advantage, it opens up new forms of e-service providing greater conveniences and support services to customers. Increasing customer expectations, in turn, drive the need for greater efficiency and effectiveness in customer contact areas and service components leading to a greater emphasis on e-service within organizations.” (Rust and Kannan, 2003, p.39)

The customer expectations for control in transactions, choice in service setting, and efficiency in transactions is not limited to the Internet channel, but traditional channels too. Thus, customers will expect the use of technology-enabled innovations in traditional channels to match the net-based control and efficiency they experience (Rust and Kannan, 2003). This means that e-service is not limited to just the Internet environment but applies to all touch points with customers (Figure 4). In the case of retailing commodities, this means that customers should be offered similarly convenient delivery service whether they order the product online or visit a traditional retailer’s outlet. (Froele and Roth, 2003)

In service management literature these touch points with customers are often called “moments of truth” for service companies. The importance of “moments of truth” is covered in the next

chapter, which discusses value, as customers perceive it. Customer perceived value is a better approach to service quality because customers evaluate services individually.



Source: Froehle and Roth (2003)

Figure 4: Moments of truth

3. CUSTOMER PERCEIVED VALUE

“At the heart of delivering excellent service is the basing of decisions on what the customer wants, expects and values” –Leonard Berry (1995)

As presented in previous chapter, the quality of service is a vague concept and differs depending on the perspective. However, the primary judge of the service quality is always the end customer who makes the decision on whether to use the service or not. Christian Grönroos (2007) states that to talk about better quality without defining it, how it is perceived by the customers, and how it can be improved or enhanced, is of limited value (p.73). In service quality literature many authors (Braithwaite and Samakh,1999;Rust et al.,2000;Roth and Menor,2003;Karmarkar,2004;Grönroos, 2007) have quite recently noted that the quality of a particular product or service is whatever the customer perceives it to be.

As mentioned earlier, people buy products because they are capable of performing services. Services in turn create value for the customers. The amount of value perceived by customer depends on benefits and sacrifices evaluated by the customer himself. The customers’ trade-off between benefits (value subject to expectations) they gain from the service/product against sacrifices (cost and effort) they have to make to obtain it, was introduced already in 1979 by Kent Monroe.

Grönroos (2007) writes, “When the service provider understands how services are perceived and evaluated by the users, it will be possible to identify ways of managing these evaluations and influencing them in a desired direction. The relationship between the service concept, the service offered to customers and customer benefits has to be clarified.” (p.72)

The service provider has to define quality in the same way customers do, otherwise, wrong actions may be taken in quality programs and money and time may be poorly invested. It should

always be remembered that what counts is quality as it is perceived by the customers. (Grönroos, 2007, p. 73)

The concept of value is emphasized here because it is critical for all service companies, as well as for most production companies today. Gary Plaster and Jerry Alderman (2006) claim in their book that "most companies tend to look at the world through a traditional Supply Chain lens. From this perspective, companies first think about their own cost and then the corresponding margin they can earn above that cost. But a focus on value is critical for success because customers do not buy products and services solely because of production cost. Instead, they purchase goods that deliver value to them."

This chapter is about customer perceived value.

3.1 Total Perceived Quality Model

According to Grönroos (2007), "services are more or less subjectively experienced processes. Interactions, including a series of "moments of truth" between the customer and the service provider, occur. What happens in these service encounters will obviously have a critical impact on the perceived quality." (p.73)

The quality of a service as it is perceived by the customer has two dimensions: *1) a technical or outcome dimension* and *2) a functional or process-related dimension*.

The outcome dimension means that a hotel guest is provided with a room and a bed to sleep in, the client of a restaurant will get a meal, the train passenger will be transported from place A to place B or a customer of a logistics company will get its products transferred from warehouse to the retailer. All of these outcomes are obviously part of the quality experience for the customer.

What customers receive in their interaction with a service provider is obviously important to them and to their evaluation of quality. Service providers often consider this as service quality delivered. However, this is only one dimension of the service production process called the technical quality or outcome. It is *what* the customer is left with, when the service production process is over. Often but not always this dimension can be measured relatively objectively by

the customer, because of its characteristic as a technical solution to a problem. (Grönroos, 2007, p.73)

As there are a number of interactions (moments of truth) between the customer and the service provider, the technical quality dimension will not count for the *total quality* that the customer perceives he/she has received. The customer will obviously be also influenced *by the way in which the outcome or end result of the process is delivered to them*. The accessibility, appearance, behavior and way of performing tasks also influence the customers' view of the service. The way, in which the information and communication technologies (ICT) function, also influence on the process experience. (Grönroos, 2007, p.73)

Furthermore, the more customers accept self-service activities or co-production routines, the better they probably will regard the service (Lovelock and Gummesson, 2004; Grönroos, 2007). Also other customers using the same service simultaneously may influence the way in which a given consumer perceives the service. Other customers may cause long queues or disturb the given consumer. On the other hand, they may also have a positive impact on the atmosphere perceived by the given customer. For instance, concerts, sports events etc. would be examples of such services where the atmosphere usually increases as the amount of consumers (audience) in the system increases, subject to the capacity of the concert hall or the sports arena of course. (Grönroos, 2007, p.74)

So the customer is also influenced by *how* he/she receives the service. There is a difference in restaurant experience depending on how the waitress behaves, how fast will you get your food and how packed is the restaurant, regardless to what you are served for dinner. This quality dimension, which is closely related to how the moments of truth are handled and how the service provider functions, is called *the functional quality of the process*. (Grönroos, 2007, p.74)

Thus, we have two basic dimensions of quality: *what* the customer receives and *how* he receives it. These dimensions are illustrated in Figure 5 below. It is easy to see that the technical quality is much easier to evaluate objectively, compared to functional quality, which is often perceived very subjectively. Moreover, in most instances consumers have some kind of an impression (image) of a company they are dealing with. It may affect the perceived quality in multiple ways. If the service provider has a favorable image in the mind of the consumer, minor mistakes will

probably be forgiven. If mistakes occur often, the image will likely be damaged. If the image is negative, the impact of any mistake will likely be considerable bigger than it otherwise would be. From the quality perception perspective, image can be seen as a filter. (Grönroos, 2007, p.74)

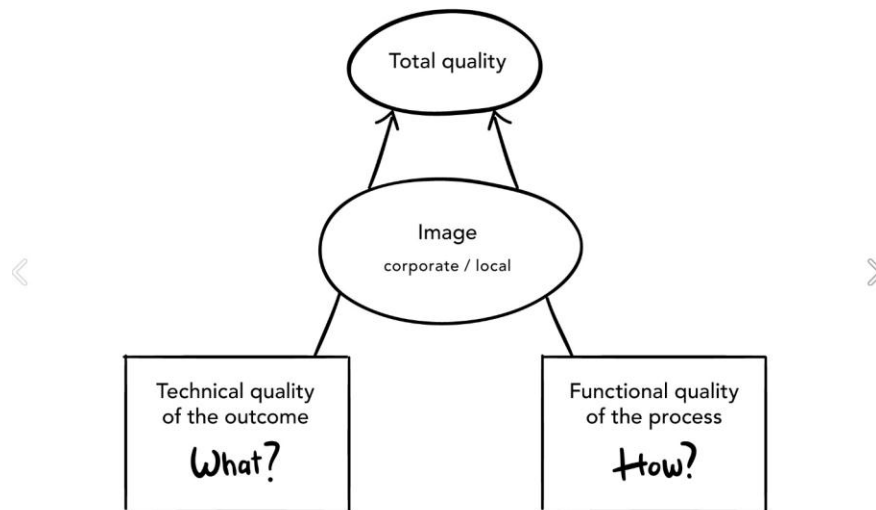


Figure 5: Two service quality dimensions; Source: Grönroos (2007)

Various services such as deliveries, logistics and repair provide maintenance value, which is partly of a technical nature and partly of a functional nature. For example if a correct product is delivered to the correct customer, the outcome of the delivery process has good technical quality. The customer would be less satisfied if the delivery had been very slow or for instance, the customer has to skip work to be able to open the door for delivery. In such case, the functional quality of the delivery process would be low and total perceived quality lower than it would have otherwise been. (Grönroos, 2007, p.75)

3.1.1 Competing through quality

Quality is often considered one of the factors that might provide a competitive edge against competition. It is important for the service company to identify the differences between these two quality dimensions to be able to evaluate their effects on the total quality the customers perceive.

A strategy, based in improving the technical quality, is successful if a firm succeeds in achieving a technical solution that the competition cannot match. Today, this is rare as there are number of companies able to produce approximately the same technical quality. Creating a technical advantage is difficult, because in many industries one cannot shield such innovations from competitors. Hence, competitors can introduce similar solutions relatively quickly. Even when excellent technical solution is achieved, the company might cannibalize their business by overlooking the functional dimension of the quality, for instance, by managing moments of truth badly. (Grönroos, 2007, p.76)

Implementation of a service strategy is a possibility for most companies, both service providers and goods manufacturers. Basically, this means that improving the service process and the moments of truth becomes the basis for quality programs. Developing the functional quality dimension may add substantial value for the customers and thus create the necessary competitive edge. (Grönroos, 2007, p.76)

According to Grönroos (2007), “good technical quality can be seen as a prerequisite for good quality, it has to be at acceptable level.” (p.76). The definition of acceptable level depends on the competition, strategy of the firm and the needs and expectations of the customers. Good technical quality alone does not mean that customers perceive that the service quality is good. Functional quality has to be good as well, if customers are to consider total service quality good. In a competitive market where a number of firms are competing with similar technical quality, it is the functional quality of the service process that counts.

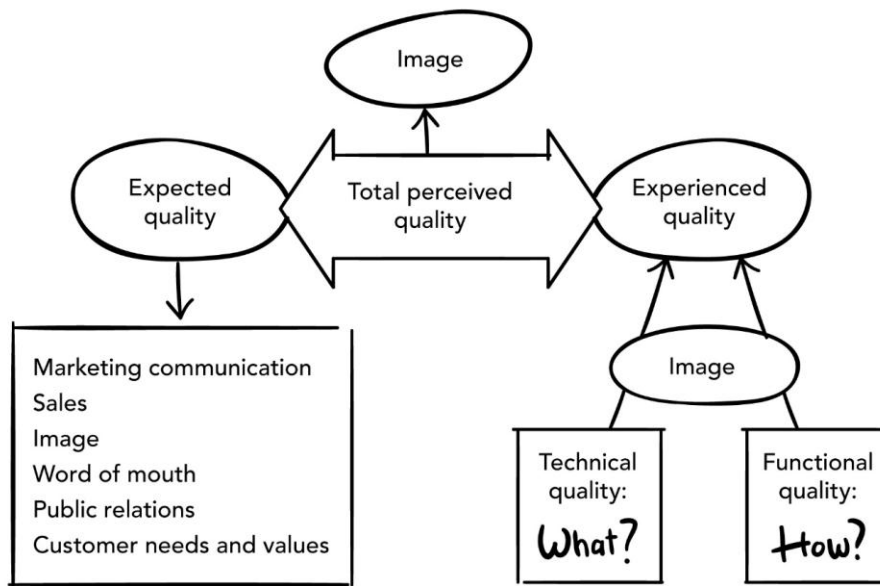


Figure 6: Total perceived quality; Source Grönroos (2007)

Figure 6 illustrates how quality experiences are connected to the traditional marketing activities resulting in a total perceived quality. Good perceived quality is achieved when the experienced quality meets or exceeds the expected quality. This means that if customer's expectations are unrealistic he/she might perceive the total quality low, even if objectively measured experienced quality is good. The expected quality is subject to a number of factors, those are: marketing communication, sales, image, word of mouth, Public Relations and customer needs and values. (Grönroos, 2007, p.76)

Marketing communication includes advertising (television, radio, social media, and websites), sales promotion, company websites, and internet communication, which are directly under the company's control

The image, Word of mouth and Public Relations are only indirectly controlled by the company. Image factor includes also the prior experiences of the customer. Word of mouth from friends affects the image as well as company's PR efforts do. External impact on these factors may also occur, but basically they are a function of the company's previous performance. The final aspect affecting to the expectations of the customer are the individual needs and values.

The level of total perceived quality is not determined simply by the level of technical and functional quality dimensions, but rather by the gap between the expected and experienced quality. This means that even after implementing quality program the perceived service quality may still be low, if for example the company simultaneously runs advertising campaigns that promise too much or are inadequate. Consequently, every quality program should involve not only those involved in operations, but those responsible for external marketing and marketing communication as well. (Grönroos, 2007, p.77)

As the perceived quality model shows, customer expectations have a crucial impact on customers' quality expectations. Grönroos (2007) writes, "If a service provider overpromises, it raises customers' expectations too high and consequently customers will perceive that they get low quality. The level of quality may very well still be high objectively measured, but as customer expectations were not in balance with his experiences, the perceived quality is nevertheless low." (p.77) Many quality development processes have been cannibalized by too much promise of improved service, too early.

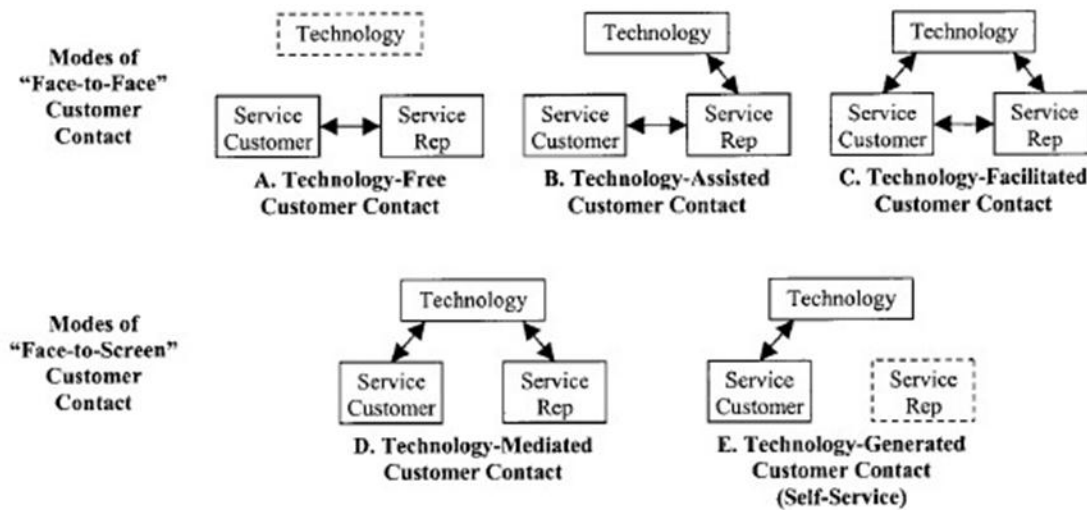
It may actually be wise to promise less than actual customer experiences. In that way customers will at least not be dissatisfied with the quality they perceive. Simultaneously it allows the service provider to offer its customers unexpected positive surprises, which in turn create loyalty and repurchases. In conclusion, from a marketing point of view it is better to under-promise in order to be sure that the organization can fulfill the promise that has been given. It is even better to under-promise and over-deliver. (Grönroos, 2007, p.77)

3.1.2 The Importance of Moments of Truth

"It is at the "moments of truth" that the customers experience the delivered services and form evaluative judgments that influence their overall satisfaction, intentions to repurchase, and loyalty." (Roth and Menor, 2003, p.148)

The situations in which the customer meets resources and operating methods of the service provider are critical to the quality experience. These service encounters (Figure 7) determine the level of functional quality dimension. In these interactions most or all technical quality of the outcome is transferred to the customer. (Grönroos, 2007, p.81) These interactions are often

called “moments of truth” in the service management literature. The concept literally means that this is the time and place for the service provider to demonstrate to the customer the quality of its services. If the customer is let down at the moment of truth, he/she is likely going to abandon the service provider and turn on to competitor for better service. The service provider can of course try to correct the mistake and persuade the customer back, but this is often expensive and inefficient (p.81). Like in many social relationships, also in services, regaining trust once it is lost is hard or maybe even impossible.



Source: Froehle and Roth (2003)

Figure 7: Moments of truth

Originally, the concept of moments of truth consisted of all the situations in which the customer was interacting directly with the representative of a service provider. Traditionally this was most often done in person or over the telephone. The development of ICT has however its impact also in moments of truth. Froehle and Roth (2003) expanded the concept to take into account also the IT-enabled moments of truth (Figure 7). They suggest a need to differentiate between physical face-to-face and virtual screen-to-face contacts in service designs. Roth and Menor (2003) write “IT could be employed to develop and enhance skills of knowledge workers. Moreover, service managers are increasingly interested in providing customized or personalized service offerings. Thus, Information Technology (IT) can be seen as a critical strategic choice for service design, delivery and performance.” (p.158)

3.2 The Augmented Service Offering Model

To understand service management and how to market services it is crucial to remember the fact that service emerges in a process, in which the customer operates as a co-producer (Rust et al. 2000; Karmarkar, 2004; Roth and Menor, 2003; Vargo and Lusch, 2004a and 2007). “From the service provider’s perspective some of the service is produced in the back office, but from the customers’ perspective the critical part of the service is produced at the time when the customer participates, perceives and evaluates the service process. Service consists of a bundle of features, which are related to the service process, and the outcome of that process. Neither exists before the customer begins the service production process. This bundle of process- and outcome- related features is called service offering.” (Grönroos, 2007, p184) The comprehensive model of service offering is called the augmented service offering model and Professor Christian Grönroos from Hanken School of Economics originally created it in 1984. Since then, many authors have adopted and developed the model. The following chapter is primarily based on Grönroos’ latest textbook published in 2007.

Any attempt to conceptualize the service offering should be based to customer perspective. It is very common that companies execute too little market research in order to understand the customers’ perspective, when they are conceptualizing services to be offered to markets. Companies tend to enhance their internal aspects like costs and organizational structure when designing services, even though they have nothing to do with how the customers are going to perceive the service.

3.2.1 The Service Package

The service package is divided into two main categories: the core (main) service and auxiliary (peripheral/ facilitating) services. The terms used varies depending on the literature source. A hotel, for example, may include the accommodation element as the core service. The auxiliary services for hotel would be reception service, room service, restaurants, swimming pool, security etc. The auxiliary services are often considered the ones that define the service and make it competitive.

The service offering should be customer-centric. It should recognize all the aspects of the service that are perceived by the customers. How the customers perceive the interactions with service provider (the functional quality of the service process) as well as what the customers receive (the technical quality of the outcome) has to be taken into account. In addition, the image impact on the service quality perception also has to be recognized. What has to be planned, marketed and offered to customers is a comprehensive service offering. (Grönroos, 2007, p.185)

As mentioned earlier, the service package is usually divided into core services and auxiliary services. Grönroos (2007) points out that for managerial reasons it is useful to distinguish between three types of services:

- core service
- enabling services (and goods)
- enhancing services (and goods)

The *core service* is the reason why the company is on the market. For a hotel it is accommodation, for an airline it is transportation. In order to make it possible for consumers to use the core service, some additional services are often required. Reception services are needed at hotel and check-in services at air transportation. Such services are called *enabling services*, because they enable the use of the core service. If enabling services do not exist, the consumers cannot use the core service. Sometimes also enabling goods are required. For example, people need bankcards to be able to draw cash from ATM. The third type of service is enhancing services. *Enhancing services* do not enable the use of core service, but are used to increase the value of the service and/or to differentiate the service from those of competitors. (Grönroos, 2007, p.186)

This distinction between the enabling and enhancing services is important for managerial purposes, because enabling services are mandatory. If they are left out, the whole service package collapses. This does not mean that these services could not be designed in a way that they differ from competitors enabling services. Vice versa, whenever possible enabling services should be designed so that they become methods of competition and thus help to differentiate the offering from competitors'. Enhancing services in turn are used for competition purposes only.

If they are lacking, the core service can still be used. However, the total service package may be less attractive and less competitive without them. (Grönroos, 2007)

Hotel restaurants and swimming pools are examples of enhancing services in hotel industry and airport lounges and in-flight services are examples of enhancing services in air transportation. In home delivery context, such enhancing service could be for example providing the customer who is waiting for the delivery a possibility to check the real-time progress of the delivery via web service. In some cases enhancing goods are used to improve the customers' perception of the service, examples of such goods could be the candies on hotel beds or the shampoo in the shower. In airline context, enhancing item could be for example the earphones provided by the airline for the flight or a neck pillow to make the journey a bit more pleasant.

The distinction between the enabling and enhancing services may not be clear in all contexts. A service that in some cases is enabling the core service may become an enhancing service in other contexts. Think about an in-flight meal for example, for long flights it is enabling service because passengers cannot survive the whole flight time without food. For short flights it is however enhancing service, because passengers could eat before or after the flight if they choose to.

The basic service package is not the same as the service offering customers perceive. The elements of this package determine what the customers receive, including only the outcome-related features of the service. The elements included do not tell anything about how the process is perceived, which is an integral part of the total service offering customers experience and evaluate. To include the process-related features of the service, the basic service package has to be expanded into more comprehensive model, called the augmented service offering model. (Grönroos, 2007, p.187)

3.2.2 The Augmented Service Offering

The service processes are very context-related and perceived in multiple ways which differ from situation to situation. There are however three basic elements that compose the process:

- accessibility of the service
- interaction with the service organization
- customer participation

These elements are combined with the concepts of the basic package, thus forming an Augmented Service Offering (Figure 8). It is essential that these three elements of the service offering are equipped to the customer benefits that were initially identified to be sought by customers in the selected target segments, and the service concept based on these benefits.

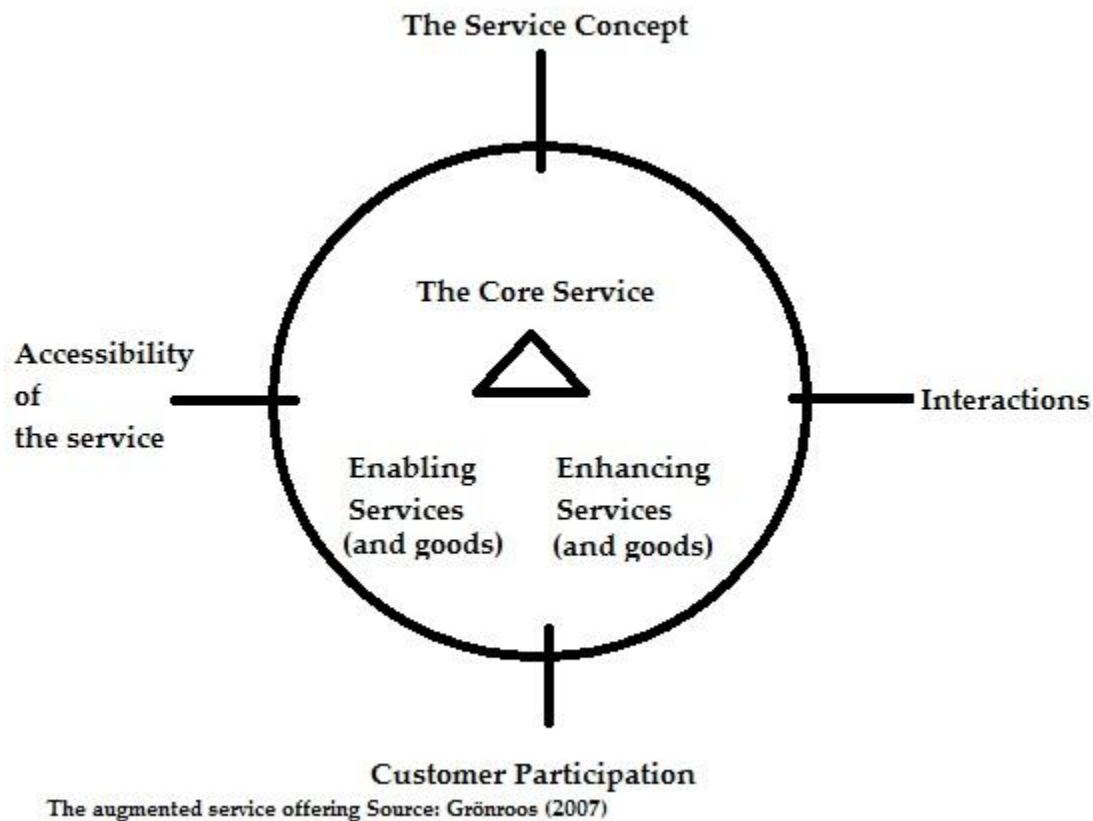


Figure 8: The augmented service offering

The accessibility of the service consists of:

- The number and skill of the personnel
- Office hours, timetables and the time used to perform various tasks
- Location of offices, service outlets etc.
- Tools, equipment, documents etc.
- Information technology enabling customers to gain access to the service provider and the service process
- The number and knowledge of consumers simultaneously involved in the process

According to Grönroos (2007) “Depending on these and other factors the consumers will form an opinion that it is easy, or difficult, to get access to the services and to purchase and use them” (p.188). It is important to notice that today the development of information technology has improved the accessibility of most services. The other side of the coin is that consumers are expecting 24/7 accessibility to most services, regardless to where they are physically located. Applied to the home delivery of the domestic appliances, this would mean an easy access to the service providers systems over the internet. Today, many service companies are also creating their own smart phone applications to provide easier use for consumers as everything relevant can be found in one place instead of browsing the web site.

Interaction with the service organization can be divided into categories:

- Interactive communication between employees and customers, which depends on the behavior of the employees. What employees say and do and how they say and do it.
- Interactions with physical and technical resources of the service provider, such as vending machines, waiting room facilities, tools and equipment needed in the service production process, etc
- Interactions with systems, such as billing systems, web sites, smartphone applications, delivery schedules, handling claims etc.
- Interactions with other customers simultaneously in the system

Customers have to get in touch with employees, they have to adjust to operative and administrative systems of the organization, and they may have to use websites or technical

resources of the service provider. All interactions with human as well as physical or technological resources are part of the service perception. If these interactions are considered unnecessarily complicated or unfriendly, the perceived quality of an excellent basic service package may be low. (Grönroos, 2007, p.189)

Customer participation means that the customer has an impact on the service he perceives. Thus, he becomes co-producer of the service and also co-creator of value for himself. Often the customer is expected to fill in documents, give information, use websites or smart phone applications and so on. Depending on how well the customer is prepared and willing to do this, he will improve/impair the service. For example, if a patient is not able to give correct information of his problems, the doctor will not be able to make the correct diagnosis and consequently the treatment may not be correct.

In case of self-service, the customers are required to take even more active co-producer role, using the systems and resources provided by the service provider. Hence, in service encounters the core service, enabling services and enhancing services of the basic service package are perceived in various ways, depending on the accessibility of the services, how easily and well the interactions are perceived, and how well the customers understand their role in the service production process. (Grönroos, 2007, p.190)

The service concept in Figure 12 is seen as an “umbrella concept to guide development of the components of the *augmented service offering*. The service concept should state what kind of core, enabling and enhancing services are to be used, how the basic service package could be made accessible, how interactions should be developed, and how customers should be prepared to participate in the process.” (p.190)

The development of an augmented service offering requires a fresh analysis of the types of resources that are needed. Otherwise, existing resources may unnecessarily restrict the implementation of a new service offering. Existing resources should never hinder the successful implementation of new ideas.

Developing the service offering is a highly integrated process. A new enhancing service cannot be added without taking into account the accessibility, interaction and customer participation

aspects of that service. The well-planned introduction of an additional enhancing service, or an improved facilitating service, may become a powerful source of competitive advantage. (Grönroos, 2007, p.191)

3.2.3 The Role of Technology in Service Offerings

The development of ICT and diffusion of mobile technology use has offered new opportunities for companies to enhance their service offerings. During the past decade, a massive amount of investment has been made in technology infrastructure, including Enterprise Resource Planning (ERP), network capability, Activity-Based Costing (ABC), Customer Relationship Management (CRM) and Supply Chain Management (SCM) and more. These ICT investments support service companies in gaining more customer-centric approach to interactions with customers. More accurate, easily retrievable and accessible information about customers allow employees to improve the quality of customer interactions. (Plaster and Alderman, 2006)

Implementing new technology also increases the accessibility of the service as it allows customers to access services in new ways, more quickly and easily (Grönroos, 2007). Mobile phone applications are one example of such technologies. Customers can be offered a service with less hassle and more control over the service in which they operate as a co-producer. In addition, the interactive communication with the customer can be made more effective via technology.

Karmarkar (2004) states that consumers expect anywhere, anytime access to information, simple interfaces; and customization, personalization, responsiveness and flexibility. He continued by predicting that winners in the future will be those companies, that experimental and intuitive solutions, along with bundles of services and content, to screens, interfaces and appliances. Karmarkar encourages companies to focus their efforts on overcoming the feeling disembodiment and depersonalization that technology has created between companies and customers. (p.6)

In case of home deliveries, customers could be provided a mobile application with possibility to change the time of delivery by themselves. The delivery company could also provide real-time information of the progress of delivery for customers. At the moment delivery companies usually provide customers “delivery windows” of 4-6 hours. This is because at the moment when the customer places the order, the delivery company does not have necessarily enough information on the particular delivery day’s schedule. However, when the delivery day gets closer the delivery time interval for a given customer gets smaller, when the delivery order/route is clearer. With right technologies, this kind of information could be easily transferred to the customer who is waiting for the delivery. It would obviously create some extra value for the customer if the promised time interval could be diminished from 4-6 hours to for example 1-2 hours.

Service companies must however keep in mind that not everything can be done digitally over the web. In most cases, the customers will also interact with employees and more traditional resources and technologies of the service provider at some points of the service process. The well-functioning use of ICT has to be supported by the “real” personal interactions, also known as the moments of truth. The service provider’s excellent use of ICT in the minds of consumers can be easily destroyed if the traditional face-to-face service is of low quality. (Grönroos, 2007, p.192)

Another thing for service providers to remember when implementing new technologies is that customers differ also in context of accepting new technologies. Some customers need to be trained and motivated to use the technologies and some just may want to keep using the traditional ways of interacting with the service provider. Usually illustrating the benefits of the new technologies from the consumers’ point of view helps. However, companies have to be careful when implementing new technologies and listen to their customers, otherwise the effect may be negative. It is also important to market the new technologies internally, so that employees are motivated to use them. In some cases, especially when drastic changes are made to service delivery process, this requires aligning the incentives again to assure the motivation of employees. In fact, whenever services are redesigned in organizations the design group creating the new service process should include representatives from all influenced parties. (Grönroos, 2007, p.192) In case of Delivery Company, the design group should include representatives from at least customers, top management, IT people, route planners and drivers.

3.3 Customer Value Creation (CVC)

Profitable growth is a common goal and a popular topic of discussion in most companies today. Reaching that goal is however rare, because in reality, most companies do not have their processes, people and technology aligned in a way that would enable profitable growth. Most companies simply float with the flow of general economy, with intense focus on cost reduction during down times and confusion between good management and good market situation during good times. To sustain profitable growth over time, companies need to build a solid and reliable growth platform with a focus on creating and exchanging value with their customers. Customer Value Creation (CVC) is an approach to profitable growth introduced by Gary Plaster and Jerry Alderman in their book (2006).

At the highest level, CVC is a business philosophy that combines Customer Value Analysis (CVA) and Operational Excellence (OE). The underlying principle behind CVA is that to grow profitably, you must focus on creating and exchanging value with your customers. The second idea behind CVC is OE. The fundamental principle behind OE is that you must have an analytical and process-based approach to execute growth. CVC combines these two core ideas and leverages them with an outside-in perspective to drive profitable growth.

Customer Value Analysis focuses on creating and exchanging value with customers. This definition seems simple, but executing the ideas of CVA is challenging. CVA starts with the customer and creates a growth platform based on an outside-in perspective. The next thing to focus on is value. CVA is driven by understanding how customers draw value from the solutions they receive. Exchange then suggests that in return for delivering value to the customer, the company receives something in return, profits.

Operational Excellence (OE) is an analytical and process-based approach to execute growth. CVC leverages the powerful concepts of Six Sigma and adds the necessary changes to allow those concepts to be utilized in the customer-facing world. By using data and analytical tools, many of the qualitative beliefs and market myths are dispelled or reinforced. In either case, the data enables an unbiased approach that leads to better business decisions. Finally, OE is focused

on execution. In the case of execution, CVC aims at aligning people, processes and technology from an outside-in customer perspective to enable profitable growth. (Plaster and Alderman, 2006)

3.3.1 The Outside-in Perspective

As discussed above, an outside-in perspective is one of the core building blocks of Customer Value Creation (CVC). The term “outside-in” can mean many things for different people, but in this context it indicates that too often companies do not spend enough time thinking about business decisions from a perspective other than their own. Companies tend to base business decisions on their internal knowledge and instincts: an inside-out approach. By continuing to operate with an inside-out approach companies lose connection with their customers, which in turn makes it hard or even impossible to offer enhanced value propositions for customers. Without enhanced value proposition the customers will likely switch to competitors and the “inside-out” firm underperforms against financial expectations. (Plaster and Alderman, 2006, p.23)

An example of such case can be found very close. This is the main reason why Nokia, Finland’s flagship, collapsed few years ago. They lost touch with their customers and became arrogant. The customers switched to companies that understood what the consumers wanted. Today, the future seems brighter for Nokia, but it took radical measures to change the course. The organization had to be restructured to meet the demands of rapidly evolving industry and to reconnect with customers.

The idea that companies should align their businesses around their customers and make customers their top priority is nothing new. It has been popular area of emphasis for a long time. Nevertheless, few companies embrace a thorough customer focus, especially as it linked to defining value. Companies that execute an outside-in perspective are those that employ a rigorous, fact-based approach to interacting with customers to understand their perspectives, pain points, business drivers, growth objectives, and so on. (Plaster and Alderman, 2006, p.23)

3.3.2 Obstacles in Achieving Outside-in

Plaster and Alderman (2006) have spent many years trying to understand what differentiates successful growth companies from the rest. They have repeatedly noticed one common characteristic that emerge successful companies: They understand their customers more deeply and broadly than other players in a given industry. (p.24)

In order to achieve this success formula, company must first understand what prevents most companies from developing this approach. The authors identified three dominant forces that can restrict companies from reaching outside-in perspective.

1. Human Nature
 2. Operational Outlook
 3. Data Availability
1. Human Nature

Scientific evidence suggests that despite most individuals' best intentions, their decisions largely reflect internal points of view and short-sighted perspectives on customers' needs. During the past years there have been significant advances in the field of behavioral economics that need to be incorporated into business. The most fundamental advancements in the field of behavioral economics relates directly to how we make decisions and the flaws inherent in many of those decisions. Daniel Kahneman (2002), a Nobel Prize winning professor of behavioral economics, has shown in his studies that people tend to be overconfident in our own ability and thus need to integrate outside-in perspective to improve our business decisions.

Many of us struggle with making decisions because of obvious reasons. It is a big responsibility as implications and outcomes result directly from being a decision maker. The accountability of consequences as well as the ever-growing amount of choices in today's business world increases the fear of failing and can hinder individual's ability to make rapid and confident decisions.

Once individuals overcome the difficulties preventing them from making decision, in the first place we have to think how we could be assured that they make the right decisions. Do the decision makers consider all the affecting factors and exercise an objective and rational approach to problem in hands? Kahneman's (2002) findings have shown that they rarely do. There is a

good reason behind this: Most of us think that we are smarter than everybody else is and the answer we develop in our conference rooms is the right one. Unfortunately, research has demonstrated that humans do not decide rationally and make predictable errors. We make bad decisions for many reasons: biases in perception, misconceptions in reasoning, and problems of group thinking.

To highlight the importance of outside-in, consider these biases that can sabotage decision making with an inside-out approach:

Overconfidence Bias

Our brains are programmed to make us feel overconfident. Behavioral economists often illustrate this point by with simple quizzes like; guess the length of River Nile. Participants are asked to offer not a precise figure, but rather a range in which they feel 90 % confidence. For example, the Nile is between 3000 and 12000 kilometers long. The participants repeatedly walk into the same trap: rather than playing safe with a wide range, they give a narrow one and miss the right answer. Most of us are unwilling and/or unable to reveal our ignorance by choosing a wide range. Most of us prefer to be precisely wrong rather than vaguely right. This overconfidence in our own abilities too often leads into making fundamentally false decisions. (Russo and Shoemaker, 1990)

The Status Quo Bias

Plaster and Alderman provide a classic example in their book, in which students were asked to how they would invest an imaginary inheritance. Some of them received several million dollars in low-risk, low-return bonds and typically chose to leave most of the money alone. The rest received higher-risk securities and left most of the money alone. What determined the students' allocation was not their risk preference, it was the initial allocation. People would rather leave things as they are. One explanation for the status quo bias is the aversion to loss. People are more concerned about the risk of loss than they are excited about possibility of profit. The students' fear of switching into securities that might end up losing value prevented them from making a rational decision, which is rebalancing their portfolios. (Russo and Shoemaker, 1990)

Anchoring

One of the more peculiar flaws in human brain is called anchoring. Present a person with a number, ask him to make an estimate of something totally unrelated, and he will anchor his estimate on that first number. A classic example provided by the authors is the Genghis Khan date test. A group of people was first asked to write down the three last digits of their phone number and then they were asked to estimate the date of Genkhis Khan's death. The results show a correlation between the two numbers; people assume that he lived on the first millennium because of those three digits, when in fact he lived from 1162 to 1227.

Anchoring is often used in negotiations. Naming a high initial sales price can help secure an attractive outcome since the buyers counter offers are anchored around that initial figure. (Russo and Shoemaker, 1990)

The Herding Instinct

The desire to conform to the behavior and opinions of others is a fundamental human trait and accepted principle of psychology. For most CEOs, the only thing worse than making a huge strategic mistake, is being the only person in the industry to make that mistake. (Russo and Shoemaker, 1990)

False Consensus

People tend to overestimate the extent to which others share their views, beliefs and experiences. Causes for this can be many, such as:

- Confirmation Bias: Tendency to seek out opinions and facts that support our own beliefs and hypotheses
- Selective Recall: The habit of remembering only facts and experiences that reinforce our assumptions
- Biased Evaluation: The quick acceptance of evidence that support our hypotheses, while contradictory evidence is being subjected to strict evaluation and almost certain rejection
- Groupthink: The pressure to agree with others in team-based cultures

(Russo and Shoemaker, 1990)

This selection of human behavior is not exhaustive and many organizations may have ways to battle these tendencies. However, the list highlights the varying ways human brain can get in the way of rational decision-making within organizations. Without proper processes to soften these inherent human tendencies, the company will most likely maintain its inside-out perspective to business decision making. (Plaster and Alderman, 2006)

2. Operational Outlook

The second factor hindering the adoption of an outside-in perspective in today's companies is the prevailing internal focus on cost savings, reengineering and operational effectiveness during the last decade. Consider the long-term impact of repeated emphasis on improving internal processes to deliver product or services efficiently. How has this lengthy focus on improving our own companies affected our ability to look objectively at our business, the value chains we participate in, and most importantly the end customers? We have seen how relying on this approach can lead to poor understanding of how the outside world values our company's products and services. Unfortunately, this inside-out perspective is not a recipe for developing and sustaining competitive advantage in the industry. Cost reduction and operational improvements are an imperative for many organizations, and evidence indicates that companies can derive some value from these programs. But today's competitive imperative is to identify new growth sources. Continuous cost reduction and enhanced efficiencies are not the formula for long-term profitable growth. Companies must augment their internal initiatives with an outside-in perspective. Now is the time for companies to recognize how this deep emphasis on operational effectiveness can cloud their outside view and to take measured action to institutionalize an outside-in philosophy. (Plaster and Alderman, 2006)

3. Data Availability

The third major force hindering the adoption of outside-in perspective is the prevailing perception that it is too difficult to gain the necessary data to understand value. This is an excuse often heard from various companies. However, it is often not true. Many companies

do have the right data to define and quantify the exchange of value with customers. Retailers are often pioneers in this area. The growth of data summarizing consumer buying patterns, customer preferences and demographics has helped retail companies tailor their business offerings to customers' perceived values.

Industrial companies, in turn, are less likely to get hold of the concept of outside-in. This is partly because they have not had access to the same data to help them understand customers as retailers have learned to do. Another reason for industrial companies not adopting this perspective to the level of retailers is that so far there has not been a competitive imperative to do so. In retail, you have to listen to the markets and deliver value comparatively better than your competitors. If you fail to do so, you are most likely out of business. This competition is partly provided by third-party information providers who grind consumer data and make it available to all who are interested in competing for consumer share. However, in industrial B2B world, downstream consumer information is not readily available. This lack of common information across the competitive set creates a boundary to understanding how customers value one offering versus another. This information gap exists because of many reasons:

- *Lack of easily available customer data, buying behaviors, tendencies etc.*

Difficulties in locating data that summarizes the demographics and buying behavior of industrial customers

- *Supply-oriented versus customer-oriented*

Retailers are often focused in growing market share, whereas industrial companies are focused on managing supply chain and improving efficiencies, that is, lowering costs.

- *Focus on generating sales as opposed to creating value*

Many companies try to increase sales by increasing sales resources rather than understanding how to create value with their customers.

- *Outdated attitudes that customers are for retailers.*

In many industrial companies, customers are regarded as an afterthought. Today, advancements in ICT have made it possible for also other players in the supply chain to gain an understanding of what consumers' value and to deliver that value to them, even without the retailers. (Plaster and Alderman, 2006)

This information gap has existed for a long time and the competitive imperative to adapt new perspectives has not yet been impelling. However, it very soon will be and companies cannot differentiate without repositioning themselves and their approach to understanding customer value. The companies need to make use of ICT developments, such as, CRM-programs and information sharing within supply chain to meet the demands of developing markets. In the past, companies were cautious and protective over their internal customer data, because of fear of giving away competitive advantage. In today's global economy information sharing and strategic alliances are a competitive necessity. Many companies have started to embrace information sharing with delivery partners and they can identify new opportunities to create incremental value for everyone in the value chain. (Plaster and Alderman, 2006)

3.4 Service Modularity

Modularity is a common topic in earlier literature from product manufacturing perspective. Product modularity relates to production, organizational and supply chain modularity. Recently efforts have been made also to modularity focusing on services. Nevertheless, it can be said that the impact and possibilities of service modularity are not yet completely understood or used.

Bask, Lipponen, Rajahonka and Tinnilä (2010) reviewed and analyzed the literature related to modularity from particularly logistics services viewpoint. They define service process modularity as *the usage of reusable process steps that can be combined (“mixed and matched”) to accomplish flexibility and customization for different customers or situations in service implementation.*

For example, the delivery process, being one of the core competences of logistics service companies, encompasses activities ranging from placing orders to receiving products and services.

An organization’s delivery process might include activities such as order handling, procurement and production planning, production, testing, warehousing, and transporting to the customer. Business model modularity can be defined as combining a more stable business model platform with customer- or situation-specific and interchangeable business model modules to accomplish flexibility to serve different customers and offer different services in the most efficient and profitable ways (Bask et al., 2009).

The definition of service modularity (above) includes the objective of the service company who strives for modularity. That object is to accomplish flexibility and customization for different customers or situations in service implementation. Chances for service modularity can thus be found in those aspects of the service that people evaluate uniquely. As mentioned earlier customers’ are heterogeneous in many ways and so are their needs. Lovelock and Gummesson (2004) note that “standardization is not even desirable for many services and individuals often

appreciate customization to meet their specific needs”. Vargo and Lusch (2004) have a similar approach to subject stating, “rather than trying to make service more goods-like through internal standardization, service managers should capitalize on the flexibility of service provision, and manufacturers should strive to make their goods more service-like through the customized provision of output that meets the heterogeneous standards of consumers.”

3.4.1 Service Modularity in Home Deliveries

Some customers are for instance incapable of installing a refrigerator themselves, and some in turn prefer to do so. For some customers the best delivery time of a domestic appliance is 10 o'clock on Monday and some can only be home to open door on evenings. Those places in which customers' needs differ are the most obvious places for service modularity. In home delivery of consumer goods, those points are identified to be:

1) Speed of Delivery

The willingness to wait is individual. Some people want to have everything right now and might be even willing to pay more money for the faster delivery. In addition, the situation or the criticality of the product has its impact. When you order a new refrigerator, you might want it faster than you otherwise would if for example the old one broke down and you have guests coming over in a few days. In that situation one might be willing to pay extra if the refrigerator arrives fast, even though generally he/she wouldn't mind waiting for a couple of weeks, especially if compensation is provided in exchange.

2) Time and Date of Delivery

This thesis focuses on physically large consumer goods, which require someone to be at home to open the door when the delivery arrives. The way in which we live our lives today is very different from few decades ago. Work life is 24/7 rather than from 9 to 5. Thus, the home-being time is more random than earlier. In the empirical research, I compare whether the size of the household has an effect on the households flexibility over the time of delivery. Logically those household that have more members have more possible door openers, and thus should be more flexible over the date and time of delivery.

3) Installation services

Consumers' installation skills of domestic appliances are of course random. Similarly random is the available help they might get from relatives, friends, neighbors and so on.

The customer should be provided with options over the installation services as it adds more value for some customers than for others.

4) Recycling of the old products

Some people prefer the logistics service provider to take care of the recycling of the old product and some might have other plans for them, such as reuse or selling/giving it to a friend.

5) Reminder and Order Tracking

People prefer different times to be reminded of the delivery as the results of the empirical survey in the following chapter indicate. The service interface should be designed in a way that allows consumer to choose the time and amount of reminders sent to him/her. The evidence from the survey also indicates that some people consider possibility to track the order online and some do not.

There are multiple ways to utilize the different modules depending on the strategic choices of LSP. For example, they can be utilized to smooth the demand by placing different prices on different delivery times in a similar fashion that airlines use when selling flight tickets. Placing higher prices for faster deliveries and popular delivery times, and/or providing price discount for waiting the delivery longer or choosing a less popular delivery slot could be very useful for scheduling and route planning of home deliveries. Installation service can either be bundled in the service or offered for extra price, depending on the strategic decisions. The same goes for recycling the old appliances. Reminder and order tracking could be included to the basic service bundle as enhancing services for no extra cost.

Bask et al. (2010) mentioned home deliveries as a potential place for modularity in services. They pointed also out that “logistic services in electronic channels provide customers with both responsiveness and convenience, as research has revealed that lower prices are not the only motives for consumers to use an electronic purchasing channel. Usually, internet stores have several different types of logistic services ranging from overnight couriers to slower postal services. Thus, the modules of the service differ in e.g. delivery time, costs and convenience. Further convenience is provided by mobile and wireless services, including track-and-trace services and SMS notification of arrivals.”

4. METHODOLOGY

This section contains a presentation of the research methods and techniques used for empirical part of the research. The goal of the research was primarily *to define the concept of service quality in context of home deliveries*, and secondly *to identify different customer segments and their key value drivers*. Third objective of the thesis was to *identify those elements in the service process that could be used to modularize the service package*. The first goal was reached by the literature review and tested by the survey. Second and third goal required a survey tailored for the context of home delivery. Some demographic variables were also needed from the respondents in order to formulate customer segments with similar valuations of elements included.

4.1 Research Methodology

The methods used in this research to meet the objectives were literature review and an e- survey for consumers. David E. Gray (2009) describes surveys as “a system for collecting information to describe, compare, or explain knowledge, attitudes and behavior. They are common methodology in research because they allow for the collection of significant amounts of data from a sizeable population.” (p. 218)

Online questionnaires or E-surveys are a relatively new, but increasingly popular way of conducting surveys. There are essentially two ways in which an online questionnaire can be delivered- as a word-processed document attached to e-mail, or via a website. With e- mails, the researcher will have to know the email addresses of respondents so that the sample can be targeted. With web-based surveys, there is no control over who completes the survey form. This means that respondents will comprise a volunteer rather than a random sample, with corresponding threats to the validity of data. (Gray, 2009)

E-survey was considered a purposeful and practical method to reach the research objectives. Because of second and third objective, which were *to identify different customer segments and their key value drivers* and *to identify those elements in the service process that can be used to modularize the service package*, a rather large sample size was needed. The amount of respondents needed to gain enough reliability for the survey was considered to be at least 200. Interviewing such a large number of consumers would have been extremely time-consuming and thus, an e-survey was considered the best method to achieve the research objectives.

4.2 Data collection

The data collection was a surprisingly big challenge. The problem was that Customer Company X did not have a digital customer register. This was because they previously had been operating in B2B field only. At first, I was supposed to be able to use the customer register of a co-operator of Customer Company X. However, the co-operator was sold just when I finished constructing the e-survey and would not allow us to use their register. This obstacle caused a couple months of delay for the process. Customer Company X solved the problem by spreading printed flyers with the web address of the survey to their customers when executing home deliveries. The respondents were offered a chance to win a 300€ gift card for electronics store. After two months, 240 respondents had answered to survey.

Grey (2009) recommends using a web-based sample size calculator at <http://www.surveysystem.com/sscalc.htm> in order to define the confidence interval of the survey. The confidence level was set to 95%, as according to Gray (2009) it is sufficient for most surveys. According to Statistics Finland (www.stat.fi) there were 2 532 000 households in Finland in year 2009. With population of 2 532 000 the calculator gave the survey confidence interval of 6.3. This means that if a particular answer is picked by 50% of respondents, we are confident that 50% +/- 6, 3% (43, 7%- 56, 3%) of the entire population would have chosen the particular answer.

4.3 The Structure of E-Survey and Attached Hypotheses

The earlier literature suggests that consumers as e-commerce customers base their perception of the e-commerce quality to elements such as speed of delivery, delivery as promised, responsiveness and customer convenience. All of the above are perceived and evaluated by customers individually. Based on literature review and discussions with Customer Company X, the survey was divided into 6 meaningful parts of service process, which were:

- Searching the product
- Speed of Delivery
- Time and Date of Delivery
- Assembly/ Installation
- Recycling of the old domestic appliance
- Reminder & Reclamation

The e-survey consisted of 18 questions that related to the topics above. The whole survey in Finnish language as presented to respondents can be found from Appendix 1 and the English version from Appendix 2. The questions were designed in co-operation with the customer company X and included also some questions irrelevant to the goals of the research, but valuable for the customer company x. Those questions will not be discussed in this thesis.

Demographics that were thought to have an impact and taken into account in this survey were:

- age
- gender
- location (closest city & distance there)
- size of the household (nr. of residents in the same address)
- salary

4.3.1 Searching the Product

The first part of the survey was focused on searching the product. It consisted of two questions:

- 1) Which channels do you use when searching a new washing machine?
 - a) internet
 - b) retailer's outlet
 - c) newspaper
 - d) catalog
 - e) ask from friends

- 2) Which of the channels do you use first?

The purpose of this section is to find out the primary sources of information for different types of consumers. It is important for the Customer Company X to know which channels consumers use when searching the product, to be able to meet the needs and demands of customers as accurately as possible. In this context Customer Company X have basically three choices: 1) to create a pure web platform, meaning that consumers would not see or feel the product before the delivery or 2) to create a platform that supports also retailers' locations, this would basically mean placing Customer Company X's touch screens to retailers' that would enable easy access to set the time and date of delivery. Or 3) to include both solutions to one web based service.

We hypothesized that age would be a demographic variable that most affects to the source of information. Younger people are more used to search information from internet and thus use it more often than older people. Older people instead are used to rely to the retailers when they are searching for new commodities, they like to talk to the salespeople in person and compare the different options with the help of the "professional". Thus, they are more likely to begin their search process by visiting the retailer's outlet. The first hypothesis is:

- 1) *Younger people use internet as the primary source of information more often than older people do when they are looking for new domestic appliance*

However the diffusion of internet-based search-programs such as - vertaa.fi, supersaver.fi and hintaseuranta.fi -, have made the filtering of the information much easier thus making the information more accessible for also less experienced users. With this in mind, I hypothesize that:

- 2) *Most people will use both Internet and Retailer when searching for new domestic appliance*

4.3.2 Speed of Delivery

This section of the survey contained five questions. The first two questions were about the perceptions of accepted and ideal speed of delivery, with given options of: 0-1 days, 2 days, 3-5 days, a week, two weeks.

In the third question respondents were asked to enter the amount of euros they are willing to pay for a delivery of a washing machine.

On the fourth question, the respondents were asked if they were willing to pay more than the regular price in exchange for a faster delivery. The options were: yes, no, not sure and yes in some instances.

The fifth question was reversed version of the fourth. Respondents were asked if they would be willing to wait for the delivery longer if they would get a discount in exchange. The options were the same as above.

The purpose of this section is to find out about consumers' expectations of delivery speed. It is easy to empirically observe that people have very different levels of patience. Some people are eagerly waiting for the product they ordered from the web starting from the second the last click for the order is clicked. For these people the speed of delivery can be very important factor in their perceived service quality. These kinds of people may very well be willing to pay some extra for faster delivery. On the other hand there are many people that don't mind waiting for a product longer time, if they gain some value in doing so. Some people are better at planning their lives forehand and thus they can make the orders earlier than hastier people can. In these cases, people might be willing to wait longer for delivery if they are promised a sufficient discount.

However, there is more into this question to take into account than psychology of willingness to wait. The other aspect is the criticality of the product. In the case of domestic appliances an example could be that if a person is generally very patient and precise on monetary issues, he would normally choose the option to wait for the delivery of his new refrigerator (replacing the old one) longer to gain a discount and thus more utility for himself. It does not really matter to him if he uses his old refrigerator for one more week if he feels he benefits from the waiting. However if the same person would wake up one day and notice that his good old refrigerator has

broken down over the night, he needs a new one fast. And he might be even willing to pay extra for the faster delivery.

As affecting demographic variables for this section, I estimated to be the location and salary, with the following hypotheses:

3a) People who live close to big city expect shorter delivery time than those living further away

This hypothesis is based on assumption that people living in cities have a hastier lifestyle and are thus more demanding over the speed of delivery.

3b) People living further away from centrum are willing to pay more for delivery

This assumption is based on the utility function of transportation. If a retailer has for example 2 customers who ordered the same product, but one is located 100 meters from the retailer and the other 30 kilometers away from the retailer. Clearly the one located further away would gain more value from the delivery, at least from retailers' perspective.

4a) People with bigger salary will be more willing to pay more for faster delivery

This assumption is based in the assumption that the more money one earns, the lower will be the additional cost of faster delivery in relation with income.

4b) People with smaller salary are more willing to wait for delivery longer than usual if they get a price discount in change

Opposite to previous, it can be assumed that people with smaller salary would be willing to wait longer for the delivery if price discount is promised in exchange, because any price discount is relatively more valuable for them than for higher earning people.

4.3.3 Time and Date of Delivery

This section of the survey was covered by three questions related to the most suitable delivery times and the importance of customization of the service. The respondents were instructed to imagine a delivery situation of a physically large consumer good, such that requires at least one

person to be home to open the door when the delivery arrives. Another restriction was that the product has to be big enough not to fit in to a regular car. The demographic variable thought to affect this section is the size of the household. I would expect the flexibility over time of delivery to correlate positively with the size of the household because there are more possible door openers in the household. It must be said that in the survey the children that are too small to be home alone or receive delivery should have been excluded from the size of the household. However this is not possible afterwards, but it should be acknowledged that this most likely has a smoothing effect between the results of different household sizes. After all, household with 2 adults and two small children only has two possible door openers for the delivery. Four groups were conducted for different household sizes: 1 person, 2 persons, 3 persons or 4+ persons.

In the first question, the respondents were asked to cross the usually suitable delivery times for their household. There were four options and the respondents were instructed to cross all of those usually available delivery times. The options were: Monday-Friday 08-12; 12-16; 16-20 and Saturday 08-16. The options were conducted in co-operation with customer company X.

The second question was about respondents' willingness to pay more for the delivery if they would get to choose the time and date of delivery themselves. The options were same as in the previous section: yes, no, not sure, yes in some instances. The intention is also the same as in previous section: to compare the ratio of no-answers to others.

The third question was about the importance of being able to change the already set delivery time in case of emergency (or just change of plans). The respondents were asked how important do they feel that, in case of emergency (or if needed) the already set delivery time and date can be conveniently changed into another one. The respondents were instructed that "convenience" in this context means hassle-free change of delivery time. For example, the customers would not need to contact any service person of customer company X, but could check the available delivery times over the internet or smartphone application and execute the change themselves.

The hypothesis 5 stated that: *Bigger households are more flexible with the time of delivery (time and date of delivery)*

4.3.4 Installation of the Product

This section of the survey was covered by three questions. In the first one the respondents were asked who takes care of the installation of new domestic appliances in their households. The options were: myself, someone else in my household, a relative, a neighbor, a friend, the delivery company and order professional. The respondents were free to choose one or more of the options.

To gain a better understanding of respondents' behavior in assembly/installation tasks, they were asked in the second question of the section to identify those objects from a list of domestic appliances that they thought they would need help in installing. The list of 12 objectives included: a washing machine, a laundry machine, a refrigerator, a television, a computer, a digibox, a microwave, a dryer, an oven, a printer, a home theater and a hood.

In third question respondents were asked to enter a monetary amount they would be willing to pay for the installation service of a dish washing machine.

Installation of domestic appliances can be considered traditionally a manly duty. It can be expected that men would be better installers and thus need less help in installing. Due to weaker expected installation skills, I hypothesize that:

6) Women find the installation/assembly service of domestic appliances more useful than men

4.3.5 Recycling the Old Product

The recycling section of the survey was covered with a single question, where the respondents were asked to enter the monetary amount in euros they were willing to pay for the service of picking up the old dish washing machine for recycling while delivering the new one.

The affecting demographic variables for this part were thought to be the distance to the closest city and the monthly salary of respondent.

No hypotheses were added for this section, but in general, it could be expected that people with bigger salary would be willing to pay more for the service than people with lower salary because

of the relative utility. The respondents were divided into three groups depending on the monthly salary: under 2000€, 2000- 4000 € and over 4000€. For reliability reasons, all of those who answered that they are willing to pay 0 euros were extracted from this part of the survey. This is because those who answered 0 might own a vehicle big enough to transport old domestic appliances to the recycling center by themselves. The number of 0 answers were respectively 16,9 and 4.

4.3.6 Reminder, Reclamation, Tracking Possibility

This part of the survey the respondents were asked how, how many times and when would they like to be reminded of the delivery. In addition, the respondents were asked about their preferred reclamation channels in case the delivered product is wrong or damaged. The options were: the retailer that sold you the product, the delivery company or the driver that delivers the product to your home.

The respondents were also asked whether they were interested in possibility to follow the journey of ordered product in real-time via web application.

4.3.7 Price of the Domestic Appliance

One interesting object for research was to study whether the price of the domestic appliance affects the price consumers are willing to pay for added services like installation of the product or recycling the old product.

The hypotheses for this section were:

7a) The price of the domestic appliance affects the prices customers are willing to pay for delivery and assembly

and

7b) The monthly salary of consumer affects to the prices he/she is willing to pay for added services

Both hypotheses refer to the theories of marginal cost and relative price. To illustrate the point, let us assume that there are two products A and B. The products are similar, only thing differentiating the two is the price: product A costs 100€ and product B costs 200€. The delivery company offers installation service of the product for 20€. People who bought product A have to decide whether to take care of the installation by themselves or to accept marginal cost of 20% ($20/100$) in exchange for the delivery company to take care of installation. Now, those who decided to choose product B have to make similar decision, only that their marginal cost for the added service is half lower 10% ($20/200$).

List of attached hypotheses:

1) *Younger people use internet as the primary source of information more often than older people do when they are looking for new domestic appliance*

2) *Most people will use both Internet and Retailer when searching for new domestic appliance*

3a) *People who live close to big city expect shorter delivery time than those living further away*

3b) *People living further away from centrum are willing to pay more for delivery*

4a) *People with bigger salary will be more willing to pay more for faster delivery*

4b) *People with smaller salary are more willing to wait for delivery longer than usual if they get a price discount in change*

5) *Bigger households are more flexible with the time of delivery (time and date of delivery)*

6) *Women find the installation/assembly service of domestic appliances more useful than men*

7a) *The price of the domestic appliance affects the prices customers are willing to pay for delivery and assembly*

7b) *The monthly salary of consumer affects to the prices he/she is willing to pay for added services*

5. RESULTS AND ANALYSIS OF THE SURVEY

This section presents the results of the survey and draws analyses based on the results. At the end of the chapter, the results of the attached hypotheses are collected under one table. The survey results are discussed in the same order as presented in the previous chapter.

5.1 Searching the Product

The results show that internet was by far the most popular searching channel with 81,67 % of all respondents using it. Retailers position as information searching channel was surprisingly strong as 72,91% of all respondents are using it. Newspaper was the third most popular channel with 25,00% using it. Friends and catalog were the least used channels with 12,08% and 9,58%, respectively. The results can be seen in Table 2.

Table 2: Information sourcing channels

	Used by	Primary source
Internet	81,67 %	70,00 %
Retailer	72,92 %	19,58 %
Newspaper	25,00 %	6,67 %
Friends	12,08 %	2,08 %
Catalog	9,58 %	1,67 %

As we can see from the table above, people tend to use more than one channel when they are making a buying decision for domestic appliances. The high score of internet channel was not a surprise for author as it is the fastest and most accessible of the options. Also different web-based search-engines that compare prices from various sources have become general and are very easy to use even for first-time users.

I expected that this would imply that retailers would not be that important information source to today's consumers. However, the results show that as much as 72, 92% of all respondents still visit the retailers' outlet before making the buying decision.

The difference between the internet- and retailer- channels becomes obvious when respondents were asked which channel they use first. This is a very important question for the customer company, because it also gives signals of the channels where they should focus on. Although the total use between these channels were surprisingly evenly matched, the difference in the choice of primary source was very clear. 70% of respondents begun their search by browsing the web, only 19, 58% marched straight to the retailers location.

Table 3: Initial Sourcing Channels

Age	Respondents	No internet	In. Internet	In. Retailer	In. Newspaper	In.Catalog	In.Friends	Net+Retailer	Net+Retailer%	In. Internet %	In.retailer %
18-24	15	1	12	2	1	0	0	9	60,00 %	80,00 %	13,33 %
25-29	31	1	30	1	0	0	0	22	70,97 %	96,77 %	3,23 %
30-39	49	8	38	5	3	1	2	29	59,18 %	77,55 %	10,20 %
40-49	57	7	36	16	5	0	0	35	61,40 %	63,16 %	28,07 %
50-59	48	8	36	9	3	0	0	24	50,00 %	75,00 %	18,75 %
60-69	35	15	15	12	4	1	3	16	45,71 %	42,86 %	34,29 %
yli 70	5	4	1	2	0	2	0	1	20,00 %	20,00 %	40,00 %
Total	240	44	168	47	16	4	5	136			
%		18,33 %	70,00 %	19,58 %	6,67 %	1,67 %	2,08 %	56,67 %			

I hypothesized that age would be the distinctive demographic variable for consumers information search behavior. In the table 3 (above) and Figure 9 (below) we can see the results arranged by different age groups. The first hypothesis of the research was:

- 1) *Younger people use internet as the primary source of information more often than older people when they are looking for new domestic appliance*

If the hypothesis were true, it would mean that the age variable correlates negatively with the amount of internet used as a primary search channel. On Figure 1, the blue line indicates the internet as the primary source of information. The horizontal axis is arranged from left to right from young to old. The overall trend seems to be negative as hypothesized, however there are two peaks. First is that 24-29 year olds seem to use internet more than 18-24 year olds. The second peak is caused by people aged 50-59, who use the internet more often as a primary source than 40-49 year olds.

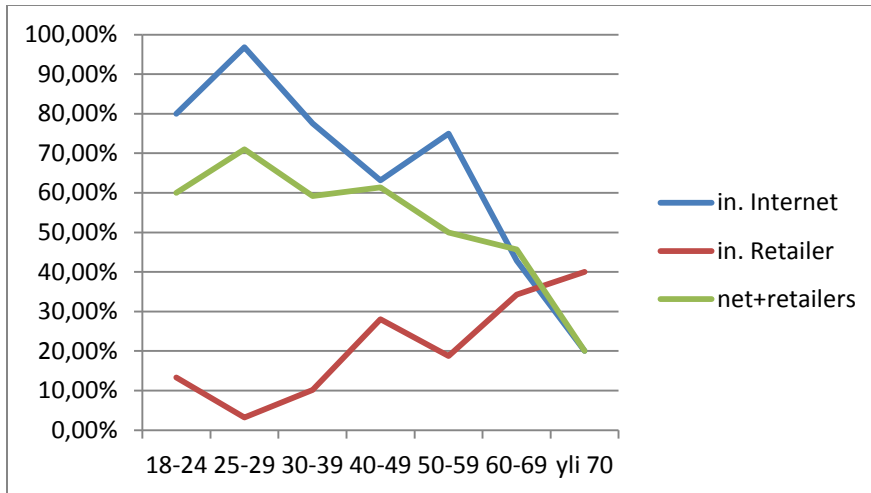


Figure 9: Initial Sourcing Channel

The first peak could be caused by the small size of observations; there were only 15 respondents in the age of 18-24. If the first two groups were emerged, the trend would be more apparent. The reasons behind the second peak are harder to analyze. It seems that people aged 40- 49 are using the internet as a primary source less than others, and on the other hand, using the retailer as primary source clearly more than others. The red line indicates the use of retailer as the primary source of information. The trend line correlates positively with age, meaning that older people rely to retailers' services as primary information source more than younger people. When comparing the blue and red lines, it is easy to see that they are almost mirror image of each other's, as expected. It can be conducted that the first hypothesis was supported by the data, with a small exception to the rule provided by 40-49 year olds'.

The green line in chart X indicates the number of respondents in different age groups who use both internet and retailer as sources of information when they are searching new domestic appliances. It also has a clearly negative trend, which means that younger people use both channels more often than older people do. One reason behind these results could be that younger people have less money in general and are thus more careful in decision-making. Younger people are also more experienced internet users and have less practical problems in web browsing. Older people, in turn, are likely to be more adjusted in visiting the retailers' outlet, because that is what they have always done.

The second hypothesis was: 2) *Most people will use both Internet and Retailer when searching for new domestic appliance*

This hypothesis was supported by the data as 56, 67% of all respondents used both of these channels. Moreover there was also a clear negative correlation with age variable (green line in chart X), indicating that the younger the consumer, more likely he/she is to use both channels when searching new domestic appliances. The highest ratio of both channels used was found amongst 24-29 year olds (70, 97%) and the lowest among those over 70 years old (20, 00%).

5.2 Speed of Delivery

In the survey, the respondents were asked to submit both “the acceptable” speed of delivery and “ideal” speed of delivery. On the tables 4 and 5 below we can see how the answers divided when arranged in to three categories depending on the distance to the closest big city (12 biggest cities of Finland included).

Table 4: The accepted speed of delivery/ distance from city center

acceptable					
	0-1 days	2days	3-5days	1week	2weeks
0-10km	1,8 %	15,9 %	44,5 %	31,7 %	6,1 %
10-40km	0,0 %	14,6 %	51,2 %	29,3 %	4,9 %
over 40km	2,9 %	8,6 %	62,9 %	25,7 %	0,0 %

If the hypothesis would be correct, the top row of the chart (0-10 km from city center) would emphasize to the left-hand side, meaning that they expect shorter delivery time. The bottom line (over 40km from city center) instead should be emphasized to the right-hand side. As we can see from the table, the differences between the groups in “acceptable” speed of delivery are very small if there are any. In the graphic illustration (Figure 10) we can see that all the groups have very similarly shaped curves.

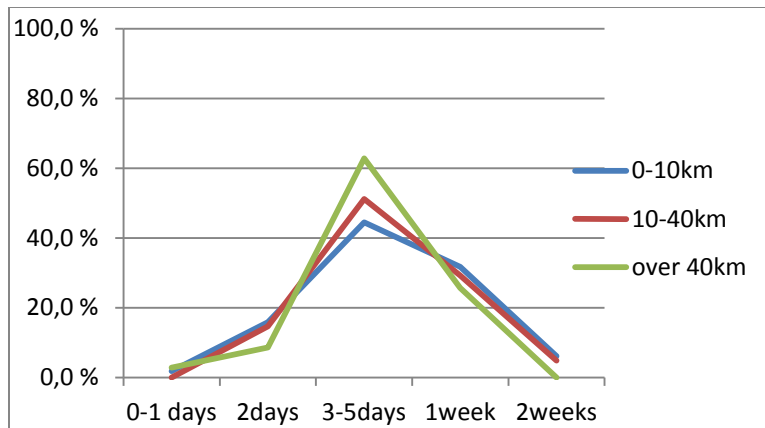


Figure 10: The accepted speed of delivery/ distance from city center

The ideal speed of delivery does not provide much more information on the differences between the locations of customers. The results are again very similar (Table 5), with the slight exception that among those living in within 10km distance from city center the most popular answer was 0-1 days with 37,2% expecting ideal delivery in that time. The difference to 2 days is however only marginal as 36,6% was expecting the ideal delivery to arrive in 2 days.

Table 5: The ideal speed of delivery/distance to city center

ideal	0-1 days	2days	3-5days	1week	2weeks
0-10km	37,2%	36,6%	23,2%	3,0%	0,0%
10-40km	22,0%	48,8%	26,8%	2,4%	0,0%
over 40km	31,4%	42,9%	22,9%	2,9%	0,0%

The curves of the three groups were very similar also under the category of ideal delivery speed (Figure 11)

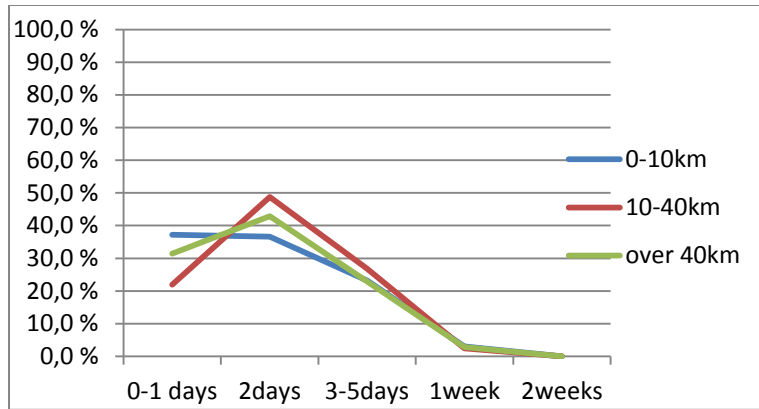


Figure 11: The ideal speed of delivery/distance to city center

The hypothesis 3a was that: *People who live close to big city expect shorter delivery time than those living further away* could not be verified by the research data. It seems that people expect similar delivery times regardless to where they are physically located. One useful thing for a customer company to notice from the results is that regardless to the location of residence, consumers seem to believe that the current situation (acceptable) could be improved (ideal). In the acceptable situation (Figure 10) all the curves are emphasized in the middle of the graph indicating acceptable delivery speed of 3-5 days, whereas in the ideal situation (Figure 11) all the curves are stressed to left-hand side indicating delivery speed of 0-2 days.

Another hypothesis relating to the location of consumer was:

3b) People living further away from centrum are willing to pay more for delivery

This hypothesis was simply based on the utility function of the delivery. The further away you live from the retailer, the more utility you gain from home delivery. In the survey the respondents were asked to enter a monetary amount (€) they thought would be appropriate for the home delivery of washing machine. Also they were asked to enter monetary amount they would be willing to pay for the recycling service of old washing machine. The results are shown in the table 6 below.

Table 6: Distance to city/ Willingness to pay for Added Services

Distance to city	Respondents	Delivery Price	Respondents	Recycle price
0-10km	152	32,3 €	145	17,8 €
10-40km	38	32,6 €	37	19,6 €
over 40km	33	23,6 €	29	14,6 €
Total	223	31,1 €	211	17,7 €

As we can see from the table, the results were somewhat the opposite of what I expected. The average price placed for the home delivery amongst all respondents was 31,09€. At this point, it must be mentioned that none of those who answered 0 euros were included in the results, because it implies either that, they have not answered seriously or that they have a vehicle big enough for transporting domestic appliances in their circle of acquaintances. 16 respondents answered 0. The results tell us that those living further away (over 40km) from city center are actually willing to pay less than average for delivery, and quite clearly less as the average price they are willing to pay for delivery is 23,60 €. Similar results can be seen in the case of recycling price.

The result for hypothesis 3b is clear. It was not supported by the data. One reason that might affect to the result could be that people living further away from city centers have generally smaller salaries and are thus willing to pay less than others do.

Hypotheses 4a) and 4b) were about willingness to pay more/less for faster/slower delivery. The respondents were given 4 options on both questions, which were: a) yes, b) no, c) not sure, d) yes, in some instances. Options c and d are processed as similar answers, because it can be assumed that if a person is not sure of his opinion, he/she will most likely answer yes if the price or discount is right. This has the same meaning as option d. Moreover also the option a has the same meaning, because it can be assumed that no sane person would be willing to pay more for faster delivery if the price would be ridiculously high, nor would any sane person be willing to wait two weeks longer for delivery if they would get a 50 cent discount. So actually everything that matters in analyzing this question is the ratio of “no” answers compared to others.

Hypothesis 4a stated that: *People with bigger salary will be more willing to pay more for faster delivery.* The respondents of the survey were split into three groups (Table 7) depending on their

monthly salary. The first group consisted of those with monthly salary of under 2000 euros, second group had a monthly salary of 2000 to 4000 euros; and the third group earned over 4000€ per month.

Table 7: Willingness to pay more/less for faster/slower delivery

Salary/month (€)	Not willing to pay more under any circumstances	Not willing to pay less under any circumstances
0-2000	38,4 %	18,6 %
2000-4000	32,8 %	23,2 %
4000-	20,6 %	11,8 %

Hypothesis 4a) is supported by the data as the ratio of no-answers declines as the salary rises. The darker line in Figure 4 indicates the curve of “not willing to pay more under any circumstances”. The curve is going downwards as it should for negative correlation.

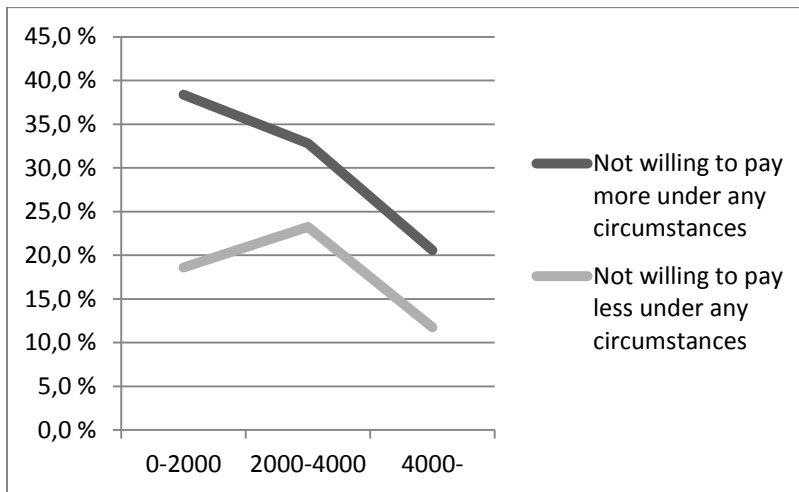


Figure 12: Willingness to pay more/less for slower/faster delivery

Hypothesis 4b) was the exact opposite of 4a. Hence, it should produce upward curve (lighter curve in Figure 12) as it should be correlating positively with the amount of monthly salary. As we can see from the Figure 12 and Table 7 above, this is not the case. The group with the smallest salary is more willing to wait for the product longer if they get a discount than the group that earns 2000-4000€ monthly as expected. However the highest earning class is even more willing to wait for the delivery longer if discount is promised in exchange. This means that hypothesis 4b) could not be verified by the study.

The reasons behind the highest earning group's highest willingness to wait for the product longer in exchange for price discount can only be guessed. One explanation could be that people with higher salary are generally more intelligent than those with lower salary. As mentioned above the willingness to wait is also affected by the criticality of the product in question. The question as such is very context related and in those contexts that are not critical it is a logical and intelligent decision to wait longer, because by doing so one is maximizing the utility gained from the deal. The highest earning class had clearly the smallest sample size with 34 respondents. The least earning class had 86 respondents and the middle class had 120 respondents.

The lesson learned for the customer company in this question is that the amount of no-answers was surprisingly low in general, at least to the author's expectations. 66, 67 % of all respondents were willing to pay more for faster delivery, at least in some instances and 77, 92 % were willing to wait longer for delivery in exchange for a price discount, at least in some instances. This indicates that there is a major chance for smoothing the demand by placing different prices for different delivery speeds. The customer would enjoy greater freedom of choice that in turn increases the perceived service quality. The customers can select the price they individually want to pay which increases their sense of fairness over pricing issues and the service experience in general.

5.3 Time and Date of Delivery

The hypothesis 5 stated that *Bigger households are more flexible with the time of delivery (time and date of delivery)*

The flexibility in this instance is measured by the ratio of available delivery times divided by the number of respondents in group. For the hypothesis to be verified the flexibility ratio should correlate positively with the size of the household. The flexibility ratios for different groups can be seen from Table 8 below and the graphical illustration of flexibility curve in Figure 13.

Table 8: Flexibility of households

Size of the household	Respondents	X's	Flexibility
1	59	79	1,34
2	108	151	1,40
3	37	45	1,22
4+	36	32	1,44

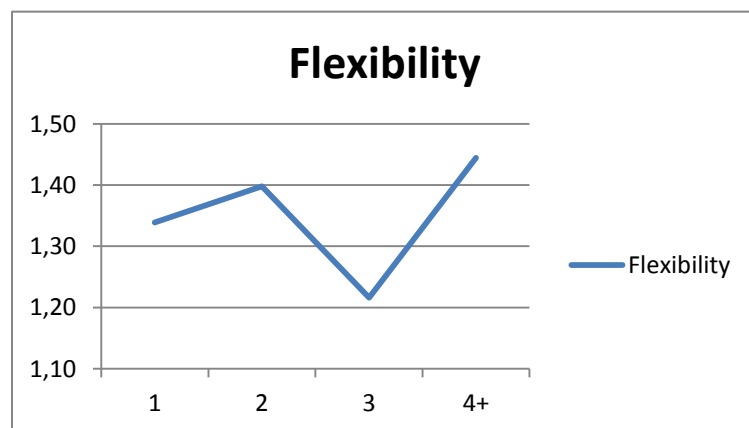


Figure 13: Flexibility of households

The hypothesis 5 seems to be otherwise correct, but there is a rather big exception in the flexibility ratio of 3 persons' households. This might be due to the limitations of research mentioned above. The group of 3 person's households might be most likely to include a child too young to stay home alone, because in Finland statistically the most popular number of children in family is two. Adding the fact, that most popular age difference between siblings is 2 to 3 years. Thus, a conclusion can be made that the households of 3 persons are more likely to include a child of less than 3 years than other households. This might seem as a long shot explanation, but that is the only one I could figure out. Although it does not explain, why did the 3 person's households get the lowest flexibility score among all groups. Even lower than the flexibility score of those living alone.

In the second question of the section the respondents were asked if they were willing to pay extra if they could choose the time and date of the delivery by themselves. The groups were constructed regarding to the size of the household, as in the previous question.

Table 9: Willingness to pay extra for freedom of choice over delivery time& date

	<i>n=</i>	<i>Yes</i>	<i>No</i>	<i>Not sure</i>	<i>Yes, in some instances</i>
<i>Size 1</i>	59	11,9 %	52,5 %	10,2 %	25,4 %
<i>Size 2</i>	108	10,2 %	43,5 %	8,3 %	38,0 %
<i>Size 3</i>	37	18,9 %	45,9 %	2,7 %	32,4 %
<i>Size 4+</i>	36	13,9 %	66,7 %	2,8 %	16,7 %
<i>WeightedAvg</i>	240	12,5 %	49,6 %	7,1 %	30,8 %

Similarly, to the previous section, the important figure is the amount of no-answers. This is because those are the only ones not willing to pay extra for the freedom of choosing their delivery time and date by themselves. As we can see from Table 9 above, 49, 6 % of respondents were not willing to pay extra under any circumstances. Inversely 50, 4% were willing to do so at least in some cases. This is again very important information for the customer company X when

thinking about different ways of balancing the demand to provide smooth operation. The table above also tells us that households of 2 or 3 persons are more likely to pay extra for such option. The most reluctant group to pay extra was the group with biggest households. 66, 7% of those were not willing to pay extra under any circumstances. The same group was also the most flexible in the previous question, which makes perfectly sense.

The third question of this section was about the importance of the possibility of changing the date and time of delivery conveniently, in case something urgent comes up. The respondents were asked to if the possibility was: very important, important, not sure, not important or totally useless. The answers were conducted in 5-point likert- scale, in which very important=5points important=4 points, not sure= 3 points, not important= 2 points and totally useless= 1 point.

Table 10: Importance of changing delivery date conveniently

	n	Scaled likert	Very important/ Important
Size 1	59	4,22	86,44 %
Size 2	108	4,21	85,19 %
Size 3	37	4,19	81,08 %
Size 4+	36	4,25	91,67 %
Total	240	4,22	85,84 %

From the above (Table 10) we can see that regardless to the size of the household, all groups considered the possibility of hassle-free change of delivery time and –date equally important. Moreover, the results are stunningly uniform: 85, 84 % of all respondents thought this aspect of service would be important or very important to them. In my opinion, this is a signal of change in how we live our lives today. Over the last few decades, people have delayed the point when they make the decision of what to do in the next days. Before mobile phones and other developments in communication systems, people planned their free time longer ahead. Agreements of activities with friends were done well before the actual day of activity. To illustrate the point we can take

an example of two friends deciding on when to play tennis. In the time before mobile phones these friends would call to each other maybe on Sunday to agree on a game of tennis that takes place on Thursday. Two decades ago also peoples jobs were also much more stable and demand more foreseeable. In today's world, one does not necessarily have any idea on Sunday about the tasks he has to perform on Thursday. That is why friends probably agree to call each other on Wednesday to see if they can both arrange themselves free for game of tennis on Thursday. Our daily lives have become much more impulse compared to the world two decades ago. This is mostly caused by globalization and real-time information, as well as advanced communication technologies. However, the lesson learned for Customer Company X here is that 85, 84% of respondents would find a service aspect that does not exist, at least in Finland yet, important or very important. This could very well be the distinctive factor for many people when considering where to order their domestic appliances.

5.4 Installation of the Product

From the results table 11 (below) we can see that men are confident about their installation skills, since 80% do at least some installation tasks by themselves. The second most popular installer among male respondents was the delivery company with 32% and close behind comes the option of ordering professional for the task with 30%. Women in turn install domestic appliances by themselves to clearly lesser degree; only 30% do some of the installation tasks by themselves. The most popular solution for women was to delegate the task to the delivery company (43, 6%) and the second most popular solution was that someone else in the household takes care of the installation. It also seems that men rarely ask help from friends (7%), neighbors (2%) or relatives (4%), but rather outsource the task to Delivery Company or other professional. Women are much less reluctant to ask help from others. 20% of women use the help of relatives and 7% refer to friends in some instances. Neighbors were not asked to help by women at all.

Table 11: Who installs the domestic appliances in your household?

	n=	Myself	Someone else in my household	relative	friend	neighbour	Delivery Company	order professional
Men	100	80,0 %	4,0 %	4,0 %	7,0 %	2,0 %	32,0 %	30,0 %
Women	140	30,0 %	40,0 %	20,0 %	12,9 %	0,0 %	43,6 %	23,6 %
Combined	240	50,8 %	25,0 %	13,3 %	10,4 %	0,8 %	38,8 %	26,3 %

The difference between men and women can be seen clearly when accounting only those respondents who thought they could handle the installation of all domestic appliances by themselves. In other words, they do not need help in any instances. There is a slight smell of testosterone in men’s result: 44% of men believed they could install all the mentioned domestic appliances by themselves. The corresponding figure for women was 4, 3 % which sounds a bit more honest.

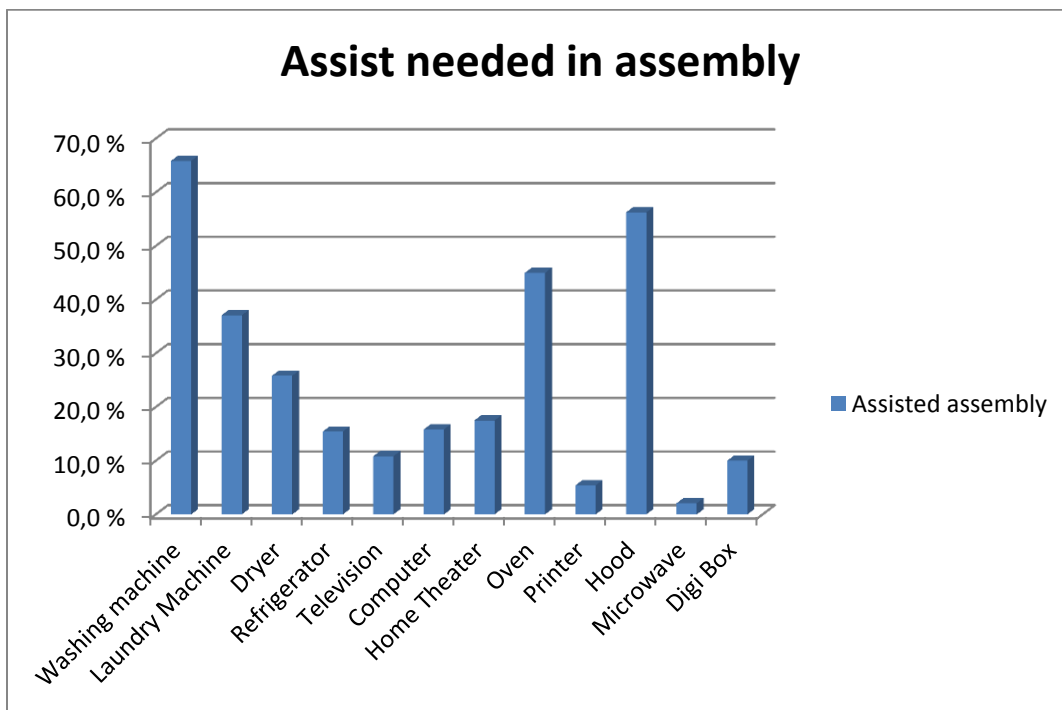


Figure 14: Assembly assistance needed

Figure 14 illustrates the differences between the products in installing/assembling. The top three hardest domestic appliances to install for respondents were respectively a dish washing machine

(65, 8 %), a hood (56, 3%) and an oven (45, 0%). Many needed help also in installing the laundry machine (37, 1%) and the dryer for clothes (25, 8%). The rest of the products were considered rather easy to install as less than 20 % of all respondents needed help with them. The products can be segmented into three groups depending on the amount of assistance needed in installing them. These groups are:

- 1) Hard to install (over 40% need assistance): Dish washing machine, hood and oven
- 2) Slightly hard to install (20% -40% need assistance): Laundry machine and laundry dryer
- 3) Easy to install (less than 20% need assistance): Home theater, computer, refrigerator, television, digi box, printer and microwave

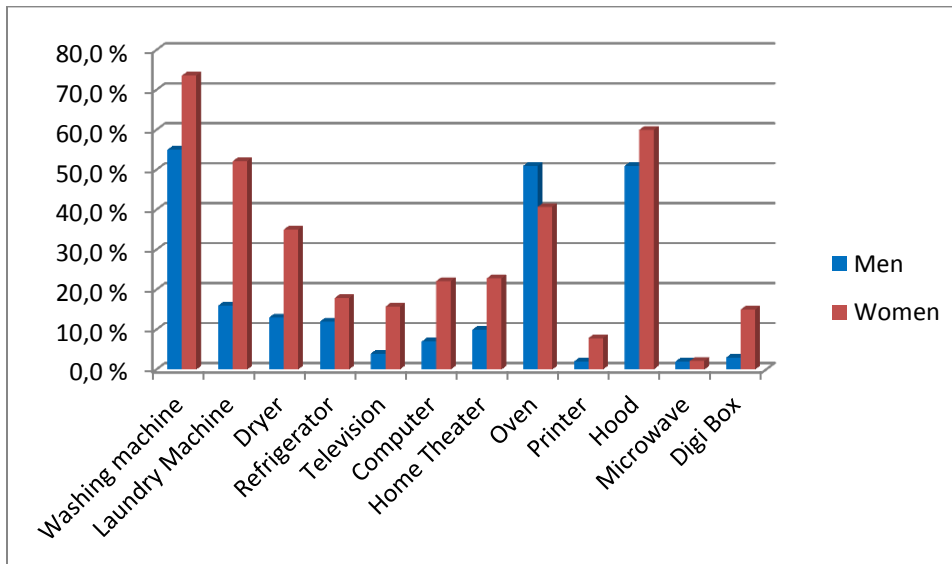


Figure 15: Installation Assistance needed: Men/Women

On the Figure 15 the answers of men and women are separated to discover if there are any products that are particularly difficult or easy to install for either group. As the figure above indicates, the men needed less help than women in most products. The only exception was the oven, where only 40, 7 % of women thought they would need help with. The respective number among men was 51%. At least to the author it is rather surprising that 59, 3 % of women believe they can install an oven by themselves. The biggest differences between men and women among other products can be found in installation of dish washing machine, laundry machine and

laundry dryer. On those products men believed they master the installation clearly better than women did.

The underlying hypothesis for this section was:

6) Women find the installation/assembly service of domestic appliances more useful than men

The results of the study clearly verify the hypothesis. 80% of men handle the installation of at least some products by themselves. Women's corresponding figure was only 30%. Moreover, the illustration of assistance needed among different products revealed that women need more help than men need with 11 out of 12 product categories. The only expectation to the rule was found in the case of installing an oven, where only 40, 7 % of women felt that they need help, compared to men's corresponding figure of 51%.

For customer company X the most important piece of information this section provides is the categorization of products into three groups depending on the hardness to install.

5.5 Recycling the Old Product

As we can see from table 12 (below), the highest earning group's average for recycle price (19, 7€) is approximately 10% higher than the two lower earning group's averages (17, 7 € and 17, 9€). It seems that higher earning people are willing to pay slightly more for added services, such as recycling the old domestic appliance. The reason for this is probably the relative utility they gain from outsourcing the task to the delivery company. It takes less time for higher earner to make 19, 7€ than for the lower earner. However, it would take them the same time to organize the recycling of the domestic appliance on their own. For this reason the highest earning group is willing to pay more for delivery. For reliability reasons, all of those who answered that they are willing to pay 0 euros were extracted from this part of the survey. This is because those who answered 0 might own a vehicle big enough to transport old domestic appliances to the recycling center by themselves. The number of 0 answers was respectively 16, 9 and 4.

Table 12: Salary/Recycle Price

Salary/month (€)	respondents	Recycle Price
0-2000	70	17,7 €
2000-4000	115	17,9 €
4000-	30	19,7 €

A similar Table (13) was conducted based on distance to the city. Again, for reliability reasons, all of those who answered that they are willing to pay 0 euros were extracted from this part of the survey. The number of those who answered 0 was respectively 19, 4 and 6. From Table 13 we see that those who live the furthest away from city centers are actually willing to pay less money for the recycling service than those living closer to the centrum.

Table 13: Distance/ Recycle Price

Distance to city	Respondents	Recycle price
0-10km	145	18,2 €
10-40km	42	19,8 €
over 40km	28	14,5 €
Total	215	18,0 €

The sample size of the furthest group is rather small, which affects a bit to the reliability of the results. However the difference of the average of the furthest (14, 5€) group compared with overall average (18, 0€) is rather big. In my opinion, the cause might be that recycling centers are not exactly located to the city centurms. Another reason might be similar to the section 2, that people who live further from the centrum earn less money on average, which in turn affects to the perceived utility.

5.6 Reminder, Reclamation and Tracking Possibility

Reminder

According to the results(Figure 16), the vast majority (88, 75%) of the respondents considers text message to be the best channel for the remainder of delivery. 11, 25 % of the respondents prefer phone calls over text messages. The options of email and social media reminders did not receive any votes.

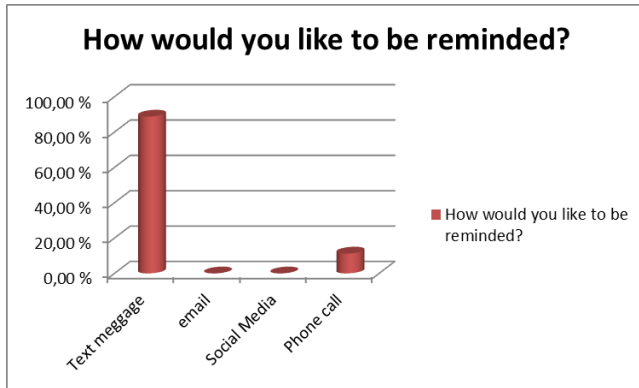


Figure 16: Popularity of different reminding styles

The respondents had rather uniform opinions also on the amount of times they wish to be reminded of the delivery (Figure 17). Majority (88, 33%) of the respondents felt that one reminder would be sufficient. 7, 5 % considered they needed at least 2 reminders and 4, 17 % did not need any reminders.

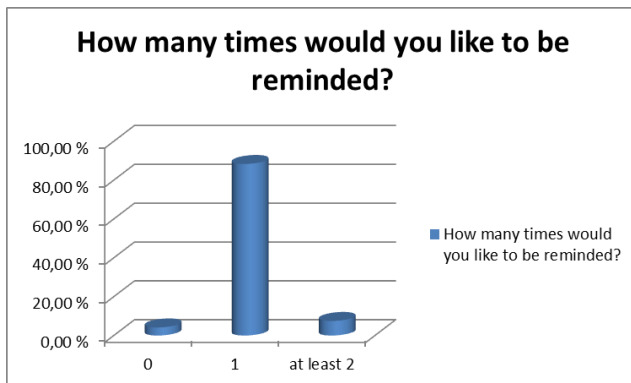


Figure 17: Sufficient amount of reminders

83, 1 % of the respondents preferred to be reminded within 24 hours of the delivery, while 14,1 % considered 2 days to be the preferred gap between reminder and delivery (Figure 18).



Figure 18: Time of Reminder

Reclamation Channels

Most of the respondents (85, 8%) preferred to make the reclamation to the retailer (Figure 19). The second most popular channel was the driver with 12,5 % willing to make the reclamation directly to the driver. Only 4 respondents (1, 7 %) wanted to associate with the delivery company for reclamation purposes.

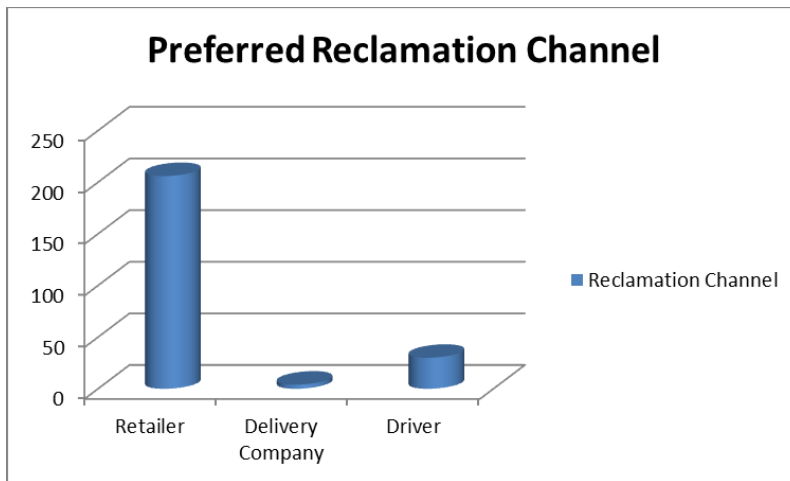


Figure 19: Preferred reclamation channels

The huge differences in the popularity of the reclamation channels suggest that people consider that there are differences in the consumers' perceptions on service attitudes of retailers and delivery companies'. Consumers seem to expect better service from retailer than from the

delivery company. If this is truly the case, it would indicate that there are great opportunities for service-oriented delivery companies. Other explanation for the huge difference could be that the question was simply incorrectly placed, or the respondents were not provided enough information of the possibility that the delivery company could operate as a retailer itself.

However, the driver was more popular than the delivery company for reclamation channel. This suggests that those of the respondents who actually understood the question would prefer the direct reclamation to the driver in case there is an error in delivery.

Tracking the Delivery

The respondents were asked whether they were interested in possibility to follow the journey of ordered product in real-time via web application. The figure 20 below shows the distribution of answers.

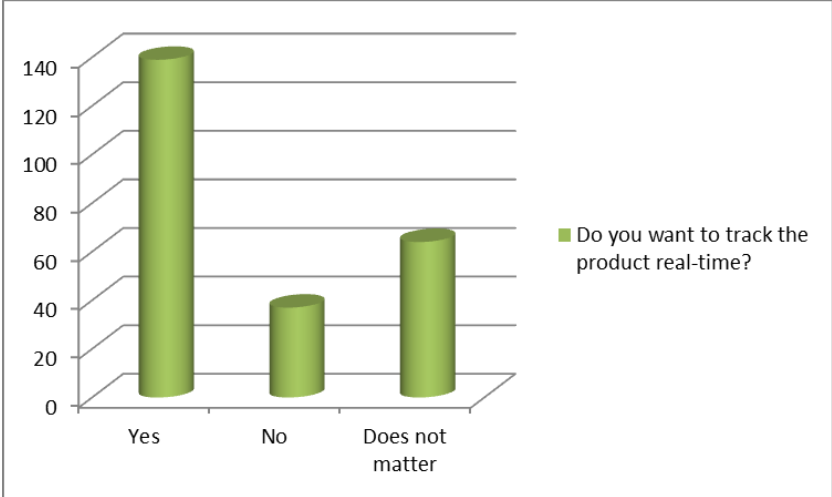


Figure 20: Importance of tracking the delivery

Over half of the respondents (57, 9%) found the possibility of following the journey of the ordered product real-time via web application useful or otherwise interesting. The rest (42, 1%) did not find it useful. This is again a good place for customer company x to create extra value for some customers. I believe that the importance of this service aspect to the consumers buying decisions is however only modest compared to other aspects like speed or time of delivery.

5.7 Price

The hypotheses for this section were:

7a) The price of the domestic appliance affects the prices customers are willing to pay for delivery and assembly

and

7b) The monthly salary of consumer affects to the prices he/she is willing to pay for added services

The hypothesis assumes that the price the respondents are willing to pay for the added services correlates with the price of the product. To test the hypothesis two separate versions of the survey were conducted. The only distinctive part between the two versions was the price of the example product. In the version A the respondents were asked to enter the amounts they would be willing to pay for the installation and recycling services of a dish washing machine that costs 500€. In the version B, the same dish washing machine had a price tag of 1000€. The amounts of respondents for the two versions were 142 and 98, respectively.

For the hypothesis to be verified, the respondents who answered to the survey B (1000€ machine) should have bigger average that they are willing to pay for added services than those who answered to the survey A (500€ machine).

Table 14: Effects of the price of the appliance to the willingness to pat for Added Services

Price	Delivery	Installation	Recycling
500	32,11 €	34,60 €	18,49 €
1000	28,98 €	29,38 €	17,11 €

The results are shown in the table above. It seems that the hypothesis has proved to be false, as the average prices respondents were willing to pay for services are higher in the cheaper product.

Thus, it can be concluded that the price of the product does not positively correlate with the prices consumers are willing to pay for the added services. Actually, because the consumers were willing to pay higher service prices in each category when the price of the product was lower, the correlation is negative.

The second hypothesis was set to observe whether the income affects to the prices respondents were willing to pay for the added services. The logic of the hypothesis refers to the theory of relative price. Let us take an example of two persons A and B. Person A has a monthly salary of 1600€ and Person B earns 4000€ on monthly basis. Delivery Company offers the installation service of a dish washing machine for a price of 30€. Persons A and B have similar installation skills, they both evaluate that the task would take them 2 hours to perform by themselves. Now the two persons face two different trade-offs due to their different monthly salary.

Assuming that both work 160 hours a month, person A's hourly salary is $1600/160 = 10€$ and Person B's hourly salary is $4000/160 = 25€$. Now, person A faces a trade-off in which he is asked to change 2 hours of free time into 30€. The price of the service (30€) is more than the utility ($2 \times 10€$) that he expects to receive from the service. Thus, he should turn down the offer and take care of the installation by himself if he acts rationally and maximizes his utility.

Person B in turn faces a trade-off in which he is asked to change 30€ into service that he expects to save 2 hours of free time, which for him are worth 50€. For him the offer is more attractive as he expects to save 20€ worth of utility if he chooses to take the installation service. If person B affects rationally and optimizes his gained utility, he should be willing to make the deal.

Accordingly, for the hypothesis to be true the respondents with bigger monthly salary should be willing to pay more for added services on average. The respondents were divided into three groups: Those who earn under 2000/month, those with salary between 2000 and 4000 and those with monthly salary over 4000€.

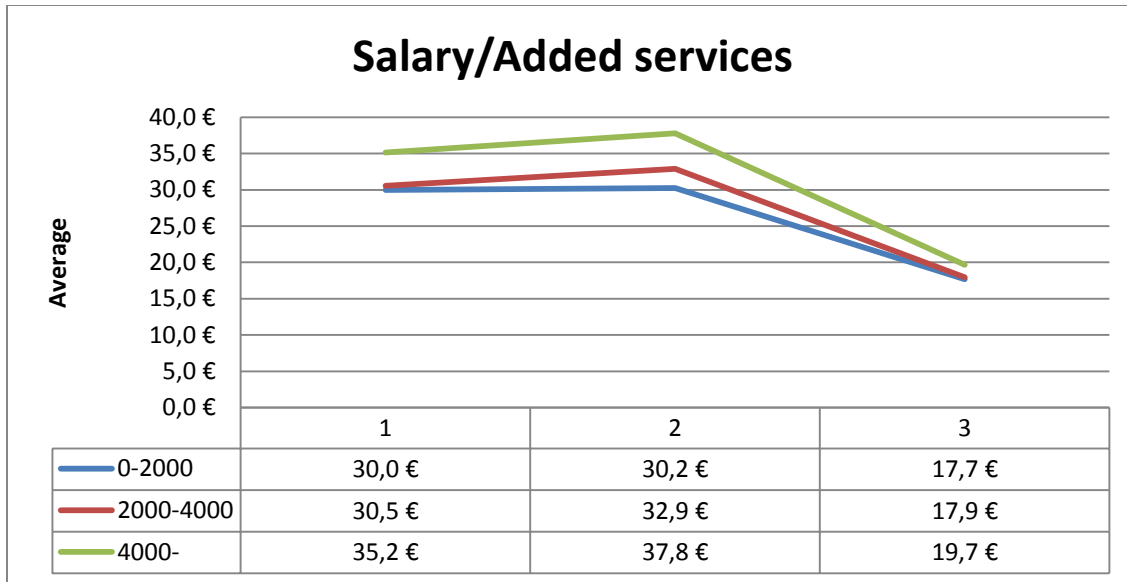


Figure 21: Salary/willingness to pay for added services

The results shown in the above Figure 10 indicate that the hypothesis 7b was verified by the study as all the average prices respondents are willing to pay for added services increase when the salary increases in each category. Accordingly, the curves of the different groups do not cross each other in the Figure 2

H1: <i>Younger people use internet as the primary source of information more often than older people when they are looking for new domestic appliance</i>	Verified by the research data
H2: <i>Most people will use both Internet and Retailer when searching for new domestic appliance</i>	Verified (56, 67%)

<p>H3a: <i>People who live close to big city expect shorter delivery time than those living further away</i></p> <p>H3b: <i>People living further away from centrum are willing to pay more for delivery</i></p>	<p>Not verified</p> <p>Not verified</p>
<p>H4a: <i>People with bigger salary will be more willing to pay more for faster delivery</i></p> <p>H4b: <i>People with smaller salary are more willing to wait for delivery longer than usual if they get a price discount in change</i></p>	<p>Verified</p> <p>Not Verified</p>
<p>H5: <i>Bigger households are more flexible with the time of delivery (time and date of delivery)</i></p>	<p>Not verified</p>
<p>H6: <i>Women find the installation/assembly service of domestic appliances more useful than men</i></p>	<p>Verified</p>
<p>H7a: <i>The price of the domestic appliance affects the prices customers are willing to pay for delivery and assembly</i></p> <p>H7b: <i>The monthly salary of consumer affects to the prices he/she is willing to pay for added services</i></p>	<p>Not verified</p> <p>Verified</p>

6. DISCUSSION AND RECOMMENDATIONS

There were three objectives in this research

- 1) *Define the concept of Service Quality in home deliveries*
- 2) *To identify different customer segments and their key value drivers*
- 3) *To identify those elements in the service process that can be used to modularize the service package.*

The first research question was discussed in the Chapter 2 and it can be concluded that customer is the primary judge of service quality. However, customers vary in terms of age, gender, wealth, location, needs, and perceptions and so on. Thus, it is not meaningful to create a standard service for average customer, since it would reach only a fraction of all customers. Christian Grönroos (2007) states that “to talk about better quality without defining it, how it is perceived by the customers, and how it can be improved and enhanced is of limited value (p.73).” In service quality literature, many authors (Braithwaite and Samakh, 1998; Rust et al., 2000; Roth and Menor, 2003; Karmarkar, 2004; Grönroos, 2007) have quite recently noted that the quality of a particular product or service is whatever the customer perceives it to be. Thus, the answer for the first research question is:

Service Quality in home deliveries is whatever a given customer perceives it to be.

When the service provider understands how services are perceived and evaluated by the users, it will be possible to identify ways of managing these evaluations and influencing them in a desired direction. The relationship between the service concept, the service offered to customers and customer benefits has to be clarified. The service provider has to define quality in the same way customers do, otherwise, wrong actions may be taken in quality programs and money and time may be poorly invested. It should always be remembered that what counts is quality, as it is perceived by the customer (Grönroos, 2007, p.72). Moreover, service managers are increasingly interested in providing customized or personalized service offerings. Thus, Information

Technology can be seen as a critical strategic choice for service design, delivery and performance (Lovelock and Gummesson, 2004)

Too many companies destroy themselves and drive away their customers by focusing in cost cutting to improve the financial performance of the company. By cutting down costs, companies tend to cut down also the level of service and thus the value perceived by the customer. This strategy might satisfy the shareholders' over short time, but destroy the business in long run. It is crucial for service companies to know who their primary customers are. For most companies it is not the shareholder, but the end customer. In the case of home deliveries, the primary customers are those willing to buy a new product and its transportation to their locations. Not the retailers, nor the manufacturers. And what counts from the consumers' point of view are the convenience, saved time, accuracy and customization possibilities.

Rust and Kannan (2003) write, "The fundamental philosophy of e-service is the focus on customers, meeting their needs precisely and there by growing the markets and revenue. As companies use the opportunity provided by the technological advantages to gain competitive advantage, it opens up new forms of e-service providing greater conveniences and support services to customers. Increasing customer expectations, in turn, drive the need for greater efficiency and effectiveness in customer contact areas and service components leading to a greater emphasis on e-service within organizations." (p.39)

The second objective for this research was to *identify different customer segments and their key value drivers*

By analyzing the results of the survey, some customer segments could be formulated that share similar evaluations of the service, at least to some degree. Three different groups were conducted:

1) Elderly people

Seniors tend to use traditional retail channel a lot more than younger people. They can be best reached through retailers and they value personal service and responsiveness. This group is naturally diminishing.

2) Wealthy people

This group is willing to pay more money more faster delivery as well as for added services like installation and recycling. They are driven by convenience and don't like their time wasted.

3) Women

The women find the installation services significantly more valuable than men. This relates of course to the lack of installation skills. However, they have often assistance available such as husbands, children, friends and relatives.

However, today's ICT systems enable the consumer to customize their own service. By letting the customers choose which modules of the service they want they can optimize the service to meet their needs precisely. By operating this way, the customers consider the service fair, as they are provided with more control and freedom of choice.

Service Modularity is the trend today and many service organizations are trying to modularize their service offering to better meet the consumers' needs. The consumers have different skills, resources etc. and are increasingly looking for control in transactions and choices in service setting. Creating a modular approach to service allows customers to tailor the best service offering for their individual needs. Such customization strategies, which allow consumers to do the tailoring, are often called Mass Customization of services.

The third research objective was about identifying those elements in the service process that could be used to modularize the service package. It seems that such elements can be found in speed of delivery, time and date of delivery, installation and recycling parts of the service. Next, the important results of the survey that could be valuable for Customer Company X when designing a customer centric service system are discussed.

1) Speed of Delivery

66, 67 % of all respondents were willing to pay more for faster delivery, at least in some instances and 77, 92 % were willing to wait longer for delivery in exchange for a price discount, at least in some instances. This indicates that there is a major chance for smoothing the demand by placing different prices for different delivery speeds. The

customer would enjoy greater freedom of choice that in turn increases the perceived service quality. The customers can select the price they individually want to pay which increases their sense of fairness over pricing issues and the service experience in general.

2) Time and Date of Delivery

49, 6 % of respondents were not willing to pay extra under any circumstances for the option to choose the time of delivery individually. Inversely 50, 4% were willing to do so at least in some cases. This is again very important information for the customer company X when thinking about possibilities to modularize the service.

3) Installation services

Some people have the skills and motivation required to manage the installation of domestic appliances by themselves and some do not. There is clearly a demand for installation services as not everyone is capable of managing the task individually. I would suggest for the Customer Company X not to bundle installation to the delivery, but offer it as an additional service for extra price. The choice should be left for the consumer to make. If it would be bundled to the service package, those consumers who could manage the task by themselves would likely lower their overall evaluation of the service.

4) Recycling of the old products

Similarly to the installation services, the choice of whether to order recycling service or not should be left for consumer to make.

Recommendations

Searching for the Product

It is important for the Customer Company X to remember that in case of multiple retailing channels (web + retail, here) the customer expectations for control in transactions, choice in service setting, and efficiency in transactions is not limited to the Internet channel, but traditional channels too. (Roth and Menor, 2003) Thus, customers will expect the use of technology-enabled innovations in traditional channels to match the net-based control and efficiency they experience. This means that e-service is not limited to just the Internet environment but applies to all touch points with customers. In the case of retailing commodities, this means that customers should be offered similarly convenient delivery service whether they order the product online or visit a traditional retailer's outlet. (Froele and Roth, 2003)

This means that Customer Company X should cover both channels (web + retailers) at least in the close future as many older people still rely on the traditional retail channels. Moreover, 56,67% of all respondents used both channels. In years to come, it is expected that the importance of retailing channel is likely to decline as e-commerce keeps growing its importance.

Karmarkar (2004) today's consumers expect "anywhere

Speed of Delivery

One useful thing for a customer company to notice from the results is that regardless to the location of residence, consumers seem to believe that the current situation (acceptable) could be improved (ideal). The consumers consider on average that ideal delivery time is two days from placing the order.

Another lesson learned for the customer company is that most people (77, 92%) can be persuaded to wait for the delivery longer in exchange for a price discount. 66, 67 % of all respondents were also willing to pay more for faster delivery, at least in some instances. This indicates that there is a major chance for smoothing the demand by placing different prices for different delivery speeds. The service could operate similarly to how airlines price their tickets. There could be for example three different price classes. Red could indicate busy hours or fast

delivery speed meaning high delivery prices, yellow for average speed or average busyness and green for those that are not so popular delivery times and can be provided at cheaper price or for a longer delivery time. The customer would enjoy greater freedom of choice that in turn increases the perceived service quality. The customers can select the price they individually want to pay which increases their sense of fairness over pricing issues and the service experience in general.

Time and Date

Similarly to above section of delivery speed over half (50, 4%) of the respondents were willing to pay extra for the freedom of choice over the delivery time at least in some occasions. This is again very important information for the customer company X when thinking about different ways of balancing the demand to provide smooth operation

This possibility becomes even more apparent because 85, 54% of respondents were interested in the possibility of changing the already set delivery time easily in case of emergency or just change of plans. The easy or hassle-free change relates to possibility of changing the delivery time over web-service or a mobile application without even contacting the service providers' representative. Such service aspect does not exist yet, at least in Finland. This factor might be the one that makes the difference for some people on the choice of where to order from.

Installation

Some people need more help in installing new domestic appliances than others. The only distinction this research could offer was quite obvious. Men are better at installing domestic appliances than women. For scheduling purposes, it might be useful for Customer Company X categorize different products depending on their hardness to install. Three groups were formed:

- 4) Hard to install (over 40% need assistance): Dish washing machine, hood and oven
- 5) Slightly hard to install (20% -40% need assistance): Laundry machine and laundry dryer
- 6) Easy to install (less than 20% need assistance): Home theater, computer, refrigerator, television, digi box, printer and microwave

Price

It was found out in the study that the price of the domestic product did not affect to the amount consumers were willing to pay for delivery or installation. This might be interesting for Customer Company X if they are thinking about bundling possibilities of domestic appliances and transportation services.

On the other hand it was also found out in the study that those who earn better are also willing to pay more for services like installation and recycling the old products. I guess this owes to the theory of relative utility discussed earlier.

In conclusion I describe the best solution for the home delivery service based on the numerous academic publishes I have studied, the e-survey and discussions I have had with people during this project. The solution is presented from end customer point of view.

First the customer browses different web sites and finally finds a suitable dish washing machine. When the consumer makes the payment of the washing machine over web, he is granted a password for Customer Company X's service system. The system works over the regular web browser as well as through mobile application.

The system asks the consumer first what kind of added services he would like included. He can choose whether he wants the product installed when delivered and whether he would like the delivery company to take away the old washing machine at the same time.

Then, based on these choices, a calendar view pops up that shows the possible slots for delivery (and added services). These slots should not be over 4hours. Consumer then chooses a slot that suits his plans. The slots have different prices according to the booking situation. The consumer chooses the delivery to arrive on Thursday between 12 and 16, because that is when he chooses to work at home instead of going to office.

On Wednesday evening, he looks out the window and notices that fresh snow has just started dumping. He is obsessed with snowboarding and normally arranges his work in such a way he can take advantages of the optimal snowboarding conditions when they occur. Now he is waiting for the delivery to arrive tomorrow so he tied to his home to wait for it. Or that would be the case

with traditional delivery company. Luckily, he ordered the delivery from the Customer Company X, which is prepared for situations like this. He picks up his smart phone and logs on to the service system of Customer Company X.

The same calendar view pops up and asks whether he would like to change the date or time of delivery? Or make alterations for the added services ordered? With one click he can change the delivery to arrive on Friday 16-20, only he has to pay some extra because the delivery slot he now chose is more booked than the earlier one. But this is nothing to him compared for the freedom to go to snowboard on optimal conditions.

On Friday, he is packing things up at office in order to get home 16 o'clock in case the delivery arrives at the first possible moment. However, he has to take care of groceries at some point also. If he could know that, the delivery arrives closer to 20 o'clock he would have lots of time to take care of shopping. If the delivery would arrive close to 16, he could go first home to open the door and afterwards take care of shopping. Then he remembers the service system of Customer Company X, it is so smart it gets more accurate as the delivery time gets closer. This owes to the effective route planning and intelligent Information and Communication Technologies they use.

When the truck leaves the delivery center at the beginning of the shift, they know the delivery route and order. Each time the drivers accomplish a delivery and get back to the truck they sign the delivery completed. The trucks are equipped with GPS-devices, and their system calculates variables like traffic conditions, distance to next destination etc. When the delivery company knows the route order they can provide the customers with significantly more accurate prediction of the actual delivery time for any given customer. As the truck progresses on the route the system automatically makes the prediction more accurate, and the customers can follow the progress real time over the service system.

Now back to our consumer at the office packing his things. He checks the expected delivery time from his smart phone and realizes that there are 8 total deliveries on his route and he is the second last of them. The service tells him he can expect his delivery to arrive at 19:20 approximately. He can even follow the truck real-time on the map if he chooses to. Now he can take care of his shopping after work and may be even have a beer with colleagues, he is in no hurry. And he knows it, most importantly.

The service described is very doable. It requires significant investments to information systems and route planning, warehousing methods as well as organizational restructuring in case of Customer Company X. It also requires arranging the incentives in a suitable way to secure employees involvement and willingness to adopt new ways of doing things. The value delivered to end customers would be however enormous. Increased value leads to increase in customers and thus to increased profits in the future. These profits should easily exceed the in front investments.

Moreover, when the Customer Company X has developed a superior delivery service it should consider the different ways to utilize it. The retailers might still rule the industry today, but their power is diminishing as e-commerce keeps developing. I recommend the Customer Company X to look for possibilities of intermediation in supply chains. This means eliminating of unnecessary supply chain elements, like retailers here. The Customer Company X should discover its opportunity of turning itself into e-market maker. I recommend for the Customer Company X to study the impact of e-commerce to supply chains. Related scientific articles can be found from authors like Professor Werner Delfmann from the University of Cologne.

7. LIST OF REFERENCES

Books:

Fisk, Grove and John (2000) “Services marketing self-portraits: Introspections, Reflections and Glimpses from the experts”, American Marketing Association

Grönroos, Christian (2007), “Service Management and Marketing: A Customer Relationship Approach”, 3rd Ed. Chinchester, UK: Wiley

Kahneman, Gilowich, Griffin (2002), “Heuristics and Biases: The Psychology of Intuitive Judgement”, Cambridge University Press

Kotler, Philip and Armstrong, Gary, (2008),” Principles of Marketing”, 12th ed, Upper Saddle River, N.J. : Pearson Prentice Hall

Monroe, Kent B. (1979), “Pricing: Making Profitable Decisions”, McGraw-Hill Book Co.

Plaster & Alderman (2006), “Beyond Six Sigma: Profitable Growth through Customer Value Creation”

Russo, J & Shoemaker, P (1990), “Decision traps: ten barriers to brilliant decision-making and how to overcome them”, New York: Fireside

Rust, R.T and Kannan, P.K, (2002): “e-SERVICE”. M.E.Sharpe, Armonk, NY

Zeithaml& Bitner (2003), “Services Marketing: Interacting Customer Focus across the Firm”, 3rd ed. New York: McGraw-Hill

ARTICLES

Bask, A., Lipponen, M., Rajahonka, M., Tinnilä, M. (2010), "The concept of modularity: diffusion from manufacturing to service production", *Journal of Manufacturing Technology Management*, Vol. 21 Iss: 3 pp. 355 - 375

Bask, A., Lipponen, M., Rajahonka, M. and Tinnilä, M. (2009), “Modularity in service business models and processes”, *Proceedings of the 14th Annual Logistics Research Network Conference (LRN)*-Cardiff Business School, Cardiff University, Cardiff, pp. 786-95.

Bateson, John (1979), “Why we need services marketing” in *Conceptual and Theoretical Developments of marketing by Ferrell, Brown and Lamb*, American Marketing Association pp.136-146

Berry, Leonard (2000): Pt.1 in Fisk, Grove and John (2000) “Services marketing self-portraits: Introspections, Reflections and Glimpses from the experts”, American Marketing Association

Berry, Leonard (1995), “On Great Service – A Framework for action, The Free Press, New York

Bielen, F and Sempels, C (2003), "Impact of the two dimensions of intangibility on the global perceived risk: a segmented approach" Working Paper, IESEG School of Management Catholic University of Lille.

Boyer, K & Hult, G (2005), "Extending the supply chain: Integrating operations and marketing in the online grocery industry", *Journal of Operations Management*, Vol 23, pp. 642-661

Bowen, David. E Pt.3 in Fisk, Grove and John (2000) "Services marketing self-portraits: Introspections, Reflections and Glimpses from the experts", American Marketing Association

Braitwaite & Samakh (1998), "The Cost-to-serve method", *The International Journal of Logistics Management*, Vol 9, pp 69-83

Brown, Stephen (2000) Pt.4 in Fisk, Grove and John (2000) "Services marketing self-portraits: Introspections, Reflections and Glimpses from the experts", American Marketing Association

Brynjolfsson, E and M.D. Smith (2000), "Frictionless Commerce? A Comparison of Internet and Conventional Retailers", *Management Science*, Vol 46, pp. 563-585

Delfmann, W., Albers, S., Gehrin, M. (2002), "The impact of electronic commerce on logistic service providers" *International Journal of Physical Distribution and Logistics*, Vol 32, pp.203-223

Ellis, C (2003), “Lessons from online groceries: How the industry’s evolution can inform all e-tail enterprises” *MIT Sloan Management Review*, Vol 44, pp.8-18

Esper, T., Jensen, T., Turnipseed, F & Burton, S (2003) “The last mile: An examination of effects of online retail delivery strategies on consumers, *Journal of Business Logistics*, Vol 24, pp.177-203

Froehle, C and Roth, A (2003), “New Measurement Scales for Evaluating Perceptions of the Technology- Mediated Customer Service Experience,” *University of Cincinnati Working Paper*.

Gummesson (2002a), “Practical Value of Adequate Marketing Management Theory”, *European Journal of Marketing*, Vol 36, pp. 325- 349

Gunasekaran, A., Ngai, E., Cheng, T (2007), “Developing an e-logistics system: A case study”, *International Journal of Logistics: Research and Applications*, Vol 10, pp.333- 349

Hsiao, M-H (2009), “Shopping mode choice: Physical store shopping versus e-shopping”, *Transportation Research Part E, Logistics and Transportation Review*, Vol 45, pp.86-95

Hult, G., Boyer, K., Ketchen, D,(2007), “Quality, operational logistics and repurchase intentions: A profile deviation analysis”, *Journal of Business Logistics*, Vol 28, pp.105-132

Karmarkar, U.S., (2004)” Will you survive the services revolution?”, *Harvard Business Review*, Vol 82 (6), 100–110.

Kimes, S and Chase, R (1998) “The Strategic Levels of Yield Management”, *Journal of Service Research*, November, pp. 156-166

Koyuncu, C and Bhattacharya, G (2004), "The impacts of quickness, price, payment risk and delivery issues on on-line shopping", *Journal of Socio-Economics*, Vol 33, pp.241-251

Lee & Whang, (2001), "Winning the Last Mile of E-commerce", *MIT Sloan Management Review*, Summer 2001, pp.54-62

Levitt, Theodore (1972) "Production Line Approach to Service" *Harvard Business Review*, Vol 50 (September-October), pp. 42-51

Lovelock and Gummesson (2004) In search of a New Paradigm and Fresh Perspectives, *Journal of Service Research*, Vol 7, August 2004, pp. 20-41

Lunce, S., Lunce, L.,Kawai, Y and Maniam, B (2006) "Success and failure of pure-play organizations: Webvan versus Peapod, a comparative analysis", *Industrial Management and Data systems*, Vol 106, pp1344-1358

Norris, Ruby Turner (1941), "The Theory of Consumer's Demand", New Haven: Yale University Press

Pyke et al., (2001), "E-fulfillment- Its Harder Than It Looks", *Supply Chain Management Review*, January-February 2001, pp.26-32

Rabinovich, E., Knemeyer, A., Mayer, C, (2007), "Why do Internet commerce firms incorporate logistics service providers in their distribution channels? The role of transaction costs and network strength", *Journal of Operations Management*, Vol 25, pp. 661-681

Rathmell (1974), "Marketing in the service sector". Cambridge, MA: Winthrop

Roth, Aleda and Menor, Larry, (2003), "Insights into Service Operations Management: A Research Agenda", *Production and Operations Management*, Vol. 12, No. 2, summer 2003, pp. 145-162

Rust, R.T., Kannan, P.K, (2003), "E-service: A new paradigm for Business in the Electronic Environment", *Communications of the ACM*, Vol. 46, No. 6

Rust, R.T., Zeithaml, V.A., and Lemon, K.N, (2000), "Driving Customer Equity: How Customer Lifetime Value is Reshaping Corporate Strategy". The Free Press, New York, NY, 2000

Schneider, B (2000). Part 9 in "Services marketing self-portraits: Introspections, Reflections and Glimpses from the experts" by Fisk et al.), pp. 173-187, American Marketing Association

Shostack (1977), "Breaking Free from Product Marketing", *Journal of Marketing*, 44 (April), pp.73-80

Småros, J., Holmström, J, Kämäräinen, V (2000), "New service opportunities in the e-grocery business", *International Journal of Logistics Management*, Vol 11, pp. 61-73

Sosna M, Trevinyo-Rodriguez R and Velamuri S, Business model innovation through trial-and error learning: The Naturhouse case, *Long Range Planning*, Vol 43, pp. 370- 382, 2010

Suomen virallinen tilasto (SVT): Väestön tieto- ja viestintäteknikan käyttö [verkkojulkaisu]. ISSN=1799-3504. 2011, 5. Verkkokauppa . Helsinki: Tilastokeskus [viitattu: 11.12.2012]. Saantitapa: http://www.stat.fi/til/sutivi/2011/sutivi_2011_2011-11-02_kat_005_fi.htm

Tanskanen, K., Yrjölä, H., Holmström, J (2002),”The way to profitable Internet grocery retailing- six lessons learned”, *International Journal of Retail and Distribution Management*, Vol 30, pp.169-178

Vargo and Lusch (2004a), “Evolving to a New Dominant Logic of Marketing”, *Journal of Service Marketing* Vol 69 pp. 1-17

Vargo and Lusch (2004b), “The Four Service Marketing Myths : Remnants of a Goods-Based, Manufacturing Model”, *Journal of Service Research* Vol 6 pp. 324-335

Vargo, Lusch and O’Brien (2007), “Competing through service: Insights from service-dominant logic”, *Journal of Retailing* Vol 83 pp. 5-18

Yrjölä, H. (2001),”Physical distribution considerations for electronic grocery shopping” *International Journal of Physical Distribution and Logistics*, Vol 31, pp.746- 761

Zhang, A (2008), “Examining product and process effects on consumer preferences for online and offline channels”, *Business Process Management Journal*, Vol 14, pp.85-95

APPENDICES

Appendix 1

Verkkokysely

Demografiset muuttujat:

- 1) Ikä
- 2) Sukupuoli
- 3) Sijainti (Lähin kaupunki ja matka sinne kilometreissä)
- 4) Kotitalouden koko (montako henkilöä)
- 5) Palkka/kk

Tuotteen etsintä

1. Huomaat tarvitsevasi uuden kodinkoneen, mitä seuraavista kanavista käytät sopivan jääkaapin etsimiseen? (1 tai useampi)

- a) internet b) vierailu kodinkoneliikkeessä c) sanomalehti
d) katalogi e) joku muu, mikä?

2. Jos käytät useampaa kuin yhtä kanavaa, mitä niistä käytät ensimmäisenä?

- a) internet b) vierailu kodinkoneliikkeessä c) sanomalehti
d) katalogi e) joku muu, mikä?

Toimitusnopeus

3. Mikä on mielestäsi **ihanteellinen** toimitusaika kodinkoneelle (tuotteen maksamisen ja toimituksen välinen aika)?

- a) 0-1 päivää b) 2 päivää c) 3-5 päivää d) viikko e) 2 viikkoa

4. Mikä on mielestäsi **hyväksyttävä** toimitusaika kodinkoneelle (maksamisen ja toimituksen välinen aika)?

- a) 0-1 päivää b) 2 päivää c) 3-5 päivää d) viikko e) 2 viikkoa

5. Kuinka paljon tuotteen kotiinkuljetuksen tulisi mielestäsi maksaa?

Avoin vastaus

6. Oletko valmis maksamaan kotiinkuljetuksesta enemmän jos tuote toimitetaan normaalia toimitusaikaa nopeammin?

- a) kyllä b) en c) en ole varma d) joissakin tilanteissa kyllä

7. Olisitko valmis odottamaan toimitusta normaalia pidempään jos saisit kotiinkuljetuksen perushintaa halvemmalla?

- a) kyllä b) en c) en ole varma d) joissakin tilanteissa kyllä

Toimituspäivä- ja ajankohta

8. Mikä olisi kotitaloudellesi sopivin aika tuotteen toimittamiseksi? (1 tai useampi)

- a) ma-pe 08-12 b) ma-pe 12-16 c) ma-pe 16-20 d) la 08-16

9. Oletko valmis maksamaan kotiinkuljetuksesta enemmän jos saat itse valita toimituspäivän ja kellonajan?

- a) kyllä b) en c) en ole varma d) joissakin tilanteissa kyllä

10. Koetko tärkeäksi että voit tarvittaessa (esim. joku yllättävä meno) vaihtaa jo sopimasi toimitusajankohdan toiseen vaivattomasti?

- b) a) Kyllä, erittäin tärkeää b) kyllä, jonkin verran tärkeää c) en osaa sanoa
c) d) en koe tärkeäksi e) täysin turha

Asennus

11. Hankkiessasi uuden kodinkoneen, sen asentamisen käyttökuntoon hoitaa

- a) minä itse b) joku muu samaan kotitalouteen kuuluva c) sukulainen
d) tilaan asentajan/kuljetusliike asentaa e) ystävä

12. Mikä olisi mielestäsi sopiva hinta astian pesukoneen asennuspalvelulle

Avoin vastaus

13. Mihin seuraavista tuoteryhmistä kuvittelisit tarvitsevasi asennusapua?

- a) Astianpesukone b) Kuivausrumpu c) Pyykinpesukone d) Jääkaappi e) Televisio f)
Tietokone g) Kotiteatteri h) Uuni i) Printteri j) Mikroaaltouuni k) Digiboksi

Kierrätys

14. Kuljetusliike voi toimituksen yhteydessä myös viedä vanhan tuotteen vanhan tuotteen puolestasi kierrätykseen. Kuinka monta euroa olisit valmis maksamaan kierrätyspalvelusta?

Avoin vastaus

15. Haluatko että kuljetusyhtiö muistuttaa sinua toimituksesta ennen toimituspäivää?

- a) kyllä, yksi muistutus ennen toimitusta b) kyllä, vähintään kaksi kertaa c) en

16. Mikä olisi mielestäsi sopivin muistutustapa?

- a) tekstiviesti b) e-mail c) sosiaalinen media (facebook,twitter..)
d) puhelinsoitto e) joku muu, mikä?

17. Sopivin muistutusajankohta on mielestäni _____ ennen toimitusta?

a) viikko b) 3-5 päivää c) 2 päivää d) 24h e) 0-24h

18. Haluatko mahdollisuuden seurata netistä tilaamasi tuotteen kulkua verkkopalvelun avulla?

a) kyllä b) en c) ei mitään merkitystä

Appendix 2

E- Survey

Demographic variables:

- age
- gender
- location (closest city & distance there)
- size of the household (nr. of residents in the same address)
- salary

Searching the product

3) Which channels do you use when searching a new washing machine?

- a) internet b) retailer's outlet c) newspaper d) catalog
e) ask from friends

2) Which of the channels do you use first?

- a) internet b) retailer's outlet c) newspaper d) catalog
e) ask from friends

Speed of Delivery

3) What do you consider to be IDEAL speed of delivery for consumer goods?

- a) 0-1 day b) 2 days c) 3-5 days d) 1 week e) 2 weeks

4) What do you consider to be ACCEPTABLE speed of delivery for consumer goods?

- a) 0-1 day b) 2 days c) 3-5 days d) 1 week e) 2 weeks

5) How much would you be willing to pay for home delivery service? (in euros)

Open Answer

- 6) Would you be willing to pay extra for the delivery, if you were promised a faster delivery?
a) yes b) no c) not sure d) yes, in some situations
- 7) Would you be willing to accept a longer delivery time, if you were promised a price discount in exchange?
a) yes b) no c) not sure d) yes, in some situations

Delivery time and date

- 8) For your household, what would usually be a possible time of day for a delivery to arrive (choose 1 or more)
a) Mon-Fri 8-12 b) Mon-Fri 12-16 c) Mon-Fri 16-20 d) Sat 8-16
- 9) Would you be willing to pay extra for delivery if you could choose the date and time of day the delivery arrives by yourself?
a) yes b) no c) not sure d) yes, in some situations
- 10) Would you consider an option to change the already set delivery date and/or time of day conveniently (in case of emergency/change of plans) important?
a) very important b) important c) not sure d) not important e) totally useless

Installation of the product

- 11) When you buy a new domestic appliance, who takes care of its installation?
a) myself b) someone else in my household c) a relative d) a friend e) neighbor f) delivery company g) I order a professional
- 12) What do you consider to be an appropriate price for installing service of a dish washing machine? (in euros)
Open Answer
- 13) With which of the following products would you think that you need help in installation?

a) a washing machine b) a laundry machine c) a refrigerator d) a television e) a computer f) a digibox g) a microwave h) a dryer i) an oven j) a printer k) a home theater l) a hood.

Recycling

14) The delivery company can take care of recycling the old product for you if you wish.

What would you consider to be an appropriate price for this service? (in euros)

Open Answer

Reminder and Reclamation

15) Would you like to be reminded of arriving delivery by the delivery company?

a) yes, once b) yes, at least twice c) no

16) Which of the following do you consider to be the best way to remind of the delivery?

a) text message b) email c) social media (facebook, twitter etc.) d) phone call

17) Which of the following would you consider a best time to send the reminder? (choose 1 or more)

a) 1 week b) 3-5 days c) 2 days d) 24 hours e) 0-24 hours

18) Would you like to have an opportunity to follow the progress of delivery over web service?

a) yes b) no c) I don't care